

The Impact of Technology and Networks on the Future of Rural Public Library Service

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THE PURPOSE OF THIS ARTICLE is to discuss the impact of technology and networks on the future of rural public library service, and to describe how this impact will improve the quality and accessibility of service to the rural library patron.¹

John W. Head in a summary article on rural public libraries in the 1979 *ALA Yearbook* stated that: "A great many rural libraries are weak in both staff and collection. Many function without trained staff and have materials budgets that while never adequate, are now falling further short because of increased book and periodical costs. There are some fine libraries in rural areas, but the great majority are correctly perceived by the community as weak, minor community resources."² Based on this assessment, technology and networking, in order to have an impact of any consequence, would seem to face an uphill battle. However, there is no need to count out the rural public library if a commitment to information services can be developed within the community. It may necessitate a reorientation of thinking, away from the negative images of "small" and "weak" toward one of fulfilling community information needs and expectations through access to resources using current and potential technological and networking developments.

Technology and networking will change service patterns and create new potentials for improved rural public library service. Since large library collections and highly trained staff are not typical of rural

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public libraries, this seeming weakness will have to be transformed into a position of strength by providing access, directly or indirectly, to larger resources and trained staff.

In order to take advantage of new technological developments and networking potentials, the small rural public library must prove to the community that it is a viable community resource, important to the life of the community and worthy of support. Information services will have to be improved and further developed, and fears of losing local autonomy put aside. Through joining with larger units of library service, either as cooperative members or as full administrative members, rural libraries can improve services and provide access to new technologies and networking.

It is the premise of this paper that technology and networks are not problems to be overcome, but potentials to improve rural public library services. These two developments can help the rural library to become an information center for the community. In order for this to happen, however, closer ties with the local government and business must be formed and possibly take precedence over the recreational and educational functions libraries strive for but seldom achieve in small rural communities.

Rural Public Libraries Defined

Rural public libraries may be defined in two ways: (1) according to the U.S. Bureau of the Census definition of rural as "places of less than 2500 population and outside of urbanized areas,"³ as used by Weech elsewhere in this issue; or (2) small public libraries in a rural setting, defined here as being not just outside urbanized areas, but at least a half or full day's drive from an urbanized area. The populations of these areas vary and 1970 populations for cities will be used in this article. For example, Glasgow, Montana, has a population of 4700, so would not fall within the Census Bureau's definition of *rural*—but it is a full day's drive from its closest urbanized area (Billings, Montana). Thus, for purposes of this article, its library is considered to be a public library in a rural setting. In some cases, the population of such communities will be even greater than 4700.

A person's perception of "rural" depends much on his or her living experience. Those who grew up in the Midwest have little appreciation for the rural areas in the West and Northwest. Anyone studying a map of Montana or Alaska would see immediately that in some cases it is

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impossible to get "there from here" without a lot of imagination. Librarians in these faraway rural areas have difficult distance problems to contend with, even in attending a meeting in their own state or region. The Pacific Northwest (including Alaska, British Columbia, Alberta, Oregon, Idaho, Montana and Washington) covers 1,603,820 square miles and has approximately 12 million people. This can be compared to Illinois's 11 million people and 56,400 square miles. Planners and developers for rural library service need to consider the Rocky Mountain and western regions as well as the Midwest, Appalachia, and the South.

Networks Defined

There are currently many interpretations of the word *network*. Joseph Becker's definition and list of kinds of networks will be used here to describe opportunities for rural libraries: a network exists "when two or more libraries engage formally in a common pattern of information exchange, through communications, for some functionally interdependent purpose."⁴ The reader's knowledge of rural libraries should be related to these kinds of networks.

Networks are perceived from many points of view such as:

- by signals carried:
 - digital network
 - video network
 - analog network
 - communications network
- by logical structure:
 - star or centralized network
 - decentralized network
 - distributive network
 - hierarchical network
- by institutional focus:
 - public library network
 - academic library network
 - special library network
 - intertype network
- by function:
 - cataloging network
 - bibliographic network
- interlibrary loan network
- reference information network
- by subject:
 - medical information network
 - agricultural information network
 - energy information network
- by equipment:
 - teletype network
 - telephone network
 - radio network
 - television network
 - computer network
- by geographic area:
 - statewide network
 - regional network [in-state]
 - multi-state network
 - national network
 - international network⁵

Rural public libraries, like medium-sized, large, and urban libraries of all types, can belong to several different types of networks listed above.

