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The Role of the Library in the Micro Age

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THE ROLE OF THE LIBRARY IN THE MICRO AGE

The 1970s is seen as the decade that automated the technical processes in the library. Mainframe computers and minicomputers enable us to automate some of the most tedious tasks such as typing catalog cards, keeping track of circulation records and generating book orders. The 1970s also saw the advent and mastering of searching major reference tools electronically.

The 1980s brings a new development with the age of the microcomputer. Libraries can now do many of their processes with a microcomputer in house. They can create data bases, tailor make bibliographies, generate handouts and issue reports to meet their needs. Home microcomputers have also given rise to home information services. The SOURCE, COMPUSERVE, KNOWLEDGE INDEX, and BRS AFTER DARK bring information sources once found only in libraries to the end user. Programs such as SCI MATE and SEARCHMASTER allow the end user to search data base services without the librarian as the intermediate.

A user subscribing to these services can now look up movie reviews, get the latest weather information, look up an article in an encyclopedia, do a simple bibliographic search, and acquire the articles without leaving the comfort of his home. The microcomputer is certainly changing our processes but what does it mean for our information services?

Many Librarians see this as a threat to the existence of public and perhaps research libraries. They see the information utilities for the appliance computer as competition to their services. They fear the age of electronic information services and instead of taking a leadership role they watch the developments but do not try adapt them to library use.

If librarianship is to survive as a profession, the librarian must take advantage of the electronic techology and incorporate it into the library as part of their routine services. Many routine reference questions can be answered by an electronic source quickly and efficiently. Librarians should be teaching patrons to use SCI MATE and SEARCHMASTER much as we have always taught patrons to use our printed indexes. We must be aware of the electronic sources and be able to advise on and incorporate software as part of our working collections.

This paper will describe the home information services and discuss their implications for library service. It is intended for all levels of librarians and it is hoped it will generate some discussion. The entire presentation will last approximately an hour with the paper taking 30-40 minutes and the rest of the time allotted for questions and discussion of the ideas presented.

THE ROLE OF THE LIBRARY IN THE MICRO AGE

The computer revolution has greatly changed the way we live and do things. In just 38 short years we have gone from Eniac at the University of Pennsylvania to microelectronics in almost every aspect of our lives. The library environment is no exception. While automation was late in coming, once it came it had a tremendous impact on our systems. In the technical processing area automation allowed us to relinquish the mundane chores of searching for cataloging information, the typing of catalog cards and in recent years the necessity of filing at all. Bibliographic searching has allowed us to tailor make bibliographies to meet the needs of our patrons. Word processing has allowed us to produce more handouts, database management programs have streamlined systems and record keeping and the automation of circulation has eliminated much of the manual collection and maintanence of files.

It seems reasonable that this technology would continue to develop to make use of information sources even easier for the end user. Americans love gadgets and when the microcomputer became affordable, it became part of many households and offices. Information services saw this as a new market and began developing services attractive to individuals. The Source, CompuServe, Knowledge Index and BRS After Dark are the most prominent in this field.

THE SOURCE

The Source, produced by Reader's Digest, is a "user friendly" information utility that can be accessed with very little training. Help screens instruct you on features of various data bases and the

manual is simple and easy to follow. The Source uses menu search or for

the more advanced searcher, command level searching and provides access

to approximately 800 different information files. These files include

news items, catalog shopping, travel services, and games. There are

such features as electronic mail, where you can send a document of any

length to another subscriber; POST which is a bulletin board for buying,

selling, and exchanging ideas; and MAILGRAM MESSAGE, which allows the

user to create and transmit Western Union Mailgram messages. Catalog

shopping allows one to purchase items from appliances to books

electronically and have it charged to a credit card. A thirst for the

latest news is quenched with the UPI news wire which brings the most up

to the minute news into your own home. Travel services including

airline schedules and restaurant guides along with a travel club that

enables the user to make reservations and confirm them through SOURCE

MAIL. The Source even makes employment services available through the

Career Network, an online listing of both candidates and jobs in 40

categories.

The Source also has services traditionally thought of as the

library's territory. Management Contents is available with full text

document delivery via telefacsimile or the U.S. mail. The Source also

offers the services of Information on Demand via SOURCE MAIL. IOD does

literature searches and delivers the goods by supplying the documents.

IOD even provides a translation service for foreign patents in French,

German, Spanish, Italian, Russian and Japanese. They also run a current

awareness service tailor made to fit the client's needs.

