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DRANET: An Information Network*

ABSTRACT

Data Research, a library automation firm, is also a database provider and the implementors and administrators of a nationwide library network called DRANET. Mounted on this network are the Library of Congress machine-readable cataloging (LCMARC) database (some 4 million records), Information Access Co. (IAC) indexes, and other library bibliographic files. LCMARC authority files and full text for selected serials will be added soon.

INTRODUCTION

DRANET was originally a bibliographic network, but it is rapidly changing in nature and is becoming, instead, an information network. This network links every type of library from grade schools to community colleges to four-year colleges and research libraries. Furthermore, DRANET is a node on Internet. Because of this, late last year we took a step that generated some considerable interest among libraries.

In September 1990, we provided free access to the Library of Congress machine-readable cataloging (LCMARC) database to all institutions, worldwide, on the Internet. That step caused many to stop and take

*This paper summarizes comments made by the author as part of a panel discussion titled “The Role of Traditional Library Networks.”
notice. My phone rang frequently, followed by the question, "Why are you doing that—why aren't you charging for this service?" My answer was because it was an experiment—an experiment designed to see what kind of demand there was and what else was needed to support the database.

Although access was limited, we have seen anywhere from a high of 1,000 searches a month to a low of 700. Access has been from the United States, Canada, Japan, Australia, Germany, France, Norway, and Sweden—although my personal favorite was when the Library of Congress logged in to look at their own database! Wondering if the international viewing of full MARC records was piquing their interest, we were inclined to contact our lawyers and begin preparing our defense. Alas, such action has not been necessary.

NETWORKS' EFFECT ON TRADITIONAL BIBLIOGRAPHIC SERVICES

This experiment has certainly provided us with some interesting observations about how networks will affect the so-called "traditional bibliographic services." Specifically, we see the following needs emerging:

1. Traditional search capabilities will not be adequate. The user will want and demand a comprehensive range of search keys as well as expanded and consistent indexing. Although these may seem obvious and even self-evident, we must remember that the users accessing these databases will come far beyond the reach of our logic, training, or documentation. The search capability must pay attention to this fact.

2. Specialization of databases will become a natural outgrowth of networking. This specialization will not be related just to database content but also to the packaging of the information. Integrating the information with graphics, images, and sound will be a major means of differentiation. Database providers (library or vendors) should also specialize in the areas of database expertise and management to provide a further level of specialization. This will help eliminate the duplication of resources that exists on the networks—duplication that results in waste and confusion. Furthermore, this kind of specialization would be a natural outgrowth of cooperative collection development.

3. Until such specialization occurs—undoubtedly something that will take a very long time—we must begin to develop as part of our search capabilities semi-intelligent software that will interrogate the network without constant user interaction. It is absurd for us to expect end-users to navigate the network and to learn the different search
commands and database content. If we do that, users will quickly tire of the mechanisms currently in place and will underutilize the network resource.

4. Implementation and support of standards will help address this problem. Services that do not support Z39.50 and interfaces that do not support Z39.58 will face a slow and painful death. Rather than spending time developing terminal emulation packages, we should devote those resources to the implementation of standards so that the communication is at the process level—where it belongs. Then it will not matter what terminal is used or what interface. Furthermore, one must become involved in the standards process. Those who are not members of National Information Standards Organization (NISO) should be. Standards are the key to networking.

5. Cooperation between utilities is also becoming important. The ability of users to move easily between databases dictates not only the standards compliance just mentioned, but also the entire range of mechanisms that supports easy, transparent, and effective movement.

6. Interlibrary loan (ILL) processes should be revised. The opening of these databases across networks dictates that ILL, the process that has come to be known largely as a backroom behemoth, is not adequate. ILL now moves to the forefront and becomes a user option that must be easily invoked and readily served.

7. Closely coupled to ILL is the need to support delivery processes such as FAX, full-text delivery, and photocopying, particularly with regard to journal articles. Access to the databases on the network only proves that we can help the user quickly identify the work they need—but if we then make the user wait for days or weeks for delivery, we have failed. We must begin moving quickly to ensure that once the work is identified via the network, we use that same network to ensure prompt delivery.

8. We must also deal with all these costs and the need for increased demands on our computing resources. For a business such as Data Research Associates, this is, of course, easy. We charge for the services provided. Many will seek to do this by restriction of access, using policies that are in their own way the very equivalent of charging. Many of you have said, "We can't afford to do this," but isn't that the same as denying access? In that context, access with charge structures should be examined. These structures should compensate the library adequately for also providing access to those who are less technically and financially capable. But the fact remains that one must learn how to charge for services.

It is not acceptable to simply take a budget cut—one must look for ways to recover that lost revenue, for example, by offering library
training as a mandatory course with credit-hour charges being credited to the library like any other department. If we can charge laboratory fees to make sure we have microscopes, why can't we charge library fees to make sure we have books? If we can charge for photocopies, why can't we charge for computer printouts? Understanding that these things always cost money—is it just a matter of do we do indirect billing or direct billing? If we continue to rely on indirect billing, we leave ourselves open to budget cuts because it is much harder to link indirect costs directly to service provided. A direct charge is in one's best long-term interests. What we really need now is entrepreneurial librarians.

9. We also wonder if we are placing too much hope on the National Research and Education Network (NREN) and if we are overlooking an obvious network that is already in place—OCLC. Should we not consider having OCLC enhance the network services and connect to NREN as a subnet?

CONCLUSION

Answers to these needs are not going to come easily. Although the needs may be rather easily described, the solutions require steps that do not come naturally to libraries. The desire to own materials, to limit access to one's immediate constituency, not to charge for services, and not to cooperate all come as a longstanding tradition in this field. Yet networking isn't paying attention to those traditions; it is forcing us to cooperate or be bypassed.

As providers of an information network, Data Research is paying attention to these needs. Enhanced search capabilities are being implemented on our databases—capabilities that recognize that these databases will be accessed via the Internet, Tymnet, and DRANET and by people who are not necessarily librarians and who do not have a librarian anywhere nearby. We are working on software that automatically interrogates multiple databases for the user. Although we originally mounted a rather traditional database, LCMARC, we are now specializing and mounting databases like the LC authority files in order to support networked authority verification, full-text files that support document delivery, and imaging support.

The issue of pricing is an area where we are making tremendous headway through our partnership with Information Access Co. (IAC). We are offering fixed-rate pricing for citation databases and will soon be offering site licensing of full-text databases. Of course, we have long been known for our ardent advocacy of standards implementation, and we continue that course. We understand that cooperation between
networks and, indeed, the very ability to network are absolutely contingent on standards. We are moving ahead on all of these needs and more because we believe that the networks are the access mechanism for the libraries of tomorrow.