

2: THE USE & LIMITS OF TECHNOLOGY

Research and long experience have shown that computers and distance learning technology, wisely implemented, can increase educational outreach, access, instructional effectiveness, independent learning, and economies in cost. Thus, groups Q1-Q4 were asked what they thought about the role and use of these tools in their adult literacy programs.

Moreover, explosive advances in the new communications technology are propelling library professionals, like everyone else, down the “information highway” with such speed that it would be remiss for this reason alone not to seek the respondents’ perceptions about technology.

They were reminded in a preface to the questions that Washington and many state legislatures are currently advocating greater use of technology throughout education.

It should be noted that close to 100% of all study participants chose to answer questions T1 and T2, which in itself shows a very strong interest in

There is a strong push in Washington and in many state legislatures for greater use of technology (i.e. computers, television, and other media) throughout education.

T1. Do you think it is important for library literacy programs in your state (adult literacy programs generally in the case of SLRCs) to adopt or make heavier use of COMPUTERS? [Q1-Q4]

		Yes	No	Not Sure
Q1	State Librarians (35 of 35 answered)	85%	3%	11%
Q2	Library Agency Literacy Contacts (38 of 44)	79	8	13
Q3	SLRC Heads (40 of 40)	98	2	0
Q4	Local Program Heads (63 of 63)	73	18	9

T2. Would (your state’s public libraries for Q1-Q2, adult literacy programs generally for Q3, or “you” for Q4) benefit from adopting or making heavier use of DISTANCE LEARNING TECHNOLOGY (television and related video technology) for adult literacy purposes? ([Q1-Q4])

		Yes	No	Not Sure
Q1	State Librarians (35 of 35)	63%	17%	20%
Q2	Library Agency Literacy Contacts (35 of 44)	60	14	26
Q3	SLRC Heads (39 of 40)	90	8	2
Q4	Local Program Heads (63 of 63)	44	21	35

technology. Indeed, few other questions in the survey drew such a heavy response across the board.

The figures in the above table reveal an extraordinary degree of support for greater use of both computers and distance learning technology.

TECHNOLOGY EMBRACED... BUT WITH CAUTION

It is surprising that the library agency personnel,

especially the librarians themselves, so heavily favor *both*—more than four-fifths favor more computer use and some two-thirds say they would like to see more distance learning use.

Equally striking, though for somewhat different reasons, are the responses of groups Q3 and Q4.

State literacy resource center heads, with their positive responses of 98%

and 90% respectively, appear to understand the need for computer technology best and to most appreciate the possibilities of distance learning.

And, local programs—those who actually *provide* library literacy services—have the heaviest *negative* response.

While local groups are three times more likely to favor more use of computers than not to, they are not as wildly

enthusiastic as the other groups, and only 44% of them think that distance learning technology has potential.

What does their lower enthusiasm mean, especially where distance learning is concerned? The responses themselves give some strong clues.

Data gathered in question T3 and throughout this study suggest that, in general, local library literacy programs are struggling financially to preserve their core instructional services, even in some cases just to survive. Thus, they may appreciate better than anyone else that *any* new technology (and the training and staff that such would require) is a luxury they cannot afford right now.

In addition, some of the programs—especially those emphasizing one-on-one or small-group tutoring or that celebrate the importance of caring, personal contact—may not be all that convinced that more computers, let alone television and other technology, can help them do their jobs better.

Moreover, the heavy “not sure” response in T2 is very telling. More than

T3. If you think more use of computers or of distance learning technologies is important (to library literacy programs in Q1-Q2, to adult literacy programs generally in Q3, to “you” in Q4), what plans do you have for achieving this? [Q1-Q4]

		<u>Responses</u>	<u>No Response</u>
Q1	State Librarians (23 responses of 30 possible)	77%	23%
Q2	Library Agency Literacy Contacts (25 of 35)	71	29
Q3	SLRC Heads (38 of 41)	93	7
Q4	Local Programs (47 of 51)	92	8

[Note: A few non-respondees considered the question “not applicable.”]

Q1 & Q2 - Public Library Plans Indicated	Q1	Q2
Establish/strengthen computer-assisted instruction centers and labs. (DC, HI)	2	
Use electronic network resources to provide literacy resources. (DE)	1	
Our libraries are already equipped but need training, which is and can best be provided by our SLRC. (IL)	1	
Over 100 public libraries in this state are downlink sites for distance education and we are incorporating technology with a literacy mission. (WV)	1	
Our state library is encouraging librarians around the state to install distance learning meeting rooms. (IA)	1	
Continued dissemination of GED on TV in public libraries throughout the state. (MN)	1	
Iowa libraries have spent millions to buy computers. The State Library has spent \$2.5 million to bring online information to libraries. Some 90 public libraries are on the statewide distance education network. (IA)	1	
The Internet and WWW are the most promising technologies now (video is too expensive) and we are watching the developments. (OR)	1	
Take part in state master planning for technology. (TX)	1	
Work with libraries and other groups to support development of computer literacy. (RI)	1	
If more funding comes from bond issues presently in the state legislature, we hope to get more technology into libraries. (ME)	1	
Encourage local and regional librarians to include computers in their grant applications. (WI)	1	
Encourage library use of information resources on the Internet. (IA)	1	
The state library provides/allows literacy program funding for purchase/use of technology. (KS, CA)	1	1
Statewide Internet access via public libraries is being developed now in a demonstration project with literacy students. (ND)	1	1
The SLRC and other key literacy and ABE groups in the state will keep using the Rural Distance Communications Network to provide training and hold board meetings. (SD)	1	1
Keep working with our SLRC to educate library personnel about available software. (OH)	1	1