The Source brings to the end user via his micro games, news,

services, bibliographic retrieval, and document delivery. The end user

need not leave the comfort of his home to access the many services of the Source. All this is availble for the price of a $49.95 start up kit (available at most retail outlets including Sears and Waldenbooks) and connect rates which begin at $7.75 including telecommunications costs.

COMPUSERVE

CompuServe is owned, according to my husband, by H&R Block (they are not admitting it) and is very similar to the Source. CompuServe, like the Source, uses menu or command level searching, which makes it relatively easy to search and efficient to utilize. The information files and services on CompuServe parallel the Source but CompuServe has more emphasis on the investor, with stock reports and financial summaries more widespread. CompuServe has some unique features including "Aunt Nettie" which is the elctronic answer to Dear Abby or Ann Landers. The troubled user of CompuServe simply drops Aunt Nettie a line electronically, and if it is deserving Aunt Nettie gives her answer the following week via CompuServe. The CompuServe world can access the reply by selecting that program. I have an Aunt Nettie column as an example of a CompuServe search on the table. Other features of CompuServe include electronic versions of newsletters for computer users. Through CompuServe one can access the editorials of the Washington Post or the classified ads of the St. Louis Dispatch. The AP newswire, the NOAA weather wire as well as the Academic American Encyclopedia are also available on CompuServe. Other services available are special interest groups for various computer users. Users trade programs for their various machines, sell products and just communicate with one another. CompuServe is also available in starter kits at

retail outlets for $39.95 and connect rates begin at $6. The starter kit includes 5 hours of free time.

Features common to both the Source and CompuServe include the elctronic mail, catalog shopping, and storage in their computer. This service enables the user to access a large mainframe computer to compose programs or just to store large files. There is a monthly storage charge for this. Each service issues publications to the user about the service. Information on demand offers its services on CompuServe as well.

Both the Source and CompuServe are total information utilities. These utilities are much different from the types of data bases we are used to in the library community but they do provide some traditional library services. Bibliographic utilities are also reaching the micro market with data base vendors such as Dialog and BRS producing home versions of the generally complex systems with an eye to giving some of these other information utilities competition.

KNOWLEDGE INDEX

Knowledge Index is Dialog's home version of data base searching. Unlike other services discussed, it is generally a bibliographic utility which is limited to online bibliographic reference and which continues to use boolean logic. Knowledge Index stays away from emphasis on individual files but lumps the files available into subject categories. The logic is simplified as is the language and there is help available on line by simply typing HELP. The term used for searching in Knowledge Index is simply FIND and there is only an and/or operator with no adjacency operator. Data bases available on Knowledge Index are limited

but growing. Some of the familiar data bases are there including Magazine Index, Agricola, Standard & Poor News, Psych Info., but there is also some full text service with the recent addition of Drug Information Full Text. Electronic mail is also coming to Knowledge Index. An excellent manual has been produced to go along with the service and newsletters are issued 3 times a year. Dialog charges a one time fee of $35 to subscribe and a flat rate of $24 a connect hour no matter what data base is used. An added feature of knowledge Index is document delivery for items indexed for a fee of $6.50 a document.

BRS AFTER DARK

BRS After Dark is produced by BRS and is based on the same principles as Knowledge Index. Unlike Knowledge Index it is menu driven to facilitate use by novice searchers. It includes many of the same data bases as Knowledge Index but has a broader coverage. The goal of BRS After Dark is to make all the data bases available on the parent system available here as well. BRS After Dark provides some full text service with 18 journals from the American Chemical Society, the Academic American Encyclopedia, and the Harvard Business Review to name a few. BRS After Dark charges an initial beginner's fee of $75 which includes the manual and password. The fee for data bases ranges from $6 an hour to $25 an hour with a $10 a month minimum required (excludes data bases royalties).

While Knowledge Index and BRS After Dark present a simplified version of their products to the end user, In-Search and Sci-Mate are products that are simplifying the use of the real thing.

IN-SEARCH

In-Search is a program being marketed by Menlo Corporation to make Dialog searching "user friendly." In-Search uses menus to lead the searcher to the appropriate data base for his subject, then provides a worksheet to help the searcher structure the search and leads him through it. The Dialog "Blue Sheets" are online as index cards with the appropriate search information on each card (see display). The work sheet constructs the sets and pop up windows help the searcher find the necessary commands or limits for the search. In-Search allows you to prepare much of your search and clarify it before logging on to Dialog, thus saving the user money. In-Search's built-in help features and detailed explanations facilitate the use of the data base.

