

Section IV: Key Study Findings

1. Introduction

The key findings and conclusions discussed in this section are taken from the analysis of the input gathered through the focus groups and supplemented with the surveys conducted with academic, public and school libraries. Summaries of the focus group sessions along with lists of participants are found in Appendices II & VIII.

2. Access to Online Databases

The licensing and implementation of high quality electronic information resource databases, initially in academic libraries and later in public libraries, as the TexShare databases, and to school library media centers as the Texas Library Connection (TLC), has radically enhanced the service capabilities of Texas libraries. Access to these databases, through TexShare and TLC, has become a critical component of library service for all types of libraries. A summary of the use frequency of TexShare databases show the extent to which all types of libraries have integrated these sources into their service delivery program.

Table 6
Frequency of Use of TexShare Databases

Use	Academic	Academic	Public	Public
	TexShare	Non-TexShare	TexShare	Non-TexShare
Heavily	64.2%	52.7%	10.3%	6%
Daily	24.2%	32.3%	23.5%	24.4%
Weekly	9.5%	12.9%	21.3%	27.4%
Monthly	2.1%	1.1%	15.7%	16.2%
Never	-	1.1%	19.1%	25.9%

There is no doubt that with the wide and almost universal adoption of the Internet and the web as the key information delivery technology, it is important that libraries fully integrate the web and the Internet as part of their basic service platform. The study results show Texas libraries have made significant progress in this area with almost all (97%) of the academic libraries having their own website. The needs assessment survey show that while more than 50% of public and academic libraries now have websites, future efforts should focus on increasing the number of libraries hosting their own websites to facilitate easy and seamless access to local and state resources. Focus group participants noted that they would benefit from help in creating and maintaining websites, especially those from libraries with limited staff and resources to manage a web presence.

It will be imperative that Texas libraries have the ability to acquire, store, manage, and provide wide access to a broad array of high quality, credible, carefully selected, and well organized electronic information resources, whether locally produced or sourced from external vendors. Academic libraries have made the most progress in developing websites for their libraries as a key customer service and service delivery feature. Academic libraries frequently use online resources to support faculty so that the development of subject specific electronic portals is emerging as an important library function.

Public librarians report that their patrons frequently used library computers to check e-mail, surf the Internet, and use web search engines, and that they are most frequently called upon to perform general Internet searching, undertake computer troubleshooting tasks, and assist users with basic computer skills. School library media center participants said they used online resources most frequently to do basic research, to enhance class instruction, and to get information from the Internet for lessons.

3. Access to Technological Resources and Services

Texas libraries need to focus on continually increasing knowledge of and improving access to the resources located within their institutions. Access is a complex concept and depends on a set of diverse factors including hardware capacity, software choices, network community, staff knowledge, and local policies. Libraries have made good progress in some areas and need to do more work in others as summarized below. The data available show that the basic access levels Texas residents currently enjoy will be likely to degrade fairly rapidly unless libraries focus more attention and resources on issues of sustainability.

More than 50% of all types of libraries now provide remote access for users, most commonly via proxy server with login/password.

Most academic libraries and more than 80% of public and school library media centers provide at least one workstation for those with physical disabilities.

Twelve percent (12%) of public libraries and 6% of academic libraries offer Spanish language instructions for using online resources, but almost no libraries offer instructions in languages other than English and Spanish.

Digitization and access to digital collections is moving more rapidly in the academic libraries with 25% of the academic libraries already making digitized special collections available electronically. To date less than 5% of public and 1% of school library media centers have digitized collections available electronically.

The integration of various electronic information resources (such as local OPAC's, TexShare, TLC, or other online databases, office software, educational software, Internet search engines) into an easy to use interface is a key issue for most libraries and work has just begun on this issue.

Participants in the Education Service Center focus group, for example, indicated that a great deal remains to be accomplished in providing an easy to use, web-based interface that could be used by all school libraries. This finding was echoed in other focus groups as well. The surveyed libraries are uniformly interested in portal developments.

