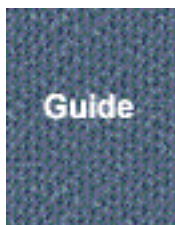


Related Publications (126)



A Cost Performance Model for Assessing WWW Service Investments

Mon, 01 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.

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. Through a structured process, the reader is guided toward a better understanding of the cost and performance factors involved in creating a Web service, and in maintaining an effective presence on the World Wide Web. The guide addresses many of the factors relevant to conducting an effective effort, including defining service goals, evaluating infrastructure needs, and estimating the human resources required to sustain the effort. By applying the tools to a planned project, the reader should have a new and valuable perspective on the process of developing a useful Web service.

A Framework for Evaluating Public Sector Geographic Information Systems

Sun, 01 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).

Substantial opportunity exists to share spatial data, knowledge, and other resources across programs in the public and private sectors. This report is a discussion of the mechanisms for evaluating public sector geographic information systems (GIS). It presents strategies for quantifying potential system benefits, and it shows what opportunities exist for containing costs and maximizing the benefits of GIS implementation. The role of partnerships and information sharing is stressed in the context of maximizing the value of GIS in public organizations.

AIRNow-I Shanghai: Crossing Cultures, Sharing Knowledge

Thu, 11 Aug 2011

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

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dynamics of their joint effort to build AIRNow-I Shanghai. This report describes the influences of the separate Chinese and American contexts on the participants and their interactions, and identifies the ways in which they bridged many types of contextual distances to produce successful results.

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

Tue, 10 Jun 2011

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

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Assessing Mobile Technologies in Child Protective Services

Tue, 02 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.

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

Thu, 13 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.

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The individual district profiles can be selected below:

- Albany County Department for Children, Youth and Families Programs & Services Children and Family Services
- Broome County Department of Social Services
- Chemung County Department of Social Services
- Clinton County Department of Social Services
- Columbia County Department of Social Services
- Fulton County Department of Social Services
- Jefferson County Department of Social Services
- Nassau County Department of Social Services
- Niagara County Department of Social Services
- Onondaga County Department of Social Services
- Orleans County Department of Social Services
- Putnam County Department of Social Services & Mental Health
- Rockland County Department of Social Services
- Schenectady County Department of Social Services, Children and Family Services
- Seneca County Children and Family Services
- St. Lawrence County Department of Social Services, Protective Services
- Suffolk County Department of Social Services, Child Protective Services Bureau
- Ulster County Department of Social Services, Children and Family Services
- Washington County Department of Social Services, Child Protective Services Unit
- Wayne County Department of Social Services

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

Mon, 07 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.

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

Services

01 December 2009

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

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

Assessing the Value of Investments in Government Interoperability

2012

Government investments in enhancing the interoperability of ICT systems have the potential to improve services and help governments respond to the diverse and often incompatible needs and interests of individual citizens, organizations, and society at large. These diverse needs and interests encompass a broad range of value propositions and demands that can seldom be met by single programs or assessed by simple metrics. The diversity of stakeholder needs and the complexity inherent in interoperable systems for connected government require an architecture that is up to the task. Such an architecture must include the reference models and components that can accommodate and integrate large portfolios of applications and support multiple kinds of performance assessments. The value propositions that underlie the architecture's performance assessment or reference model are fundamental. The propositions must be broad enough to span the full scope of the government program's goals, a substantial challenge. In recognition of that challenge, this chapter puts forward two perspectives for assessing the value of interoperable ICT investments, incorporating outcomes beyond financial metrics. The first is the network value approach to assessment of investments in interoperable ICT systems for government. The second is the public value framework developed by the Center for Technology in Government, which expands on the network value approach to include a broader range of public value outcomes. These approaches are illustrated in two case studies: the I-Choose project designed to produce interoperable government and private sector data about a specific agricultural market and the government of Colombia's interoperability efforts with expanded metrics based on the expansion of interoperability networks.

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A Stakeholder Analysis of Interoperable Data Architecture: The case of I-Choose

June 4-7, 2012

This paper presents the challenges associated with developing a data architecture supporting information interoperability in the supply-chain for sustainable food products. We analyze information elicited from experts in the supply-chain for organic and fair trade coffee to identify relevant stakeholders and the issues and challenges connected with developing an interoperable data architecture. This study assesses the salience of individual stakeholder groups and the challenges based on the stakeholders' attributes in terms of power, legitimacy and urgency. The following five issues/challenges were found to be the most salient, requiring primary focus in developing interoperable data architecture: trust in data, cost to maintain the system, political resistance, oversight and governance, and the cost to consumers in terms of time and effort. In the conclusion we discuss potential future research and practical implications for designing an interoperable data architecture.

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A WWW Starter Kit

Mon, 01 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.

Being on the Internet can mean many different things. For most government organizations, it means creating a World Wide Web site, but it might also entail e-mail, gopher servers, news groups and a host of other ways to communicate, share information, and deliver services electronically. This World Wide Web Starter Kit is based on CTG's experiences with a project we call the Internet Services Testbed. By working with seven state and local agencies to develop Web sites for their particular programs and customers, CTG has learned a lot about how to approach this fascinating, powerful, and ever-changing technology. This starter kit won't put you in the WWW business overnight. In fact, it lacks many of the technical tools that you will need to accomplish that goal. Instead, it helps you begin the process without having to reinvent the wheel.

Beyond Open Government: Ontologies and Data Architectures to Support Ethical Consumption

October 22-25, 2012

Two important trends on openness are promoting improved accountability from government and private organizations. The case of private transparency finds its roots in consumer and other stakeholder movements. The open government movement in the US is looking for alternatives to "smart disclosure," which implies providing consumers with better information to make better buying choices. We explore current knowledge on ethical consumption, as well as two influential technological tools to support consumer decisions. Our initial discussion suggests that the use of ontologies and data architectures, together with the appropriate policy environment and governance system, may solve some of the current problems identified.

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

Sat, 01 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.

The New York State-Local Internet Gateway 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. The Prototype development was conducted in three stages. The first focused on the refinement of the idea of a gateway and the selection of applications to be included in the Prototype. The second stage was the development of a Prototype (the Gateway and three business applications), and the final stage consisted of Prototype testing and refinement. During these three stages, the project participants were organized into specialized teams and partnered with corporate software development teams. Together, they then tested the Prototype.

Broadband Internet Service Adoption and Use in New York State Households

Tue, 10 May 2011

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

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The full survey report and access to all the survey data sets can be found at:
broadbandmap.ny.gov/content/a-deeper-look.html#bbAdoptionStudy.

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

Wed, 12 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.

CTG Working Paper No. 08-2008

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Building Collaborative Digital Government Systems: Systemic Constraints and Effective Practices

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

Mon, 02 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.

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

Mon, 10 Mar 2008

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CTG Working Paper No. 06-2008

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

Mon, 01 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.