<i>Table T3, cont'd</i>	Q1	Q2
State librarian is on statewide board for distance learning. (FL)	1	1
Planning in process now for statewide library telecommunications network that will be able to link to academic and government groups. (MS)	1	1
If more federal funding is available (LSCA or other) make technology for libraries a priority—then offer teleconferencing services to literacy programs. (AR)	1	1
Work with technical college system to explore new technologies, including distance learning. (WI, WA)	1	1
Distance-learning-technology is particularly appropriate for rurally isolated areas of the state. We are providing funding for public libraries to connect to the Internet, encouraging systems to collaborate with community agencies and organizations to share catalogs and resources online, and providing funds for community information referral programs in the libraries. (TX)		1
Use of distance learning models that can provide training, as in Pennsylvania. Work to provide more libraries with Internet access (many of our local library literacy programs are already profiled on a special Internet site). (MA)		1
The State Library will produce more interactive video conferences on literacy, train more educators and librarians how to work with computer and distance learning formats, increase our video holdings in literacy with local programs given permission to duplicate them, and encourage more libraries to purchase technology or distance learning downlinks. (IL)		1
The Department of Libraries is placing at least one computer in each public library in our state. The Literacy Office has established an electronic bulletin board for literacy. The BB lists local, state, and national training, grant and employment opportunities, legislative alerts, and literacy “swap” lists. (OK)		1
A LSCA Title VI grant set up six adult learning work stations in public libraries for the purpose of demonstrating their effectiveness. Sharing the results of this demonstration should assist in increasing the use of the technology. The Oregon Information Highway Project is attempting to increase Internet connectivity in public libraries. If adult learning programs can be effectively transmitted, adult new readers could certainly use them once the libraries are connected to the Internet. Libraries also need to refer students more to programs broadcast over the state’s distance learning system as administered through ABE programs in community colleges. (OR)		1
Participation in community networks via satellite and connection to the Internet. (IN)		1
We just started working with our library school to initiate courses in local libraries for literacy students. (CT)		1
Encourage each library to plan for education to be available via alternate routes. (TN)		1
Look continuously for grant/funding opportunities for hardware and software and disseminate the information. (LA)		1
Hold up technology as a tool, work to ensure equitable access, and encourage library services to make technology available to their publics. (MN)		1
Other (e.g. none, someone else’s concern, no funds just encouragement, we’re looking for resources).	3	5

one-third (35%) of the local groups say that they don’t know enough about the matter to make a judgment. On this point, the high “not sure” response of the library personnel with respect to distance learning is also significant. Once again, inadequate communications and limited understanding appear to be problems.

Table T3 responses also raise questions about the *nature* of the generally high interest in technology. Things may not mean exactly what they seem to.

For instance, many of the T3 respondents, especially in groups Q1 and Q2, use a highly computer-oriented definition of “distance learning,” rather than the one set up in question T2.

In education circles, *television, related video technology, and other media* usually refers to the use of broadcast and recording media for instruction and tutor/teacher training—to extend outreach...or provide independent learning opportunities...or, where video is concerned, to enable greater

customization and portability of education. Yet in the minds of most of the respondents, distance learning is less equated with educational technology in the old sense than with electronic (computer!) networking for information sharing and with the newest communications paths to information—the Internet and World Wide Web.

This definition problem blurs somewhat the clarity of the T1-T2 response. What seems at first to be an astounding breakthrough in the understanding and acceptance of the broadcast media for educational purposes is not necessarily the case at all despite the vast unrealized potential of these media.

Moreover, it should be noted that the Internet and World Wide Web venues, captivating as they are, are probably more useful to program staff and tutors than to low-skilled adult students. It is hard to imagine that people with very poor reading and writing skills would be able to make much use of this technology even if they had physical access to it and even if they could

Table T3, cont'd

Q3 - SLRC Plans (adult literacy programs generally)

AL	Implementation of performance, measurement, reporting, and improvement systems.
AK	We're doing it.
AZ	NIFL grant to Western Region for electronic networking among SLRCs and national entities.
CA	Working closely with the Distance Learning Project of the State Department of Education.
CO	Working on a networking/communication system.
CT	Developing more training for literacy providers in the use of new technology. Developing a software/media library for previewing and circulation. Home Page on the Internet.
HI	The Hawaii SLRC belongs to a regional hub.
IA	Our Center will have a server site on the Internet in the Winter/Spring of 1996. We will position computers/modems at each community college, ABE site, and public library.
IL	We have trained 19 providers statewide in a train-the-trainer program using the America Online and Internet five-day training program of the National Center for Adult Literacy. We are also encouraging programs to use state and federal grant dollars for modems and communication packages as well as instructional software for students. We contracted with the Illinois Center of Excellence for Technology Development at Waubensee Community College to do regional workshops on technology planning, integrating technology in instruction, and hypermedia. We have been participants in video conferences produced by the Illinois State Library and Western Illinois University.
IN	Network through computers. Have system operators responsible for monitoring, cultivating dialogue on certain topics. Research Center to coordinate.
KS	The public television station in Kansas City has provided the opportunity to electronically link all adult education facilities. Funds are available to add all library literacy programs to that network, but they are not approved for that use.
KY	Literacy providers and therefore students do not have ready access to technology hardware and courseware. Steps have been taken to ensure that each literacy provider has computerized record-keeping capability. Funds are not available to the adult education network to keep adult students technologically literate.
LA	We were the first state to link the JSEP program to incarcerated youth and adults. Recidivism has dropped dramatically. LSU has initiated six family literacy sites—in remote areas—via full-motion interactive video over telephone lines.
MD	This year's program includes merging with the local area network to publicize the Center's materials and activities.
MI	We conduct professional development programs via two-way interactive television. We also conduct business meetings, provide training on two-way, and have established a computer bulletin board.
MN	We're looking at developing on a state level an information network using the World Wide Web, linking information about the state-level organizations. We are planning to cultivate a network of groups around the state that can coordinate distance learning opportunities in their areas. We also want to use the Internet as a delivery mechanism.
MO	We are purchasing videos and software to loan. We're planning to develop professional development classes and workshops for distance learning. We are going to have a WWW Home Page.
MS	We are developing a plan to provide training to practitioners and other interagency personnel, also to link resources.

