

Related Publications (105)



A Capability-based View of Government IT Innovation

May 2008

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

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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And Justice for All: Designing Your Business Case for Integrating Justice

Information

Mon, 01 May 2000

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

Public safety is a huge issue in the United States. Agencies can help make our communities safer by quickly and easily sharing accurate, timely information about cases going through the justice system. Integrated justice information systems are the vehicle for such enhanced information exchange.

This guidebook offers a series of lessons and tools that justice officials can use to build business cases to win support and funding for integrated justice information systems. The business case blueprint leads readers through the analysis, design, and presentation of business cases tailored to specific projects and audiences. The guidebook also contains appendices of useful tools, references, examples, and resources.

In addition to the full report, you can also see an Executive Briefing.

An Introduction to Workflow Management Systems

Sat, 01 Nov 1997

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

With many different workflow management software solutions on the market, a variety of approaches to workflow management exist. This paper provides an introduction to Workflow Management Systems. Through a two-tiered approach, the reader is first exposed to a functional review of workflow systems, including definitions, typical features, benefits, tradeoffs, process selection, and success factors for implementation, followed by a technical overview that describes a method for categorizing workflow products, the state of the market, and emerging standards.

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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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 Step Beyond Research: Fostering IT Innovations in Government

Wed, 01 Oct 1997

This report is a summary of the discussions that took place during the workshop ***A Step Beyond Research: Fostering IT Innovations in Government***. The workshop involved 32 scholars from Europe and North American in an exploration of the issues and opportunities for applied research to support IT innovation in government.

A Step Beyond Research: Fostering IT Innovations in Government was a workshop that involved 32 scholars from Europe and North American in an exploration of the issues and opportunities for applied research to support IT innovation in government. The October 1997 invitational workshop focused on sharing ideas to improve the value of information technology (IT) research to government practitioners. It also sought to establish and strengthen communication and collaboration among government IT researchers. This report is a summary of the discussions that took place during the workshop.

A Survey of Key Concepts and Issues for Electronic Recordkeeping

Thu, 01 Aug 1997

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

As the public sector moves from working in a largely paper-based environment to one in which government agencies offer more and more information and services electronically, a number of new issues and concepts arise.

This report presents the results of a review of technology standards, government policies, legal principals, and best practices for electronic recordkeeping in government. This review was conducted in April 1996 to understand the key issues a CTG team expected to encounter during the design and development of a prototype for the New York State Adirondack Park Agency. This report outlines the results of that survey and is intended to serve as an introduction to key concepts and to guide the associated choices that APA is expected to face as they move from a largely paper-based business process to a networked document management and workflow system.

A Survey of System Development Process Models

Sun, 01 Feb 1998

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

This document provides an overview of common system development process models, used to guide the analysis, design, development, and maintenance of information systems. There are many different methods and techniques used to direct the life cycle of a software development project and most real-world models are customized adaptations of the generic models. While each model is designed for a specific purpose or reason, most have similar goals and share many common tasks. This research paper explores the similarities and

differences among these various models and will also discuss how different approaches are chosen and combined to address practical situations.

Authority and Leadership Patterns in Public Sector Knowledge Networks

March 2007

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

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Balancing Environmental Quality and Economic Vitality in the Adirondack Park

Sun, 01 Dec 1995

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

New York's 6 million acre Adirondack Park encompasses 12 counties and 105 towns in upstate New York. Its mission is to maintain the delicate balance between environmental quality and economic vitality in the region. The APA maintains tens of thousands of records about real property, physical and civil infrastructure, and natural resources. Organizing, finding, and using effectively so many different kinds of information had become a critical problem for both the agency and its customers.

During 1994-95, CTG worked with APA and several corporate and university partners to develop and evaluate a prototype system to combine document records and geographic data into a unified system. The resulting "electronic reference desk" allows agency staff to point at a land parcel displayed on an electronic map and summon legal documents, other maps, project plans and related information about the property.

This report provides an overview of the partnership project, presents the results of the prototype, and discusses how the work can benefit others considering similar initiatives.

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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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 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.