State and local governments are creating vast amounts of information solely in digital form, including land data, school records, official publications and court records. Much of this material is of permanent value, yet is at risk because of fragile media, technological obsolescence, or other hazards. State libraries and state archives typically have broad responsibility for preserving and providing public access to state and local government information of enduring value, but many other agencies also play critical roles in managing and preserving digital information.

States vary greatly in the work already undertaken on behalf of digital preservation, as well as in the resources available for the task. The degree and focus of leadership for digital preservation varies from state to state, as do the specific priorities for immediate preservation attention. This variation comes in part because there is currently no consensus view about how states (or other organizations) should go about doing digital preservation. The challenge is both so new and so large that everyone is still trying to determine the best methods.

This toolkit is designed for library, archives, records management, and information technology professionals to use when considering or planning for a digital preservation initiative. It provides a process for assessing where capability for digital preservation exists and where it must be developed in order to achieve the goal of preserving significant and at risk government information.

The toolkit is presented in four chapters as well as a comprehensive set of worksheets and related materials. Chapters 1-4 and Appendices 1-8 are available for download in PDF. **Note:** In order to help users of the toolkit compile multiple capability assessment ratings electronically, Appendix 8. Dimension Worksheets is provided also as a separate Microsoft Word document.

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

Tue, 31 Jan 2006

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.

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. While online auctions have widely been used by governments around the world to drive down procurement costs, they have been seldom used as means for revenue maximization. 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.

This case study, besides representing an example of a best practice for other US state and local governments as well as European Governments, also provides an interesting starting point to address a number of research questions such as the ability of governmental organizations to meet private sector standard; the measurement of returns on Information and Communication Technology (ICT) investments; and the new possible roles played by transparency in the migration toward online models.

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Challenges And Strategies for Conducting International Public Management Research

Wed, 01 Nov 2006

Cross-cultural management research is a valuable but complex and error-prone endeavor. The main challenges the authors encountered in conducting a multinational research project included nonequivalence of key concepts, cultural stereotypes, assumptions of universality, and difficulties in comparative analysis. The authors identified crucial questions that need to be asked at each stage of the research for it to be both reliable and valid. These questions address such pitfalls as the importance of focusing on culture as an independent variable, the cultural dynamics of the research team, and the importance of translation and of finding culturally equivalent definitions of key concepts.

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

2006

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.

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.

We describe the attributes of parcel data, discuss its value to a variety of stakeholders, present typical data flows across organizational boundaries, and illustrate a wide range of uses. We then present the main issues and policy challenges associated with treating parcel data as a collective public resource, and conclude with a set of policy principles for guiding future investments.

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

Wed, 21 Oct 2009

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.

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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.

Collaborative Governance and Cross-Boundary Information Sharing: Envisioning a Networked and IT-Enabled Public Administration September 5-7, 2008

Governments around the world are moving toward a more global perspective in their efforts to address complex social, political, and economic issues. New requirements for international cross-boundary collaboration, driven by this global view, demand a new understanding about how individual nations respond to public problems and how nations work together in response to transnational problems. In addition, new forms of government enabled by information technologies and made possible through new models of collaboration are emerging. The future of public administration is clearly linked to the development and management of new forms of collaborative governance and the use of information technologies. Globalization is also contributing to the internationalization of the public sector, in which cross-boundary collaboration and information sharing will happen not only within a country, but between nations. This paper contributes to the exchange of knowledge about the future of public administration by presenting a view that considers important trends in public management and public service around the world. As a backdrop we first present a discussion about the emergence in public administration toward post-bureaucratic organizations and interorganizational networks. E-government and cross boundary information sharing are then introduced as part of the new context of public administration. We then draw the focus back to the importance of collaboration and information sharing in transnational public problems and international cooperation and characterize the need for new capability in working across the boundaries of organizations, governments, regions, and nations. Finally, drawing on this discussion we outline four topics of critical importance for inclusion in the public administration classroom to fully prepare students to work in the government of the 21st Century; Post-Bureaucracy and Organizational Networks, Information Technologies and Inter-organizational Information Integration, Collaborative Governance and Interoperability: Creating policy, management, and technology capability, and Transnational Problems and the Internationalization of Public Administration. The new generation of public administrators must understand the importance of collaborative governance, information technologies, and the internationalization of complex social problems for the public administration of the twenty first century.

Compelling Reasons for GIS Coordination in New York State Sun, 01 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.

One of the underlying assumptions of the NYS Geographic Information Systems (GIS) Cooperative project is that GIS is a valuable public management tool, whose benefits could be enhanced through increased coordination. This project sought to identify the value of geographic information systems and spatial data in the public sector, as well as to examine mechanisms and opportunities for leveraging the benefits and minimizing costs. This value can be seen across a broad array of program areas. This report demonstrates the value that GIS can add to three programmatic areas of vital importance to New York State: economic development, environmental conservation, and public health and safety.

Computing and Information Technology Challenges for 21st Century Financial Market Regulators

September 12-16, 2011

This paper reports on a research effort designed to begin to systematically identify the most critical computing and information technology-related challenges facing financial market regulation activities. Computing and information technology adaptation in financial markets create a paradox. Information technology is needed for effective governing of financial markets, yet advances in information technology and the increasingly complex adaptations of that technology make it more difficult for regulators to have a clear picture of what is actually happening. Drawing on in-depth interviews with professionals from the financial market community, this paper outlines three primary challenges facing regulation efforts: 1) information sharing and integration, 2) mediating interrelationship among financial market constituents, 3) data-driven decision making. The paper concludes with recommendations for future research about the challenges.

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Conceptualizing Knowledge and Information Sharing in Transnational Knowledge Networks

October 25-28, 2010,

In the era of globalization, sharing of knowledge, information, and practices across cultural and national boundaries has been recognized as a key for handling the most critical problems. Consequently, the number of Transnational Knowledge Networks (TKNs) that aim to address critical global issues and problems continue to increase. As exchanging knowledge and information represent core components of these networks, this paper provides the foundations to study knowledge and information sharing in these emerging organizations. The paper starts by describing the structures, goals, and objectives of TKNs and presents a simplified conceptual model to demonstrate the main characteristics of these networks. Then, we review the pertinent e-government literature and argue the need to include findings from two additional research areas, cross-boundary information sharing and knowledge transfer. The paper discusses the ways in which contributions from these areas can enhance our understanding of the complexity surrounding the exchange process in these networks. The paper concludes with a summary of the elements of complexity and an overview of future research to empirically test these concepts.

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Conceptualizing Smart City with Dimensions of Technology, People, and Institutions

June 12, 2011

This conceptual paper discusses how we can consider a particular city as a smart one, drawing on recent practices to make cities smart. A set of the common multidimensional components underlying the smart city concept and the core factors for a successful smart city initiative is identified by exploring current working definitions of smart city and a diversity of various conceptual relatives similar to smart city. The paper offers strategic principles aligning to the three main dimensions (technology, people, and institutions) of smart city: integration of infrastructures and technology-mediated services, social learning for strengthening human infrastructure, and governance for institutional improvement and citizen engagement.

