Assistive Devices and Options for Libraries

by TOM PETERS and LORI BELL

There are a number of services and devices that a library can offer to make it a more accessible place for customers with visual impairments and physical or mobility challenges. This month's column focuses on some of the available hardware, software, and services, but by no means offers an exhaustive list. Assistive technology is a rapidly evolving sector of information technology. Amazing new resources are being developed, but collectively, libraries and IT have a long way to go toward becoming accessible to all.

With shrinking budgets and the challenge of providing more materials in various formats, it may be difficult to select which accessibility options to offer. The biggest problem is that these devices can be expensive. Even if we can get the devices through grants, people with mobility or vision problems don't come to us because they think we won't have anything for them. This causes a vicious cycle for those who want to reach out to these potential users. The users think the library doesn't have anything for them, then when the library does get a device, perhaps very few, if any, people use it. Outreach needs to be a carefully planned component of any assistive technology initiative. The advantage of some of these devices and services is that they may benefit more people than we originally anticipate.

Where to Find Information

Another challenge when purchasing software or hardware that makes computers more accessible is a lack of current knowledge about options, trends, and user preferences. There are several agencies that can offer advice about the best tools. The Illinois Assistive Technology Project has a toll-free number for agencies and individuals in that state. It also provides information on grants, items for loan, demonstration equipment and software, and expertise. The National Assistive Technology Technical Assistance Partnership maintains a contact list of state offices that are funded by the Assistive Technology Act of 1998 (http://www.resna.org/taproject/at/statecontacts.html).

Most of us don't have this expertise and don't know where to seek advice on how to best spend limited funds on these resources. This column will highlight some devices, offer some tips, and describe what others are doing in this area. We have also included a brief resource list at the end of the article.

Check out what your state offers and see which agencies provide assistance locally. Individuals who have had a lifelong disability may be aware of these agencies and make use of their services. But for those who never thought about where to turn for these services, such as someone who has recently had a stroke...
that led to mobility challenges or someone who has had a car accident and lost his or her sight, your resources could be a welcome surprise. Another great service you can provide is to create handouts or fliers about assistive devices and put links on your library Web sites to help users find information on these items.

Libraries that employ people with disabilities or that have a worker who has had an injury and needs to be accommodated in the workplace may also require some of these tools. There may be some grants available that help workplaces purchase needed hardware and software to assist employees with disabilities.

Hardware, Software, and Services You Can Explore

Here are a number of tools you can explore if you want to beef up your accessible offerings.

Accessible Google: Google Labs recently released a beta version of Accessible Google, a resource for the visually impaired (http://labs.google.com/accessible). It was designed by T. V. Raman, a Google researcher who has been blind since he was young due to childhood glaucoma. Basic Google attempts to help people find the most relevant results in a search. When a visually impaired person uses a screen reader to conduct a regular Google search (or any other type of search, including online catalogs), it can take a long time for the device to read the results. Then, the searcher tries to visit the sites, only to find them inaccessible. Accessible Google, however, is designed to help visually impaired users find the most accessible pages.

Google says it has worked with a number of organizations to consider several factors that make a Web page more accessible: its simplicity, how much visual imagery it has, and whether it can be read with keyboard navigation and shortcuts. Librarians can put a link to Accessible Google on their Web pages and publicize its availability through newsletters and news releases.

Screen Magnification for Low Vision: There are a number of ways to magnify the text on a computer screen to assist patrons who have low vision. You can make an Internet terminal accessible to these folks by going into the browser and selecting the largest font size. Although this feature has been available for some time, many people may not be aware of it. However, not all Web sites are coded so that the browser software can manipulate the font size. You can purchase a magnifier that fits over the computer screen or buy software such as ZoomText, VisAbility, and Big Shot Magnifier.

Screen-Reading Software: Some libraries may offer a PC terminal with screen-reading software such as Jaws or Window Eyes. This software can be expensive and difficult to use. A library that provides this resource may have to decide if it's going to train a staff member to become familiar with it or assume that patrons will know how to use it. Some libraries that provide assistive devices and software offer limited help on how to use them. Other, usually larger, libraries may have a staff member who specializes in this type of service.

