



Chapter X

IT Innovation in Local Government: Theory, Issues, and Strategies

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Abstract

We examine the adoption of information technology within local governments in the United States. The social and technical factors that impact the process of technological innovation are discussed in reference to the adoption of advanced electronic government (e-government) technologies in local government. In particular, we discuss how the adoption of IT, and e-government, is influenced by the local government's motivations to innovate, technology characteristics, available resources, and stakeholder support. We then discuss several strategies that may address these factors. We argue that local governments should seek to formally assess the need to adopt e-government technologies, develop new funding strategies, and develop a mix of in-house and contracted IT services. While local governments have aggregately adopted advanced transaction-based forms of e-government at a lower rate than state and federal governments, it is our contention that local governments are merely reacting to innovation factors within their social and technical environments.

Introduction

Within the governmental framework of the United States, it can legitimately be argued that local governments play a far more prevalent role in the day-to-day existence of both individual citizens and private and nonprofit organizations than do state and federal governments. After all, a simple assessment of the numbers reveals that local governments outnumber state and federal governments 87,586 to 51 (U.S. Census Bureau, 2002). In addition, many citizens and organizations are simultaneously subject to a diverse array of local government jurisdictions and authorities, such as city, county, or special-district authorities. Furthermore, local governments play a crucial role in the provision of key public services, such as education, community development, public health activities, public utilities, solid-waste removal, law enforcement, and public safety.

Given the critical services that local governments have traditionally provided, it is not surprising that, like other public institutions, they have long employed information technology as a means to improve internal operations in the production of those services. If we take a systems perspective, we can define IT broadly as we might any “computer-based information system [which is an] information system that requires hardware, software, databases, telecommunications, procedures, and people to accomplish goals” (Stair, 1992, p. 27). Employing this broad definition, it is obvious that the use of IT is necessary for even the most ordinary of activities undertaken by local governments. For example, examinations of local governments in the United States indicate that there has been a growing trend toward adoption of IT within local government over the past 25 years and that today virtually all make use of IT to one extent or another (Kraemer & Norris, 1994; Norris, 2003). In fact, a 1997 survey of city and county governments carried out by the International City/County Management Association (ICMA, 1997) indicated that only 3% of respondents did not use computers of some kind to support operations.

As new forms of IT became available and adopted within society, local governments learned new ways of employing the technology to achieve their own institutional goals. For instance, during the 1970s and 1980s, much attention was given to the adoption and impact of mainframe and then personal computers on the operations and internal environment of local governments (Kraemer, Dutton, & Northrop, 1981; Kraemer & Norris, 1994; Norris & Kraemer, 1996). By the mid-1990s, the increasingly widespread use of distributed networks, such as the Internet and World Wide Web (WWW), began to shift the focus toward how public-sector organizations could harness this new form of IT to deliver information and services directly to the public. This new focus on electronic government, or e-government, reoriented the focus on how IT could be used by broader government reform initiatives to have agencies provide programmatic information and services to citizens and other stakeholders (Kraemer & King, 2003; Watson & Mundy, 2001).¹

Local governments have quickly adopted at least rudimentary aspects of e-government. As indicated in Table 1, the U.S. Census reported in 2002 that 45.1% of counties, 31.1% of cities, 13.4% of townships, 17.8% of special districts, and 64.3% of school districts responding indicated that they provided information regarding their central activities via a Web site. Similarly, 54.1% of counties, 40.6% cities, 21.2% of townships, 34.6% of special districts, and 73.7% of school districts indicated that they provided a means for the public to communicate or transact business by use of the Internet or another computer-based

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