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

Fri, 01 Apr 2005

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

The New York State-Local Internet Gateway Prototype was built to test the idea of a single point of contact for government-to-government (G2G) work among multiple state and local governments in range of policy areas. The Prototype channeled multiple G2G business functions through a secure, single sign-on, role-based system accessible through the Internet. The goal of the Prototype was to assess management, policy, technology, and cost implications likely to be associated with the development of a full-scale G2G system and to understand what would be necessary for state, county, and municipal governments to realize greater efficiency, high quality authentic data, and more consistent and coordinated services.

Creating and Maintaining Proper Systems for Electronic Record Keeping

Sun, 01 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.

E-Government, in all of its possibilities and permutations, is changing the way government conducts business and captures evidence of that business. Whether government agencies are delivering services via the Internet or just keeping track of contacts through a Web-based database, a range of electronic records challenges and opportunities emerge. This paper discusses those challenges and opportunities, and provides a flexible framework for making the most of new information systems for managing electronic records.

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

Wed, 26 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.

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Creating Open Government Ecosystems: A Research and Development Agenda

October 23, 2012

In this paper, we propose to view the concept of open government from the perspective of an ecosystem, a metaphor often used by policy makers, scholars, and technology gurus to convey a sense of the interdependent social systems of actors, organizations, material infrastructures, and symbolic resources that can be created in technology-enabled, information-intensive social systems. We use the concept of an ecosystem to provide a framework for considering the outcomes of a workshop organized to generate a research and development agenda for open government. The agenda was produced in discussions among participants from the government (at the federal, state, and local levels), academic and civil sector communities at the Center for Technology in Government (CTG) at the University at Albany, SUNY in April 2011. The paper begins by discussing concepts central to understanding what is meant by an ecosystem and some principles that characterize its functioning. We then apply this metaphor more directly to government, proposing that policymakers engage in strategic ecosystems thinking, which means being guided by the goal of explicitly and purposefully constructing open government ecosystems. From there, we present the research agenda questions essential to the development of this new view of government's interaction with users and organizations. Our goal is to call attention to some of the fundamental ways in which government must change in order to evolve from outdated industrial bureaucratic forms to information age networked and interdependent systems.

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

Mon, 06 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.

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Cultivating the Next Generation of International Digital Government Researchers: A Community-Building Experiment

September 26, 2011

Over the last two decades universities and post-secondary education policies have addressed globalization trends by internationalizing curricula and articulating global concern in their missions. This paper presents an evaluation of an international training program for early-career digital government researchers, designed to develop their interest and skill in cross-cultural, multidisciplinary, and practice-oriented research. The program overall appears to stimulate participants' individual creativity, scholarly productivity, and professional networks, while broadening their appreciation for work that investigates internationally important topics and involves not only multidisciplinary but multicultural teams. The survey results also suggest that a short-term (one-week), intensive, immersive, and relatively inexpensive program can have strong and lasting effects on early-career scholars.

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Delivering on the Web: The NYS Internet Services Testbed

Sun, 01 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.

Government is all about information and service delivery. The World Wide Web, offering virtually unlimited access and almost instant feedback, seems perfectly suited for government work. The Internet Services Testbed Project provided the opportunity for seven government agencies in New York to develop prototype Web sites in anticipation of serving constituents better. Agency staff were also stakeholders in providing a platform for internal information exchange and links to central agency databases.

The project report describes the research and practical tools the project generated. The tools include a stakeholder analysis, the strategic framework, an organizational issues questionnaire, the cost & performance model, technology awareness tool, and evaluation instruments.

Designing electronic government information access programs: a holistic approach

December 13, 2003

That electronic government information repositories are growing in number, use, and diversity is one manifestation of the emergence of e-government. These information-centered programs both shape and respond to user demand for electronic government information as computer-mediated user access has displaced traditional staff-mediated access. These programs are no longer concentrated in statistical agencies but

increasingly are offered by a wide array of mission-driven operating agencies to complement their other services. This study identified the design dimensions of electronic information access programs by examining mature existing programs. These dimensions address users, uses, organizational capabilities, data characteristics, and technology. The study then explored the application and interdependence of these dimensions in three efforts to design and develop new access programs. The study produced an empirically based, testable model of observable dimensions that shape the cost, complexity, and potential performance of these programs. In addition, the article offers government managers some insight into the practical implications they will face in designing and operating electronic information access programs.

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Designing social media policy for government: Eight essential elements

Wed, 12 May 2010

Government agencies are increasingly looking to leverage social media to improve the quality of government services and elicit greater citizen engagement. Developing a social media policy can be an important first step for government agencies considering using social media and can ultimately serve as a key enabler for responsibly and effectively leveraging social media tools. Yet, many governments are struggling with what such a policy should encompass and convey. This report outlines the different reasons government employees engage in social media use and begins to answer the question, what are the core elements of a government social media policy? Our analysis identified eight essential elements for a social media policy: 1) employee access, 2) account management, 3) acceptable use, 4) employee conduct, 5) content, 6) security, 7) legal issues, and 8) citizen conduct. The report closes with brief guidance on strategies for getting started.

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

Mon, 01 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.

The Internet can help government agencies communicate with the public, with businesses, and with one another. The anytime, anywhere character of the Internet allows government information and services to be more available to more people with greater convenience and lower cost to customers. These guidelines were created to help government organizations in New York State achieve these benefits at reasonable cost and effort.

These guidelines focus on one major aspect of the Internet: the World Wide Web (WWW or Web) which has emerged as an interconnected network of information sources located all around the world. These guidelines

present principles to help government agencies in NYS decide how best to design, manage, and market Web services. There are many excellent electronic and print resources that deal with the technologies of the Web. We did not set out to create another one. Instead, we emphasize important topics that are often neglected: setting service objectives and policies, organizing and managing staff and other resources, assessing costs and effectiveness.

Developing Public Value Metrics for Returns to Government ICT Investments

Fri, 01 Jun 2012

This report presents a new approach to assessing public value returns as part of an overall return on investment analysis for government information and communication technologies (ICT). The approach addresses one basic question about public value assessment: What constitutes good evidence of public value impacts? The answers provided here are intended to augment the return on investment analysis methods found in the *E-Gov Economics Model: Real Impact for Better Government*, developed by Microsoft. However, the approach here has potential uses beyond connection with that Model, and can be more generally useful in the assessment of public value returns to government programs and investments. The approach consists of a way to identify, collect, and interpret a variety of evidence, both quantitative and qualitative, that can be used to assess public value impacts. The approach is designed for use by government practitioners and analysts in connection with return on investment (ROI) analyses. It is particularly aimed at use in connection with the *E-Gov Economics Model* to examine ICT investments by national and sub-national governments. The report includes recommended methods to collect and analyze these forms of evidence. The approach is based on prior work of the Center for Technology in Government and a thorough review of available research and professional writing on the subject of measuring public value. That review includes research in the related scientific literature and a survey of best practices reported in literature about government IT value assessment in the US and other countries. A draft version of this report was shared with a sample of knowledgeable government officials and analysts for review and comments.