Technology

The NCLIS program document *Toward a National Program for Library and Information Services: Goals for Action* states that "libraries are affected by four new technologies: computers, micrographics, telecommunications, and audio-visual media."⁶ This article will focus on these four areas and comment on technologies ranging from simple telecommunication devices (like the telephone) to satellite transmission and how rural libraries will be impacted.

Networking

Many state library agencies have established statewide resource-sharing networks that, related to Becker's list, fall into several patterns. Rural public libraries are usually eligible to participate in a number of these patterns if they wish. Such participation depends upon staffing, hours of operation, equipment available, etc. Networks can be organized on the basis of:

1. *structure*—usually hierarchical, with rural public libraries accessing a local cooperative system or nearby resource library, usually a large public library, for the first contact outside the community. In some cases, as in South Dakota, libraries will contact the state library directly.
2. *institution*—usually public, increasingly, however, an intertype network is involved, giving the rural public library access to materials held in academic, school, and/or special library collections.
3. *function*—cataloging, bibliographic, interlibrary loan, and reference. The rural public library could be involved in a processing center for cataloging and a bibliographic network such as OCLC or WLN, in addition to basic reference and interlibrary loan networks.
4. *equipment*—usually IN-WATS phone and/or teletype machines.
5. *geography*—usually regional (in-state) and multistate.

Rural public libraries can be found to be involved in all of the above to one degree or another. However, some rural libraries are not involved in any of the above for reasons relating to attitude, staffing, funding, and/or lack of support within the community and board of trustees. One seldom knows to what degree lack of support is actually lack of

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understanding of the options and potentials available.

State library agencies are mandated to serve the entire state. This means that rural public libraries have direct access to whatever collection a state library agency has available. Other collections are also available depending upon the statewide development program to utilize large public and academic library collections. This access to larger collections by the rural public library can be by phone or mail. When the rural public library is serving as headquarters for a cooperative system of some sort, it is usually connected to telecommunications, such as a teletypewriter, or to an on-line terminal such as OCLC (e.g., Oklahoma).

Information on rural public libraries belonging to cooperative systems is plentiful, though not always easy to find in the literature. This information is readily accessible through newsletters from state library agencies or from various cooperatives. *The ASLA Report on Interlibrary Cooperation 1978*⁷ combined with the *American Library Directory* can quickly reveal whether a rural library belongs to some network, consortia, or cooperative. Examples are plentiful in Illinois, Minnesota, Washington, Montana, etc.

The concept of networking applied to rural public libraries and cooperative systems can contribute much in the long run to the improvement of the quality and accessibility of service to the rural resident. For example, the Spokane (Washington) Public Library has been carrying out an LSCA project funded by the Washington State Library to provide interlibrary loan and reference referral services to four adjacent counties which have very small libraries. Such services have been provided through use of the SCAN (State Controlled Area Network) and IN-WATS telephone systems. This has made it possible for Spokane Public Library's reference staff to telephone the smaller libraries weekly to take interlibrary loan and reference questions. It has also made it possible for the rural libraries to call the Spokane Public Library when patrons have a rush request. Guidelines have also been prepared so that patrons may call the Spokane Public Library directly for service, enabling reference interviews to serve the patron better. The populations served by some of these community libraries are quite small. Examples are Davenport (1520), Harrington (510), Edwald (110), Odessa (1115), and Ione (575). During planning for the service, one library assistant indicated that her library was open only one day per week and the rest of the time she took calls at her home. Her toll-free number was occasionally helpful in fulfilling urgent requests; materials could be sent directly to the patron's home.⁸

The lack of staff, resources, adequate hours, and equipment can be major obstacles to a rural public library's ability to offer any type of service. And yet, libraries by any definition exist in rural America. While a population category of 10,000 is admittedly rather high for the rural library as defined here, the 1978 *Bowker Annual* noted that: "of libraries serving 10,000 or less persons, 46.1 percent were open less than 20 hours per week....Over half (55.6 percent) of all public libraries were open six days per week for at least two hours per day. There appeared to be a relationship between the population served by the library and the number of days the library was open two hours or more."⁹

With such situations common in rural settings, it seems that making it possible for a user to call a distant library directly would be one way around such problems. Support by state and local funds is needed in order for a nearby library with substantial collections and staffs to provide such services.