2006

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

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Building Integrated Data Repositories

Mon, 01 May 1999

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

The Center for Technology in Government (CTG), through the Using Information in Government (UIG) program, has worked with New York State agency project teams and partners from the public, private, and academic

sectors to identify benefits and strategies for integrating and using information for program planning, evaluation, and decision making. The policy, management, and technology issues identified through our work with agency teams were shared with the public in a series of seminars focused on increasing the value of information to government programs. "Information Use Tools and Skill Sets" is a summary of the second UIG Seminar, which was held in May 1999. The seminar highlighted the kind of analytical tools public managers should use to get the most out of their information for planning, evaluation, and decision making. This summary includes the presentations that focused on the new skill sets, information-related competencies, technical tools, and techniques that government program managers can use to ensure that relevant information is identified and used.

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.

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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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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.

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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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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Data Quality Tools for Data Warehousing - A Small Sample Survey

Sun, 01 Oct 1998

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

It is estimated that as much as 75% of the effort spent on building a data warehouse can be attributed to back-end issues, such as readying the data and transporting it into the data warehouse (Atre, 1998). Data quality tools are used in data warehousing to ready the data and ensure that clean data populates the warehouse, thus enhancing its usability.

This research paper focuses on the data problems that are addressed by data quality tools. Specific questions of the data can elicit information that will determine which features of data quality tools are appropriate in which circumstances. The primary objective of the effort is to develop a tool to support the identification of data quality issues and the selection of tools for addressing those issues. A secondary objective is to provide information on specific tools regarding price, platform, and unique features of the tool.

Dealing with Data

Wed, 01 Feb 1999

Proper data management is instrumental for successful information systems. This report, which summarizes the first seminar in the UIG Seminar Series, focuses on data quality management, data tools and techniques, long term maintenance and preservation, and real life experiences with data issues.

The Center for Technology in Government (CTG), through the Using Information in Government (UIG) program, has worked with New York State agency project teams and partners from the public, private, and academic sectors to identify benefits and strategies for integrating and using information for program planning, evaluation, and decision making. The policy, management, and technology issues identified through our work with agency teams were shared with the public in a series of seminars focused on increasing the value of information to government programs.

Dealing with Data, the first seminar in the series, was held in February 1999. It covered a variety of data issues. The report summarizes the presentations and panel discussions on data quality management, data tools and techniques, long term maintenance and preservation, and real life experiences with data issues.

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

Mon, 06 Oct 2004

The purpose of this paper is to describe a dynamic theory of the socio-technical processes involved in the definition of an Integration Information problem in New York State (NYS). In April 2003, the Criminal Justice Information Technology (CJIT) group of NYS was tasked with developing a framework to fulfill the goal of giving users of criminal justice data and information systems "one-stop shopping" access to the information needed to accomplish their mission. The research team of the Center for Technology in Government (CTG) collaborated with the CJIT group for an eight-month period during 2003 to accomplish this task. The CJIT-CTG team went through a series of conversations to specify the business problem and its context, and to identify feasible solutions and alternatives. This paper reports on a system dynamics model for understanding the dynamics of the

socio-technical processes that took place during this project. This model building effort is looking for the development of a theory of interorganizational collaboration. The model is being developed in facilitated group model building (GMB) sessions with the team at CTG. Although the model presented in this paper is still preliminary, the model is capable to generated interesting scenarios with reasonable changes in the initial values of some parameters. Moreover, the model illustrates a powerful way to luse group model building 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 been used for government administrative reform. In fact, spending in e-government initiatives continues to rise and, among these projects, Internet-based applications are increasingly important. Using a nested research design, this study explores the complex relationships among the relative success of state websites and certain organizational, institutional, and contextual factors.

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

Sat, 01 Oct 1995

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

This report covers the findings from an evaluation of a prototype map retrieval system developed for the Adirondack Park Agency. The report reviews data needs and data availability to inform a data development strategy for the future. It also presents an analysis of the costs and benefits which can be expected from implementation of a full system to support APA operations. Finally, the report discusses the potential improvements in internal operations, intergovernmental relations, and innovative initiatives that could be

supported by an integrated information system. Recommendations for a future system development strategy are included.

Exemplary Practices in Electronic Records and Information Access Programs

Thu, 01 Jul 2004

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

This current practices research report identifies and describes exemplary practices in providing electronic access to information. It includes an examination of the professional academic literature, a review of Web-based resources, and a study of best practices in selected organizations.

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 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.