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

Fri, 13 Jan 2012

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

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

Thu, 01 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.

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

Fri, 25 May 2007

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.

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

Tue, 31 Jan 2006

E-government is increasingly being 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.

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Based on a PLS analysis involving all 50 states and two rich case studies, this paper identifies several generalizable relationships and case-specific differences. For instance, organizational factors such as size of the IT organization, budget structure, IT training, in-house development, outsourcing, and marketing strategy were found to significantly affect the functionality of state websites. However, some of these factors play different roles in different contexts, their relevance is affected by state-specific environmental conditions, and the reasons why they are important also differ from setting to setting.

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Enterprise IT Governance in State Government: State Profiles

Mon, 10 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.

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

Tue, 15 Dec 2009

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

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Exploring Regional Telecommunications Incident Response Coordination

Thu, 30 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.

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In 2006 the New York State Department of Public Service (DPS), as a key actor in the national and regional telecommunications community, began to engage in discussions with other key actors about regional coordination of telecommunications incident response. Encouraged by interest from stakeholders, DPS partnered with the Center for Technology in Government (CTG) to organize a preliminary discussion among members of the regional telecommunications community.

CTG brought together representatives of telecommunications providers, state emergency management agencies, federal communications agencies, state regulatory authorities, state departments of homeland security, state cybersecurity and the financial sector on March 28, 2007 for a one-day workshop. The workshop participants engaged in discussions about the value proposition of coordinated response capability, explored varying perspectives on the current state of affairs, brainstormed strategies for increasing regional response capability, and concluded the session by producing a set of five recommendations for next steps in exploring regional coordination efforts.

Exploring the Influence of Contextual Distances on Transnational Public Sector Knowledge Networks: A Comparative Study of AIRNow-I Shanghai and the

Hajj-MDSS Initiatives

January 9, 2013

Transnational public sector knowledge networks (TPSKNs) are becoming crucial for addressing global problems in the environment, public health and other areas that require knowledge and information sharing among nations. This paper explores and compares a set of contextual distances that separate network participants and discusses their influence on network success. Based on previous research, we introduce nine contextual distances and compare and discuss their influence on two cases. We conclude with a discussion of the findings and suggestions for future research on knowledge and information sharing across national and cultural boundaries. **[Winner Best Paper Award in eGovernment Track, HICSS46]**

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Exploring the Motive for Data Publication in Open Data Initiative: Linking Intention to Action

January 5, 2012

This research study was designed to broaden understanding of the publishing of research datasets by distinguishing between the intention to share and the action of sharing. The data was generated from preliminary survey results conducted by DataONE work groups. The final data used in this paper is based on 587 observations. The analysis results show support for all of the path coefficients of the theoretical model except for the path of perceived self-efficacy, and legal context and policy variables. The intention to share a dataset was found to be a significant determinant in the action of sharing data. Acknowledging the key determinants of intention to publish datasets arguably entails significant policy implications on data sharing.

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

Tue, 01 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.

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.

Finding Our Future: A Research Agenda for the Research Enterprise

Mon, 01 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.

For more than 50 years, the U.S. government has supported and encouraged scientific discovery through grants to researchers in laboratories and educational institutions around the nation. From its modest beginning in the late 1940s, the publicly supported research enterprise has grown, matured, and evolved into a \$112-billion endeavor involving thousands of organizations and investigators representing every scientific discipline and field of knowledge. The research enterprise is not only large, complex, and important in its own right, it is also embedded in a political, economic, and social environment that exerts strong influences on research topics and priorities, methods and principles, and opportunities for involvement. This report discusses these challenges, offers a vision of the ideal research enterprise, and lays out a supporting research and action agenda to help achieve it.

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

Fri, 01 May 2009

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.

Public Administrative Review's Theory to Practice features exchanges among scholars and practitioners assessing what prominent theories and research in their areas of expertise have to say about the challenges, choices, and opportunities facing public administration today. This article summarizes 15 years of CTG research into the challenges of cross-boundary knowledge and information sharing in government.

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Sharing and integrating knowledge and information in multiorganizational settings clearly involves complex socio-technical interactions embodied in work processes, organizational forms, and institutional contexts. These are challenges of governance as well as issues for administration. They have implications for efficiency, performance, and public value that are ripe for multidisciplinary investigation, as well as for usefully linking research and practice. The challenge to public managers is to build institutional, managerial, and professional capabilities to engage cross-boundary, knowledge-intensive problems whenever they appear.

An expanded version of this article, along with commentary and an opportunity to contribute to the online discussion, can be found on the PAR Web site.

Full Information Product Pricing Regimes: Policy Implications for U.S.-Mexico Sustainable Commerce

April 18, 2012

Current trends in making supply chains more transparent and bringing information usually not available to the consumer and other players into the market are changing the ways in which consumers make decisions about the goods and services they buy. One example of these changes is the networks of consumers, producers, and other players in the supply chain sharing value-adding information packages about the social and environmental impacts of the products they exchange, or Full Information Product Pricing (FIPP) Networks. Our current research suggests that these FIPP Networks have the potential to promote market-driven approaches to international trade systems, which may work as a complement to more traditional state-led trade systems, such as the North American Free Trade Agreement (NAFTA), in promoting sustainable trade. We envision that such an approach should involve collaboration among government, supply chain and sustainability experts, industry associations, and consumer organizations sustained by a technological architecture to support interoperability and information sharing. We discuss important trade-offs related to costs and sustainability, privacy, and access to information. The paper finishes with a set of recommendations involving the creation of a governance system to promote this market-driven approach to sustainable international trade.

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

Fri, 4 Jan 2008

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.

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Government leadership in multi-sector IT-enabled networks: Lessons from the

response to the West Nile Virus outbreak

Mon, 02 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 variables 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.

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Government Worth Having: A briefing on interoperability for government leaders

Tue, 21 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.

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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.

I-Choose: Consumer Choice, Digital Government, and Sustainability in North America

November 3, 2011

In this paper, we address the challenges and opportunities that the new development in ICT poses for governments, and begin to outline some potential solutions. Governments in North America have set explicit goals to increase the environmental sustainability of their infrastructure, promote sustainable local economic development, protect consumer health, promote nutrition, or establish greener, more efficient supply chains. These commitments are real, and substantial, but the information problems found in real markets have, until now, made many of those goals more elusive. This paper presents observations from research sponsored by the National Science Foundation (through its Community-based Interoperable Data Networks Program), the Consejo Nacional de Ciencia y Tecnología (CONACYT-Mexico), and the Canadian and COMEXUS Fulbright Commissions. Our interdisciplinary and multinational research team blends approaches from digital government research, public policy analysis, and system science to investigate new ways of combining traditional regulatory tools with crowd-sourced information from stakeholder networks.