Needs for school library media centers include the need for web pages to integrate sources; the need to make resources available through icons on the desktop; the need for resources to be accessible on equipment within the library and throughout campus; and the need for more web page development assistance.

Participants from large school districts felt that their staff members need more training on how to integrate the various databases and web resources. They need training on creating web pages, developing and maintaining web portals, and creating local web page links to useful information resources.

Focus group participants from other school library media centers emphasized the importance of having easy-to-use web based access to information resources through an interface page. Some also felt that there need to be more pictures added through access to web resources such as the Associated Press website. Web-based catalogs are emerging as a future service in school library media center.

Public library focus group participants are also struggling with the lack of an easy-to-use interface for various online information resources. Participants stressed the importance of the web as an important library service tool, but indicated that their local library online resources, Gates Foundation funded software resources, and local community (city or county) networked online resources all have different interfaces. Better access through a uniform web interface would facilitate staff and user access. Current work underway through the ZLOT project points toward resolution of this problem. Other groups and vendors are likely to offer options for public libraries as well. One new program, funded by the Gates

Foundation, is OCLC's three-year, \$9 million dollar project to build a web-based, public access computing portal for public libraries, and other organizations.¹

Academic library focus group participants indicated that academic libraries are employing many different strategies to cope with the access complexity issue. Academic libraries are struggling with the fact that they are increasingly dependent on having a sizable technical staff to integrate products and to handle metering, security, and accessibility. Libraries that lack in-house technical support or excellent external support persons to develop, monitor, and manage the integration of information resources are facing daunting technical challenges.

All types of libraries are integrating the various electronic information resources through websites with multiple links; some libraries are creating discipline-specific electronic guides and/or electronic resources pages. Some academic institutions have already created discipline-specific electronic resource guides that dynamically generate updates to their web pages, keeping resource links up-to-date.

Security issues are important for libraries and a significant number of libraries reported that library staff members appear to be uncertain of their knowledge of this area. Focus group information from academic and public libraries show that security (virus protection, authentication, protection of personal information, etc.), is an important topic to them now and they believe it will continue to be one of the most important issues for their libraries in the years to come. Survey evidence indicates that not all library staff members are familiar with security and authentication issues as evidenced by the high "do not know" responses from public and school respondents on security related questions. Almost three quarters of the academic and public libraries feel they could improve their remote access for users if the State Library were to provide leadership in this area.

School library media center staff in large schools indicated the need for training on security software and school library media centers identified security as one of the important future technology planning issues. In general, libraries are looking for an agency or organization that can provide leadership, guidance, and training in this area.

4. Immediate Technology Needs

Texas libraries will need planning help to continually update and upgrade the basic technology platform as new technology and services become available. While Texas libraries have made significant progress through TIFB funding, the survey research results show they are mostly providing the basics and are not yet moving into providing new types of digital and electronic devices for staff or their users. Public libraries provide a basic platform of personal computers and laser printers to staff and users, as do academic and school libraries.

Academic library staff members are most likely to use word processing software, e-mail, anti-virus software, web browsers, and spreadsheet software. Beyond this basic profile however, few libraries are providing newer types of technology or more advanced software or equipment. In addition to the basic items listed above, school library media centers are often providing digital cameras, but most school library media centers are not yet purchasing or providing more expensive items such as laptops, Ethernet cards for laptops, PDA's, pen scanners or DVD burners. Likewise for software, all types of libraries are less likely to use imaging, HTML editing, and web development tools than the more common tools such as word processing and spreadsheets. School library media centers seem to be especially likely to use and support presentation software such as PowerPoint and to desire help in training staff and users on its features.

¹ "The portal will address the ongoing needs of public libraries for managing hardware and software, implementing advanced applications, training staff and patrons, and delivering digital library services ... www.oclc.org. " *Online*, July/August 2002, p. 10.

