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Chapter II

Information Economy and Geospatial Information

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Introduction

The recent socioeconomic trends, convergence of telecommunication technologies and the emergence of information as an integral component of the contemporary economy, have had significant effects on individuals and on wider social groups in the population. The current information node infrastructure of the telecommunications industry, which has facilitated that convergence of the telecommunications technology, is comprised of a variety of links. These links include data clearinghouses, data providers, and data warehouses, which themselves combine to form complex information networks as well as individual links, or single participants. All of these links affect how information flows across the network. Libraries, as participants in the information network infrastructure, are well suited to affect the nature of data processes in the current information economy.

Although the framework of the information economy may have been built by technological innovations and capital investments, there are cultural and political factors about the social milieu in which information is processed that affect how

individuals participate in the economy. The composition of the information networks creates a variety of challenges to the successful searching, discovery, and mining of data for users in a variety of situations. Libraries can facilitate the interactions of individuals with different types of information that are integral to successful participation in the information economy. A key informational component of the information economy is how libraries can facilitate participation of their users with geospatial information.

This chapter will explore different socioeconomic aspects of the information economy and the role of libraries. The development of geographic information systems, the importance of "value added" services and an examination of how information is being increasingly commoditized is also included. Public aspects of geospatial information, such as government-produced GIS, will be discussed. How libraries can play a role in facilitating some of the social aspects of the distribution of the information economy, such as the digital divide, will also be examined.

Role of Information in Contemporary Economy

In the information economy, many private sector firms and government agencies have become consolidated around a framework of telecommunication networks and related information technologies. However, integrating communications and information technologies into their organizations have affected organizational processes, including production, distribution, and administration of products and services (Fincham, 2006; Fors & Moreno, 2002; Vyhmeister, Mondelo, & Novella, 2006; Xu, Wang, Luo, & Shi, 2006). Researchers have noted that organizational processes in both the public and private sectors have become characterized by applications, such as electronic data exchange, distributed databases, computer-based communication, and client server computing (Bieberstein, Bose, Walker, & Lynch, 2005; Pilkington & Fitzgerald, 2006; Shah & Mehta, 1998; Strnadl, 2006; Versteeg & Bouwman, 2006). Other researchers have indicated that geographic concepts, such as space and location, are significant factors in the distribution of data as it flows between individuals and organizations across communication networks, therefore, the use of geographic information systems in the facilitating and analysis of data has also increased greatly (Grubesic & Murray, 2005; Malecki, 2002; Van Gorp, Maitland, & Hanekop, 2006; Warf & Grimes, 1997; Zook, 2006)

The development and integration of geospatial information in a variety of administrative, production, and service functions within organizations in both the public and private sectors can have an effect on the role that libraries play in the information economy. The geospatial information that is used by individuals and organizations in the information economy is often produced by a mix of private developers and government agencies. The data used by geographers and geographic information