Table T3, cont'd

MT	None currently, but a long-range, strategic process is "in the works."
NC	Contract for NCAL/PBS teleconferences. Include distance learning in our family literacy plans. Participate in an Internet access project as part of a NIFL technology grant for regional hubs. Software evaluation and "vendor fair" activities are in the planning stages in cooperation with the NCLA Literacy committee.
ND	No concrete plans at this time.
NE	The SLRC is preparing to conduct a statewide survey of adult literacy providers (ABE/GED, ESL, volunteer literacy groups, community-based, library, etc.) to assess existing computer use and/or access and begin to identify what is needed across the state to encourage greater use of technology. We hope to establish a statewide listserv available to all groups, learners, businesses, agencies. We are also beginning some ABE/GED staff development efforts using distance education technologies. There will be additional training provided across the state beginning in the summer of 1996, to help familiarize people with the use of computers in an instructional/learning capacity.
NJ	Raising awareness of the positive impact that appropriately used instructional technology has. Demonstration workshops and library lending of SLRC-owned software and videotapes. Model practices workshops using local program staff currently involved with the use of technology.
NM	We have initiated a number of privately funded projects to place computers and software with local literacy programs. We will continue to do this.
NY	None at this time because the SLRC will cease to exist after 12/31/95.
OH	Our SLRC maintains a gopher and WWW server for adult education resources. We provide training on the Internet for teachers, and maintain a listserv for Ohio adult literacy educators. We are the Regional Technology Hub for the eleven other Midwest SLRCs (NIFL grant). We will be helping them develop WWW pages, add state-specific information to the server, and work with local programs to use the resources on the Internet.
OK	More funding for equipment and training.
PA	Provide resources/training in the administrative/instructional use of technology. Initially a plan was developed to create a Center for the use of distance learning technologies. However, with the recision of funding, full implementation of the "Tech Center" will be placed on hold.
SC	We provide much CAI training. We also go out with a coach to local business and industry sites. A JTPA grant pays for the driver.
SD	The technology is in place and in use for online access to and borrowing of materials. The sharing of resources is a must in this time of shrinking state and federal budgets.
TN	Limited staff development has been offered via satellite downlink. At present, there are no plans (or funds) to develop distance learning opportunities for literacy programs.
UT	We have secured the latest technology and media (CD-ROMs, Internet connections, etc.) and we demonstrate and train adult literacy providers throughout the state in the application of these technologies. We have launched distance learning instructional programs via public television.
VT	LINC's grant—NIFL funding. Support from the Department of Education. Promotion of professional development opportunities, including state conferences.
VA	Our state is invested heavily in automating the SLRC and for the SLRC to establish an electronic information/communications system with local and state programs and national groups. Technology implementation and training in use of said technology is a major goal for our SLRC.
WA	Continue to provide training in the use of technology. Continue to publish technology users' guides annually. Explore use of the Internet as a practitioner-inquiry group medium.

afford the online service charges.

Along these same lines, library personnel and SLRC heads almost universally favor the greater use of computers, and they overwhelmingly favor more distance learning technology. But fewer than half of the state library people in T3 make any reference at all to library *literacy* programs. They think more generally in terms of advancing their information service role. That goal is certainly vital to their mission and their publics as an immediate and first priority. But that was not the question posed.

A different kind of issue surfaces in the SLRC response to question T3. This group doesn't refer very often to library literacy programs either. But they can't be faulted for this when they were asked about adult literacy programs in general. What is striking is that their thinking here jibes with their responses to questions asked elsewhere in the survey about the role and place of public libraries in statewide service delivery. Only a handful of the strongest SLRCs, then and now,

include libraries in their thinking or, for that matter, approach delivery system issues in a truly systemic way.

It is not that the qualifier caveats just touched on diminish the very high level of interest these groups have in technology, but they do caution against an overly optimistic interpretation of the findings. In any case, the basic purpose of question T3 was to determine whether those favoring more use of technology have plans for achieving it, and if so what they might be planning to do.

**TECHNOLOGY
PLANNING:
READY & WILLING,
BUT ABLE?**

In terms of quantity alone, the responses indicate that a lot is already going on across the country at both state and local levels. It can't be boiled down to a few clear patterns because of the immense variety from place to place. For that reason, the entire table is presented here. Neither is it possible, on the basis of the data gathered, to judge the quality or depth of the activities or to judge if an

Table T3, cont'd

- WV We currently have a 5-year plan underway. If funding exists it will be continued. We are sequentially and geographically providing training and equipment to literacy providers across the state.
- WI The SLRC is actively involved in bringing together technology suppliers and instructors to promote planning and professional development.
- WY No funds, only encouragement.

Q4 - Local Program Plans (self-help)

- AR Computers are today—and so are our students! Any computer-related services offered to volunteers (training, in-service, instruction) would be realistic in today's technology. It represents reading for living/life skills, payoff of economic and social promotions for individuals. But space is limited. (*Literacy Council of Hot Spring County*)
- AR We are looking at ways to make the computer more available to ESL students. (*Reading Together, Arkansas River Valley Libraries for Literacy*)
- CA Finding funds to support the purchase of computers. (*Napa County Library Literacy Program*)
- CA We have been part of a computer-aided literacy project for the past 3 years (Santa Clara County Library is the fiscal agent). We plan to continue participating as long as it is funded. (*Partners in Reading, San Jose Public Library*)
- CA We use computers with our students. We would like for 90% of students to be tied into a computer group in addition to their tutoring. We are scheduling more classes. (*Commerce Public Library Adult Literacy Program*)
- CA Currently working with local community college to use download training/in-service sessions for tutors. Also working with local network expert to network all office computers and computer in off-site office for better use of management software. (*LVA-Marin County, San Rafael Public Library*)
- CO None at present. Our library is very limited in space available. We need sites for computers if we decide to expand. (*Literacy Program, Mesa County Public Library District*)
- CT We have three computers loaded with educational software for learners and a TV/VCR. (*LVA-Greater Waterbury, Silas Bronson Library*)
- DE Purchase new, updated equipment and software. (*LVA-Wilmington Library*)
- FL None—support for program is dwindling. We're focused now on simply maintaining what we have. (*Hillsborough Literacy Council, Tampa-Hillsborough County Library System*)
- FL We have educational computer programs in our literacy learning center from pre-K up on reading, math, geography, etc. Videos to teach reading at home or train tutors. (*Panhandle Library Literacy Consortium, Jefferson County Public Library*)
- FL It is going to be a focus of fundraising in the next two years. (*Each One-Teach One, Broward County Public Library*)
- FL Our most recent purchases have included CD-ROMs and sound. We use videotapes and would like to be able to purchase more videos. We have made no plans for distance learning but would like to collaborate with other local providers to begin to explore ways to offer our students this option. (*Center for Adult Learning, Jacksonville Public Libraries*)
- GA We are in the process of trying to add more computers to our Learning Center as well as initiate them in our outreach facilities/locations. We have extended the satellite dish capabilities to our Learning Center to facilitate distance learning. Extended network to Learning Center to facilitate computer-based education. (*Learning Center, Athens-Clarke County Public Library*)