One possibility is actually to employ a trained staff member to be the main contact for the community rather than trying to develop a building with books. The capital expenditures for starting a library are quite high. Proportionately, it would cost less to offer services immediately using existing technologies. This would be comparable to a state library agency placing a "reference" desk in the capitol building during legislative sessions to be directly accessible to legislators and staffs. Why couldn't this work in rural America? A trained staff member, a telephone, and a terminal could access much information if planned correctly. This does not answer the recreational and educational needs of that community, but it is the writer's contention that a whole new philosophy must be used in providing library services to rural communities. An immediate information service provided locally to the business and farm communities might foster stronger commitment for local library development in the future. The local county extension agent may be a model for librarians to take seriously.

Small libraries in the Minnesota towns of Comfrey (525), Elmore (910), and LeSueur (3745), to name only a few, are members of the Traverse des Sioux Library System and have access to the Southcentral Minnesota Inter-Library Exchange (SMILE). According to information from SMILE:

This six-year-old cooperative group has had many successful intertype library projects which greatly expand the information resources available to area library users and information seekers.

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The library borrower's card issued by the thirty-seven Traverse des Sioux Library System member public libraries and branches in the nine-county area can be used to borrow books in any SMILE member library. The small Bethany Lutheran College Library issues its students the Traverse des Sioux card, in lieu of its own card, so that Bethany students will have convenient access to the Mankato State University (MSU) collection, as well as the Mankato Public Library without triple registration. Area residents who don't have the Traverse des Sioux cards can apply for the card at the academic library when they go to it to borrow books.

A book or periodical borrowed from any SMILE member library can be returned to any other member library or branch. A book or periodical request by any public library patron, or Dr. Martin Luther College user, is teletyped to the Mankato State University Library, or other appropriate SMILE member library, before it is transmitted to the Minnesota Interlibrary Loan Network in St. Paul or to MINITEX (Minnesota Interlibrary Telecommunications Exchange).

A courier delivery van, owned by Traverse des Sioux, drives five 200-mile circuits of the nine-county area each week. Public libraries and academic libraries alike, receive from once-a-week to twice-a-day delivery of library materials through this service. All materials requested by the academic libraries through MINITEX are sent by Greyhound to the Mankato bus station where the courier stops twice a day to pick up and send boxes to the MINITEX office at the University of Minnesota. Public library requests for periodicals not found in our own area are also supplied through MINITEX.

Traverse des Sioux has employed a public library reference librarian to provide backup for reference and information referrals from member public libraries. This regional reference coordination is located in the Reference Department of the Mankato State University Library, the largest resource collection in our area. She works one-quarter time for MSU in exchange for use of desk, floor space, and immediate access to an outstanding reference department. She and a half-time assistant also search the MSU book collection for interlibrary loan requests teletyped by the Traverse des Sioux Library assistant located in the Mankato Public Library....

The University of Minnesota Technical College, Waseca's Learning Resources Center, is the information backup for agricultural-related requests. Mankato State University is a federal depository library, but it sends all agricultural documents on to the University of Minnesota Technical College, Waseca.¹⁰

This is but an example, and not unique at that, of local libraries of various types, including small rural public libraries, joining to form cooperatives and systems and providing what Becker referred to as "functionally interdependent purpose[s]." Similar examples can be found in all Illinois library systems as well as in most states with cooperatives developed, be they single- or multi-type.

Most of these examples relate to interlibrary loan and reference services. Many system headquarters also employ consultants to work with local library staff members and to provide workshops and various continuing education opportunities.

A recent example incorporating system cooperation philosophy, resource-sharing, OCLC bibliographic network, and small libraries in rural settings is the Illinois Valley Library System (IVLS) in Peoria, Illinois. Long a front-runner in developing local projects to increase user access to information and materials, this system recently received approval to implement an experimental project called "Sharing Resources—Materials/Information, Bibliographic Data and Staff" which will receive LSCA funds from the Illinois State Library. The three-year project is funded at \$519,418 and will provide IVLS and other Illinois libraries with viable options for the development and utilization of computerized on-line bibliographic systems to assure citizens improved access to resources:

The project provides for the application of controlled processes to determine if OCLC, Inc., can be utilized by libraries in cost-effective, user-beneficial ways not now possible through the more traditional approaches to data processing applications or through the manual techniques currently being used by libraries.

