Introduction

Electronic access to catalogs, reference materials, books and other library holdings create a new set of problems and possibilities for the contemporary library. Computer retrieval of information can enhance library efforts to increase equal access for persons with physical disabilities. With appropriate hardware and software, patrons with visual limitations can be provided with the means to use libraries as never before. This same technology may also assist people with some forms of dyslexia for whom reading the printed page is a difficulty. Others who have motor problems which prevent their using a traditional book may be able to use other computer adaptive devices to access library facilities. Congress has recently taken an interest in encouraging public institutions to provide more equal access to computers and electronic information, and future federal funding may become tied to its provision.

New Service Opportunities

Before looking at some of the problems, we should be aware of the new opportunities to reach previously unserved segments of the public.

Persons with severe visual impairments could not use libraries or could only do so with considerable personal difficulty and inconvenience. Even when bringing a reader into the library, there often was not a suitable place to read aloud without causing a disturbance and embarrassment. Mobility-impaired users often found getting to and getting into the library was a hardship, when it was possible at all. Persons unable to handle a book had no real way to make use of library facilities either. In many cases, these are the very people who can become productive citizens and lead meaningful lives through the use of the mind rather than in physical activities. Yet, the library facilities which they needed to help open these doors into a broader life were either closed to them or very difficult to use.

The new generation of adaptive devices and the growing use of electronically stored data is an exciting innovation for such persons. While libraries and service providers are still in the early stages of developing these systems, it is vital to keep this segment of the population in mind. Access systems can be
designed in such a way as to continue to shut out the disabled or, with a little care and effort in the planning stage, can take their special needs into account without necessarily impacting total system costs very much. Making modifications later will prove to be harder and more costly.

Perhaps a personal story will help to underline the opportunities which lay open before us. I am a blind history professor at the Rochester Institute of Technology. A couple of years ago, the college library catalog became available on-line. I phoned in with my PC and speech synthesizer. The first thing I searched was for my own book. It had been in print for some fifteen years, but I had never had the joy of "seeing" it listed in the catalog of a real library. I searched for my name under the author category, and I must confess to both pride and excitement when the computer "read" the listing to me. Not long after that, I carried my speech synthesizer and software to the library, connected it to the PC, did a literature search on an ERIC CD-ROM, and dumped the results to a file which I could later read at my PC keyboard at home. My story is not unique but demonstrates what tomorrow's library can do to empower the physically disabled.

Strategies for Providing Services to Disabled Users

There are two separate ways in which libraries may choose to approach providing these services. Most libraries will want to provide both types of access.

One method is for the library to connect the necessary adaptive hardware to some of its computers and to have the appropriate software available to operate it. The library would have to be sure that the adaptive facilities interfaced with their computers and the software. This would also require having a staff person acquainted with the functioning of that adaptive hardware and software who could instruct patrons on their use.

The alternative method would be for the library to make these electronic facilities available on-line for any patron using a PC and modem to remotely access. In this case, the handicapped person would be responsible for having his or her own PC and adaptive devices. However, as a service provider, the library would want to provide advice to such users on what equipment would be most useful in accessing the system and also to give guidance in the use of the library's remote facility. For remote access, librarians could not be expected to be familiar with the variety of equipment that users might happen to own, but the librarian could be a resource person to direct the handicapped users to find knowledgeable technical assistance.
Challenges That Libraries Face

Every computer user knows that the most persistent and annoying problem in using computers is the whole question of interfacing and compatibility. There are a variety of different systems to meet library needs. Likewise there are many different adaptive technologies for differing disabilities and several hardware and software packages for each of these. Unfortunately, there seems to be no simple, universal prescription to offer as the ideal choice. As always, it is helpful to observe various configurations in actual operation before making any purchase. Further, when the library does provide an in-house system for a disabled user, the user probably will not be familiar with its functioning. Even if that patron is accustomed to an adaptive system, it may well be different from the one the library has chosen. For that reason, the library will need to have a trained staff member to facilitate its first-time use by any patron. As mentioned above, this person would also need some familiarity with the problems faced by remote-access users with disabilities and be able to direct such individuals to technical help when needed.

Helpful Resources

Considering how quickly computer technology is changing, providing a bibliography to guide the librarian in making the relevant software and hardware decisions seems useless. However, looking at a few books in the field would help to alert readers to the scope of the issues involved, and I suggest three books edited by Brandenburg and Vanderheiden (1987). Perhaps what is more valuable is to give the name of an organization which actively keeps abreast of changes related to computer access for the disabled. The Trace Research & Development Center located at the Waisman Center, University of Wisconsin-Madison is dedicated to this purpose, and it is an ideal resource.

Conclusion

The good news for the librarian is that providing more equal access for the physically disabled will require more in care and thought than it will demand in vast investments. The satisfaction of serving an audience whose needs have been neglected will be well worth the effort.

References


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