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Identifying Success Factors and Challenges of 311-Driven Service Integration: A Comparative Case Study of NYC311 and Philly311

January 9, 2013

A 311 system provides quick and easy access to non-emergency municipal services and information through a consolidated channel. This study explores the operation of 311 contact centers in New York and Philadelphia and identifies critical success factors and challenges of 311-driven service integration. Analyzing the qualitative data from semi-structured interviews with 311 center staff and city government officials, the study presents some key findings. Having the right technology in the right time is identified as a critical technological factor. While the lack of interoperability between a 311 system and departmental legacy systems remains a major technical barrier to connecting a variety of systems, human agents fill the middle ground so that training for qualified agents is crucial for their role. Inter-agency coordination and collaboration is pivotal to creating and updating service level agreements and knowledgebase. However, turf protection raises cross-organizational concerns. The mayor's strong leadership, political champions, and the executive support help resolve interdepartmental conflicts.

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Improving Government Interoperability: A capability framework for government

managers

Tue, 21 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.

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

Fri, 19 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.

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Information, Technology, and Coordination: Lessons from the World Trade

Center Response

Tue, 01 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.

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

Wed, 17 Feb 2010

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

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

Tue, 10 Nov 2011

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

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

Tue, 15 Oct 2010

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

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Information and Transparency: Learning from Recovery Act Reporting Experiences.

Tue, 18 May 2010

The American Recovery and Reinvestment Act (2009) promised strict accounting of all funds spent and the publication of that information to the public in relative real-time. The federal requirements for reporting Recovery Act funds relied heavily on the ability of recipients, primarily state governments, to capture, manage, and deliver the data required. This paper presents the experience of one state agency, in particular how they leveraged the reporting mandate to improve real-time informational capability for transparency and openness. The case, together with insights from a Recovery Act Knowledge Network, provides five recommendations to guide decision makers who seek to increase the capability of government to use information to further transparency agendas.

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Information Sharing and Financial Market Regulation: Understanding the Capability Gap

October 22-25, 2012

In testimony on April of 2012 before the House Financial Services Committee, U.S. Securities and Exchange

Commission (SEC) Chairman, Mary Schapiro, stated that effective information sharing between financial market actors and their regulatory bodies is critical to fulfilling the regulatory obligations of the SEC. The 2008 financial crisis is recognized as a show case for the risks to the stability of the markets that ineffective information sharing among supervisory authorities represents. This paper constitutes a preliminary exploration of the challenges facing financial regulators building on prior research in the computing and information science community (CIS). Current literature as well as data from a recent study of financial market regulation is used to identify key actors in financial market regulation information sharing relationships and to begin to outline the challenges faced in this unique context and the resulting risk if those challenges go unaddressed. A recently developed theoretical framework for cross-boundary information sharing (Garcia et al 2007) is used to present insights about challenges and risks from the literature and the field.

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

2009

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.

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Information Sharing at National Borders: Extending the Utility of Border Theory

February 15, 2009

Research has identified the potential and challenges of information sharing in government settings mostly within the context of a single country. The challenges facing inter-governmental information exchanges that take place across national border governments, however, are thought to be different. To date, research has failed to provide theoretical guidance in understanding the complexities that the cross border environment brings to information sharing initiatives. This paper brings together Brunet- Jailly's theory of borders [10] and definitions of crossboundary information sharing from Gil-Garcia et al. [39] to develop a framework that incorporates the information sharing and technology dimension with the economic, political and cultural contextual factors impacting border regions. This study is an initial step toward understanding the challenges that the border environment brings to information sharing initiatives. Future research is necessary to empirically test the utility of the proposed theory as a tool for understanding this new area of both practical and theoretical importance.

Information Strategies for Open Government: Challenges and Prospects for Deriving Public Value from Government Transparency

2010

Information-based strategies to promote open government offer many opportunities to generate social and economic value through public use of government information. Public and political expectations for the success of these strategies are high but they confront the challenges of making government data "fit for use" by a variety of users outside the government. Research findings from a study of public use of land records demonstrates the inherent complexity of public use of government information, while research from information science, management information systems, and e-government offer perspectives on key factors associated with effective information use. The paper concludes with practical recommendations for information-based open government strategies as well as areas for future research.

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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.

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

Sat, 31 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.

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Issues and Strategies for Conducting Cross-National E- Government Comparative Research

November 10-13, 2009

This paper addresses and discusses the central issues that researchers have to deal with when conducting cross-national comparative research within the area of e-government. The issues are classified into two main categories. The first category represents the issues and challenges that may affect the reliability and the quality of data being collected for comparative studies. The second category represents the remaining issues related to the research objective, the selection process of countries and the analytical strategy. The paper discusses the major alternatives of these issues and provides a rationale for the selection process among them. The paper concludes by discussing the interrelations between the identified issues and clarifying the main decisions that researchers have to take when conducting cross-national comparative research.

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IT Governance Capability: Laying the foundation for government interoperability

Thu, 01 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.

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Knowledge and Information Sharing in Transnational Knowledge Networks: A Contextual Perspective

February 15, 2011

As government agencies increasingly collaborate with international counterparts on critical global issues, transnational knowledge and information sharing grow in importance. This paper explores the nature of Transnational Knowledge Networks (TKNs) and identifies critical contextual factors that hinder or enhance their performance. We explore a set of contextual distances that separate the participating organizations and discuss their potential influence on the success of TKNs. The paper concludes with a conceptual framework and a set of testable hypotheses to guide the next phase of our research in understanding knowledge and information sharing across national and cultural boundaries.

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

Fri, 24 Aug 2007

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

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An ala carte approach to the Toolkit

This toolkit was written for two primary audiences – the first is project managers engaged in information technology-based innovations in the public and not-for-profit sectors and the second is funding agencies. While the full toolkit has value to both audiences, specific sections may be more suited to certain readers as a starting place.

Program or Project Managers

... managing multi-organizational, geographically separated teams, might start at:

- Chapter 5, Critical Success Factors, which focuses on the strategies the eight project teams found key to their success.
- Chapter 3 subsection, titled “Working in multi-organizational, geographically dispersed teams,” which provides a sense of the obstacles project teams face in this context.

... selecting technology to support a multi-organizational, geographically separate team, might start at:

- Chapter 4 subsection, titled “Choosing the right technology for your teamwork — virtual or otherwise,” which provides guidance to project managers on the kinds of questions a project manager should have the answers to before selecting technology to support communication and collaboration among team members.
- Appendix B, which identifies the technologies used in the eight projects and summarizes the related

experiences of each team in selecting and using technology.

