The Cleve-net Library Project: An Electronic Mail and Shared Data Network

Douglas Perry

It all started in a 5,000 watt station in Fresno.
Ted Baxter
The Mary Tyler Moore Show

Cleve-net was created in response to an invitation for proposals issued by the North Carolina Information Network Steering Committee in 1984. The Steering Committee's task force on ZOC's (zones of cooperation) had funds available to establish multi-type library network demonstration projects which would use new technology for resource and information sharing. Cleveland County librarians had worked together for years in various low-tech cooperative ventures and felt that the time was right to propose an ambitious and pioneering project.

Like Ted Baxter's start, Cleve-net's origins were humble indeed. Library directors from local colleges invited the new public library director to a welcome luncheon at a Shelby Chinese restaurant in July of 1980. These administrators enjoyed each other's company enough to say, "Why don't we do this more often?" Within three months the heads of five Cleveland and neighboring county public and academic libraries had met, proposed a constitution and formed the Broad River Library/Media Association. In response to the perceived weakness of other local or regional library associations, Broad River established itself as an association of institutions rather than individuals. On this basis, the voting membership (library directors or their appointed representatives) could commit the staff and resources of participating libraries necessary to the success of cooperative projects. Projects were envisioned and participation was encouraged for those institutions which felt that some particular benefit was to be gained for them. An altruistic appeal to self sacrifice for the greater good of library science or of other institutions was never encouraged. From the beginning the glue of self-interest has stuck various Cleveland County libraries together for the greater good of each and all.

Early Broad River projects included: a union list of periodical subscriptions generated by a common vendor, EBSCO, a union list of genealogical holdings and various shared continuing education projects. In 1983, Broad River was granted LSCA Special Project funds to standardize the manual circulation systems of Cleveland Technical College, Gardner-Webb College, Mauney Memorial Library and the Cleveland County Memorial Library.

The above mentioned "Common Card Project" provided a standardized plastic library card to patrons registered at each library and allowed them to borrow and return books in any "Common Card" library. These cards were to be used with Gaylord Model C chargers which each library had acquired through the project. A weekly courier service was also established to route books returned at participating libraries to their home library. This courier duty was rotated through the participating libraries, which promoted weekly personal contact among librarians.

The Broad River Library/Media Association's activities from 1980 to 1984 are well characterized by the quotation from John Naisbitt's *Megatrends* that we used in applying for the Cleve-net grant:

"... networks are people talking to each other, sharing ideas, information and resources ... networking is a verb, not a noun.

Networks exist to foster self-help, to exchange information, to change society, to improve productivity and work life, and to share resources."[1]

Our early experiences with networking had been successful and had proven beneficial to each participant. By 1984 we felt confident that more complex and involved network projects would be practical and again beneficial. At this time the State Network Steering Committee's task force on ZOC's was making a second round of grants for

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local networking. We envisioned a project that would feature many of the elements that the state committee would like to see and which would be a logical extension of the groundbreaking cooperative projects Broad River had already established. We planned to create a system that could eventually be expanded as a means for the comprehensive automation of functions in any of the participating libraries.

Our proposal to the task force on ZOC's was to establish an on-line communications and shared data network that would initially provide four products: electronic mail, a shared database of "Common Card" patron registrations, an on-line data base of periodical holdings and a local information data base. These functions were to be provided for an expanded group of libraries in Cleveland County including: Cleveland County Memorial Library, Cleveland Technical College, Gardner-Webb College, Mauney Memorial Library and the four high schools from the county's three school districts. This consortium had become, in fact, an all-inclusive roster of Cleveland County public, academic and secondary school libraries.

The management plan for the Cleve-net project called for a project director, assistant director and task forces to address the questions associated with the four products proposed. The heads of each member library agreed to meet as a group on a monthly basis and the task forces were to meet as often as necessary. Each library was involved in the project design and the acquisition of project hardware and software. The final configuration reflected a consensus of opinion that it was the most beneficial design available given the extent of our funding.