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Four Realities of IT Innovation in Government

Spring 1999

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

Since 1993, the Center for Technology in Government has worked with more than 100 state and local agencies in pursuit of effective and innovative information systems to support public programs. Although the projects varied widely in purpose and scope, this article reports the four "realities" that shaped them all; successful IT innovation are driven by program needs, not technology; a learning oriented approach that builds in prototyping, performance measurement, and experience often lead to success; the real and difficult complexities of government must be actively managed; and the professionalism and commitment of individual managers make a real difference in the quality of results.

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

Fri, 16 Mar 2007

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

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

Sun, 01 Apr 1998

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

This document introduces one of the foundations for the Models for Action project, the functional requirements to ensure the creation, maintenance, and preservation of electronic records. These requirements outline a set of cues and questions that facilitate the identification of technology, management, and policy strategies that can be used to implement sound electronic recordkeeping practices within an organization. This paper discusses the background, development, and usage of the functional requirements.

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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Groupware Technology Testbed

Tue, 01 Nov 1994

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

In recent years, both government and business have been experimenting with team-based organizations and work assignments organized around a complete service or administrative process. Since nearly every service follows an implicit order of action steps and information flow, government agencies have become increasingly interested in technologies to support group functioning and process-oriented operations.

This report presents the results of a series of prototyping experiments conducted by CTG and state agencies on custom workflow, project management, document management, and meeting support systems using groupware tools.

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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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 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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Insider's Guide to Using Information in Government

Wed, 01 Nov 2000

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

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[Link to Insider's Guide](#)

Insider's Guide to Using Information in Government Executive Briefing

Mon, 01 Feb 2001

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

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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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IT Innovation in Government: Toward an Applied Research Agenda, Part One: The practitioner perspective

Tue, 01 Oct 1997

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

Public and private sector organizations alike are striving to improve their productivity and effectiveness by rethinking missions, reengineering processes, and implementing information technology (IT) solutions. Much work is being conducted in university settings and research centers to support the innovative use of IT to improve government services and operations.

The value of research to practice reflects the fit between the topics that interest researchers and their funders and the problems that practitioners are trying to solve. It also reflects the effectiveness with which knowledge is transferred between the two domains.

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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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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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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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Measuring Return on Government IT Investments

Fri, 27 Oct 2006

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

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analysis of trends in IT investments in the United States.

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

June/July 1997

Organizations often lack adequate tools to manage the growing number and variety of electronic records. This

article presents a set of practical tools that can help government agencies manage the records that are electronically created, maintained, and accessed.

Organizations often lack adequate tools to manage the growing number and variety of electronic records. Some are in danger of losing access to records stored in personal computers, e-mail boxes or personal local area network (LAN) directories. Others face the problem of linking documents created in different forms and formats to business transactions. Many organizations are finding that their electronic records do not meet their organization's evidentiary needs.

This article discusses the Models for Action Project, which is focused on the development of practical tools to support incorporating electronic records management capacity in the design of new information systems. The project is being conducted by the Center for Technology in Government (CTG) at the University at the Albany, in partnership with the New York State Archives and Records Administration. The project seeks to develop and promote practical tools that will assist organizations, particularly state and local government agencies, in addressing electronic records management and archival requirements as they develop networked computing and communications applications.

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

Wed, 01 Jul 1998

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

In an environment where business is increasingly conducted electronically, systematic processes for electronic records management and preservation are crucial. Without question, organizations need electronic records that are reliable and authentic; usable for multiple purposes, and accessible over time for both business and secondary uses. This report presents a set of tools that incorporate essential electronic records requirements into the design of new information systems. Moreover, the practical tools seek to bridge the gap between records management theory and practice by linking an organization's business objectives to its records management processes.

The project, conducted with the New York State Archives, and carried out with the New York State Adirondack Park Agency (APA) and several corporate and academic partners, also produced a prototype that is a network-based integrated document management and workflow system, capable of supporting a fully electronic record, and is also capable of accessing, analyzing, and capturing information from the APA's Geographic Information System (GIS), and archiving the project record.

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 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 Central Accounting System Stakeholder Needs Analysis

Fri, 01 Jul 2000

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

The Office of the New York State Comptroller recognized the need to design and develop a next generation Central Accounting System (CAS), but first decided to define its stakeholders and conduct a stakeholder needs analysis before making any decisions. This project was conducted by CTG in partnership with a team from the Comptroller's Office as part of the Using Information in Government (UIG) program. The report summarizes the information gathered from system users in 42 state agencies, and presents a set of recommendations for next steps in developing a plan for the CAS.