The focus group participants in large school districts said they want additional hardware, district level access to resources particularly through the web, and software to maintain security. Video streaming capability is needed, as is more bandwidth and wireless access capability for the districts.

Participants in focus groups from small school districts indicate that acquiring additional workstations remains a real need along with other peripheral equipment, improved bandwidth, and technology support assistance for web site development.

School focus group participants said there are a number of school libraries that still need to be automated. Some campuses have “fallen through the cracks” in terms of basic access. Some districts still have not converted local campus catalogs to automated access. In addition, there is concern with increasing bandwidth requirements, acquiring wireless technology, and replacement of equipment. Participants felt the TIFB grant program should help every school library in the state to be automated.

Directors from the Educational Service Centers see a real need for tools that will provide a universal interface to the online resources and also improve subject searching. They also want to see technical service products such as MARC Magician and feel that TIFB could possibly fund this type of product.

Public library participants feel the most significant need that they face is to replace hardware on a regular cycle and replace their aging automated systems. Without ongoing support from TIFB, equipment will age rapidly and will be replaced infrequently. In addition, their other critical needs include replacement and upgrades to current software. Public libraries need help in developing stable funding sources, local plus external, to be able to regularly replace outdated equipment, ideally on a three-year cycle.

Community College library participants felt that they need more sophisticated technology applications particularly to permit greater connectivity between various types of libraries. Their needs include more high-speed transmission capability and much higher bandwidth.

Community colleges reported a willingness to help small communities by linking with public libraries to share information and transmit classes. Community colleges are desirous of receiving more support from their campus technical support departments. More space for instructional rooms is important to community college librarians and they feel that they need to more heavily promote what they already have to improve awareness among their users.

Participants from medical and other academic institutions (4 year +) felt that increased bandwidth was very important along with funds to continuously upgrade equipment as well as having access to a varied menu of information resources including full image databases. Their other needs include better wireless capability and more personal digital assistants (PDA's). Upgrading equipment on a regular cycle is also important. Academic libraries understand the need to be able to manage full image databases and digitizing projects, and they need funds for these activities.

5. Future Technology Needs

The following chart shows the top issues expressed as most important by the academic, public and school library media centers in response to the survey question about what they felt were the most pressing technology needs over the next one to three years. The comparison shows that the libraries are most concerned about maintaining the quality of their technology platforms. Libraries also are concerned about being able to hire staff, maintain security, and provide training, adequate bandwidth and more online services.

Table 7
Most Important Technology Needs

Academic	Public	School
Replacing obsolete technology on a regular schedule.	Replacing obsolete technology on a regular schedule.	Replacing obsolete technology on a regular schedule.
Being able to hire staff with technical skills.	Keeping library equipment secure from viruses.	Improving the level of user skills.
Adding more online information resources.	Having adequate technical support.	Providing adequate security and anti-virus protection for equipment.
Having adequate technical support for our library.	Providing staff with more technical training.	Providing users with technology training.
Having adequate Internet bandwidth for our library.	Coping with the speed of technological change.	Having adequate technical support.

Academic library focus group participants felt that their greatest challenge will be making online resources easier for incoming students to use. The health science related schools felt this is also a very important issue for them because their students have heavy research needs and students need to have familiar tools similar to the ones they used in their undergraduate institutions.

Almost universally, academic libraries feel that helping users gain access to online information through a single interface is a critical issue. They are trying to cope with the increasing demands from users for training and instruction; consequently, they need better strategies for making users more autonomous in using and searching online resources. Academic libraries feel they also should have more tutorials for helping users learn on the web. There is a strong interest in determining whether universal interface portals can be employed to reduce the need for users to be trained for typical search routines. The academic libraries feel there is a role for TIFB funding for portals, which may in turn reduce the extreme needs for user training.

Participants from small school libraries said that their needs are still more fundamental. They need access to current information (print and electronic), access to current technology, and the opportunity to learn how to use the technology and resources they have. They would like to see laptops available during summer for teachers to check out and more access to video conferencing units where students can use these facilities.