... selecting technology for sharing knowledge among geographically dispersed audiences, might start at:

- Chapter 4 subsection, titled “Choosing the right tools to share knowledge,” which provides information on the issues in the environment project managers should pay attention to when selecting delivery tools.
- Chapter 5, specifically subsections “Align purpose with identified needs and capabilities of your stakeholders” and “Understand and be comfortable with the technology,” which offers guidance on how to ensure stakeholders’ needs and capabilities are taken into account when choosing technologies.
- Appendix B includes a set of tables organized around the characteristics of the various projects and of the technologies employed in each project.

... writing a grant proposal for technology-based knowledge sharing innovations, might start at:

- Chapter 6, which provides guidance on the grant proposal process collected from the eight grantees.

Funders

... awarding small grants aimed at technological innovation in the non-for-profit sector, might start at:

- Chapter 2, Assessing Impact, which highlights the value delivered to the natural resources community by the eight projects.
- Chapter 3, Environmental Complexity, which presents observations about the obstacles not-for-profit agencies face when engaging in innovation, technology or otherwise, and provides guidance to assist project teams in overcoming these challenges.
- Chapter 6 provides additional advice to funders on creating a set of conditions to increase the likelihood that funds provided to project teams will generate the expected outcome.

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

Tue, 31 Jan 2006

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.

Geographic information technologies (GIT) have the potential to integrate information among multiple organizations. In fact, some of the most impressive advantages of using geo-spatial data are derived from the power of bringing together geographic data covering territories that may well be administered by different organizations and from layering geographic data with other social and demographic data sets. However, building the GIT infrastructure necessary for interoperability and integration has been very challenging. Technical capabilities are available, but organizational, institutional and political factors are seen as powerful barriers. 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

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

Sun, 01 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.

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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.

The panel focused on ways in which the World Trade Center experience has, should, or might influence all organizations in what we now call “normal times.”

The following is an overview and an abridged transcript of the panel discussion.

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

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

Wed, 01 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.

Why evaluate information technology (IT) choices? Because IT innovation is risky business in every organization. The public policy choices and public management processes that are part of government make it an especially difficult environment for IT managers. These layers of complexity present a daunting challenge to public managers who are responsible for choosing, funding, and building IT innovations.

Government managers need to evaluate IT choices because they are among the most complex and expensive decisions they are expected to make.

There are three ways to mitigate the risks inherent in these complex decisions: thoroughly understand the problem to be solved and its context, identify and test possible solutions to the problem, evaluate the results of those tests against your service and performance goals. This handbook is designed to help any government manager follow a well-tested methodology for evaluating IT innovations before deciding (with greater confidence) to make a significant investment.

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Maximizing Current and Future Mobile Technology Investments in New York State Child Protective Services

Thu, 10 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.

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Measures and Conditions of Success in Public Sector Knowledge Networks

Wed, 05 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 exiting 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.

CTG Working Paper No. 03-2008

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

Thu, 08 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/Dofia 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.

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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.

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

Thu, 26 Jul 2012

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

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Modeling the social and technical processes of interorganizational information integration

Sat, 31 Jan 2004

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.

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

Tue, 31 Jan 2006

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.

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.

Two case studies involving multi-method approaches to e-government research are presented to illustrate advantages and challenges in both large-scale and small-scale projects.¹ The paper highlights some lessons learned from the two projects and suggests strategies to obtain the benefits and overcome some of the implementation challenges in doing multi-method digital government research.

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New Models of Collaboration: An Overview

Fri, 01 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.

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New Models of Collaboration: GIS Coordination in New York State

Wed, 01 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.

The NYS Geographic Information System (GIS) Coordination Program was designed and implemented through the collaboration of governments and private entities throughout the State. This case study presents this innovative initiative as a model for data sharing and public-private sector partnerships. The report describes in detail how the GIS Coordination Program was initiated and developed, looking at the role of the different collaborators as well as the problems encountered and solutions tried. An evaluation of the costs and benefits of the project is also included, as well as a reflection on the remaining problems that need to be tackled in the coming years.

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

Mon, 03 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.

CTG Working Paper No. 01-2008

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

Thu, 01 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.

New Models of Collaboration for Public Service delivery

Sat, 01 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.

CTG's "New Models of Collaboration for Public Service Delivery" research project is still in its early stages, but the research team has already conducted a preliminary review focusing on the status of knowledge regarding alternative public service delivery methods.

This white paper summarizes the findings of this first step. It should be viewed as a starting point rather than a conclusion. It contains four sections: a brief history, an inventory of trends, a definition of collaboration, and a conceptual research model.

New York State Information Technology Workforce Skills Assessment Statewide Survey Results

Tue, 12 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.

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.

The goal of this assessment is to gather information to help New York State better meet the training and development needs of its IT professionals, and to identify future needs for IT skills. As a result, the State CIO Council Human Resources Committee and its subgroups generated recommendations for next steps and action plans to enhance professional development and skill proficiency for the entire IT workforce.

New York State-Local Internet Gateway Prototype Demonstration

Thu, 01 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.

Open Government and E-Government: Democratic Challenges from a Public Value Perspective

June 12, 2011

This paper considers open government (OG) within the context of e-government and its broader implications for the future of public administration. It argues that the current US Administration's Open Government Initiative blurs traditional distinctions between e-democracy and e-government by incorporating historically democratic practices, now enabled by emerging technology, within administrative agencies. The paper considers how transparency, participation, and collaboration function as democratic practices in administrative agencies, suggesting that these processes are instrumental attributes of administrative action and decision making, rather than the objective of administrative action, as they appear to be currently treated. It proposes alternatively that planning and assessing OG be addressed within a "public value" framework.

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Open Government Portfolio Public Value Assessment Tool

Fri, 15 Apr 2011

The **Open Government Portfolio Public Value Assessment Tool (PVAT)** offers government leaders with an approach to making better informed decisions about their portfolio of open government initiatives. This tool provides a structured way to assess the public value of an initiative so that an agency can review the expected public value across their entire portfolio of open government initiatives. The information generated from using this tool can then support decisions about the mix of initiatives in a portfolio and how to adjust the mix to enhance the agency's public value

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

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

Wed, 01 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.

Coordinated state-local information systems offer the hope of integrated services to citizens, and streamlined operations within government. Many government and professional organizations are searching for ways to make these essential systems more successful. But we lack reliable information about what makes state-local projects succeed or fail. A state-local information system is one that links state and local agencies together in a coherent service delivery or administrative environment. Such a system facilitates information sharing for the achievement of mutual program or administrative goals.

The Best Practices in State-Local Information Systems project, sponsored by the New York State Governor's Task Force on Information Resource Management, identified and documented a set of practices that led to effective state-local systems in eleven such projects.

Information needed to support the project objective was gathered in four ways: a literature and current practice review, standard project description, a survey of both state and local participants in each project, and focus group interviews with the project teams.