In-Search divides the data bases into four broad subject areas - business, government, and news; engineering, mathematics, and physical science; arts, education, and social services; and biology and medicine. Each of the subject categories comes on a separate disk which contains specific information about each data base; i.e., names and contents of subfields, help information etc. In-Search sells for $399 and is updated as necessary to registered users.

SCI-MATE

Sci-Mate produced by Institute for Scientific Information also makes online searching "user friendly" but it is much more than that. Sci-Mate consists of the Personal Data Manager and the Universal Online Searcher. The Personal Data Manager allows the user to create his own data base in any format. The user can create labeled fields within each

record or input full text. Records can be entered directly from the keyboard, from another Sci-Mate file, from a word processor, or from online if you have the companion program. Sci-Mate's Personal Data Manager provides free text searching and reports can be generated to user specifications.

The Universal Online Searcher allows the user to search Dialog, BRS, Medline, SDC, or ISI in one language. The system is menu driven to allow the novice searcher to search all of the systems with little or no training. Sci-Mate is flexible and the Universal Online Searcher allows the end user to search in the system command language if desired. Sci-Mate allows the user to use the workstation as a dumb terminal to search Questel, Source, CompuServe, etc. The Sci-Mate package sells for $880 and includes both programs, the manual and the newsletter Sci-Matters. The programs can be purchased separately with the Personal Data Manager priced at $540 and the Universal Online Searcher at $440.

Computers in general have certainly changed the technical processes in the library and now the microcomputer is quickly changing our information services. The patron no longer has to call the local library for information on hotels from the Hotel Motel Red Book because he can access USROOMS on the source. Children no longer need to use the library to get information out of an up-to-date encyclopia but need only to access the Academic American Encyclopedia online. Researchers can now do their own online searching with the aid of in-Search or Sci-Mate. BRS After Dark and Knowledge Index make bibliographic searching affordable to those who wish to pursue it and Knowledge Index, the Source, and CompuServe even deliver the documents on demand.

Where does that leave the library and librarians? Does this mean that our collections are archiaic and our profession an anachronism? With library schools closing around the country one cannot help wonder about the future of the library as we know it.

Unless we take the leadership role in monitoring these developments we ~~this~~ could very well become an anachronism. In 1876 Melvil Dewey commented in the first issue of the LIBRARY JOURNAL "The school teaches people to read; the library must supply them with information which will serve to educate." We are now rapidly advancing on a new frontier in which levels of accessibility are changing. The means for supplying information is becoming less of that which is immediately available (in the collection) and more of that which must be acquired. Librarians must keep abreast of the developments and be prepared to guide and teach the user about these services. We can no longer think of ourselves as keepers of information but must become facilitators in the flow of information. If a patron wishes to learn how to do bibliographic searches, then we must be prepared to teach him. Training in BIOSIS should be as commonplace as teaching the use of <u>Biological</u> <u>Abstracts</u> and the librarian must be prepared to do both equally as well.

This trend does not signal the end of the intermediate searcher but the beginning of a more challenging role for the librarian. The role will change from one of service to one of facilitator. The simple and less demanding searches will be done by the end users themselves but the more demanding and complex searches will come to the librarian as the information professional. Users will seek the advice of the librarian on matters concerning the flow of information. Library budgets must become less of a "book budget" and more of a resource budget. Money

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must be allocated to allow the library to take advantage of some of the services offered to the end user and provide the information on demand. The end user will then have the choice of buying the article or obtaining it from the library. If the librarian projects the image of information professional then the user will naturally come to the Librarian for advice and stay to obtain the information.

The information is being packaged by private sources but the demand for information will continue to grow. Libraries must realize these services as full partners and consider expenditure for such as part of the normal scheme of things. Librarians must be less identified with the building and collection and more as a body of professionals who can facilitate the access to information. The information utility along with the microcomputer are parts of the growing electronic resources that are here to stay and librarians must recognize and utilize these resources. In the age of electronics, concepts of libraries will have to change. A library can no longer be judged by the size of its collection or the elegance of its building but judgment will be made on the effectiveness and efficiency with which information can be delivered. Librarians will be challenged to market their expertise along with their products and services. We are infact acting as wholesalers for such services as Information on Demand and we should let the public know it. To do this we must be the agressor in offering our information services. In closing, I would like to leave you with a question posed by Susan Crooks in "Libraries in the Year 2000" --
"...the question is not whether libraries can beat other information

providers in utilizing new technoloy to satisfy information needs. The

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question is: What users' needs can libraries uniquely meet in the year

2000?"