The directors from the Educational Resource Centers feel that scanners are important but most agreed that libraries not ready yet to use them effectively. School library media centers are sometimes involved in supporting PowerPoint software; however, these and other higher end applications are frequently coming from the computer labs, not the library.

6. Learning, Education, Training and Staff Development

Training opportunities are a critical requirement for all types of libraries. Given the frequency with which focus group participants referred to training needs and the survey data on training, it would be difficult to overemphasize this need. Training needs were consistently ranked among the top three issues for all types of libraries. The public library focus group participants identified a range of staff training needs from basic information on the use of computers and applications to learning about emerging technology applications. The groups preferred that training be offered at basic and advanced levels, supplemented by refresher or update sessions so that library staff have access to the training as *it is needed* to perform their work assignments.

User needs are shifting as they adopt new technology and begin to make greater use of online resources; this shift is placing pressure on library staff to do more to assist and train users. Focus group participants from large school districts were concerned about the need for teachers to become more comfortable with

using online resources and integrating these resources into the curriculum and in guiding their students in using Internet resources. Another major issue, for K-12 librarians as well as academic librarians, is in establishing evaluation criteria and teaching the criteria for evaluation of Internet resources to teachers and students. Teachers need a better understanding of the research process, how to locate information, and how to conduct an effective and fruitful search. Then they need assistance in integrating the resources they find into the curriculum.

Teachers are starting to change their traditional teaching methods and they will need different training on the use of research tools. One participant indicated that the new TAKS test is going to be more difficult and more subjective in some areas than TASS and that teachers would need specific help in the areas of finding authentic literature, expository pieces, and visual representations.

Students need training in software applications and in learning how to do research in the library using new electronic resources. Students also need to learn criteria so they can evaluate online sources and avoid just taking the easy and quick information off the Internet by limiting their researches to generic search engines.

Public library focus group participants felt there were a broad spectrum of training needs for the public that differ based on the group and/or individual (e.g., senior citizens, high school students, etc.). Also, those individuals who are in not school do not typically come to the library with computer knowledge and skills; they need to begin with basic training. The public libraries also need to find a way to move away from the one-on-one training to group instruction using more tutorials on the Web. The demand for training cannot be met solely with one-to-one sessions. Survey and focus group data confirm that the most important public library training needs include using TexShare and other databases, basic Internet use, and e-mail account training. Also, training in software packages such as word processing programs is important, as is assistance with typical tasks such as resume writing and genealogy research.

Innovative approaches may be needed to get people to participate in training; for example, information literacy needs to be integrated into the curriculum of the schools. Some ideas from focus groups include that schools should open after hours with “No child left behind money” to train parents to help their children with new technology. Parents should also be included in information literacy training. TIFB funding helps now with after-school-hours operations. Perhaps librarians could be paid to staff buildings for more hours. Retired librarians could be recruited to work and/or school library staff needs could be coordinated with public libraries so that they could work together to address the need for parental training on Internet resources.

The survey results show that important training needs for all types of libraries relate to staff and users being able to use the TexShare and online databases. School library media centers gave more importance to training for web design techniques, while public and academic libraries felt training for interlibrary loan activities was important.

All types of libraries rated future training needs in a similar manner. Most important future needs were similar to the current training needs. Libraries felt that training to use the TexShare databases, searching the Internet, and using the library’s online catalog are important. Of lesser importance are managing e-mail activities, digitizing images and managing the library’s network.

The new technology environment of the Internet drives training needs for the staff, public, teachers, faculty, students, and public users. The most important training needs are to train library staff and users on the availability and use of the TexShare/ TLC databases and related resources. The survey results show that patrons and other Internet users are using online databases and resources.

