

# Book Reviews

Gregory H. Leazer, Editor

***Information Services for Innovative Organizations.*** By Carmel Maguire, Edward J. Kazlauskas, and Anthony D. Weir. San Diego: Academic Pr., 1994. 319p. (ISBN 0-12-465030-9).

Information technology facilitates the easy acquisition and distribution of large amounts of information. This makes the *acquisition* and *management* of information a problem in many disciplines. Strategies for framing or pursuing solutions to information service problems might be more readily found in a discipline that is different from the one in which the problems exist. Much has been written in the field of library science about information services and the degree to which they can help meet the needs of information seekers. How can knowledge about information services be transferred and diffused into technology-enabled organizations to facilitate change while minimizing reinvention?

*Information Services for Innovative Organizations* is a timely presentation that addresses this question by illustrating the supporting roles that information services can play in organizations that must innovate. At first glance, the book might appear oriented towards the reader concerned with corporate innovation. There are many references to the business literature, largely because much of what has been written about innovation rests in the business domain. However, much is borrowed from other domains such as technology and science policy, economics, communications, and information technology. Not only is this interesting, but it is consistent with the tenor of the book that the glue for bonding information services and innovation is derived from disciplines other than business and library

science. Though this is the case, seldom does the discussion in this text stray too far from these foci. The book is dense, drawing on many perspectives to illustrate how these two topics interrelate, and the authors do a superb job of maintaining the flow of their presentation. This is not an easy task given that there are multiple definitions for information and innovation and many ways to associate them.

In the first chapter, innovation is defined and presented from historical, political, economic, and management perspectives. In particular, the authors highlight the multistage model of innovation by Roberts and Frohman (1978) that describes the interaction between technology and the marketplace and that is characterized by input/output behavior and feedback. Information is explicitly a central element in this model, and it's easy to see why it is referred to later in the final chapter. Next is a discussion that defines information and information services and includes economic and social perspectives. Information is mostly illustrated as the output of one or more information services that inform innovative processes. Last of all, information and innovation are connected, previewing the remaining five chapters.

Innovation and information services are explored separately in the second chapter. Innovation is discussed in significant detail, and ways in which it is perceived and addressed within organizations are presented. Outlined, among other things, are Drucker's (1985) seven signals of change which, from an entrepreneurial perspective, denote opportunity for innovation. As the entrepreneurial and organizational themes of innovation are developed, information seeds the discussion. At

various checkpoints throughout the chapter (and the book), the concepts of information and information services always provide the context for examining innovation. Technology themes are also present throughout the explorations of innovation and information, and the role of technology as a catalyst is often presented.

The third chapter introduces information services as a means to acquire and create information within an organization. Information services are traditionally viewed from the perspective of libraries, but in this book, in a refreshing departure, they are generalized (along with the appropriate lexicon) to apply to modern organizations that are responsible for and dependent upon information. Evidently, the authors believe that this point is *fundamental* to their thesis and that information service functions need to be part of *every* organization that wishes to respond to change. The case for information being at the center of change is further argued in their outline of information systems, technology, sources, resources, products, services, and goods. The tone of the discussion is economic, and this makes sense: value is often fiscally determined. I agree with this perspective in that, for many organizations, the impetus to develop information services (or anything new) must be preceded by added value and cost benefit. The link between information and economics is fundamental when an organization is being downsized, rightsized, re-engineered, or otherwise changed.

The fourth chapter deals with the sources of information needed to support innovation. The theme here is information management, and a rather nifty model for categorizing information is presented as an information-sources matrix, with dimensions of origin of information (internal and external), form of information (formal and informal), and stage of innovation (awareness, interest, evaluation, trial, and adoption). The result is a taxonomy of information sources related to innovation. These sources might provide bases for discussions of information needs that could result in rationales for developing information services within organizations. The remainder of the chap-

ter expands on these ideas, mostly along the dimensions of origin and form, and includes a detailed case example.

