Introduction

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Libraries have shared resources for many decades through both formal and informal agreements. These agreements have usually been predicated on the use of structured interlibrary loan protocols requiring regular and continuing intervention between the library and the library user. With the advent of electronic catalogs, the development of the Internet, and contractual access to resources provided by commercial vendors, the entire nature of library service, resource provision, and the independent library user are changing radically. Ideally this will decrease the intervention previously required. However, during the developmental phase of these new resources, more assistance may be required by users to navigate the technology and to find what they are actually seeking.

The articles in this issue present a number of the concerns facing libraries and users and provide a variety of insights into the challenges of information selection, acquisition, access, and archiving. The use of external services is increasing as libraries downsize and streamline their personnel resources. Issues of corporate takeovers and the growing concentration of information rights and services in fewer companies have vast implications for the long-term availability of information.

The diffuse and diverse nature of the elements of resource availability and the potential for resource sharing in the present environment complicate an already difficult process. However, the activities of the growing number of consortia are providing new models for ways to simplify and enhance such programs. The components of these programs are developing new alliances among libraries, information providers and
vendors, and the many funding mechanisms being used to support such new services.

The traditional role of collection management and the perceived imperative for resource sharing through formal policy agreements among institutions is being changed significantly by the advent of electronic resources and the capabilities for networking among institutions. Edward Shreeves considers the relevance of cooperative collection development in the digital age and questions the relevance of such a model based on the functions and assumptions of the print age. The elements of successful resource sharing presented by Shreeves encompass the effect of technology on the provision of bibliographic access, the establishment of new delivery mechanisms, and the necessity for leadership and vision that are required for such integrated programs. Cooperative collection development has been of marginal importance in cooperative programs of the past rather than a central prerequisite for effective resource sharing. Shreeves concludes that the digital world is fundamentally changing the role and place of the subject specialist in a way that makes the knowledge of the digital literature the most valuable resource rather than the knowledge of the "objects" of the past or the present.

Trisha Davis sets the legal and technical context in which selection of resources takes place at the local institution, thereby establishing the factors that must also be considered in the larger arena of shared resources. The traditional reputational effects of author, publisher, and producers; content; and format continue to be the central issues for selection of electronic materials. However the additional issues of technology (including access methods and archiving) and licensing are primary considerations in the reality of providing resources to users.

John Barnes's article identifies the traditional role of libraries and their need to maintain these functions despite the changes in technology. He postulates that technology does not change the fundamental role of the library in terms of collecting, accessing, and archiving information. Noting that fundamental change requires a critical mass, Barnes defines the primary steps in the evolution of electronic journal publishing as it moves from print formats to primary provision via electronic means.

Barnes considers that none of the recent or current mechanisms for provision of electronic journals effectively answers the needs of libraries over time, particularly the right to own the information permanently, a condition being rapidly removed from smaller libraries who do not have, and are likely never to have, adequate technological support.

William Potter sets the context for cooperation in the current environment by establishing the construct of resource sharing far beyond physical resources—i.e., by sharing virtual resources via technology. The further development of state and regional consortia is involving many
libraries in a variety of memberships. Such relationships establish the need to balance the various commitments in each group in order to enhance the resources available to the library's users and the exploitation of the specialties within each membership.

Recognizing that such consortia have a variety of elements in common, Potter also notes that the role of "pride of place" is important to the membership as a whole and provides both incentives and recognition within and outside of the membership. He discusses five such consortia and addresses the permutations of the common elements as realized within each one. The elements include the nature of the participating libraries, the primary program of the project, the reasons for formation, funding sources, and the involvement and participation levels of the larger libraries in the group's activities. Specific shared characteristics of all the consortia presented include central authority, the need for a "level playing field in available resources" for local users, expansion beyond public higher education libraries at an early stage of planning, and the macro vision of the electronic library for a broad base of users.

David Kohl's "landmarks" of cooperation in this century include joining a consortium; integrating access to resources through both cataloging and circulation; providing for both physical delivery and virtual access; and finally, integrating collection development into the cooperative program. In evaluating the "communal academic library," he takes OhioLINK as a test of the current realities of resource sharing.

Kohl notes that cooperative collection development is the last step in the formation of a library-shared resources program. His analysis of the realities of trying to establish the "shared collection" in terms of future collection decisions at the local level is a salutary presentation of the "real world" of interinstitutional resource sharing as a planned activity and its integration into collection development.

Resource-sharing programs presume adequate bibliographical apparatus to identify and locate materials which users seek. Clifford Lynch articulates in lucid style the strengths and weaknesses of union catalogs and distributed search, both of which make resource sharing possible. He observes that union catalogs will continue to play a prominent role because centralized implementations make consistent searching/indexing, consolidation of records and performance management possible. In the distributed search model using Z39.50, in the absence of standards for implementation, the differences in the indexing among constituent systems make searching uniformly across systems problematic; consolidation of records is another problem. Linking A&I databases to "content" in electronic format and serial holdings presents additional challenges. Lynch's article serves as a reality check of what is possible technologically in the near future.
Jennifer Younger considers the role of cataloging in the electronic document/object era. She describes the current climate in which the cataloging of electronic resources is in flux as the MARC record format is reconsidered in light of the needs of multidimensional objects. Younger describes the consortia of library and information professionals that are considering the long-term requirements for adequate resource description and identification operating within the context of the traditional library catalog, while recognizing the changing nature of the resources identified. The lack of agreed-upon international standards in the cataloging of traditional materials is exacerbated by the complexities of electronic formats and access mechanisms. Younger's discussion of the specific projects addressing the various aspects of "cataloging" of digital entities provides a needed context for the identification and access of digital materials, whether provided via international, local, or consortial means.