Public library focus group participants particularly stressed the need provide leadership and funding to address training, security issues, and sustainability planning. Public libraries hope that programs can be developed that will enable training to be outsourced to trainers who are well qualified in terms of basic knowledge in order to help public librarians master training requirements. The participants want TIFB to

play a role in determining future training topics and training delivery methods, including the delivery of training to the desktop using state-of-the-art means.

Library media center focus group participants all emphasized the need for more training for all staff, most particularly for the librarians. In larger school districts, library media center focus group participants said librarians need training to improve search strategies with online resources and to develop teaching skills, while library aides need basic training in online resources. Small school media center staff said they need training on how to develop web pages and on the use of basic software such as PowerPoint as well as skills training in computer and peripheral troubleshooting.

School library media center participants also agreed that there is a significant need for quality training using different approaches such as classroom, web tutorials, and videoconferencing. Participants seem to be interested in using distance learning for training delivery; however we cannot assume that distance education training facilities are universally available for training classes.

Academic focus group participants noted that the lack of standards for distance education delivery systems would pose a significant stumbling block for libraries in adapting to distance education delivery models. Public libraries would have to adopt standards for interoperability or they would be faced with incompatible systems offered by different vendors. Unlike most academic and school libraries that are part of larger networked systems, public libraries face greater hurdles in participating in standardized statewide delivery systems. They often purchase connectivity from local, independent Internet service providers.

Participants in large school districts focus group meetings said that finding space for small group training is often difficult. Staff members want hands-on training, more one-on-one training, and direct assistance as they learn.

There also is a concern among school library media personnel with their lack of involvement with instructional technology staff. They feel that better cooperation would improve training. There is a need to bridge the gap between librarians and technologists – to become partners in order to plan and train together. One participant said, “things run better when instructional technology and libraries are better integrated.”

Directors of educational service centers emphasized that the key training issues are the lack of training offerings as well as an inability on the part of library staff members to take advantage of training when it is offered; often they do not have a chance to be trained due to workload and scheduling problems. Scheduling of training is very important so that staff can have advance notice and devise ways to attend.

The best strategy would be to offer training *at the time of need* and only when the new skill will be used immediately. Training should be scheduled with recognition of time constraints for staff to attend. On-demand training should be developed to enable school library personnel to fit learning into their schedules by using computer based training, online training and web tutorials. Focus group participants seem ready and willing to use online training, as an alternative to classroom training.

Texas libraries need continuous and extensive access to training; although they have begun to use distance education strategies, it will be important that libraries take full advantage of the installed technology base and TIFB's technology investment to deliver more training to the desktop.

While many libraries have used and benefited from TIFB-provided training, it is critical to know that a significant percentage of public and school libraries report they have access to no training. Slightly over 40.9% of the school library media centers, 36% of the public libraries, and 23% of the academic libraries reported no days allocated for training last year. This does not mean that training was not available from TIFB or other sources, but rather that the libraries did not use the training.

Academic libraries and school library media centers have more access to distance learning capabilities than do public libraries. This result may be related to the efforts that have been made to create standardized platforms for the delivery of distance education in higher education and for schools.

The barriers faced by public library staff in acquiring the training they need are primarily lack of time available for learning and lack of funds available to pay for all costs related to training. The specific barriers identified include time constraints with limited numbers of staff whose tasks and responsibilities make it difficult or impossible to participate in training; the time available after training to practice what they have learned in training sessions; inadequate training budgets; direct costs for training, travel time; distance to training sessions; and the perceived quality of training available.

A major barrier to staff participation in training among academic libraries is the distance that individuals must travel to participate. Academic libraries reported interest in finding other approaches to training such as web-based classes or tutorials. Community college library participants would like to see network-training sites. Use of voice/web conferences and more access to virtual training options such as the distance-learning program from AMIGOS were also mentioned as alternatives to face-to-face training.

