Introduction

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IT IS ALMOST A PLATITUDE TO STATE that the traditional paradigm of librarianship is rapidly changing. While libraries once fulfilled their clients' information needs with resources owned and housed within the four walls of a building, patron needs are increasingly met through various mixtures of ownership and access, print and electronic resources, and purchasing and licensing. A clear trend away from the purchase and ownership of print materials toward licensing access to electronic resources is evident, but the ultimate outcome remains uncertain. These changes, occurring at an accelerating pace, offer both challenges and opportunities for both library practitioners and library and information science educators. Such terms as "the virtual library," "the digital library," and "the electronic library," although often amorphous and undefined, have become buzzwords in the profession.

Collection development has become exponentially more complex due to the gradual emergence over the last one and one-half to two decades of new technologies and formats including, but not limited to, CD-ROM, electronic serials, electronic books, the Internet, and the Word Wide Web. Librarians once faced a simple journal management dichotomy: to subscribe or not to subscribe. Now there are at least four choices: a print subscription only, an electronic subscription only, both electronic and print subscriptions, or reliance on ILL/commercial document delivery instead of subscription. The existence of full-text aggregators further complicates the decision-making process. In a similar vein, the intellectual entity known

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as a "book" is now available as print on paper, as a microform, as an audio tape, as a CD-ROM, and through a Web-based interface or special device—e.g., the Rocket eBook. Other examples of multiple formats adding to the challenge of collection development could be cited.

This issue focuses on collection development and management in the rapidly emerging electronic environment. It addresses questions such as:

- What historical developments during the last two decades led us to the current environment?
- Are traditional collecting and cataloging methods still applicable in an electronic era?
- What selection criteria can be used for electronic resources?
- To what extent are these criteria new, the same, or modified forms of those for the selection of print resources?
- How do electronic resources impact the collection management of print materials?
- How is collection development staffing being influenced by electronic resources?
- What will the future bring?

A wide variety of specific topics is also covered in this *Library Trends* issue, including the World Wide Web, CD-ROMs, electronic journals, electronic books, digitization of traditional resources, cooperative collection development, consortia, networks, budgeting, collection management education, and the pricing, archiving, and licensing of electronic resources—to name only some of the most important issues.

This *Library Trends* issue is composed of fourteen thoughtful articles, by sixteen authors, possessing solid credentials in librarianship or library and information science education. The authors variously draw on their professional experience, the published literature, and their own research. Several of the articles deal with selection, yet different aspects are covered and divergent viewpoints are presented by each author. This emphasis on selection undoubtedly reflects a number of factors. Selection is the most basic collection development function that constitutes the process's core. Indeed, half a century ago what were then called library schools taught courses on "book selection" rather than "collection development." As the profession is presently in the relatively early stages of dealing with electronic resources, an initial emphasis on the most basic collection development function is to be expected.

Taking a historical approach, Ruth Miller reviews the major trends in collection development and the increasing importance of electronic resources during the last two decades. From 1980 to the present, emphasis shifted: "From building strong local collections for the long term . . . to accessing remote materials for current use." In 1980 "declining financial

resources" and division of the budget between monographs and serials were major issues, while the balance between print and electronic resources and funds for document delivery are now major concerns. Drawing on numerous sources, Miller addresses a wide range of issues, including the serials crisis, access and ownership, electronic books, aggregators, resource sharing, and preservation.

Ann Okerson addresses both the past and the future of online electronic resources. She offers a year-to-year summary of new electronic journals, electronic publishing trends, and technological developments during the 1990s. Archiving, usage, utility, access, and copyright are identified as key issues. Okerson then forecasts that between 2000 and 2005, all significant STM journals will be on the Web, indexing and abstracting services will serve as "gateways to journal content," electronic books will "sweep onto the WWW," archiving solutions "will emerge," and consortia will grow "in power." Okerson concludes the future is likely to be neither "catastrophe" nor "utopia" but "a little more of a muddle and a little less simple."

Curt Holleman discusses whether traditional selection criteria are changing in the electronic era. He contends that quality, library relevancy, aesthetic and technical aspects, and cost "remain the four basic criteria for selection . . . but . . . the meanings of some of these concepts have changed." Holleman concludes there is "little doubt" about library relevancy and technical aspects, but quality and cost are "controversial" and difficult to apply. He believes the latter two criteria lend themselves to a "by the drink" (purchase of individual articles) rather than "the kitchen sink" (purchase of aggregators) approach. TexShare, Academic Press's IDEAL, Project Muse, PEAK, ScienceDirect, LEXIS-NEXIS Academic Universe, and netLibrary are described and integrated into his analysis.

Also writing about selection criteria, Paul Metz believes such traditional criteria as quality, level, and relevance "should predominate" in the selection of electronic resources but cannot "have the stage to themselves." In the electronic era, judgments concerning these criteria are "harder to reach" for a variety of reasons, including the fact that there is no electronic equivalent of ISI's *Journal Citation Reports*. Organizing his essay around California State University's "Principles" for electronic resource acquisition, Metz analyzes the role of pricing, licensing, functionality, and archiving. He concludes: "New information technologies will never make irrelevant the traditional goals and values of collection development, but they have introduced important new elements to decisions about selection and retention."