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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Opening Gateways: A Practical Guide for Designing Information Access Programs

Wed, 18 Apr 2012

This Guide was originally published under the title of *Opening Gateways: A Practical Guide for Designing Electronic Records Access Programs* in 2000 and revised in 2002. Since it was issued, technological advances have given us a much broader array of tools and approaches to providing access to information. These advances have created a broader and in some ways more sophisticated community of potential users and stakeholders whose expectations of ease of access and immediacy of information have grown exponentially. These changes, combined with a social and political environment that demands public sector entities be more open and transparent in their operations, have put increased pressures on government to provide access to more and better information through readily accessible means such as the Internet. This guide is designed to help government agencies develop affordable, manageable, and effective information access programs. Given the changing technological and social environment, the type of planning processes facilitated by this Guide are more relevant than ever. The revisions have focused on updating many of the examples provided and language used as well as including an expanded discussion of program models available due to technological advances.

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Opening Gateways: The Guide and Online Workbench

Sat, 01 Dec 2003

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

The growing demand for information to be available in electronic form and for direct access to this information is changing the design and management of electronic information access programs. Programs are:

- Increasingly focused on electronic rather than paper as the format desired by users.
- Shifting from staff-supported access models to direct-user access models, now made possible over the Web.

Making a successful transition to increasingly user- and usage-focused programs requires careful assessment of any desired program in terms of:

- the users
- the uses
- the content
- the operation
- the cost of a desired program.

This shift often requires program managers; the content experts, to join traditional information access professionals in a new way of working.

The Opening Gateways Guide and Workbench support this new way of working; they guide program managers and information access professionals in the creation of electronic information access programs that are effective, manageable, and affordable. They provide a framework for a design team to account for the specifics of the environment within which a program will exist.

Taking the environment into account in the design of electronic information access programs is a human process. The Gateways Guide and Workbench are not intended to replace that process, but to support it through a cycle of individual effort, group discussion, and integration of the best ideas from the group. This process depends on

project managers who are skilled at cultivating individual commitment and group process and participants who have a stake in the outcome. The Workbench supports this process by organizing and sharing the information needed to reach a sound design. Together, the Guide and the Workbench provide a process and an analytical framework to ensure that a design team is able to focus on the complexity of information access program design.

The Opening Gateways Guide is a paper and a web based document that presents a strategy for designing electronic information access programs. The Guide presents a set of analytical tools to help groups of people as they collaborate on the design of electronic records access programs.

The Gateways Online Workbench is provided as a companion piece to the Guide. It is an interactive version of the Guide enhanced with features that support groups of people as they collaborate on the development of electronic information access programs. The Workbench design supports this group process by allowing multiple users to capture individual ideas and to contribute to group efforts through the Workbench's collaboration features.

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.

Practical Tools for Electronic Records Management and Preservation

Fri, 01 Jan 1999

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

Most organizations are increasingly managing work, and making decisions using electronic information. Organizations need electronic records that are reliable, authentic, usable, and accessible. But with the shift from paper to digital information, many organizations find that their current electronic records are insufficient to support their business needs, or that they are in danger of losing access to those records.

This guide was designed to help information and program managers integrate essential records management requirements into the design of new information systems. It details techniques that seamlessly integrate into the system design process, and result in the identification of technology specifications and opportunities for improving performance through improved access to records. The guide came out of the Models for Action: Practical Approaches to Electronic Records Management and Preservation project that CTG conducted with the New York State Archives and Records Administration, which was funded in part by the National Historical Publications and Records Commission.

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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Putting Information Together

Tue, 01 Feb 2000

Organizations spend millions of dollars putting information together in data warehouses, but as many as 50 to 80 percent of those projects fail. This report, which summarizes the fourth seminar in the UIG Seminar Series, highlights the lessons learned from the creation of the prototype Homeless Information Management System.

The Center for Technology in Government (CTG), through the Using Information in Government (UIG) program, has worked with New York State agency project teams and partners from the public, private, and academic sectors to identify benefits and strategies for integrating and using information for program planning, evaluation, and decision making. The policy, management, and technology issues identified through our work with agency teams were shared with the public in a series of seminars focused on increasing the value of information to government programs. This report summarizes the presentations given at the fourth session of the Using Information in Government Seminar Series, "Putting Information Together: Building Integrated Data Repositories," which was held on February 9, 2000 at the University at Albany/SUNY.