Table T3, cont'd

- GA We use both and currently have a 24-hour, 7-day a week television cable channel devoted to literacy. (*Literacy Program, Sara Hightower Regional Library*)
- GA To seek grant funds for additional computer learning labs and a mobile computer learning lab. When the library becomes connected to the Internet, we'd like to provide special opportunities for adult learners to participate in listservs such as LEARNER. To develop a coalition of county agencies to address literacy needs of their employees which could be met by using a mobile computer lab and/or the library distance learning site. (*Literacy Program of DeKalb County Public Library*)
- IL Currently involved in statewide pilot project for technology. Wrote a technology plan for library literacy. (*Libraries for Literacy in Lake County*)
- IN We have already requested certain hardware and software as "wish lists," and include hardware purchases among those items we could use from local benefactors. Our use of technology would primarily aid us in work throughout, and not so much in our educational objectives. (*Literacy Program, Knox County Public Library*)
- KS We are seeking computers, software and cash donations from our business community. (*Literacy Program, Johnson County Library*)
- MA We are using a computer grant this year to fully develop the use of our 9 computers with learners. We'll be using a modem and gaining access to Internet. (*Read Write/Now, Springfield City Library-Mason Sq. Branch*)
- MA Getting a dedicated phone line/modem. Funds to buy more software. (*Center for New Americans, Jones Library*)
- MA With each proposal we develop, we include resources for new technology. Currently there are no other means available to acquire technology for Lawrence. Four out of the last five years, due to inadequate local funding, we have had to raise money to buy books! (*Newcomer Family Literacy Project, The Lawrence Public Library*)
- MA We plan to train tutors more effectively and efficiently in using computers that are available for use in the library. (*Literacy Program, Thomas Crane Public Library*)
- MI We struggle to exist now. People in our community don't expect their taxes to be used for supporting administration of literacy programs. They want their donations to go for direct benefit of the student being served—educational materials and volunteer tutor training. Of course, this doesn't happen without administrative costs. (*MARC Literacy Program, Greenville Public Library*)
- MN We are developing a program so that the library will have two additional CD-ROM work stations and the Hubbs Center at two computers with direct access to the library catalog (which includes a magazine index and catalogs for other metropolitan public libraries). Within the next two years all the libraries in the city will offer Internet access. At present it is a pilot at the Hamline Branch. (*Linking Libraries & Literacy for Lifelong Learning, Lexington Branch Library, St. Paul*)
- MN We have received a grant for adopting computing for differently abled. We will establish an open computing lab in 1997. (*Franklin Learning Center, Franklin Community of Library, Minneapolis Public Library*)
- NC Applying for grants for software, hardware, distance learning. (*Community of Readers, Glenwood Library, Greensboro*)
- NJ Since the literacy program personnel is minimal, and the influx of learners is high, we do not have time to keep the records on computer anymore. (*Basic Skills for Reading and ESL, Elizabeth Public Library*)
- NJ It's not carried out in a vacuum. We are in the process of purchasing more software both kids and adults can use. TV and radio are used by our learners to learn more about their communities via discussion-led group activities. (*Literacy for Non-English Speakers, Paterson Free Public Library*)
- NM Working with local university and ABE classes. (*LVA-Socorro County, Socorro Public Library*)
- NY Seeking out funding for two full-time technology persons and more hardware and software. (*Literacy Program, Brooklyn Public Library*)

activity in one state has as much weight as that same activity in another state.

Yet, it is significant to find in Table T3 that, with a few exceptions, the plans described by librarians and library agency literacy professionals tend to be somewhat static. They have the feel of being very tentative...conditioned on the continued availability of already inadequate funding...modest in scope and vision...and exploratory in nature.

The talk is largely in terms of *encouraging* others to do something... *exploring* ideas with other groups...*looking for* resources and funding... *getting ready to plan...* *watching* the developments...or continuing to do what is already being done, e.g. *allowing* the use of funds for technology purchases by local library literacy programs.

Still, several of the Q1 and Q2 responses are quite proactive and substantial.

For example, the state librarian of Iowa says that "the State Library has spent \$2.5 million to bring online information to libraries. Some 90 public libraries are on the

statewide distance education network.”

In Oregon, “a LSCA Title VI grant set up six adult learning work stations in public libraries for the purpose of demonstrating their effectiveness. Sharing the results of this demonstration should assist in increasing the use of the technology. The Oregon Information Highway Project is attempting to increase Internet connectivity in public libraries....Libraries also need to refer students more to programs broadcast over the state’s distance learning system as administered through ABE programs in community colleges.”

In Illinois, “the State Library will produce more interactive video conferences on literacy, train more educators and librarians how to work with computer and distance learning formats, and increase [its] video holdings in literacy (with local programs given permission to duplicate them).”

The Library Commission spokeswoman in Massachusetts advocates “use of distance learning models that can

Table T3, cont’d

NY In the Fall of 1994, the Centers brought in the former director of the Technology Center at NCAL, to evaluate the current status of technology in the program and to prepare a plan that would include long and short term goals. The following activities have been initiated as a result of the report: the purchase of one multi-media computer for each Center, the development of a task group to review and recommend multimedia software, the Bloomingdale and Fordham Centers have gone online as a result of a grant from the NYC Professional Development Consortium, and extending computer hours at Centers to increase student access. In addition we plan to work toward achieving the following goals: provide more comprehensive and continuous training for professionals and volunteers, implement a planned computer literacy curriculum for students, continue to upgrade computers at CRW sites, continue to develop Central Software Database, and begin to develop online assessment techniques. (*Centers for Reading & Writing, New York Public Library*)

OK I have the technology and software now; am in the process of developing such a program. (Star-Hartley Invest Learning) (*Great Plains Literacy Council, Southern Prairie Library System*)

OK We just completed a public fundraiser to raise funds to purchase software for the public computers in the library. (*Moore Literacy Council, Cleveland County Library*)

OK None at this point; we have neither the funding nor the physical space to implement the use of computers in the literacy program. (*Literacy Council of LeFlore County, Buckley Public Library*)

OR We need to build our new library first, but are researching software and investigating computer space possibilities in this one. (*LEARN Project, Eugene Public Library*)

PA (1) We have received a LSCA Title VI Library Literacy Programs grant for 1995-96. With LSCA funds, we will research adult literacy resources on the Internet, provide Internet training for 24 adult learners and their instructors, and publish the 5th edition of the RDP Bibliography on the Internet. Access will continue beyond the project through the RDP Internet Center. (2) At least four times a year, our staff members provide workshops for tutors and teachers. New and significant books are highlighted, but an increasing emphasis is being placed on computer software suitable for adult learners. These workshops will be expanded to a second location where the computers acquired through the Internet project will be used. (*Reader Development Program, Free Library of Philadelphia*)

PA We would like to train tutors to use computers in our tutor training workshop. We also would like to compile a list of available computer resources (hardware and software) available at local libraries. If we had additional funding, we could purchase software. (*Bradford-Wyoming County Literacy Program, Bradford County Library*)

RI For management applications, a new computer and updated software will produce more professional PR materials, i.e. brochures, flyers, newsletters, reports, letters. An approved grant will provide for acquisition of such technology. (*LVA-Kent County, Coventry Public Library*)

SC The Library will acquire instructional audio-video materials and equipment, three computers, literacy software, one set of read-along classics, and necessary books to complete a core print literacy collection. Curriculum is shifting to more use of computers, videos, and non-print materials. Video and audio tapes and equipment are not inexpensive, and are cumbersome to transport. (*Literacy Program, Greenville County Library*)