The pace slows somewhat in the fifth chapter as the authors provide a historical and functional review of information technology: computer hardware, software, networks, and telecommunications. This chapter might have appeared at the beginning of the book, but its position here reestablishes the focus on information services, not information technology. Two-thirds of the way through, the discussion shifts back to information services and innovation. The reader is presented with a point of view that is human centered as well as organization centered and puts the previous review of technology into context. The chapter concludes with a section that describes several broad trends that have resulted from advances in technology and science, including content, interoperability, disintermediation, globalization, convergence, entropy, "technostress," outsourcing, information transfer, and end-user computing. These trends are buzzwords that appear in the popular media, but they are also important terms that relate people, information, and organizations in the scholarly and trade literature.

The sixth and final chapter of the book attempts to coalesce many of the ideas and concepts presented so far into several sets of propositions and design principles for the creation of information services that can support innovative organizations. While there might be an urge to consider them as recipes, they serve more as guidelines based on the authors' examination in previous chapters of innovation, organizations, technological change, information user behavior, and information services. The propositions and design principles provide several points of departure that will help a current or budding change agent design information services that support innovation and are themselves innovative.

This very well written book offers practical perspectives on information services and ways in which they might transform organizations. It takes up an old and enduring notion that information is

the basis for innovation. An information service, as the authors suggest, is an important element of any plan to manage change. But change in organizations is sometimes slow and, because people are involved, often difficult. For this reason, there are two points that the book could have stressed further and thus increased its utility to change practitioners and professionals.

First, people are the innovators in organizational transformation processes. While the technology review of chapter 5 was useful, this chapter was an excellent place to explore various *sociocultural* themes of information services in innovative organizations. Though social and cultural issues appear throughout the text, they might have been introduced in the second section of chapter 1, where the various perspectives of innovation are discussed and detailed. Maybe sociocultural themes are woven too tightly with the existing material to unravel into a separate chapter or section, but it would have been interesting to see the result. Pointers to the information technology literature could have provided a sufficient review without loss of continuity.

Second, because the book *itself* is innovative, implementing the design principles or adopting the propositions from chapter 6 might be difficult to achieve in some organizations. Some who wish to use these ideas might find resistance in moving from awareness to adoption of these concepts. The information sources matrix of chapter 4 would have been a useful tool for illustrating how the principles and propositions could be introduced to an organization that seeks to be innovative. This reviewer would have benefited from an illustration of how the principles and propositions could be put into practice using some of the strategies suggested. Maybe other readers would benefit similarly. Nevertheless, this book is a great addition to the Academic Press Library and Information Science Series. I sincerely hope that it is not that last that moves library and information science knowledge into professional domains that are constantly being redefined by the rapid evolution and deployment of infor-

mation technology.—Anthony B. Maddox, *Department of Library and Information Science, University of California, Los Angeles.*

#### WORKS CITED

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- Drucker, P. F. 1985. *Innovation and entrepreneurship: Practice and principles*. London: Butterworth-Heinemann.

**Using Subject Headings for Online Retrieval: Theory, Practice, and Potential.** By Karen Markey Drabenstott and Diane Vizine-Goetz. San Diego: Academic Pr., 1994. 365p. (ISBN 0-12-221570-2). LC 93-42568.

**Enhancing a New Design for Subject Access to Online Catalogs.** By Karen M. Drabenstott, with the research assistance of Celeste M. Burman and Marjorie S. Weller. Ann Arbor: Univ. of Michigan, School of Library and Information Studies, Nov. 1994. 162p.

**Testing a New Design for Subject Access to Online Catalogs.** By Karen M. Drabenstott and Marjorie S. Weller, with the research assistance of Jeffrey M. Holden. Ann Arbor: Univ. of Michigan, School of Library and Information Studies, Aug. 1995. 370p.

Karen Drabenstott is the most prolific researcher of *Library of Congress Subject Headings (LCSH)*. *Using Subject Headings for Online Retrieval* synthesizes various studies that she has published, often jointly with other researchers.

The book begins with an introduction to *LCSH*. The intended audience might be library systems programmers who have not studied cataloging. The assumed prior knowledge of the reader is not defined, but the explanation of syndetic structure is inadequate for novices: the codes are defined, but the semantic relationships are not presented clearly.

Chapter 2 provides a detailed description of machine-readable *LCSH*. Experienced catalogers can learn much here about the coding of subject authority rec-