A number of school library media center participants from different size libraries said the most significant barrier is time to schedule training because of the requirements of the library work schedule. This was a particular issue for staff from small school districts. ESC Directors concurred that time, workload, and the distance to training sessions were barriers. Barriers include the fact that the school day does not allow time off for training. Often it is not possible to get release time nor hire a substitute; typically the schools are not paying people for training time. Other participants indicated that while time and location of training is a barrier for some library staff, finding space for small group training on-site is also difficult. ESC Directors said that a commitment by administrators in viewing the library as part of curriculum development team would also help foster more support for training.

7. Impact of TIFB Funding

The data clearly indicate that TIFB funding can be used to create incentives and matching requirements so as to encourage local entities to assume funding responsibility for library technology services. TIFB funds have had a pronounced impact on the service delivery and the technology platform for all types of libraries. Public libraries have been able to leverage the TIFB funds in more cases than either academic or school libraries, but all types of libraries have been successful in leveraging TIFB funds to either attract additional funding or to establish collaborative partnerships with other entities.

Thirty-seven percent (37%) of public libraries, 15% of academic libraries, and 9% of the school library media centers said they were able to leverage additional funds as a result of TIFB funds.

Forty-six percent (46%) of public libraries, 17% of academic libraries, and 5% of school library media centers said they had been able to obtain other grants from other sources as a result of TIFB funds.

Forty-two percent (42%) of public libraries, 30% of academic libraries, and 10% of the school library media centers said they had established partnerships with other community organizations as a result of TIFB funds.

Forty-two percent (42%) of public libraries, 30% of the academic libraries, and 11% of school media center libraries said they had partnered with other TIFB eligible entities as a result of TIFB funds.

Participants in the focus groups from large school districts agreed that TIFB funding has made significant changes in their use of technology and access to resources and expanding services. One participant said “I don’t think we would be in 21st century if we didn’t have it.”

TIFB funds have changed library service. All libraries said they are serving more students than a year ago. Sixty-five percent (65%) of academic libraries, 72% of school library media centers, and 71% of

public libraries say they are seeing more school students using the library than a year ago. Survey Question C 40 a.

The impact for the schools included “being really able to prepare kids for college” and having an open system where students have 24/7-access and are not bound geographically. As an example, TIFB money has paid for laptops for every teacher in one district. TIFB funds have meant that schools have better hardware including quality printers. Focus group participants believe that “many schools would not have an automated library if not for TIFB funding.”

Participants from small school library media centers said the TIFB funding has been essential in providing new equipment and upgrades to existing equipment, but also in strengthening services to students, teachers, and the community. Librarians are able to work directly with students all the time and can teach access to OPAC in the library and computer laboratory. Some libraries now have extended library hours in the evenings for students, teachers, and community members. In addition, some have been offering computer classes to business people and seniors in community. Others said that teachers have been able to be very progressive in integration of technology and information using TIFB funded resources. For example, libraries are acquiring digital cameras that can be checked out for use by teachers.

Public library focus group participants indicated that TIFB funding has been essential to their libraries in implementing and supporting the use of technology as well as having access to specific resources such as TexShare. The participants expressed many of the same views regarding the difference that this funding has made for their libraries. There is agreement that TIFB has meant increased availability of hardware and software. One participant said, “I wouldn’t have computers at all if not for TIF.”

More people are being served now. One focus group participant from a small public library reported that library visits, principally as a result of TIFB equipment availability, jumped from 500 – 4000 per month. This anecdotal information is consistent with the results from the surveys showing there has been an increase in the number of students using the library.

Some said the mix of those coming to the library has changed. There are new and different types of library users: more teenagers; more people doing job searches and resumes; and more unemployed people coming who have lost access to their work computers. TIFB has also meant that many libraries were able to update aging equipment with newer computers that could run modern software and access online resources, a factor that likely attracted new users.

The academic libraries participants said that TIFB has made a huge difference in libraries having access to the technology that permits delivery of new services and more resources at lower costs. TIFB had allowed Texas libraries – which were way behind other states in the integration of database resources - to catch up and stay abreast; “if it wasn’t for TIFB we’d be 30 years behind.” TIFB has brought collaboration that has saved money.