It would be ideal to have a backup person who is trained in the software, but that's often impractical. Also, because these software programs continue to evolve, the dedicated staff member must keep current with all of the updates and even practice using some devices. If you're going to offer a service such as this and don't have staff who can specialize, you might partner with a local agency that can come in and hold classes every so often. You might require that interested patrons attend the class in order to use the software.

Alternate Keyboards and Touchscreens: For people with low vision or mobility challenges, an alternate keyboard may be the solution. Some of these keyboards are bigger than normal and have large keys with large letters. Others have different colors with different-colored keys so they can be more easily seen by folks who have vision

Resources for More Information

Illinois Assistive Technology Project
http://www.iltech.org

MedlinePlus on Assistive Devices

assistivetech.net's Glossary
http://www.assistivetech.net/about/glossary.php

Arthritis Foundation
http://www.arthritis.org

ABLEDATA
http://www.abledata.com

National Multiple Sclerosis Society on Assistive Devices
http://www.nationalmssociety.org/Sourcebook-Devices.asp

Education World on Assistive Devices
Outstanding Services for Special Populations

There are a number of U.S. libraries that do an outstanding job of providing services to special populations. These are just a few:

Phoenix Public Library Special Needs Center
http://www.phoenixpubliclibrary.org/snc.jsp

Skokie Public Library
http://www.skokielibrary.info/s_kids/kd_COI/index.html

Cleveland Public Library Talking Book and Braille Service

problems. There are also ergonomically designed keyboards for people with mobility challenges, arthritis, or carpal tunnel syndrome. Another alternative is a touchscreen for those who cannot easily type.

Typing Aids and Voice-Recognition Software: For some people, typing or writing may be a nearly impossible task. There are many resources that can help, including check-writing guides, soft pencil grips, an Easy Glide writer, slip-on typing aids for separate hands, and touch-n-type sticks.

Voice-recognition software can assist folks who have mobility problems, carpal tunnel syndrome, vision difficulties, and other challenges. There have recently been big improvements in this technology. When the software was first introduced a few years ago, it was hard to set up. Each user had to take a good deal of time to train it to understand his or her own voice. Programs like Dragon Naturally Speaking allow a user to dictate commands to the computer in order to open programs, to operate the PC itself, and to create word processing documents, reports, e-mail, and more. It's also possible to dictate documents without being at a PC and have them produced at a later time.

Mouse Challenges: We're all so accustomed to working with computer mice that it's difficult to remember a time when we didn't use them to navigate around a screen. A visually impaired person can't see where the cursor is on the screen but may be familiar with keystroke commands. So it's important to have some software that will work with function keys such as Control-k, Control-t, etc. For those with mobility problems, there are large mice, large track balls, switches, a head mouse, a joybox, and other options.

Closed-Circuit Television: Some libraries offer closed-circuit television, which is designed for people with low vision. It can enlarge text up to 50 times and can change the color of the print and background. CCTV creates sight lines both vertically and horizontally. This may prove useful for elderly folks who want to come in to balance their checkbooks, read their bills, or simply read on their own.

Signing for Public Meetings: Some states have laws that require libraries to offer signing for hearing-impaired participants during public meetings. When advertising these meetings, they must make this service available. Hearing-impaired folks should notify the library in advance that they are attending and will need an interpreter. Make sure you're familiar with the laws and requirements in your city, county, and state and know how to locate people in your community who are sign-language interpreters. Sometimes independent living centers or community colleges have folks on hand who can offer their services for a reduced rate.

Talking Books: Don't forget about talking books. They are provided through a nationwide free service from the Library of Congress National Library Service (NLS) for the Blind and Physically Handicapped. Libraries are often the first places people go when they have recently or temporarily lost their vision. We can offer audiobooks and large print books on our own, of course, but NLS has more than 60,000 titles and provides a free audiocassette machine for eligible readers. To find the library that serves your area, go to http://www.loc.gov/nls. More than 750,000 readers in the U.S. enjoy these professionally narrated talking books.

It's Worth the Effort

Acquiring and deploying assistive technology require money and some expertise. You also need to deliver a concerted outreach effort to the members of your service population who could benefit from such resources. Nevertheless, the impact of these efforts can be profound.

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