Enabling E-Government (103)

Guides (7)

Designing social media policy for government: Eight essential elements
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.

Using XML for Web Site Management: Getting Started Guide
Sep 2006

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

Return on Investment In Information Technology: A Guide for Managers
Aug 2004

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

Making Smart IT Choices: Understanding Value and Risk in Government IT Investments
Apr 2004

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

Untangle the Web: Delivering Municipal Services Through the Internet
Dec 2002

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

Making a Case for Local E-Government
Jul 2002

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

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And Justice for All: Designing Your Business Case for Integrating Justice Information
May 2000

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

Online Tools (3)

Open Government Portfolio Public Value Assessment Tool
Apr 2011

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

The XML Toolkit
Apr 2006

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

e-Gov FirstStop
Apr 2002

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

Reports (36)

Workshop Report: Exploring the integration of data-intensive analytical skills in public affairs education
Aug 2014

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

The Dynamics of Opening Government Data

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Nov 2012

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

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

Oct 2012

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

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

Jul 2012

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

Developing Public Value Metrics for Returns to Government ICT Investments

Jun 2012

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

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

Feb 2012

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

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

Nov 2011

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

AIRNow-I Shanghai: Crossing Cultures, Sharing Knowledge

Aug 2011

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

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

Jun 2011

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

Broadband Internet Service Adoption and Use in New York State Households

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May 2011

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

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

Oct 2010

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

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

Feb 2010

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

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

Dec 2009

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

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

Oct 2009

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

IT Governance Capability: Laying the foundation for government interoperability

Oct 2009

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

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

Sep 2009

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

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

Aug 2009

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

Government Worth Having: A briefing on interoperability for government leaders

Oct 2008

While public officials at all levels of government play important roles in interoperability efforts, government leaders alone have the power to alleviate the institutional constraints that impede these potentially transformative, but highly complex enterprise initiatives. Unfortunately, while leaders have the unique power to make these changes, experience shows that the policy environments they have created, or in many cases inherited, often limit the capability of governments to share authority, to collaborate, and to jointly and strategically manage enterprise initiatives. To change this, leaders must understand the link between their policy decisions and the capability of governments to create the systems necessary to share information and other resources across boundaries. This

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paper is for government leaders and presents a unique focus on creation of the policy and management capability, rather than technical capability, necessary to create interoperable government,. It presents a set of recommendations to guide these leaders in the development of policies and principles for action.

Improving Government Interoperability: A capability framework for government managers

Oct 2008

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

Using XML for Web Site Management: Lessons Learned Report

Jan 2008

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

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

Jun 2007

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

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

Apr 2005

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

Highlights: Exploring the Feasibility of A Digital Government Journal

Jul 2004

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

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

Jul 2004

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

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

May 2004

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

New York State-Local Internet Gateway Prototype Demonstration

Apr 2004

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

XML: A New Web Site Architecture

Sep 2002

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

Finding Our Future: A Research Agenda for the Research Enterprise

Jul 2002

The research enterprise has grown into a $112-billion endeavor involving thousands of organizations representing every scientific discipline and field of knowledge. This report discusses the challenges facing that research enterprise, offers a vision of the ideal research enterprise, and lays out a supporting research and action agenda to help achieve it.

The Future of E-Government

Jun 2002

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

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

Mar 2002

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

What Citizens Want from E-Government

Oct 2000

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

New Models of Collaboration for Public Service delivery
Apr 2000

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

Reconnaissance Study: Developing a Business Case for the Integration of Criminal Justice Information
Sep 1999

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

Some Assembly Required: Building a Digital Government for the 21st Century
Mar 1999

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

Supporting Psychiatric Assessments in Emergency Rooms
Sep 1995

With the assistance of an expert panel representing both practitioners and consumers of mental health services, a computer-assisted decision model was developed to support psychiatric assessments in emergency rooms.

Report of the Field Test to Evaluate a Decision Support Tool for Psychiatric Assessments in Emergency Rooms
Aug 1995

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

Journal Articles and Conference Papers (48)

Open Budgets and Open Government: Beyond Disclosure in Pursuit of Transparency, Participation and Accountability
Proceedings of the 14th Annual International Conference on Digital Government Research (dg.o2013) , Jun 2013

Although disclosureis at the heart of transparency, simple disclosure does not beginto address more complicated questions about the qualitative nature of transparency and whether participation and accountability processes ensue. In this paper,we inquire about the socio-political conditions that are related to [a] qualitative aspects of budget transparency, definedin terms of three types of desirable budget content and timely disclosure of budget documents, [b]two types of public participation in budget processes, and [c] qualitative aspects of four types of audit documents. Wefound that a country's level of democratization and its level of budget document disclosure wasconsistently related to the release of qualitatively better budget content, qualitatively better accountability content and the involvement of the Supreme Audit Authority withthe public. However, neither of these factors, or any other, wasrelatedto the tendency to engage in general public participation processes related to the budget.