Proposals were heard from a variety of business and library market vendors. A major consideration in selection was to acquire a system which was first expandable, then flexible enough to support software from more than one source. The multi-task, multi-user Datapoint 3200 super microcomputer was chosen as the host processing unit of the network because it could handle the rather modest initial needs of the network and could later be expanded to hold 300 megabytes of storage, have 8 megabytes of main memory and support 28 users. As communications between remote users was to be provided over regular voice business telephone lines, ten 1200 baud modems were installed, one at each of the seven remote libraries and three at Cleveland County Memorial, home of the host computer. Funds were not sufficient to provide seven modems and seven incoming lines at the host, so the remote libraries were divided among the modems and schedules were worked out for their access to the system. Schools have priority in the morning and after they close at 3:00 pm, the other public and academic libraries each can be on-line for the rest of the day.

One of the most efficient aspects of the hardware configuration was the use of IBM Personal Computers as the workstations at each site. Use of PCs instead of dumb terminals allowed the member libraries access to the vast world of off-the-shelf business, educational and library applications software which could be used when they were not in the network mode. Since installation of the IBM PCs in September, 1985, different libraries have used word processing, filing, SAT test tutor, foreign language tutor, catalog card production and general communications software. These uses keep the hardware busy all day when the station cannot or does not need to be on-line with the network. Another interesting use of the hardware outside the network is the addition of "Bibliofile" laser cataloging at the Cleveland County Memorial Library. This will soon be tied into the expanding network system as the source of MARC cataloging for an on-line data base of library holdings.

Another networking feature of Cleve-net is the emergence of an IBM PC user group among members who share help and information about non-system use of the PCs. Cleve-net has been built on an existing non-electronic network and in turn is spawning new sub-networks.

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One of the important features of the Datapoint 3200 host computer that has not been mentioned is that it runs a version of the Unix operating system that allows the selection of system software from more than one source. It was initially planned to use some standard business software and some custom-written software to provide the four promised network products: mail, patrons, periodicals and local information. This plan was modified as non-LSCA funds were made available to the project. Cleveland Memorial funds were used to acquire Sirsi Corporation's Unicorn Library Management System which could provide the Cleve-net products plus bibliographic and circulation control. As mentioned before, the Library Corporation's "Bibliofile" laser disk system has also been added as a source of MARC records for the emerging catalog and circulation functions of the network.

Cleve-net has been up and on-line since September, 1985. As soon as the host computer, modems, telephone lines, remote PCs and software were installed, electronic mail was fully functional. Early messages were often of the "Hi! How are you?" genre. As the novelty of electronic mail wore off, many more useful communications were seen. The most frequent early messages were requests for information on patrons registered at other common card libraries who had overdue books. This question has become less frequent as thousands of patrons from all over the system have been re-registered and input into the system patron database. This database is searchable from any Cleve-net terminal by name or registration number.

Much use of electronic mail has been made to supplement the education of network members in the use of the system. More knowledgeable users are able to monitor off-site use of the system by others and offer advice and correction. Through the bulletin board feature of mail, events are posted for all to read, and meetings of the members are called.

Requests for reference assistance are sent to members who are perceived as appropriate choices. For instance, questions thought to be answered by government documents are sent to Gardner-Webb College, a selective government document depository library. The high schools especially use electronic mail for reference and interlibrary loan as they cannot use the State Library in-watts system. Cleve-net has provided a revolutionary breakthrough that remedies the isolation of the high schools. Most of them did not even have telephones in their libraries before Cleve-net. Outside information assistance was rarely sought. Cleve-net has given high school librarians daily electronic contact and regular in-person contact with professionals and collections from which they were isolated in the past.

Those readers who constantly play the office game of "telephone tag" can appreciate the surety of messages getting through as members check their electronic mail boxes twice a day. The telephone is still used if someone must be reached for an answer immediately, but one must still catch the intended party. Simply writing an electronic mail message and looking for the answer the next day can save a lot of wasted time. In an electronic mail system which provides constant on-line access to all members, it is possible to create a feature to alert individual members as mail is created for them. This was investigated but the expense was not warranted at this stage of our network's development.