TX During March of 1996, we will be opening a new Literacy Center to include a 20-station computer learning lab. (*Literacy Center, El Paso Public Library*)

TX None at this time. (*Andrews Adult Literacy Program of Andrews Public Library*)

UT Yes on DLT for staff training purposes. We have applied for a grant that would enable us to purchase educational hardware and software, and training personnel. We currently offer introductory computer instruction in a classroom setting. (*Bridgerland Literacy, Logan Library*)

VA Provide for student use computer software or basic literacy and pre-GED. (Literacy Program, Newport News Public Library)

WA We plan to provide access to ABE/ESL/GED software on a walk-in and class

Table T3, cont'd

basis. We will be more attractive because of our increased technology. New learners will come to us to “learn the computer” and will read more as side benefit. (*Literacy Program/ Lifelong Learning, Seattle Public Library*)

WI We are piloting a computer Family Literacy Program, *Families Learn and Earn*, designed to help families gain computer knowledge, upgrade job skills, and interact with their children. Designed for a business site. (*LVA Chippewa Valley/Eau Claire, Eau Claire Public Library*)

WV We would have to pursue this through grants because we don't have the funding. (*Literacy Program, Monroe County and Peterstown Public Libraries*)

provide training...” The agency will “work to provide more libraries with Internet access.” It is worthy of note that on May 29, 1996, 39 local library literacy programs in the state were listed on a Commission Internet site that also provides links to state and national resources, so that anyone with access can track down information on library literacy programs, services, and issues. (For those who want to browse, the site address is <http://mlin.lib.ma.us>.)

According to the Texas library agency, “distance learning technology is particularly appropriate for *rurally isolated* areas of the state. [The agency] is providing funding for public libraries to connect to the Internet, encouraging systems to collaborate with community

agencies and organizations [in order] to share catalogs and resources online, and providing funds for community information referral programs in the libraries.”

And in West Virginia, “over 100 public libraries in this state are downlink sites for distance education and [the agency is] incorporating technology with a literacy mission.”

THE SLRC PERSPECTIVE

In general, the SLRC directors are more detailed in their thinking than the state library personnel, although now and then a curious note of complacency sets in.

Their plans fall heavily into a few broad areas: workshops...

training programs and services...and activities to expand and improve information services—with occasional options for independent learning—especially via the Internet.

Plans are in the works in some cases for software evaluation and in one SLRC for the development of a media software library to which there would be statewide access.

Moreover, regional and statewide electronic networking initiatives, already in process in many of the states, would be built on in several instances. (Note that some of the thinking on this subject stems from regional demonstration grants from the National Institute for Literacy, a program that apparently recognizes the need for

educators and technologists to work and think together in new ways. Libraries do not seem to be a key partner in that demonstration activity but they could be easily included.)

It is interesting that while a few SLRCs in T3 speak of planning for the greater use of computers for *instructional* purposes, the main focus, again, is on serving informational and staff training needs. It is also interesting that some of the thinking reflects a kind of pipe-dreaming that is probably unrealistic in the extreme in the present economic and political climate.

But, in a more positive vein, here are a few thought-provoking SLRC replies:

“Our Center will have a server site on the Internet in the Winter/Spring of 1996,” says the Iowa SLRC. “We will position computers/modems at each community college, ABE site, and public library.”

In Kentucky, “literacy providers and therefore students do not have ready access to technology hardware and courseware.

Steps have been taken to ensure that each literacy provider has computerized record-keeping capability. Funds are not available to the adult education network to keep adult students technologically literate.”

“The SLRC [in Nebraska] is preparing to conduct a statewide survey of adult literacy providers...to assess existing computer use and/or access and begin to identify what is needed across the state to encourage greater use of technology. [They] hope to establish a statewide listserv available to all groups, learners, businesses, agencies. [They] are also beginning some ABE-GED staff development efforts using distance education technologies. Additional training will be provided across the state...to help familiarize people with the use of computers in an instructional/learning capacity.”

The Ohio SLRC “maintains a gopher and WWW server for adult education resources. [It] provides training on the Internet for teachers, and maintains a listserv for Ohio adult literacy educators. [It is] the

Regional Technology Hub for the eleven other Midwest SLRCs (NIFL grant) and will be helping them develop WWW pages, add state-specific information to the server, and work with local programs to use the resources on the Internet.”

Utah is demonstrating and training adult literacy providers in the use and application of the latest technology and media ...which it has already secured. Beyond that, instructional programs are already being offered on public television and they will presumably be continued.

LOCAL PROGRAMS: TRYING TO DO THE NEARLY IMPOSSIBLE

Local library literacy program directors are the final group to be heard from on question T3.

Consistent with their low response rate earlier, there are few references here to distance learning technology or the Internet, though a few of the respondees do speak of entering these arenas.

What is evident from the responses is that most programs already use computers to some degree

For greater use of computers and distance learning technology to become a reality in this time of shrinking budgets and staff reductions there will need to be a greater degree of cooperation and collaboration. Educators, librarians, and literacy personnel need to all feel that they are important players! Establishment of linkages between literacy, library, and education on the World Wide Web can help bring these groups together. (Dan Boyd, SD)

for either instructional or program management purposes—and this is the case whether they offer direct instructional services or function as umbrella organizations in support of such groups.

Most programs would apparently benefit from more computer usage. Some are trying to plan for that now. Others have recently concluded such planning and are taking steps to wider implementation. Still others are engaged in fundraising to this end. Some appear to be at a loss altogether about what to do and how.

For many—and this is certainly one of the most important messages of this study—even those local library literacy programs that have concrete plans

for more and better computer use and a solid base on which to build are constrained by formidable funding and space problems. Despite their relatively good understanding and intentions, few local programs appear to have the means to finance much of anything new.

Indeed in one New Jersey program, because there are too few staff members and a heavy influx of students there is not even time to keep the records on a computer that is already dedicated to that purpose.

And for a program in Minnesota it is a “struggle to exist now. People in the community don’t expect their taxes to be used for supporting administration of literacy

programs. They want their donations to go for direct benefit of the student being served, or for educational materials and volunteer tutor training. Of course, this doesn't happen without administrative costs."

Programs that may be in somewhat better financial shape are not necessarily able to take giant steps either, though there are a few bright lights.

For instance, the Athens-Clarke County Public Library program in Georgia is "in the process of trying to add more computers to [its] Learning Center as well as initiate them in [its] outreach facilities/locations. [They also] have extended satellite dish capabilities to [their] Learning Center to facilitate distance learning."

In California, the San Rafael Public Library's LVA program is "working with the local community college to use download training/in-service sessions for tutors."

