Government Information Sharing: A Planning Toolkit
Sep 2013
Government enterprises face many performance challenges that can be addressed more successfully through better information-sharing initiatives. Regardless of the size and complexity of these initiatives, they are all made less challenging when participating organizations have a joint action plan that outlines what information sharing is necessary to be successful and what investments in capability must be made to close the gaps between capability required and capability available. Decisions to invest in information-sharing initiatives must be grounded in such an action plan. This toolkit is designed for government professionals tasked with planning and implementing initiatives that rely on effective information-sharing. It provides a process for assessing where capabilities for information-sharing exist and where they must be developed to achieve targeted goals. Assessment results provide a basis for action planning to fill capability gaps.

Socioeconomic Benefits of Adding NASA Satellite Data to AirNow
Dec 2013
This report presents the results from a study that evaluated the socio-economic and financial benefits of adding NASA satellite data to AirNow. The benefits were evaluated using two approaches: 1) Face-to-face interviews in three case study locations (Denver, Colorado; Atlanta, Georgia; and Kansas City, Missouri) to assess the public value or community-level benefits and 2) Analysis of cost savings of using satellite data instead of installing new monitors to provide air quality information for public health decisions to populations in currently unmonitored locations. This report was prepared by CTG and STI for the US Environmental Protection Agency’s Office of Air Quality Planning and Standards.

Air Quality Data Use, Issues, and Value in Colorado
Dec 2013
This case describes the air quality conditions and related programs and issues centered in the area around Denver, Colorado, including an urban corridor from Ft. Collins in the north to Pueblo in the south. It is part of a larger study to understand how air quality information is currently used at the community level and to assess the potential benefits of enhancing air quality monitoring data from ground sensor networks with data gathered by satellites.

Air Quality Data Use, Issues, and Value in Georgia
Dec 2013
This case describes the air quality conditions and related programs and issues centered in the area around Atlanta, Georgia. It is part of a larger study to understand how air quality information is currently used at the community level and to assess the potential benefits of enhancing air quality monitoring data from ground sensor networks with data gathered by satellites.

Air Quality Data Use, Issues, and Value in Missouri
Dec 2013
This case describes the air quality conditions and related programs and issues centered in the area around Kansas City, Missouri. It is part of a larger study to understand how air quality information is currently used at the
community level and to assess the potential benefits of enhancing air quality monitoring data from ground sensor networks with data gathered by satellites.

Journal Articles and Conference Papers (5)

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 disclosure is at the heart of transparency, simple disclosure does not begin to 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, defined in 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. We found that a country's level of democratization and its level of budget document disclosure was consistently related to the release of qualitatively better budget content, qualitatively better accountability content and the involvement of the Supreme Audit Authority with the public. However, neither of these factors, or any other, was related to the tendency to engage in general public participation processes related to the budget.

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 data has expanded to wider environments 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 theory uses 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 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.