Tona Henderson and Bonnie MacEwan review the Pennsylvania State University experience with integration of electronic resources into the teaching process and the faculty acceptance of the change in delivery format. Noting the need for a "commonality of access" for students and faculty, they consider the relevance of the relationship between library collections and faculty needs for teaching and research. Describing the impact of the electronic format on the process of information presentation in the classroom, they consider copyright and variable ability of faculty in terms of computer literacy and electronic information processing.

Czesław Jan Grycz examines issues of resource sharing in the broader context of scholarly communication. His survey of emerging attitudes among authors, publishers, and librarians as each group responds to problems arising from shifting from paper to electronic media in an austere economic climate illustrates how what appears as solutions to a particular group may actually be counterproductive. The ability of the Internet to provide access to information about resources and to the actual resources themselves is changing the nature of scholarly communication. The ease of e-mail has fostered a closer bond among members of a discipline while eroding their identity with their parent institutions of employment. Issues of copyright, fair use, and piracy remain to be addressed; a viable business model for electronic publishing must be worked out. As we struggle with these issues, Grycz reminds us that, as a nation, we should be cognizant of the information needs of emerging free markets.

Bruce Kingma presents an analysis of document delivery versus resource sharing in the SUNY system and considers the potential versus real savings from shared access, as well as the delivery of scholarly articles and joint collection development. The SUNY experience demonstrates that document delivery is cost effective, while shared collection development yields small savings.
As inadequate funding for current journal costs forces libraries to cut subscriptions, library consortia are considered by many to be cost-saving mechanisms. Kingma notes that the economic situation again brings the basic decision of access versus ownership into the mainstream of library approaches to the provision of information.

Kingma provides an economic model of the fixed and marginal costs of subscriptions and interlibrary lending, developing a break-even cost of ownership versus access. While delivery of titles can be provided at a lower cost within a consortium, in cases of minimal consortial use, document delivery is more immediately cost effective.

Randall Marcinko, an early developer of document delivery services for libraries and individuals, provides an analysis of the document delivery process and the services that must be provided for an effective and economically viable undertaking. Marcinko touches on the important issues of intellectual property rights and corporate takeovers resulting in further concentration of document delivery rights. The detailed description of the elements of the document delivery process provide an important context for libraries as they determine the feasibility of relying on such services for the bulk of their ILL needs. The implementation of electronic document delivery changes the nature of the process in terms of the need for library intervention and again provides a new model of library service.

Marcinko's analysis of the reality in which document delivery, a strategic element of information services, operates in the current technological, economic, and copyright environments provides an unusual opportunity for the reader to consider the process itself. In addition, the implications for library collections over a long period of time and the nature of reliance on external commercial services needs to be considered in relation to the nature of archiving of information.

Furthering the discussion of commercial document suppliers, Chandra Prabha and Elizabeth Marsh present an analysis of current interlibrary requests via OCLC for a twelve-month period and evaluate the potential for the supplying of materials through document delivery. The data confirm that the majority of requests for periodical articles relates to articles which have been published in the last five years with 95 percent of the requests from the last twenty-five years.

Prabha and Marsh also report that nearly 50 percent of articles requested were from periodicals that began publication in the last twenty years. Can it be that this reflects the very tight library acquisition budgets of the last two decades when libraries were able to maintain long-held subscriptions only by declining to add new titles and by decreasing monograph expenditures? This article also raises interesting questions about the function of libraries in conjunction with the current role of document
suppliers, particularly in light of their ability to provide 92 percent of the articles requested.

Perhaps the most interesting issue raised in this article, however, is the reliance of document suppliers on the existence of research libraries' collections. This article and that of Marcinko both make clear the explicit relationship between the suppliers and the traditional research library. The potential for increasing interdependence will be directly influenced by the development of electronic journals and the evolution of both the services and the nature of the collections which will have a considerable impact on the information industry.

Together these articles present strategic aspects of the current environment in resource sharing, with increasing interdependence between libraries and, perhaps more uneasily, dependence on external commercial resources for the provision of information. The legal issues of intellectual property rights and contract negotiations and their attendant limitations increasingly restrict the rights of those seeking information.

While the immediacy of information provision has certainly improved, the long-term health of the library and of the cultural record is being challenged as information rights concentrate in the hands of fewer producers, and access to information is ceded to commercial organizations. This is of critical importance since the economic viability of any commercial organization has to be the primary concern of that business. As libraries, and the academic community in particular, become ever more dependent on this process, the archiving of information becomes an even greater strategic issue that must be addressed by the academic community.

The increased availability of resources via the World Wide Web is fascinating, but the authority provided via the publishing process is becoming less prevalent. The need to educate users to the nature of the information they are using is becoming more and more important. This is an exciting time for libraries and their constituents, and it is also a time for the library community to concentrate its efforts not only on the short-term response to immediate needs but also on archival electronic information for long-term societal needs.