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Understanding Smart Data Disclosure Policy Success: The Case of Green Button

Proceedings of the 14th Annual International Conference on Digital Government Research (dg.o2013) , Jun 2013

Open data policies are expected to promote innovations that stimulate social, political and economic change. In pursuit of innovation potential, open datahas expanded to wider environment involving government, business and citizens. The US government recently launched such collaboration through a smart data policy supporting energy efficiency called Green Button. This paper explores the implementation of Green Button and identifies motivations and success factors facilitating successful collaboration between public and private organizations to support smart disclosure policy. Analyzing qualitative data from semi-structured interviews with experts involved in Green Button initiation and implementation, this paper presents some key findings. The success of Green Button can be attributed to the interaction between internal and external factors. The external factors consist of both market and non-market drivers: economic factors, technology related factors, regulatory contexts and policy incentives, and some factors that stimulate imitative behavior among the adopters. The external factors create the necessary institutional environment for the Green Button implementation. On the other hand, the acceptance and adoption of Green Button itself is influenced by the fit of Green Button capability to the strategic mission of energy and utility companies in providing energy efficiency programs. We also identify the different roles of government during the different stages of Green Button implementation. **[Recipient of Best Management/Policy Paper Award, dgo2013]**

Understanding the Co-Evolution of Institutions, Technology, and Organizations: The Enactment of the State Government Portal of Puebla

Proceedings of the 14th Annual International Conference on Digital Government Research (dg.o2013) , Jun 2013

Until recently, researchers and practitioners around the world thought that information technologies could by themselves transform government organizations. However, current studies show that there are complex relationships between information technologies, organizations, and institutions. This paper presents a preliminary theory of the co-evolution of organizational networks, institutional frameworks and technology in the development of state government portals. The theoryuses the grammars of system dynamics and builds upon institutional approaches to understand interactions among all these factors in the development of information and communication technologies in government. The preliminary theory shows the relevance of networks and relations to successful portal development.Moreover, institutionalization of work practices and methods appears to be also an important success factor, and there are several interactions among the variables identified. **[Recipient of Best Research Paper Award, dgo2013]**

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

Proceedings of the 46th Hawaii International Conference on System Sciences - 2013, Jan 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]**

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

Proceedings of the 46th Hawaii International Conference on System Sciences - 2013, Jan 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

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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.

Creating Open Government Ecosystems: A Research and Development Agenda

Future Internet, Vol. 4, No. 4, Oct 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.

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

6th International Conference on Theory and Practice of Electronic Governance (ICEGOV2012) , Oct 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 movementin the US is looking for alternatives to "smart disclosure," which implies providing consumers with better information to makebetter 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.

Information Sharing and Financial Market Regulation: Understanding the Capability Gap

6th International Conference on Theory and Practice of Electronic Governance (ICEGOV2012) , Oct 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.

Transforming City Government: A Case Study of Philly311

6th International Conference on Theory and Practice of Electronic Governance (ICEGOV2012) , Oct 2012

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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]**

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

Proceedings of the 13th Annual International Conference on Digital Government Research (dg.o2012) , Jun 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 werefound 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.

Understanding the Value and Limits of Government Information in Policy Informatics: A Preliminary Exploration

Proceedings of the 13th Annual International Conference on Digital Government Research (dg.o2012) , 7, 2012

Policy informatics is an emergent area of study that explores how information and communication technology can support policy making and governance. Policy informatics recognizes that more kinds, sources and volumes of information, coupled with evolving analytical and computational tools, present important opportunities to address increasingly complex social, political, and management problems. However, while new types and sources of information hold much promise for policy analysis, the specific characteristics of any particular government information resource strongly influences its fitness and usability for analytical purposes. We therefore contend thatinformation itself should be a critical research topic in policy informatics. This poster presentation shows how different aspects of information conceptualization, management, quality, and use can affect its “fitness” for policy analysis.

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

The Puentes Consortium, Apr 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

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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.

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

Proceedings of the 45th Hawaii International Conference on System Sciences - 2012, Jan 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.

Understanding Smart Cities: An Integrative Framework

Proceedings of the 45th Hawaii International Conference on System Sciences - 2012, Jan 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.

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

Government Information Quarterly, Volume 29, Issue 1, Pages 112-120, (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.

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

Presented at APPAM Fall Conference 2011, Nov 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,

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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.

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

5th International Conference on Theory and Practice of Electronic Governance (ICEGOV2011), Sep 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.

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

5th International Conference on Theory and Practice of Electronic Governance (ICEGOV2011) , Sep 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.

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

Proceedings of IFIP International Federation for Information Processing 2011 , Sep 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 infor-mation 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.

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

Proceedings of the 12th Annual International Conference on Digital Government Research (dg.o 2011), Jun 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

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infrastructure, and governance for institutional improvement and citizen engagement.

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

Proceedings of the 12th Annual International Conference on Digital Government Research (dg.o 2011), Jun 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.

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

Proceedings of the 12th Annual International Conference on Digital Government Research (dg.o 2011), Jun 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.

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

Proceedings of the 44th Hawaii International Conference on System Sciences - 2011, Feb 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.

Conceptualizing Knowledge and Information Sharing in Transnational Knowledge Networks

ICEGOV2010, Oct 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 egovernment 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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Stewardship and Usefulness: Policy Principles for Information-based Transparency

Government Information Quarterly, Volume 27, Issue 4, Pages 377-383., Oct 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.