The on-line patron registration file was envisioned as a way to check the permanent record of library users at the point of check out. The expense in labor of maintaining a paper (Rolodex type) file on patrons at the check out counter and the time needed to check each borrower had prevented us from having this kind of control in the past. We have had no pre-checkout screening of borrowers from other Cleveland County libraries since the inauguration of the "Common Card" project.

Persons have been re-registered at the participating libraries since October, 1985 and now the status of users from any "Common Card" library can be quickly checked before lending materials. The Cleveland County Memorial Library has noticed an increase in the receipt of fines since using the on-line patron file. By making comments on the items long overdue or unpaid fines on the individual patron record, any Cleve-net library can have a convenient circulation control tool short of implementing fully automated circulation control.

The advantage of using the patron data base software from an existing circulation control package is that when Cleve-net libraries are ready to invest in the additional communications and item data base production necessary, they will already have a usable patron file on-line. In keeping with our design of a flexible system the patron data base can be useful as an aid in a manual or automated circulation control system.

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The union list of magazine holdings and the local information data base have been configured to use the Sirsi bibliographic control module. Both fit into what is basically a bibliographic format which can be searched by author, title or subject. The magazine union list is being easily created by filling in the blanks on a bibliographic template screen. The Western North Carolina Library Association Union list of serials is being used as our source of cataloging. Printed copies of the Cleve-net magazine data base are placed in the magazine index areas of each library to direct patrons to the holdings of all Cleve-net libraries.

Patrons who seek a magazine held in another Cleve-net library can most quickly get the desired

article by going to the holding library. Interlibrary loan of photocopies can also be arranged by sending a message over electronic mail. The desired item can either then be mailed or slipped into a courier box for delivery within a week. (High school libraries have not yet been linked with the courier.)

The local information data base uses the bibliographic template of the item data base to store data on local agencies, organizations and clubs. This includes the following: agency name, contact person, address, telephone number, hours of operation, eligibility, service provided and subject and keyword classification of the organization. The software will allow subject and agency name searching of the data base from any Cleve-net location. Subject searching will be based on an authority file of subject headings which is supplied to each operator. A hard copy file of agency publications is being established for an in-depth back-up to the data base, and a regular schedule of information updating has been established.

The local information data base is a project of special interest to the United Way. They had previously determined that such a resource was a priority need in Cleveland County and they have been very supportive of our efforts. They have granted Cleveland County Memorial Library funds for a special local information telephone line and are helping gather and process information for the data base. This feature should come on-line in late summer of 1986. Jo Anne Owens of the Cleveland County Memorial Library has taken much of the responsibility for the creation of this Cleve-net product as the Master's project for her MLS degree from the University of North Carolina at Greensboro.

True to our design and intent, the completion of our four initial projects does not mark the maturity of Cleve-net, only its adolescence ("the onset of puberty" doesn't seem to be the right phrase). The immediate future will bring the conversion and loading of Cleveland County Memorial's complete book and audiovisual data base into the host computer's disk. This disk memory has just been upgraded from 40 to 160 megabytes. With Cleveland Memorial's item data base on-line, automated circulation control will begin. Other Cleve-net libraries will be able to search Cleveland Memorial's data base by author, title or subject and request items for interlibrary loan on electronic mail.

It was hoped that all Cleve-net libraries would be able to use the full circulation control capability of the system this year, but the Cleveland County Commissioners turned down a capital fund request to bring our software license to that level. This network enhancement is still desirable and possible and can be accomplished if the members pool resources from their separate funding bodies or find other grants. When that stage is finally reached, any Cleve-net library will be able to search the holdings of any other member. With this type of on-line access, interlibrary loan requests should show a mighty increase and our courier system might need to be increased to a daily operation.

It could be possible to offer access to some of the data bases of Cleve-net directly to the at-home public in the future. We would need to add a modem and telephone line dedicated to public access and supply an access software diskette to outside agencies or members of the public who have IBM compatible personal computers and modems. These outside users could search the item and local information data bases and request materials or information on a local bulletin board type of setup without having access to confidential patron records.