Reassessing New York: A Collaborative Process

Thu, 01 Jun 2000

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

In order to implement the state's new annual reassessment program, the New York State Office of Real Property Services (ORPS) set out to identify the needs of the local assessment community. This project was conducted by CTG in partnership with a team from ORPS as part of the Using Information in Government (UIG) program. This report presents a set of recommendations that were collaboratively developed by ORPS and members of the assessment community.

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

Thu, 01 Sep 1999

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

To be effective, a business case for criminal justice information integration must be specific about its objectives, practical in its approaches, and realistic in assessing its prospects for success. This study, based primarily on 26 interviews conducted with participants involved in integration initiatives at state and local levels nationally, provides a complex but optimistic picture for improving integration.

The report, consisting of an in-depth analysis of the current integration realities, reveals keys for success, as well as barriers to overcome in order to achieve integration goals. It serves as a basis for designing the business case material CTG has agreed to develop for the US Department of Justice Office of Justice Program (OJP).

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

Spring 1999

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

Information sharing has become a priority among organizations looking to increase productivity and improve planning. Along with this emerging reliance on information sharing comes more interest in the use of multiple data sources for enterprise level planning and decision making. This paper identifies current research and outlines practical experiences in the use of multiple data sources to support performance measurement, strategic planning, and interorganizational business processes. In addition, a series of cases are examined to illustrate the benefits, issues, methods, and results of data source integration efforts in the same organization and across multiple organizations. The objective of this research is to set the stage for the development of a methodology for integrating multiple data sources.

Return on Investment In Information Technology: A Guide for Managers

Sun, 01 Aug 2004

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

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

Wed, 01 Mar 1995

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

This report presents the results of the Center for Technology in Government's formal efforts to evaluate a New York State Office of Regulatory and Management Assistance (ORMA) prototype voice response system for automated business permit information.

This report has four specific objectives: (1) to review the original research objectives of the ORMA project as it was proposed by ORMA; (2) to document how those original and rather narrowly focused research objectives were eventually expanded to include a broader set of questions; (3) to summarize a multi-method research

approach that has been used by CTG to evaluate this entire project; and (4) to present answers to each of the research questions posed. These answers draw from threads of investigation taken from the several methods that tested the overall research approach.

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

Mon, 06 Oct 2004

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

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Sharing Justice Information: A Capability Assessment Toolkit

Tue, 01 Nov 2005

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

The justice enterprise faces many performance challenges that can be addressed more successfully through better information-sharing initiatives. These challenges differ widely in their scope and complexity. Regardless of their size, all these initiatives are made less difficult when participating organizations have high levels of information-sharing capability. Therefore, decisions to invest in information sharing initiatives 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 justice professionals to use when considering or planning for a justice information-sharing initiative. It provides a process for assessing where capability for information sharing exists and where it must be developed in order to achieve public safety goals. Assessment results provide a basis for action planning to fill capability gaps both within and across organizations.

This is a self-assessment tool, based on the idea that the persons involved in an information-sharing initiative are best equipped, by their knowledge and experience, to make judgments and supply evidence about these capabilities. The toolkit was designed to facilitate discussion within individual organizations as well as across organizations involved in an information-sharing initiative.

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

Mon, 01 Mar 1999

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

Information technology has been a vital component of government operations for decades. It plays a crucial role in public sector administration, decision-making, and service delivery in the next millennium. The technology tools we have today, such as digital communications and advanced networking, are already transforming some areas of government. In an effort to expand this trend of moving government toward the promise of transformed public services, the National Science Foundation (NSF) established the Digital Government Program. The program fosters connections between government information service providers and research communities, seeks innovative research to improve agency, interagency, and intergovernmental operations, and advocates enhanced interactions between citizens and government.

As a grantee of the program, CTG held a multidisciplinary workshop in October 1998 to elicit a number of pertinent recommendations for the Digital Government Program. This report is based on that workshop and outlines steps NSF can take to help develop a digital government for the next millennium.

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 to 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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frameworks offer guidance, while diverse research perspectives highlight both challenges to 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.