The final report discusses the findings of the project by detailing the systemic restraints on effective state-local information systems, and recommends next steps for mitigating the effects of the constraints.

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

Preserving State Government Digital Information: A Baseline Report

July 2006

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

Partnerships have emerged as the most viable strategy for securing the resources necessary for preserving state government digital information. Whether these partnerships span units within a single agency or multiple state and local governments and in some cases the federal government, their development requires knowledge of capabilities and priorities to be shared among potential partners. This report provides the baseline knowledge necessary to launch these critical partnership development efforts. Baseline data on state government digital information preservation capabilities and activities was collected in five key areas:

1. Institutional Roles and Responsibilities
2. State Government Digital Information Preservation Activities
3. Training Needs for Digital Preservation
4. State Government Digital Information Currently At-Risk
5. Engagement with Enterprise Architecture

Six observations about the challenges facing state government digital preservation initiatives emerged from the baseline data:

1. Capability for preserving state government digital information is low.
2. There is no consistent approach to addressing "at-risk" information.
3. Authority for setting standards and responsibility for providing digital preservation services is dispersed.
4. Executive, legislative, and judicial agencies operate parallel digital preservation efforts.
5. Digital preservation and Enterprise Architecture initiatives are not well-connected.
6. Efforts to develop strategic digital preservation programs are hampered by problem focused practices and funding and staffing models.

A complementary resource to this baseline reports enables you to review the individual profiles from the responding units within the states/territories. >> State Government Digital Preservation Profiles.

Promoting International Digital Government Research Collaboration: An Experiment in Community Building

June 12, 2011

Global issues present many opportunities for digital government (DG) researchers to form long-lasting relationships that lead to shared research agendas focused on questions of international importance. The practical feasibility of international DG research partnerships is of interest for both investigators and funders. This paper reports the evaluation of an experiment to create sustainable international digital government research collaborations by providing legitimacy and modest funding within a minimal set of structural and management requirements. Participants rated the experience as highly positive, contributing substantially to their research productivity, community building, international awareness, and professional growth. While the working group strategy is not a substitute for direct research support, it is a readily replicable method to build international research communities, and to stimulate and enhance their scholarly work.

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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.

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

Thu, 10 Dec 2006

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

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The project report outlines the source of many of the environmental and organizational challenges facing NYS DOCS in the transition to an EHR. The benefits of an EHR both generally and in a correctional context are introduced together with barriers to implementation at NYS DOCS found in the environmental analysis. In addition, a set of recommendations was designed to assist NYS DOCS in their efforts to fully realize the benefits of an EHR as well as a brief discussion of related cost estimation issues. Since the release of the report, NYS DOCS has taken positive developments towards their goal, an update of which is now included in the report.

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

Sun, 01 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.

Geographic Information Systems (GIS) offer unique opportunities to analyze and compare disparate types of information. They are opening up new opportunities to deliver both information and services. The value of GIS and spatial data can be seen most dramatically in applications that promote economic development, public health and safety, and environmental quality.

The New York State GIS Cooperative project, initiated by the NYS Department of Environmental Conservation, demonstrated the depth and variety of existing human, technical, and data resources in the state. This report presents the results of that project. It shows the extent to which spatial data needs overlap among key policy and applications areas. It examines how data sharing strategies can reduce the cost and increase the value of GIS.

Smart City as Urban Innovation: Focusing on Management, Policy, and Context

September 26-28, 2011,

This paper sees a smart city not as a status of how smart a city is but as a city's effort to make itself smart. The connotation of a smart city represents city innovation in management and policy as well as technology. Since the unique context of each city shapes the technological, organizational and policy aspects of that city, a smart city can be considered a contextualized interplay among technological innovation, managerial and organizational innovation, and policy innovation. However, only little research discusses innovation in management and policy while the literature of technology innovation is abundant. This paper aims to fill the research gap by building a comprehensive framework to view the smart city movement as innovation comprised of technology, management and policy. We also discuss inevitable risks from innovation, strategies to innovate while avoiding risks, and contexts underlying innovation and risks.

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State Government Digital Preservation Profiles

July 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.

State libraries and archives have traditionally managed, preserved, and provided access to significant government information in paper and other traditional formats. More and more, however, this information is created in digital form. Much of it has short-term value, but a considerable fraction must remain available for many years, in some cases, permanently. Unfortunately, states are finding their current preservation capabilities do not extend from paper to digital formats. All signs point to continued growth in the volume and complexity of this information yet library, archives and records management professionals are hampered in their efforts to respond to this growth by a host of resource gaps. These gaps include a lack of comprehensive program strategies, personnel and funding as well as a lack of technology infrastructure and appropriate and sufficient skills.

Stewardship and Usefulness: Policy Principles for Information-based Transparency

October 2010

This paper is a conceptual and empirical exploration of the tensions inherent in the drive to increase openness

and transparency in government by means of information access and dissemination. The idea that democratic governments should be open, accessible, and transparent to the governed is receiving renewed emphasis through the combination of government reform efforts and the emergence of advanced technology tools for information access. Although these initiatives are young, they already exhibit daunting complexity, with significant management, technology, and policy challenges. A variety of traditional and emerging information policy frameworks offer guidance, while diverse research perspectives highlight both challenges and opportunities for promoting information-based transparency. Early experience with Data.gov, a central component of the U.S. Open Government Initiative, suggests that two fundamental information policy principles, stewardship and usefulness, can help guide and evaluate efforts to achieve information-based transparency.

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Sustainable cross-boundary information sharing

2008

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 study¹ 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.

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The Challenge of Integrating Data for E-Government

The Dynamics of Opening Government Data

Fri, 30 Nov 2012

The information polity perspective described in this paper provides government a way to identify the various stakeholders and their patterns of interaction that influence or control the generation, flows, and uses of enhanced information resources in open data initiatives. The dynamic modeling techniques used highlight the ways different

constraints can impact the system as a whole and affect value creation. These tools support planners' ability to generate informed hypotheses about changing patterns of interaction among existing and potential new stakeholders. In this way, governments can better evaluate the costs, risks, and benefits of a wide variety of open data initiatives.

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

Wed, 01 Feb 2006

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.

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.

Using a case study approach, we address the question of how multiple organizational and technological factors—distributed leadership, alignment of issues and incentives, coordination of a number and variety of groups, trust, technology, and implementation strategy—interact with the nature of knowledge to influence the knowledge sharing process. A major contribution of this study is that it uses a multi-dimensional view of knowledge, examining the interactive impact of the nature of knowledge with multiple organizational and technological factors in public sector knowledge management research.

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The Internet, the State Library, and the Implementation of Statewide Information Policy

October-December 1999

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.