And Read Write/Now of Springfield City Library in Massachusetts is "using a computer grant this year

to fully develop the use of [its] 9 computers with learners. [They'll] be using a modem and gaining access to the Internet."

In only a few cases do really substantial efforts appear to be unfolding. The Literacy Center of the El Paso Public Library in Texas is one case. It "will be opening a new Literacy Center to include a 20-station computer learning lab."

Two of the most notable exceptions are literacy programs of the New York Public Library and the Free Library of Philadelphia. As their lengthy responses in Table T3 indicate, these programs have already done extensive technology planning and both are involved in ambitious implementation activities.

But they are hardly typical. One is a large direct-service urban effort and the other is a long-established city-wide resource and technical support center for surrounding provider groups. And, as will be evident later on, compared to other local programs in the study, these two are among the best funded—though they are under the

same budget pressures as everyone else and do not necessarily have a secure future.

TIME & TIME AGAIN: NO MONEY!

If any doubt lingers about funding as a major obstacle to planning for and implementing computer and distance learning technology, for library literacy programs or any other purpose, the responses to the next question should dispel it.

Despite the fact that the question intentionally avoided explicit reference to funding as a possible barrier, it is crystal clear from T4 alone that **the single greatest obstacle to wider use of these technologies among *all* groups surveyed is the lack of funding.**

As analysis of Table T4 reveals, even barriers described in other terms translate into funding problems. People cannot afford to hire needed staff, seek or give training in the new technologies, buy the hardware and software in the first place, maintain it once acquired, or tie into a network of interest.

Moreover, lack of space for housing the

technology and its essential supporting operations and staff is a considerable problem.

The data also suggest that a significant number of the SLRC respondents feel that there is limited understanding of and eagerness to use computers and distance learning technology, especially among provider groups.

A NEED FOR INFORMATION ABOUT GOOD MODELS

In question T5, local library literacy programs interested in increasing their technology use were asked to indicate specific programs and resources upon which they would like to model their own efforts. The question assumed that the local groups would have some familiarity with the technology usage of other programs.

The most remarkable thing about the overall response is its thinness. Only half of the respondents from question T1—where 73% of the local groups said they favored more use of computers—answered this question at all.

T4. What are the 2-3 most significant barriers you face in bringing about more, and more effective, use of computers and distance learning technology (e.g. lack of software...lack of interest among library management, librarians, or the community...lack of hardware...network access)? [Q1-Q4]

	Response	No Response
Q1 State Librarians (31 of possible 34 responded)	91%	9%
Q2 Library Agency Literacy Contact (37 of 38)	97	3
Q3 SLRC Heads (39 of 40)	98	2
Q4 Local Library Literacy Programs (54 of 59)	92	8

[Note: This question was answered primarily by persons answering “yes” to either of the questions about increased use of computers or distance learning technology. Some respondents indicating “not sure” also answered this question. Many of the respondents indicated more than one barrier.]

	Q1 (% of Respondees Mentioning Item)	Q2	Q3	Q4
Lack of funding/funding uncertainties	42%	5%	51%	39%
Lack of staff/trained staff/expertise	35	22	36	31
Lack of software/quality software/affordable software	23	19	26	35
Lack of understanding re uses/value/potential of technology	19	5	8	4
Lack of hardware/funds for hardware	19	38	56	26
Lack of network access/connectivity	16	22	31	15
Lack of interest/commitment from librarians/library mgmt	13	11	8	2
Lack of suitable training services/processes	10	19	15	7
Lack of time—to learn new technologies/undertake new services	10	3	3	7
Lack of information about resources/quality programs & models	10	16	15	2
Lack of community/general awareness	6	5	8	4
Need for more partnerships/collaborative efforts	6	5	3	
Infrastructure—variations in service from place to place	6	5		
Lack of resources/technology for non-literacy library services	3	3		
Lack of resources in remote areas	3			
Lack of space	3	14		26
Need for strategic planning/or a state plan	3		3	
Enabling legislation at state/federal levels	3			
Need for success stories to be publicized	3			
Need for adaptation/use of WWW technology	3	3		
Use of technology still at experimental level	3			
Fear of/discomfort with/resistance to computers	3	16	10	4
Main barriers are human; not technical	3			
Disarray in state government about who has responsibility	3			
Overcoming hype		3		
Overcoming territoriality		3	3	
Librarians won't let literacy personnel use their computers		3		
Volunteers/literacy educators reluctant/unable to use computers		5	5	6
Lack of understanding/interest among service providers			13	2
Lack of knowledge/understanding/experience			8	2
Sense of futility—everything's gong down the drain			3	
Programs don't even have modems			3	
Unequal/lack of access to technology			3	
Limited transportation prevents access				2
Lack of buy-in			3	
Limited media support			3	
Lack of trained creative service providers			3	
Rapidity of changes in technology field			3	2
Lack of hardware/software standardization/ research outdated before it can be implemented			3	2
Learners have little interest in computers				2
Administrative priorities				2
Rural areas hae special/needs and problems, often not recognized				4
Reliability of hardware/software & time spent troubleshooting				2
Student recruitment				2

T5. If you want to increase your use of technology, indicate any programs or specific resources currently using technology, if any, upon which you would like to model your technology program. [Local Programs, Q4 only]

We would like to have a computer lab with staff on site. We currently have computers for literacy instruction in two branches. They are not used as well as they could be. (*Partners in Reading, San Jose Public Library, CA*)

There is already a Justin Lab in our town so another program would be better. Haven't chosen any specific one yet. The school list has computers but most are not available for public use. (*Literacy Program, Mesa County Public Library District, CO*)

A learning laboratory. (*Hillsborough Literacy Council, Tampa-Hillsborough County Library System, FL*)

Learning center-family oriented. Educational software. (*Panhandle Library Literacy Consortium, Jefferson County Public Library, FL*)

NCAL. (*Libraries for Literacy in Lake County, Waukegan Public Library, IL*)

We would like to purchase more PLATO software, the ESL Ellis program, and more video tapes for use in our ESL program. (*Project Finish, Johnson County Library, KS*)

What our learners want to do is what most people want to do with computers—word processing. (*Read Write/Now Program, Springfield City Library-Mason Sq. Branch, MA*)

There are other technological solutions besides computers. My students find little hand-held "language masters" and translators very helpful. For some students, this is a better solution. (*Center for New Americans, Jones Library, MA*)

Programs utilizing all technologies where learners can relate via modem, in person, or by voice mail—crucial. (*Franklin Learning Center, Franklin Community Library, Minneapolis Public Library, MN*)