Collaboration has been an important benefit in closing the gaps between the haves and have-nots. TIFB has been a great equalizer by providing funds for the broad population to have access to technology. Collaboration on TIFB grants has been important in bringing together different types of libraries and in helping libraries cooperate with different agencies and community groups.

Participants in the academic/medical public health focus group said that the impact of the TIFB funding has been considerable on their institutions, providing support to upgrade machines, provide wireless technology and servers and, most importantly, access to TexShare and other databases. They have been able to develop digital reference service and employ wireless technology in some libraries. A number of libraries said they were able increase library services at the same time as staff has been reduced and that they had managed this because of technology. Patrons now get better service and it takes less staff time. A participant noted that it has long been difficult to meet the biomedical information needs in rural and west Texas; TIFB funding has helped to improve this situation, although not all needs are being met.

8. Sustainability

Sustainability and security are key future issues. For the future, replacing equipment, security concerns, and training for users and staff are important library issues. Having funds for equipment is the critical sustainability issue for all types of libraries. It is most important to maintain the current levels of computing access. Looking to the future, all types of libraries said that that keeping up with equipment replacement in the next one to three years will be the most important issue facing their libraries. School library media center focus group participants from large school districts said that public access barriers in the schools included security; lack of sufficient numbers of computers; the technical issues around connectivity in old buildings; sufficient physical to accommodate adequate workstations; and the need for improved support and better, more collaborative relationships with the information technology support staff. Based on responses from the focus group participants, TIFB funding has provided an incentive for a number of public libraries to seek out new partners and collaborative opportunities although this is not yet highly developed or completely successful.

Public library focus group participants wanted TIFB to provide leadership in determining what is needed on security and to help with training to address security for individual libraries.

One of the major problems for public libraries is the inability to establish a replacement policy for equipment. This is a problem for a number of reasons; city budgets do not necessarily have established policies for replacement funds and, in some cases, there is not an understanding by city officials of the need to replace expensive equipment on a regular basis. Libraries most often compete with other city or county departments for scarce funds and cannot count on cyclical replacement of outdated equipment. Some libraries, particularly public libraries, also may treat TIFB equipment differently than locally funded equipment in terms of maintenance or replacement.

A majority of Texas libraries rely on their own institutions to supply technical support and the majority of the libraries responding in the surveys felt their technical support is adequate. For the future, however, all libraries express concern that having adequate technical support and access to staff with technical skills will be critical. School library personnel in particular expressed the need for closer collaboration with IT personnel.

9. Awareness

Creating broader awareness of the new online resources and services is an unfinished job. Directors from the Educational Service Centers identified as one of the most significant barriers the reality that teachers do not recognize the value of using online resources and that there is a general lack of knowledge of what is available online. This lack of awareness is further fostered by the fact that some classrooms have only one computer in the classroom, so students don't have access at the point of need; and in many schools there are still too few computers, and some that are too old.

Public libraries also report that public awareness of the contributions of TIFB funding to library technology and resources is not common. As well, academic libraries see the need to broaden and deepen awareness of TIFB funded resources.

The *Communication Plan* Study conducted by the Center for Media Training summarized their findings with regard to awareness and their findings fit with the results and findings from the Needs Assessment study on the problems of creating awareness: A paraphrase of the *Communication Plan's* findings are as follows:

- Librarians do not always inform patrons about the existence of the databases, possibly because librarians have very limited time to work closely with patrons.

- Many patrons accessing services are not aware they are using a component of TexShare, because libraries use their own gateway pages.
- Librarians say a lack of knowledge about specific databases is an obstacle. The need for further training at the local level is apparent.
- Signage does not advertise the TexShare databases.
- Explaining TexShare in understandable terms is difficult.
- Funding is limited for public awareness activities across the state.²

² Center for Media Training. *TexShare Communication Plan*, Austin, TX, August 26, 2002, p. 5.