Geographic Information Systems (GIS) are used by government, researchers and businesses in a wide range of domains including economic development, environmental management, education, health, human services, infrastructure management, and disaster response. Most experts agree that the most expensive part of a GIS program is the creation of spatial data. Some estimate that as much as 80 percent of the cost of any application is attributable to the expenses of acquiring and geo-coding information (Thapa and Bosler, 1992). Often the information needs of different GIS applications overlap and data created by one organization can be used by others. Data sharing can therefore help reduce costs of GIS application development and yield considerable benefits and efficiencies.

To achieve this purpose, the State of New York has implemented a GIS Coordination Program which features an Internet-based GIS Clearinghouse operated by the New York State Library (Dawes and Eglene, 1998). In this program, the Library acts as a critical implementer and value-added facilitator of an important new state information policy that has influence over spatial data development, exchange, and use at all levels of government and in the private and not-for-profit sectors. The Clearinghouse provides the conceptual framework and operational platform for a fully functioning data cooperative which is the heart of the New York State GIS Data Sharing Policy. The Library-based Clearinghouse has become the essential portal to many newly identified

information resources. It organizes the data descriptions, provides a publicly available and easy-to-use means of access, promotes sharing, points the way to education and other services, and generally makes possible the vision of a living data resource.

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

Thu, 01 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.

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. The purpose of this research was to determine if single sign-on intergovernmental portals, that channel business functions across programmatic areas and levels of government, exist in New York State or in other states. And, if they do exist, what are the policy, management, technological, financial, and other factors that influenced their development. Further, this research was to help inform the development of an intergovernmental prototype project at CTG.

The New York State Spatial Data Clearinghouse Technical Report

Sun, 01 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.

The NYS Department of Environmental Conservation initiated the NYS Spatial Data Clearinghouse project, and the Center for Technology in Government directed the development of the GIS Clearinghouse prototype. As many as 450 state and county government officials as well as ten corporate partners cooperated in the design and implementation of the online clearinghouse of meta data and spatial data sets. The prototype NYS Clearinghouse provides a mechanism for potential users of NYS spatial data to determine whether data sets they need are already available or under development.

This technical report outlines the development of the prototype, the adoption of the Federal Geographic Data Committee's meta data content standard, and the search mechanism used for retrieving data. The report also documents hardware and software choices made for implementation of the World Wide Web site.

The World Wide Web as a Universal Interface to Government Services

Sun, 01 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.

The World Wide Web has become an increasingly important way for people and organizations to communicate. The Internet Technology Testbed project examined the value of the Web for information seekers and information providers. CTG tested the feasibility of using the Web to deliver government services to citizens and conduct business among government agencies. The project team included government, academic, and corporate partners who together conducted a wide range of reviews and experiments within four service areas: information dissemination, business applications, group collaboration, and education and training. This project report describes the results of the research and includes case studies that show how the Web can be used for a national employment database, a Web-based purchasing system, online group collaboration meetings, and university coursework.

In addition to the full report, you can also download an Overview in pdf.

Transforming City Government: A Case Study of Philly311

October 22-25, 2012

This paper describes the transformation of a city government led by a 311 program, which provides a

consolidated channel for non-emergency services and information. The paper first discusses the concept of “smart city” as a foundation for the examination of the 311 program as a practice of government innovation. The paper then presents the details of the 311 program as it is being instantiated in the City of Philadelphia. In-depth interviews with city government officials and managers responsible for operating the city’s 311 system (Philly311) offer insights into the contributions the system is making to a more efficient, effective, transparent, accountable, and collaborative city government. Performance data provided by Philly311 enables more efficient resource allocation and informed decision making. Philly311 is credited with making the process of service delivery more transparent to the public, and providing traceability of requested services imbues service departments with a sense of accountability. Service level agreements are providing measurable standards of municipal services and are used to support accountability in terms of service status. Regular reviews of service level agreements and content of the system promote interdepartmental collaboration. 311 systems are broadly recognized as powerful tools to engage residents in improving their neighborhoods. Interviews also revealed challenges Philly311 is facing including limited funding impeding further improvements in software, systems, and staffing, and provided some insights into innovative strategies for addressing resource constraints. Institutionalizing interdepartmental collaborations also emerged from the interviews as a critical new capability required for advancing from the initiation stage of Philly311 to the operational, expansive, and sustainable stages.**[Winner of Best Innovations in Practice Paper Award, ICEGOV2012]**

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Transnational Public Sector Knowledge Networks: Knowledge and Information Sharing in a Multi-Dimensional Context

January (special issue) 2012

Sharing of knowledge, information, and practices across cultural and national boundaries has become a means to address critical global problems. As government agencies increasingly collaborate with international counterparts on these issues, transnational knowledge and information sharing networks grow in importance as mechanisms for collaboration. This paper explores the nature of Transnational Public Sector Knowledge Networks (TPSKNs) and identifies critical contextual factors that shape their performance. In these networks, each participating organization operates within complex national, organizational, and information contexts. The contextual differences between participants produce distances in culture, politics, intentions, organizational factors, relationships, knowledge, resources, geography, and technology. These distances influence their ability to engage in the processes and interactions that are essential to network performance. The paper concludes with a conceptual dynamic model that accounts for the relationships among these factors which can guide further research in understanding knowledge and information sharing across national and cultural boundaries.

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

Mon, 01 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.

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

We define a state-local information system as one that links state and local agencies together in a coherent service delivery or administrative environment. Such a system facilitates information sharing for the achievement of mutual program or administrative goals.

This report was written to help state and local governments work more effectively in this challenging environment. It presents both principles and practices, based on documented experience, which can lead to successful state-local information systems. The material is drawn from a cooperative project sponsored by the New York State Governor's Task Force on Information Resource Management to identify and promote the practices that lead to effective state-local systems. The project involved more than 150 state and local officials engaged in eleven such projects. The participants helped document current issues, defined the characteristics of ideal systems, and shared their good and bad experiences.

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

Wed, 31 Jan 2007

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.

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Understanding New Models of Collaboration for Delivering Government Services

January 2003

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.

In the last decade, countries all over the globe have sought to deliver public services through new working relationships among governments and private and nonprofit organizations. The defining characteristic of these collaborations is the voluntary combination of separate organizations into a coherent service delivery system supported by advanced IT.

This article presents a summary of an international research project that is studying eleven of these collaborations.

Understanding Smart Cities: An Integrative Framework

January 5, 2012

Making a city “smart” is emerging as a strategy to mitigate the problems generated by the urban population growth and rapid urbanization. Yet little academic research has sparingly discussed the phenomenon. To close the gap in the literature about smart cities and in response to the increasing use of the concept, this paper proposes a framework to understand the concept of smart cities. Based on the exploration of a wide and extensive array of literature from various disciplinary areas we identify eight critical factors of smart city initiatives: management and organization, technology, governance, policy context, people and communities, economy, built infrastructure, and natural environment. These factors form the basis of an integrative framework that can be used to examine how local governments are envisioning smart city initiatives. The framework suggests directions and agendas for smart city research and outlines practical implications for government professionals.

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

Mon, 07 Oct 2005

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.

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