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

Electronic Government: Lecture Notes in Computer Science , M.A. Wimmer et al. (Eds.): , EGOV 2010, LNCS 6228, pp. 50–60, Aug 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.

Information and Transparency: Learning from Recovery Act Reporting Experiences.

(Forthcoming) Proceedings of the Eleventh Annual International Conference on Digital Government Research: (dg.o 2010), May 2010, pp.1-10

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.

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

3rd International Conference on Theory and Practice of Electronic Governance (ICEGOV2009), Bogotá, Colombia, Nov 10 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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Information Sharing at National Borders: Extending the Utility of Border Theory

Proceedings of the 42nd Hawaii International Conference on System Sciences - 2009, Feb 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.

Collaborative Governance and Cross-Boundary Information Sharing: Envisioning a Networked and IT-Enabled Public Administration

Paper prepared for presentation at the Minnowbrook III Conference, Lake Placid, New York, September 5-7, 2008, Sep 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.

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

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

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

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Challenges And Strategies for Conducting International Public Management Research

Administration & Society, Vol. 38, No. 5, Nov 2006, pp 596-622

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.

Measuring Return on Government IT Investments

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

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

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

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

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

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

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

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

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

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

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

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

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Data

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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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.

Modeling the social and technical processes of interorganizational information integration

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

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

Designing electronic government information access programs: a holistic approach

Government Information Quarterly, Dec 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.

Understanding New Models of Collaboration for Delivering Government Services

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

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

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

Syracuse Law Review, Volume 52, Number 4, Dec 2002, 1243-1251

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

Implications of Legal and Organizational Issues for Urban Digital Government Development

Government Information Quarterly, Volume 18, Oct 2001, 269-278

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

Realizing the Promise of Digital Government

IMP Magazine, Oct 2000

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

Working Papers (4)

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

Mar 2008

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

A Multi-Dimensional Approach to Digital Government Capability Assessment

Mar 2008

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

Examining Digital Government Publication Trends

Mar 2008

The purpose of this study was to assess the publishing patterns of digital government (DG) research in top scholarly journals in the fields of public administration (PA), public policy (PP), and management information

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

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

Mar 2008

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

Issue Briefs (5)

The IoT Challenge for Local Governments as Data Stewards

October 2016

The ‘Internet of Things,’ (IoT) is all around us, every day and everywhere. The uses across industries and sectors are seemingly endless and increasingly, local governments are taking notice and beginning to explore how they too might benefit. The big question local governments need to be asking themselves, is “are we prepared to steward the public’s data in the context of IoT?” While there are some exceptions, we suspect that in many cases, the answer to that question is “no.” Technology has evolved faster than the organizations trying to use them, and public policies lag farther still behind organizational change. All governments considering the IoT, in particular local governments who are already struggling with data stewardship responsibilities, should carefully consider three issues.

3-1-1 for Smarter Governments

Fri, 14 Sep 2012

Cities across the U.S. are joining in a global movement to improve the quality of their decision making and planning through increased access to data and by integrating collaborative approaches to making that data more accessible to government officials as well as the public. In many larger cities, 311 service centers are becoming a core driver to building capabilities for service integration. Since the first 311 hotline launched in 1996 in the City of Baltimore, 311 service centers have rapidly spread across the country. 311 systems are providing quick and easy access to non-emergency municipal services and information through a single, consolidated channel that extends from the three-digit toll-free dial number (3-1-1) to any possible means that people can use to communicate with their municipal government; email, text messaging, social media, and more recently smart phone applications.

Government in a Mobile World

Fri, 12 Aug 2011

Government services, staff, and development efforts will be increasingly mobile in coming years as devices and applications continue to proliferate at an astounding rate. Industry experts stress how quickly the change is coming. The usual concerns that come with any technology innovation also accompany the mobile world: security, accessibility, privacy, development, deployment. As with any technology, mobile brings its own unique characteristics to these concerns. While critical for government, the single most important fact is that developments in the mobile world will directly impact nearly every aspect of government operations including delivery of services, citizen engagement, allocation of IT resources, staff support, and training.

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Governance: The Value of a Custom Fit

Wed, 26 Aug 2009

Reduce costs, increase transparency and improve service quality: these goals are on the minds of chief information officers (CIOs) everywhere. Consolidation, centralization, and integration are recognized as strategies for achieving these goals, but these strategies require new information technology (IT) governance capability for making state-wide coordinated information technology decisions.

Opening Government with Information

Mon, 01 Jun 2009

Open government is grounded in the belief that access to government information is essential to the functioning of democracy. In the United States, information-based strategies to promote open government began with the Constitutional rights to free speech and a free press, and later extended to public meetings laws that require government to conduct its business in open venues. In the 1960s, information-based strategies such as freedom of information laws further established the public's right to know and set the rules for gaining access to most government records. Efforts to broadly open government information began in the 1990s with the introduction of electronic government initiatives that turned the focus toward creating electronic access programs, electronic records programs, and thousands of government Web sites.

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