A low-vision workstation for online catalog access: empowering persons with visual disabilities*

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BACKGROUND

The Americans with Disabilities Act (ADA), enacted in 1990, has had wide-ranging ramifications for public institutions, including libraries. The legislation requires that facilities, programs, and services be accessible to people with disabilities. Denison Memorial Library of the University of Colorado Health Sciences Center (UCHSC) has made a commitment to be proactive in serving patrons with special needs. Our first project was the creation of a low-vision workstation, which provides access to the library’s online catalog and linkages to other libraries nationwide. This article describes the library’s experience with this initiative and suggests how other health sciences libraries might approach similar projects.

The use of computers has dramatically improved the ability of sight-impaired persons to communicate and to access information. The key tool is software that can magnify text or scan it and read it aloud. Many sight-impaired persons now have computer skills that allow them to use a wide range of applications software, join listservs, and navigate the Internet. A basic issue for these users is access to library collections. The widespread use of online catalogs can be either an obstacle or an opportunity for persons with visual disabilities. It is incumbent upon libraries to make it an opportunity.

The UCHSC is separated physically from the three other campuses of the university. The UCHSC has no central services office to satisfy the needs of people with disabilities. The library, therefore, had an opportunity to play a leading role in providing these services.

Campus funding was not available to carry out the project, so the library had to look elsewhere for support. This was necessary in spite of the fact that in November 1993, the University of Colorado Board of Regents passed a resolution asserting the university’s commitment to serving the educational needs of persons with disabilities. The resolution stresses removal of physical and programmatic barriers along with the development of plans to ensure that academic needs of students are met, specifically through access to library materials and computer facilities. Yet, no funding mechanism was provided to implement this resolution, and it is unlikely that the library could have fulfilled this mandate without the help of outside funding.

The library applied for and in June 1993 received Library Services and Construction Act (LCSA) funding of approximately $12,000 through the Colorado State Library. These funds normally are reserved for public library projects, so a strong case had to be made that Denison Memorial Library provides significant service to the public. Although unaffiliated persons do not have borrowing privileges, they make extensive use of library collections and information services on site. As a member of the Colorado Alliance Research Libraries (CARL), the library uses CARL’s online catalog software. The project proposal committed the library to developing a product that could be replicated by the many libraries using CARL software across the United States, another strong argument for the use of LCSA funds.

PROJECT DEVELOPMENT

The initial step in launching the project was selection of technology to assist the visually impaired. An impressive array of products is available. There is also a significant learning curve involved in understanding the capabilities of each product. Because a wide range of computer skills was expected, an overriding consideration was the need for a product that is easy to teach and use. This consideration had to be balanced with the desire for flexible software and compatibility with the CARL public-access catalog. Two publications were especially helpful in gaining insight [1–2]. The listserv AXSLIB-L, now sponsored by American Association for Higher Education, is also a good source of product information and discussion†.

Many screen-reader systems are available, but most are geared to the use of applications software. The adaptation of screen-reader technology to library online catalogs and databases has been slower in developing. The TeleSensory products V-View and V-Voice eventually were selected, for two reasons. First, these products were advertised specifically for use with the library online catalog. Second, CARL Corporation, which develops and markets the CARL integrated library system software, agreed to act as a reseller for TeleSensory products. There are also a

* This project was supported by Library Services and Construction Act Grant no. 93-3-10, administered by the Colorado State Library.

† AXSLIB-L is available for subscription at LISTSERV @SJUVM.STJOHNS.EDU (Internet).
number of other good products on the market that are not intended specifically for use in interpreting an online catalog but could be adapted easily with the help of a skilled programmer.

To make use of the workstation as simple as possible, the system configuration was customized by TeleSensory and the CARL programming staff. One problem encountered was the CARL time-out feature, which automatically returns a user to the main screen if a response is not entered in a specified period of time. The solution was to disable this feature, allowing unlimited time to enter a command. Another problem was that TeleSensory products rely on internal hard cards as well as software, and interference between the V-View screen enlargement card and the V-Voice screen reader card often locked up the software. A consultant with computer-programming skills, who had a sight impairment himself and was familiar with assistive technology, solved this problem by writing a simple menu program to allow users to select V-View, V-Voice, or unassisted access.

The workstation runs on a 486/33 computer with a twenty-one-inch monitor placed on an adjustable-height work table. The large monitor is worth the expense, because the 28-dot pitch provides much better screen resolution than would a smaller model.

Library staff with expertise in CARL connectivity, system configuration, public relations, and training needs served as an initial task force and sounding board as the project progressed. Now that the workstation is operational, the task force has been replaced by a library ADA team of staff members who agreed to learn about the assistive technology in depth and are prepared to demonstrate it and train users. As Wallace Grant and Dorothy Jones have observed, training is expected to be a significant part of the commitment to serve persons with visual disabilities [3].

An enhancement to the grant project became possible when campus funding was made available to purchase The Reading Edge. This new stand-alone scanner and reader provides the next step (audio) for users with sight impairments who have located print material in the library. Users can listen to a reading of a journal article or portion of a book in the library or download the material to an audiocassette or computer diskette. This eliminates the need to take print material home for reading.

Publicity about the low-vision workstation was sent to all sites and organizations in the Denver metropolitan area that provide services to clients with visual disabilities. Increasing numbers of requests for demonstrations and training offer evidence that the publicity has had an impact. The customized software is available to CARL members and other library systems that use CARL.

CONCLUSION

On an academic health sciences campus, it is important to understand how library plans for disability services fit in with broader campus initiatives. A Denison Memorial Library faculty member is involved actively in the planning efforts of the ADA Campus Implementation Committee to ensure that library services dovetail with other campus projects. Still to be resolved are campuswide issues of who is responsible for coordinating disability services and how far the library must go to achieve reasonable accommodation in an era of shrinking resources. In spite of these concerns, the project has demonstrated that the library can take the lead in providing access for persons with disabilities.

REFERENCES


Received July 1994; accepted August 1994