I believe that our expertise in providing public access to

information is one need we can meet now if we are willing to meet the

challenge.

INFORMATION UTILITIES

BRS AFTER DARK

Produced by BRS, this service is both a bibliographic service and a full text service. BRS After Dark has 42 data bases available in science, medicine, business, finance, and reference. Full text data bases are also available with such publications as an encyclopedia and 18 journals from the American Chemical Society. BRS After Dark is available 6 p.m. to 4 a.m. weekdays and 6 a.m. to 4 a.m. weekends. There is an initial fee of $75 with a $12 minimum charge per month (excluding data base royalties). Costs of data bases vary beginning at $6 an hour and going to $25 per hour. Electronic mail is available with plans to make all data bases now on the BRS parent service available on the BRS After Dark Service.

KNOWLEDGE INDEX

Produced by Dialog Information Services, this is less an information utility than a bibliographic reference service. Databases include Agricola, ABI/Inform, Inspec, International Software, Microcomputer Index, Standard & Poor's News, ERIC, Engineering Literature Index, GPO Publications Reference File, Magazine Index, Medline, Newsearch, National Newspaper Index, and Psycinfo. Hours of access are 6 p.m. - 5 a.m. Monday - Thursday; 6 p.m. - midnight Friday; 8 a.m. - midnight Saturday; and 3 p.m. - 5 a.m. Sunday/Monday. There is an initial fee of $35 with a $24 an hour connect rate including telecommunications. There are no paper bibliographic products available with this service.

SCI-MATE

Produced by Institute for Scientific Information, Sci-Mate is both a personal data base manager and an on-line searching aid. Sci-Mate is Menu driven and "user-friendly" and allows the user to create and manipulate his own file as well as being an aid to on-line searching. Sci-Mate's Universal Online Searcher enables the user to search Dialog, BRS, Medline, SDC, and ISI in one language. The Menu driven system guides the searcher through the search and is available for a number of microcomputers. A bi-monthly newsletter, Sci-Mate Matters is sent to all customers. The package is $880 but the database manager and the search aid can be purchased separately.

IN-SEARCH

Produced by Menlo Corporation, In-Search is an aid to Dialog searching which endables the user to prepare for a search and do most of the work before logging on to the system. In-Search provides the "bluesheets" electronically and an on-screen worksheet aids the searcher in efficiently structuring a Dialog search. In-search automatically dials Dialog (if you have a smart modem) and logs on. Subcommands for dialog searching appear in a window and allows the searcher to choose what they wish done with the results. All information concerning a search can be stored on a disk for later use. In-Search is available from Menlo Corporation for $400. Periodic updates are sent to registered users to reflect the Dialog Changes.

COMPUSERVE

(formerly MicroNET) is produced by the Personal Computing Division of CompuServe Incorporated. As with the Source it includes a wide variety of information files and services including services such as electronic mail, catalog shopping, news services, and games. CompuServe is available 24 hours a day, 7 days a week. Start up kits for CompuServe are $39.95 which includes 5 hours of connect time and can be purchased at Sears, Radio Shack, Waldenbooks and many other software stores.

       Rates: Prime Time (8 a.m. - 6 p.m.) $12.50 - 300 baud;
                $15.00 - 1200 baud
                Standard Time (6 p.m. - 5 a.m.) $6.00 - 300 baud;
                $12.50 - 1200 baud
                Service between 5 a.m. and 8 a.m. is on an as available
                basis

SOURCE

Produced by Source Telecomputing Corporation, a subsidiary of Reader's Digest, the Source includes databases on education, careers, government, politics, home, leisure, news, sports, science, technology, travel, dining, entertainment, and services such as electronic mail, catalog shopping, and document delivery. Initial fee for the Source is $49.95 and there is a $10 a month minimum. The source is available 24 hours a day.

       Rates: Prime Time (7 a.m. - 6 p.m. weekdays) $20.75 - 300 baud
               $25.72 - 1200 baud
               Standard Time (evenings & weekends) $7.75 - 300 baud;
               $10.75 - 1200 baud

Some prime data bases slightly higher.