The controlled processes will include: (1) grouping libraries of various types and sizes in clusters to test methods of sharing terminals or access to the terminals; (2) sharing personnel to provide enhanced customized cataloging within clusters; and (3) sharing personnel and terminals to provide user access to a wider range of resources otherwise not available.

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The goal of this project is to determine the cost-effectiveness and user benefit for the libraries/information centers of the Illinois Valley Library System in their application of the products and processes which compose the elements of the OCLC on-line data base.¹¹

For IVLS, access to the OCLC data base, consisting of more than 5 million records in more than 1200 libraries throughout the country, is definitely improving access to information on where material is located. The OCLC-ILL subsystem is making it possible for the local libraries to request loans from each other by using the OCLC terminal. The actual delivery of the material is handled by a van delivery system that crisscrosses central Illinois and connects with OCLC libraries in Bloomington, Springfield, and with the University of Illinois.

Many rural public libraries have access to on-line data bases through their cooperative system headquarters, local universities, or state library agencies. In Montana, for example, the state library offers access to data bases on Lockheed and SDC. The reference staff handles all questions and determines if a search is necessary. Training sessions were conducted in all Montana federations in order to help local library staff members conduct proper reference interviews with the user. Small rural libraries are members of these federations. When necessary, the state library staff can query the patron directly. Again, through networking and technology, the resident of a small community can have access to information not available in his or her local library. Furthermore, through a system of networking in the Pacific Northwest, all types of libraries cooperate within a multistate region. A resident can receive material that is not available in Montana, but located, for example, at the University of Washington, the Oregon State University Library, or even the University of Alaska in Fairbanks.

The Alaska Library Network has three regional centers: the Alaska State Library in Juneau (southeast region), the Fairbanks North Star Borough Library in Fairbanks (northern region), and the Z.J. Loussac Public Library in Anchorage (southcentral region). The Fairbanks North Star Borough Library covers the northern region which includes Nome, Arctic Village, and Kotzebue, and in most cases receives requests by mail or phone since there are few roads in the northern region of Alaska. This library, serving a city population of 14,771, has the CLSI automated circulation system and uses a portable unit on its bookmobile. A quotation from a recent article on "Driving a Bookmobile in Alaska" serves to illustrate what technology can bring to rural areas:

Operating out of the Fairbanks North Star Borough Public Library, the present bookmobile is an eleven-ton truck with standard transmissions, a generator for lights, and a propane heating system....The interior is equipped with slanted shelves, a check-out desk, and just enough room for a third-grade class....Books are checked out by computer when the bookmobile returns from a stop....Any neighborhood or community with enough interest may request a bookmobile stop, although priority is given to outlying areas where it is more difficult for patrons to make use of the main facility in Fairbanks. The bookmobile stops at several senior citizen homes, two outlying schools during the school year, and a miscellany of communities and neighborhoods. During the summer of 1978, we travelled to McKinley Park, stopping at various small towns along the way. It proved to be a very popular service, and the length of the drive necessitated a night spent in McKinley Park on the floor of the bookmobile. After a quick breakfast and a splash in a nearby creek, we were ready for an early morning stop at the ranger station. Stops at Healy (79) and Anderson (362), then the return trip to Fairbanks completed our two days of driving.¹²

The North Central Regional Library District located in Wenatchee, Washington, serves a population of 139,723 in an area covering approximately 14,951 libraries with 24 branches. North Central is a participant in the Washington Library Network and began adding its current acquisitions to the system in 1970.

The *WLN Resource Directory* is a microfiche union catalog containing library holdings added by the WLN participants to its computer system. The holdings of approximately eighty libraries are now being entered into the WLN computer system and the *Resource Directory* on an ongoing basis. The *Resource Directory* has almost 400,000 records with more than 1.1 million local call numbers.

North Central has used the *WLN Resource Directory* as its catalog for approximately 53 percent of its holdings added since 1979. The twenty-four branches and their staffs and patrons have had access to the *WLN Resource Directory* and have been able to search for information by title, author, and subject. Located material could be requested through interlibrary loan throughout the state and from other participating libraries outside Washington. These small communities in the North Central Regional Library District receive the directory on a regular basis. The use of microfiche readers has further brought micro-

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graphic technology to small local communities. North Central's use of the WLN computer system on-line gives its staff the ability to search a major bibliographic data base as well as to take part in shared cataloging activities. North Central is now in the process of providing their branches with customized catalogs, that is, catalogs of only the holdings of North Central. Major branches and headquarters will have both the *WLN Resource Directory* and the customized North Central microfiche catalogs.