Benefits of the consortium approach to automation of circulation and later the public access catalog include: reduced software costs, shared hardware and software maintenance costs and access to one another's collections. This all-inclusive approach to automation has brought libraries along which might not have gotten this far in their development for years. We have all learned from one another and feel the richer for having worked together.

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It is my opinion that public libraries exist to serve any patron or client who comes to them for help. This includes the young, the old, the rich, the poor, the general public, and school and college students. These students, whether public librarians like it or not, come to us for help every day. The network approach to fulfilling our mission best serves those clients (i.e. students) for whom our collection emphasis is not primarily geared. By cooperative effort with local school and college libraries we can help those librarians better serve their user groups on campus or allow them to send their users to us with a reasonable idea of what service they can expect. In like manner, these cooperating school and academic libraries should welcome our primary user group, the

general public, and with the enhanced user and item control afforded by the union patron data base and the courier service relax any barriers to outside access which may have existed in the past.

Within a service area like Cleveland County the uplifting of any one library enhances all other libraries. Cleve-net has brought progress in some degree to all participants and especially has ended the isolation of the high school libraries. This enhancement has, in the final analysis, brought greater access to information and professional assistance to the publics of each and all Cleve-net libraries. For the public, the whole is definitely greater than the sum of its parts.

References

1. John Naisbett, *Megatrends: ten new directions transforming our lives* (New York: Warner Books, 1982) 192.

Appendix

Cleve-net participating libraries
Burns High School, Hazel Olsby, Librarian
Cleveland County Memorial Library, Douglas Perry, Director
Cleveland County Technical College, Haley Dedmond, Dean of Learning Resources
Crest High School, Melba Chandler, Librarian
Gardner-Webb College, Thelma Hutchins, Director
Kings Mountain High School, Sara Griffin, Librarian
Mauney Memorial Library, Rose Turner, Director
Shelby High School, Alma Carpenter, Librarian

CBC Celebrates the Bicentennial of the U.S. Constitution

The Children's Book Council is observing the bicentennial of the U.S. Constitution with three striking full-color posters created by Charles Mikolaycak. The posters depict groups of writers whose work conveys the spirit of American letters. The 17″ × 22″ "Our Constitution. Good Reading" center piece is a sampling of American literary notables. A precept in the Preamble of the U.S. Constitution ties together the authors on each 11″ × 22″ side poster: "Establish Justice" includes proponents of civil liberties and human rights; "The Blessings of Liberty" shows expatriates who appreciate the American concern with individual freedoms. A two-color schematic "Who's Who" key, suitable for display, accompanies the poster set; it identifies the authors whose portraits appear in the posters and includes titles and publication dates of famous works.

Charles Mikolaycak, creator of the Constitution posters, has illustrated more than 45 books for young readers. He is a recipient of the Society of Illustrators Gold Medal.

The full-color posters are printed on 100 lb. cover weight stock. The set is shipped rolled in a protective tube. The Constitution Poster Triptych is available only as a set (three posters and the "key") from CBC for $27.50.

"Our Constitution: 200 Years," a companion piece to the Constitution Poster Triptych, appears in the June, 1986—March, 1987 issue of *CBC Features*, the Council's newsletter. The piece includes a brief, annotated bibliography of titles currently available from many publishers on the subjects of the U.S. Constitution, the founding fathers, and the birth of the Republic. Accompanying the bibliography are statements about the U.S. Constitution from prominent authors Avi, Christopher Collier, Jean Fritz, Jamake Highwater, Scott O'Dell, and Elizabeth George Speare. Single copies of "Our Constitution: 200 Years" are available from CBC for a 22¢-stamped, self-addressed, 6½″ × 9½″ envelope.

An illustrated materials brochure that includes order and discount information for the Constitution Poster Triptych and other CBC materials is available from CBC for a 22¢-stamped, self-addressed #10 envelope.

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