I don't know what is available. (*Literacy Center of Prendergast Library, NY*)

We are the model. (*Literacy Program, Brooklyn Public Library, NY*)

We would like to connect with programs who are using technology in ways that are compatible with our instructional approaches. The Brooklyn Public Library recently redesigned the technology component of their program—there are aspects of that program that we would like to incorporate into ours. (*Centers for Reading and Writing, New York Public Library, NY*)

One in the Fayetteville, AR library. (*Great Plains Literacy Council, Southern Prairie Library System, OK*)

Have not researched specific programs. There is no point until it becomes feasible for our program. The materials, software and hardware, are increasing at such a fast rate that research would be outdated before it could be implemented. (*Literacy Council of LeFlore County, Buckley Public Library, OK*)

LCC-Emerald Job Center (AFS). LCC Training & Development (displaced worker). (*LEARN Project, Eugene Public Library, OR*)

RDP has requested information from the Library of Michigan regarding its 7 Internet training centers. If relevant, RDP will adapt the training which is designed for all potential users. (*Reader Development Program, Free Library of Philadelphia, PA*)

Several programs in the state use technology, but most of these are large, urban programs. I'm not aware of any smaller, rural library based programs using technology. (*Bradford-Wyoming County Literacy Program, Bradford County Library, PA*)

The El Paso Community College, El Paso Independent School District, and West-Texas Community Supervision and Corrections Department have learning labs which will be used as models for our technology program. (*Literacy Center, El Paso Public Library, TX*)

We are looking at a phonics program (HEC) out of Utah, and the STAR program. (*Bridgerland Literacy, Logan Library, UT*)

Computerized adult testing, assessment and skills enhancement software on disks for pre-GED and Levels I and II and basic literacy. (*Literacy Program, Newport News Public Library, VA*)

Still learning. Any suggestions? (*Literacy Program, Seattle Public Library, WA*)

The T4 summary of barriers identifies critical areas that need attention. The Clinton administration is pushing technology use in schools... why not in libraries? A case can be made. (Jim Parker, U.S. Department of Education)

Moreover, some said straight out that they don't know or aren't yet aware of what might be available. Others make broad references to wanting learning centers or labs without citing any particular models...to wanting *all* the technology available...to wishing for computer software of one kind or another without connecting software type to need...to an array of wish-list items.

Only a small handful of the responses can be construed as showing real knowledge of how other programs are currently using technology and whether these models might be usefully applied locally.

One need that jumps out from Table T5 is the need for leadership to identify successful technology applications in adult literacy settings and communicate that to local programs in a clear and usable form.

JOINING FORCES TO IMPROVE THE PROSPECTS

In question T6, SLRC heads were asked in what way they would work with their state library agency and local libraries to implement effective use of technology in library literacy programs. And in T6a, local programs were asked essentially the same thing, but with reference to a wider range of groups.

Again, assuming the financial capacity to do so, SLRCs would concentrate their efforts in a few areas: planning and development ...staff and tutor training ...sharing of expertise, materials, and other resources...provision of information and workshops on computers and technology... teleconferencing and communications activities... assessment of hardware and software needs... advocacy...development of Internet access and

T6. In what way would you work with the state library agency and local libraries to implement effective use of technology in library literacy programs? [SLRC, Q3 only]

(Note: 35 respondees, 88% response rate. Some respondees gave more than one answer.)

- Provide/share information on technology libraries/provide technical assistance (CO, DE, FL, IL, KY, NH, VA)
- Engage in planning and development work with them (CT, MI, MN, UT, WI)
- Provide training/staff training (IA, OH, OK, SD, KY)
- Work to expand Internet access for state libraries/local programs/teachers/students (NC, NM, TN, VA)
- Draw libraries into NIFL-funded electronic hub we are developing (AZ,CA, TN)
- Coordinate teleconferences/resources/equipment use (CO, OH, OK)
- Work to develop distance learning opportunities for/at library sites (NC, SD)
- Seek technology help from them—they have more resources & expertise (CO)
- Take part in technological network (AL)
- Link with them for loans and circulation (CT)
- Provide information to teachers about library programs (DE)
- Encourage use (IA)
- Conduct how-to-use computer workshops/services (IN)
- Hold jointly sponsored workshops and training (NJ)
- Merge with network of state library agency and local libraries so as to better communiacate with local providers (MD)
- Seek and/or offer funds to get local libraries on the Internet (MT)
- Plan comprehensively to share resources, training, advocacy (ND)
- Help assess hardware and software needs (NE)
- Help develop linkages with state library system (NE)
- Develop ABE software and video collections that can be viewed by local programs (NJ)
- Offer same services any other ABE/literacy program is given (PA)
- Provide computer access to material (SD)
- Having SLRC records built into the library database (VA)
- Expand tutoring and training services at local library sites (WV)
- Not sure (MO)
- Not applicable/as applicable (AK, MS,VT)

I was surprised in the technology area that funding was such a significant problem. I had mistakenly assumed that libraries and other programs often had access to sources of funds for technology and that obtaining specific equipment was not usually a problem. Clearly, the study indicates that funding of actual hardware is a challenge for many and often a critical problem. (Peter Waite, Laubach Literacy Action)

computer networking... and building links between and among state and local libraries, the SLRC, and other groups.

The SLRCs would apparently take basic responsibility for *initiating* and/or providing some of these services, but they also appreciate the need to work *with* the libraries—in cooperative planning, joint sponsorship of workshops, and the like.

They would in fact look *to* the libraries for help in some instances, however, believing them to have the superior technology resources and expertise—and in a few cases the state libraries are seen as holding the key to statewide access to materials. The Virginia SLRC would even like to have its materials drawn into the library database to make them more widely available—an interesting idea highlighted earlier.

Indeed, imbedded in the responses of many of the SLRCs is a sense that libraries have space and facilities that they themselves do not have but from which they and adult literacy groups around the state could benefit. Considering that so many SLRCs are in

abysmal financial straits, as will soon be evident, it is surprising that more of them did not explicitly say this.

In T6a, the thinking of local library literacy programs is identical in some respects to that of the SLRCs. Uppermost in their minds is the sharing of training, materials, or other resources, and staff development and training. Also of high interest is participation in state and local planning.

But local groups differ in some major ways as well. Not surprisingly, as local providers they are much more likely to *need* the services and resources of other groups than to be a *source* of help. They also name fundraising as a priority area of activity, and condition their other activities on being successful in this one. Clearly, however, they are ready and eager for meaningful new engagements, even wanting in a couple of cases to serve as demonstration sites.