The tying together of libraries in Alaska (Fairbanks, Anchorage, Juneau) with libraries in Washington, Idaho, Montana, and Oregon has assisted in making each other's holdings available for shared cataloging and sharing of resources in a much-improved way. Previously, such access was only through the Union Catalog of the Pacific Northwest Bibliographic Center located in Seattle at the University of Washington. The Union Catalog is still a viable tool and is being used daily since only one-half of the holding libraries are members of the WLN computer system and many still do not have their retrospective holdings in the system. The Union Catalog dates back to 1940.

Technology's Future Impact

The future impact of technology on rural public libraries will obviously depend on whether or not the technology is used by rural libraries. Even though some staffs are committed to trying new approaches to service, many are not. The issue of funding, especially as it relates to property taxes, is not being addressed in this article. However, heavy use of technology over and above the telephone brings up a funding aspect that few very small rural libraries can handle. It is for this reason that community involvement is essential, especially among the business and local government officials. They must assimilate exactly what the new technological developments can do in the way of providing current information services to assist them in decision-making.

Several technological developments have appeared lately in the literature that will impact rural public libraries, providing greater accessibility to information. The National Science Foundation and Texas Instruments have made it possible for the White House Conference on Library and Information Services Advisory Committee and staff to communicate with each other by computer. The computer conferencing project is conducted through the Electronic Information Exchange System, which is an NSF-funded R&D project at the New Jersey Insti-

tute of Technology exploring what type of communications capabilities computers can give human beings.¹³ How can this technique be transferred to a rural library setting? It could tie local libraries with cooperative system headquarters. Patrons could make inquiries directly on-line and speak to trained staff in other libraries. Such devices would enhance tenfold the ability of a rural public library to increase communication for its own community.

In Alaska a proposal has been discussed, though not funded, to set up community information centers in small communities in remote locations throughout that vast state. The concept is far-reaching and may be readily transferable to many small communities in America. The following is taken from a three-page preliminary proposal outlining it:

Establish a facility in the community to be used as a resource center. This area would be equipped with the necessary equipment to allow for the reception and delivery of information and programming in many formats such as video, with or without audio feedback, video with computer interaction and audio feedback, or an audio and computer interaction, or just two-way audio or computer-assisted instruction. Encyclopedias, journals, and other printed references would be available. In essence, the CIC is, among other things, a community library which has the capability to obtain information from other places through the satellite link.

If a person desired information that could not be provided by the local library, the computer terminal could be used to access the holdings of libraries on the system, state or national. If the material in the library is in computer storage, it could be read on the CRT of the computer terminal, printed out if desired, or the full document could be ordered if appropriate. Delivery could be by mail or by high-speed facsimile.

The centers would be available to personnel from federal, state, and native agencies throughout the state. It would be possible for them to send and receive information that pertains to their job activities. Village corporations could utilize computer-based management information systems. It should be possible for private firms to utilize the system for their bookkeeping needs.

The feasibility of the CIC concept will be determined largely by economic factors. In the manner that aggregating many users for a satellite channel can lower the per-user cost to a

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reasonable level, the cost of terminal equipment might be affordable if shared by many.¹⁴

The Communications Satellite Corporation (COMSAT) has recently asked the FCC for permission to broadcast pay-television directly to American homes via satellite in 1983. COMSAT plans to use inexpensive receiving dishes currently being tested in Japan. This new service appears to be distance-insensitive and capable of being delivered to any individual anywhere. Programming would include first-run movies, sports, and educational and cultural material, as well as data and text transmission. Costs to the subscribers are projected to be between \$15 and \$22.50 per month.¹⁵

Whether such broadcasting will bypass the rural public library and make its service obsolete depends upon whether the rural library and/or large cooperative systems develop proposals and service programs to complement such a development. The fact that it is coming is clear. When it is coming is even being projected. It is up to local librarians to plan in preparation for it. The newly published *Public Library Mission Statement* and its imperatives for service quite clearly state: "Traditional library buildings should be considered as only one way to deliver library service. Innovative systems should be designed to deliver library services through a full range of physical and electronic means to the places where people live and work."¹⁶

The burden of assisting small rural public libraries falls heavily on state library agencies even when cooperative library systems are already in place. The amount of staff expertise in the telecommunications area in libraries is not great. However, the regional automated library networks that have personnel with background in telecommunications, as well as OCLC, WLN, and RLIN, could be of great benefit to state librarians and local library planners.

