Electronic/Digital Government Innovation, and Publishing Trends with IT

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INTRODUCTION

With scientific achievement and technological advancement, "American society is poised for a radical shift in the manner in which individuals learn and work, conduct their business, and are entertained and informed, arising from the innovation of new information technologies" (Schorr & Stolfo, 1998, p. 15). One of the significant innovations in information technology in this digital age has been the creation and ongoing development of the Internet: The Internet increases communication flexibility while reducing cost by permitting the exchange of large amounts of data instantaneously regardless of geographic distance (McNeal, Tolbert, Mossberger, & Dotterweich, 2003). Internet technology has changed rules about how information is managed, collected, and disseminated in commercial, government, and private domains. The Federal Government is increasing the reliability and efficiency of information services and resources provided to the public since the development of Internet technology as follows (Aldrich, Bertot, & McClure, 2000):

From the initial steps to establish the Internet in the late 1960s (originally ARPANET) to the establishment of the National Information Infrastructure (NII) and National Performance Review (NPR) initiatives in 1993, the federal government has adapted progressive computer and telecommunication technologies both operationally and in policy to harness computing power to improve government performance and enhance citizen access to government and other information services and resources. (p. 349)

BACKGROUND

For over one hundred years, the U.S. government agencies have collected and provided data and information (such as statutes and regulations, court decisions, votes by Congress, and the records of hearings) for citizens. For making government more convenient and accessible, during the 1980s, federal information dissemination began a transition to significant use of electronic formats (Notess, 1998). "Information technology, already an essential part of government operations, will continue to be vitally important to administration, decision making, and direct service delivery" (Dawes, Bloniarz, Kelly, & Fletcher, 1999, p. 6). As Coglianese (2004) confirms, information technology holds the potential for improving the process by which government makes regulatory decisions effecting vital aspects of society and the economy.

Digital government, however, is not just about using Web-based technology to deliver services, or converting paper-based processes into electronic ones. Digital government is a fundamental shift in government culture, allowing those interested in public policy and government to respond much more quickly ("What is digital," Department of Information Service [DIS], 2003). The DIS defines digital government in five ways: 1) replacing old bureaucratic service lines with accessible information and service, available 24-hours a day, directly from the desktop, using powerful new technologies such as digital signatures and electronic forms; 2) offering a "one-stop-shop" to many government services through the state's Internet Portal Access Washington; 3) making the process of accessing government services immediate, simple, seamless and intuitive; 4) reducing paperwork and its costs within government in order to move funds into direct delivery of services; and 5) improving service delivery to all segments of the U.S. population by reducing traditional counter lines with those accessing government services through the Internet. Specifically, digital government transforms government activities in two ways: 1) by improving service delivery and associated costs; and 2) by enhancing communication between citizens and government (McNeal, et al., 2003).

DIGITAL GOVERNMENT INNOVATIONS AND CRITICAL ISSUES

Digital Government Initiatives

The government is a dynamic mixture of structures and functions; the government's following six digital initiatives are complex efforts intended to use new technologies to support a transformation in the effectiveness and efficiency of the government (Pardo, 2000):

1. **Citizen access to government:** includes establishing mechanisms that deliver information based on the customer's perspective rather than a functional perspective.
2. **Facilitating compliance with rule**s: provides electronic access to services that facilitate compliance with a set of rules or regulations (e.g., driver's license renewal, hunting and fishing licenses, and business permits).
3. **Citizen access to personal benefits:** electronic access to citizens' personal benefits, for example, online applications for public assistance and workers' compensation.
4. **Procurement including bidding, purchasing, and payment:** procurement applications allow government agencies to reap the benefits being realized in the private sector through electronic commerce applications.
5. **Government-to-government information and service integration:** integrating service delivery programs across government agencies and between levels of government require electronic information sharing and integration.
6. **Citizen participation:** online democracy includes access to elected officials, discussion forums, "town meeting," voter registration, and ultimately online voting (and this particular one must face issues of the digital divide and security). (pp. 3-4)

Three Aspects of Digital Government

Digital government enables constituents to access information and services from home, which reduces traffic flow, and improves the environment. There are at least three distinct aspects of digital government: 1) information dissemination, 2) interactive service delivery, and 3) online monetary transactions. Atkinson and Ulevich (2000) suggest what government policy makers should be doing in each of these areas (see Table 1). The authors further point out: 1) most applications still focus on information dissemination from the government to user but several agencies are beginning to combine resources to better carry out tasks, record transactions, and benefit the consumer; 2) many agencies allow individuals to obtain

Table 1. A summary of what the government should be doing with information dissemination

• Developing enterprise-wide information architecture. • Implement a standardized information tagging system. • Create an entryway/portal to government services. • Expand the amount of information accessible on searchable databases. • Use "information on request" to provide people with government information. • Develop "expert systems" to access information. • Make the Web the first place to put information, not the last. • Measure customer satisfaction. (pp. 17-19)
Interactive service delivery
• Expand and standardize the number of applications for online forms. • Whenever possible, use Web-based technology. • Online forms should use shared information about the submitter. • Integrate form (putting form online is one thing, streamlining and consolidating information is another). • Focus on intergovernmental solutions. (pp. 20-21)
Online monetary transactions
• Use EFT in all monetary transactions. • Implement the use of electronic checks. • Develop government-wide electronic procurement systems. • Make it easier for citizens and business to directly file their taxes online. • Attach digital signature functions. (pp. 22-23)