Beau David Case argues that traditional selection criteria are not applicable to electronic resources in the humanities. After reviewing selection criteria for print resources, published since the late nineteenth century, and for electronic resources, published since the early 1980s, he identifies four broad categories of criteria for electronic resource selection:

price, demand and use; library infrastructure—i.e., hardware, software, furniture, space, and so on—and interface, including functionality and usability. Drawing on his experience as a humanities bibliographer at Ohio State University, Case contends these criteria are "invalid and inappropriate" for humanities electronic texts and "have hindered selection." He concludes that librarians must devise new "flexible" methods for humanities e-text selection.

Web site evaluation criteria are investigated by James H. Sweetland. Criteria from three sources (the Southern California Online Users Group, the University of Georgia, as well as the authors Rettig and LaGuardia) were compared to the criteria mentioned in *Choice* magazine's Web reviews. He found a "lack of consensus" concerning what constitutes a "good" Web site, possibly because of the Web's rapidly changing nature. Sweetland also reported an analysis of Web pages retrieved to answer reference questions that revealed 64 percent of the sites contained no relevant information while one-fourth of the other sites contained incorrect information.

Roberta Astroff explores the evaluation and selection of CD-ROMs containing full-text literary works. After reviewing contemporary trends in literary studies, she addresses such selection criteria as "authoritative editors, important editions, and good production values," while discussing several CD-ROM and online products. Astroff notes that the collection usually contains the original print text, so the CD-ROM version should offer "value-added features"—i.e., sophisticated search capabilities and pop-up boxes with glosses and annotations. After contrasting CD-ROM with Web-based access, she maintains that CD-ROMs are "valuable and affordable." A chart outlining literary and technical CD-ROM selection criteria is appended to her article.

Digitization of traditional resources is addressed by Kristine R. Brancolini. She describes the "Harvard Model," a nine-question decision-making matrix for selecting resources for digitization and evaluates its potential usefulness to other institutions. The major issues covered by the model, such as copyright, potential and actual users, nature of use, relationship to other digital efforts, and so on, are analyzed in terms of their hypothetical applicability to the Indiana University Digital Library Program's digitization of the Frank M. Hohenberger Photograph Collection for the Lilly Library. Brancolini concludes that the Harvard Model is "comprehensive, yet flexible," and provides "an excellent foundation" for local adaptation, but there may be a need for both "simpler" and "more complete" versions.

Janice M. Jaguszewski and Laura K. Probst examine the implications of electronic resources for serials cancellation and remote storage decisions in academic research libraries. The cancellation of electronic journals—an often neglected topic in the voluminous literature on electronic resources—is included in their analysis. Stressing the challenges posed by

an "integrated" print and electronic environment, the authors contend that both traditional criteria—i.e., use, price, duplication, etc.—and new criteria unique to the electronic format, such as vendor competition, consortial agreements, archiving, and so on, come into play. Jaguszewski and Probst conclude that "there are more questions than answers," but more research is needed concerning the use of electronic resources and that use's impact on the print collection.

Dan Hazen analyzes how the electronic era will affect the role of bibliographers. Identifying the 1950s through the 1970s as the "golden age" when "bibliographers ruled the roost," he explores seven factors that have shaped, and will continue to shape, the environment in which bibliographers work: the scholarly communication system, the information marketplace, the library and university as organizations, technological developments, cooperative programs, resources, and peer communities. Hazen concludes that "bibliographers, though no longer exalted, will still be essential."

Glenda A. Thornton explores the impact of electronic resources on collection development, subject selectors, and consortia. She foresees increased cooperative collection development of electronic resources and that consortia "will become even more important," because electronic resources, unlike traditional ones, can easily be shared. However, drawing on Cleveland State University's experience with OhioLink, Thornton believes the local library's autonomy will be diminished. The role of selectors "will change drastically" due to reduced local funds under their control and the fact that electronic resource selection tends to be a "group" rather than an "individual" activity.

Marlene Manoff addresses cataloging as well as collection development issues. She questions the applicability of traditional collection development and cataloging theories and practices to electronic resources on the Internet because these resources are constantly changing and "there is no physical object to describe." A subject-specific Web page may provide superior access than the Dewey or Library of Congress classification systems because it can better deal with interdisciplinary areas, indicate a resource's political perspective, and be tailored to local needs. Manoff concludes that the electronic era presents "an opportunity to rethink and reformulate library collections and access."

Writing from a humanist's perspective, Edward Shreeves analyzes the conflict on academic campuses concerning the role of print versus electronic resources in future libraries as well as society in general, while comparing the conflict's politics and rhetoric to the U.S. "culture wars" of the 1980s and 1990s. While "caught in the middle of an acrimonious debate," collection management librarians can, according to Shreeves, play a central role in mediating the conflict. Due to their allegiance to the collection, they are in a position to point out the present system of scholarly

communication's defects and present "a compelling case for investment in an electronic future."

In the final contribution, Virgil L. P. Blake and Thomas T. Surprenant write about collection management education in library and information science schools. Using Edelman's three-stage hierarchy, they focus on collection development and selection rather than acquisitions. The two authors carefully review the factors influencing library and information science education, the role of collection development in the curriculum, and the impact of new formats. Blake and Surprenant then propose the addition to the curriculum of one or more courses "limited to the parallel universe of electronic resources" that would cover community analysis; electronic publishing and reviewing; and selection, policy, funding, and evaluation issues for electronic resources.

In summary, one is reminded of the famous line sung by Bob Dylan in the 1960s, "The times, they are a changing." No one seems to dispute this point. Yet, within the profession, there is little consensus concerning how things are changing, how fast, what the ultimate outcome will be, or even if there will be an "ultimate outcome"—i.e., whether a stable system will emerge at some point in the foreseeable future or changes in technology and scholarly communication will continue indefinitely.