Recently, home delivery of library services was demonstrated in Columbus, Ohio, with the joint production of a project by the Public Library of Columbus and Franklin County, OCLC, and QUBE, a two-way cable television system. The program enabled viewers at home and the studio audience to participate in discussions on current best-sellers. OCLC originated the idea of the Home Book Club and this project shows a cooperative venture between cable television, local libraries, and a major nationwide bibliographic utility.¹⁷ Can this be transferred to rural areas? There are few who would doubt from a technological standpoint that it could, but the ability of local libraries to handle the increased service load would be a major question. Again,

staffing, hours of service, and local funding bring reality to bear on the problems.

The August 1979 issue of *Advanced Technology Libraries* has rather complete information on videotext news in Canada and the United States. For example, the Manitoba Telephone System has announced that its Project Ida will offer home access to computerized data banks via television as part of a special telecommunications project in a rural section of the province. Manitoba covers over 251,000 square miles. Project Ida has more than twenty companies interested in acting as sources for information, including several Winnipeg newspapers, the *Toronto Star*, the *Southam Press*, and Home Information, Inc. Manitoba Telephone System indicates that library services, electronic mail, yellow pages, interactive "video school," and teleshopping are among the possible uses for Ida.¹⁸

In an article in *Special Libraries*, Rosa Liu of COMSAT discussed the current and potential uses of satellites in libraries. According to her, "the full market potential of communications satellites in providing library services is not generally known, and librarians are not aware of the improvements that satellites can offer."¹⁹ Unfortunately, probably few rural librarians receive and read *Special Libraries* closely and the article is likely to be overlooked.

A viewdata-type delivery system sponsored by the U.S. government promises better agricultural weather information for the nation's farmers and is described in the March 1979 issue of *Information World*. (In the author's opinion, *Information World* is must reading by librarians and is on a nontechnical level.) According to the article: "The green thumb box is the key to the agricultural weather dissemination system....By connecting the antenna of the farmer's home television set to his telephone line, the box effectively turns the TV into a computer terminal."²⁰ The difference between this approach and the British viewdata system is that the British system is interactive while "green thumb" is not. The green thumb boxes could, however, have the capability of permitting farmers to talk to the computer and to each other.

One of the keys to improving rural library services is a strong link with the USDA's County Extension Service so that as technological developments get underway, library services will be brought into the picture at an early stage and the local business community, and especially the farmers, become accustomed to having the library connected with developments in rural areas. To say that rural library services need a huge marketing effort would be an understatement.

Conclusion

This has been a brief overview of some of the technological developments which relate to rural library services and will inherently change library services for rural residents. Technology will open new possibilities and a new dimension for rural library service, increasing accessibility of information for rural library patrons, many of whom are sophisticated professionals and blue-collar workers taking employment positions in rural areas and demanding levels of service they were used to in urban and college communities. The developments that will be occurring could give users of rural libraries more equal access to library and information resources than they could previously have hoped for.

Several problems lie ahead for rural public libraries. Some of these problems have been mentioned: staffing, funding, hours of service, etc. These can be seen as opportunities to develop services that coincide with the type of services the communities will be receiving outside the library field. Examples include video, cable television with interactive elements, and the "green thumb" experiments. If libraries are not involved during the initial planning phases, it will be extremely difficult to bring them in at a later time. In early stages they may have access to start-up grant funds, which would not be the case at a later stage.

The challenge for rural library planners is at least to keep up with technological developments, have intimate knowledge of community issues, and know community planners and decision-makers. There is no doubt that networking and technology will impact the future of rural library service. The question is whether rural libraries will take part in the developing technologies reaching out to the rural communities or be replaced as these technologies begin to provide current information at lower costs to the community. The traditional library service patterns may not work in the next fifty years, and librarians will have to be sure that their thinking and planning takes into account what is going to be, not just what has been.

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