The heavy need of local groups for help in identifying and developing appropriate software is underscored again in T6a. About 25%

T6a. In what way would you work with local or state groups (e.g. the state library agency, local libraries, the state literacy resource center or statewide planning body, etc.) to implement effective use of technology in your program? [Local Programs, Q4]

(Note: 42 of the 63 program directors taking part in the survey answered the question, for a response rate of 67%. Some respondees gave more than one answer.)

Share tutor technical training, curriculum, educational software, information, facilities, publications (AR, GA, MA, MN, NE, NJ, OR, PA)

Engage in staff development, and volunteer/staff training activities. (DE, FL, GA, VA)

Identify and develop appropriate computer software program for program management purposes (CA)

Work to develop better software; what's available isn't impressive (MA)

Turn to one or both of them, or a regional SLRC equivalent, as a source of instructional videos/software, in-service workshops, and/or evaluation of videos and software (CA, CA, KS, OK, OR, WA)

Develop instructional training videos (MA)

Develop information videos for the learning disabled (MA)

State library is a funding source/potential funding source (CA, MA)

Seek funds for trained personnel to implement technology we already have and provide staff technical training (FL)

Work with local school district or community college to be the downlink, if funds can be found to purchase the service (MI)

Serve as a demonstration site, if funding is available, to show how a public library can offer adult literacy instruction using the most technologically advanced methods. Otherwise work with local providers to develop and implement technological resources (FL, GA)

Seek help with fundraising (GA)

Involve adult learners in considering how computers are best used in their learning/work with State Library and adult learners to fully develop the use of computers we already have (CA, MA)

Develop cooperative student recruitment activities (FL)

Explore how to effectively incorporate families into a computer program (CA)

Join/remains active in/host statewide or local planning activities for improved use of technology/participate in advisory groups to this end (CA, MN, NY, OR, TX, WI)

Work with cooperative technology team whose members are located near one another (MA)

Work with one or both groups to develop staff training/support/effective use of Internet/develop Internet access (AR, CA, MA, MN, OK, RI)

Work with state library to develop Internet ESL services (MA)

Table T6a, cont'd

Encourage and work with state library to mount an information site on the Internet, coordinate a listserv (NC)

Request/provide information about effective basic reading and ESL software (NM, RI)

Provide local and regional technology consulting services to SLRC and libraries (CO)

Work to preserve the integrity of this community and the larger ecology it is part of. Computers are seductive, but can't learn or teach for us. They can homogenize our culture and dispossess vital small communities of their memories and meanings (IN)

Seek technical assistance help to develop a more comprehensive component to our technology program—to identify appropriate hardware/software, evaluate students' use of computers, improve and refine training activities, and develop linkages to other literacy groups trying to implement technology (NY)

Seek cooperation of the state library literacy office in researching programs throughout the state that might be adapted to use in ours (OK)

Reach out to/network with local programs that can show us how computers and distance learning technology would be useful to programs like ours (NY, WV)

Encourage and participate in networking to reduce problem of library literacy programs being isolated from one another (NY)

Develop easy-to-understand voter information (MA)

Seek training and technical assistance from state library (WV)

Undertake joint awareness/advocacy activities (FL)

There is no time or personnel, nor a secure computer (NJ)

We would help ourselves (UT)

of the respondees want to work with state level groups in developing video and computer software for instructional, training, program management, or informational purposes. They know firsthand that the wares being promoted by software manufacturers and others are too often not suitable for their purposes and adult constituencies.

The desire is also strong to work with the SLRCs and libraries to develop Internet access and services, and to develop network linkages to other local library literacy programs. In fact, a number of the responses reveal that local programs suffer from working in isolation from one another.

It should be noted that to save space, Tables

T6 and T6a are distillations of much longer tables from the background data book. To illustrate the flavor of some of those first-person responses, however, here is a sampling from the data book:

The Illinois SLRC is “gathering data and technology features of public and school libraries in communities with funded literacy programs to evaluate current capabilities, provide the appropriate materials, look at the potential, and identify resources to reach that potential. [They] will know from this information what types of materials to purchase for the state resource center collection.”

“The Maryland State Library Agency and local libraries are operating The Sailor Network that [the SLRC] will merge with to communicate with local providers.”

The Tennessee SLRC is “involved in developing a World Wide Web-based infrastructure of literacy and adult basic education stakeholders, in cooperation with the National Institute for Literacy. As this work expands to the regional

and local level, [they] will involve libraries in training and using the Internet, specifically the Literacy Information and Communications System (LINCS).”

“The state library agency relationship [in West Virginia] has not been strong,” says the SLRC head there. “Local libraries can (and sometimes do) serve as community sites for training and tutoring. This could be expanded.”

A common frustration expressed by the San Jose Public Library Partners in Reading program is a concern about the lack of effective administrative software for program management. “The California State Library contracted with a software developer over five years ago to create a [computer] program,” she said, “but it had so many problems that most [literacy] programs abandoned it. We now each have to ‘reinvent the wheel’ to get software that collects the data and creates the reports we need for accountability. Much administrative time is spent collecting data for a variety of funders, and the data requested is different for each.”

The Center for Adult Learning in Florida's Jacksonville Public Library "was initiated in 1984 as a demonstration project under an LSCA Title I grant from the state library. [They] would be thrilled to be given the opportunity to become a demonstration project again as an example of how a public library can offer instruction to adults in the most technologically advanced methods. Over the past 11 years, many other public libraries have come to [them] for advice and recommendations in setting up similar literacy programs."

The MARC Literacy Program of the Greenville Public Library in Michigan "can arrange with [its] local school district or community college to be the downlink, but [they] don't have the money to purchase the service." They propose to work on a committee to investigate networking and ways to reduce costs to potential users.

"If there were any state programs that would show us how technology would be useful to us," says the Prendergast Library literacy program, "we would like to take

part. In Western New York, library-sponsored literacy programs seem isolated from one another. There is little networking with the state or with other libraries."

And the Readers Development Program in Philadelphia "will continue to work cooperatively with the National Center on Adult Literacy, the Mayor's Commission on Literacy, Drexel University's Community Outreach program, and other literacy groups in Philadelphia."

Finally, one of the most haunting and unforgettable passages of this entire study. It comes from the Knox County Public Library in Vincennes, Indiana, and serves to remind everyone that technology is not a panacea. It also is an admonition: the benefits of technology use need to be tempered by a sober realization that some applications have the power to destroy important human values! The director of the literacy program there puts it this way:

"[We will work] in ways that preserve the

integrity of this community and the larger ecology it is part of. Computers are very seductive, but they can't learn for us or teach for us, and they run the risk of homogenizing our culture, dispossessing vital small communities of their memories and meaning, in order to be able to reach their audience."