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 Records Requirements Analysis and Implementation Tool

Sat, 01 Apr 1998

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

This document describes the Records Requirements Analysis and Implementation Tool (RRAIT), one of the key products developed for the Models for Action project. The RRAIT is a practical tool that is made up of two components: the Records Requirements Elicitation Component (RREC) and the Records Requirements Implementation Component (RRIC). The former is used to define organizational recordkeeping requirements and the latter is used to identify mechanisms for implementing those requirements. This paper examines the makeup of these tools and explores how the two are used in conjunction with each other to define and implement policy, management, and technology mechanisms to implement sound electronic recordkeeping practices within an organization.

Title Imaging Project with NYS Department of Motor Vehicles

Tue, 01 Nov 1994

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

Paperwork. Few words evoke such a negative picture of government operations. Yet government is an information-intensive enterprise with a legal obligation to create and maintain huge volumes of public records. The paperwork problem exists in part because these records are caught up in processes that are antiquated, slow, error prone, and expensive. Document imaging and workflow management systems merge several technologies to convert paper documents to electronic images. However, they are expensive to implement and nearly always require extensive analysis, business process reengineering, and organizational change.

This report presents the results of a prototyping project that demonstrated document imaging and workflow solutions in the vehicle title operation at the New York State Department of Motor Vehicles (DMV). The process of

building the prototype answered a range of critical technical, managerial, and organizational questions.

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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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.

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

Sun, 01 Oct 1995

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

The Center for Technology in Government worked with the Adirondack Park Agency to develop a prototype system that combines document records and geographic data into a unified workstation or "electronic reference desk." This report presents the findings of the technical staff responsible for developing the prototype system. It covers the gathering of geographic data and the development of the database as well as the data conversion process. Hardware and software configurations are included, as well as lessons learned from the process and recommendations for other GIS system developers.

Voice Information Response System

Sun, 01 May 1995

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

Each year, more than 33,000 people receive business permit assistance over the phone from the Office of Regulatory and Management Assistance (ORMA), now called the Governor's Office of Regulatory Reform. To answer the variety of questions posed by callers, Permit Coordinators rely on a database describing nearly 1,200 permits issued by more than 40 different New York State agencies.

This report presents the results of a project that developed a prototype voice response system that would use more sophisticated voice response technology to meet the needs of its customers. The project assessed technical feasibility, cost-effectiveness, business process, and customer service implications of fitting the system into existing operations.

Web-based Applications and/or Networked Legacy Systems

Spring 1999

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

E-commerce, which involves linking legacy systems and their attached databases to new Web-based applications and distributed databases, is emerging as a key way for private and public sector organizations to deliver products and services to their customers and constituents. This research paper examines the technical and business ramifications of linking legacy systems, which traditionally have a low degree of connectivity, to the Web. It concludes that the high demand for e-commerce requires a more organized and structured method for developing Web-based applications.

What Rules Govern the Use of Information?

Fri, 01 Oct 1999

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

The Center for Technology in Government (CTG), through the Using Information in Government (UIG) Program, has worked for more than a year with New York State agency project teams and partners from the public, private, and academic sectors to identify benefits and strategies for integrating and using information for program

planning, evaluation, and decision making. The policy, management, and technology issues identified through our work with the agency teams were shared with the public in a series of seminars focused on increasing the value of existing information to government programs. This report summarizes the presentations given at the third session of the Using Information in Government Seminar Series, **"What Rules Govern the Use of Information?"** which was held on October 5, 1999 at the University at Albany.

Why Assess Information Sharing Capability?

Thu, 01 Dec 2005

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

Government faces many challenges that can be addressed more successfully when information is shared across organizational boundaries. These challenges differ widely in scope and complexity. One may involve linking the different databases and case management processes in a single human services agency where organizational units operate under one executive leader, working toward a common goal. Another challenge may involve enterprise-level initiatives, such as a statewide crime communications network, consisting of many different agencies at several levels of government engaged in diverse but overlapping business processes using similar, if not identical, information. Some challenges, such as emergency response, are so extensive that they require information sharing and work processes that cross the boundaries of the public, private, and nonprofit sectors.

Initiatives that depend on these kinds of information sharing are typically complex, difficult, and prone to failure. They are more likely to succeed when they include a comprehensive and systematic assessment of both organizational and technical information sharing capabilities. Such an assessment identifies the strengths and weaknesses of all participants, points out risks and risk mitigation strategies, and therefore leads to better planning and execution of cross-boundary programs and services.