



Guiding Ohio Online

Level Up: Understanding the needs of People with Disabilities in Your Community

A standard library computer is not usable by patrons with certain disabilities, such as blindness or limited motor ability. Many technological products are available to make computers easier to use for those with disabilities. Below is a list of some of these products. More products can be found on the attached tip sheet.

Blindness or low-vision

- *Screen-magnifying software.* Software that magnifies the text and images on a computer's monitor is extremely helpful to patrons with low vision. It allows users to control the level of magnification on the screen to fit their specific requirements. These programs offer several options for controlling the area of the screen that is to be magnified at any one time. For example, users can magnify the entire screen at once and scroll through all of the enlarged web page or document using the mouse. Users may also choose to magnify a defined area of the screen, and they can maneuver a box-like frame around the screen to center on a specific section to magnify. Many other settings and options are available.
- *Screen-reading software.* For those with extremely low or no vision, screen-reading software can extend and improve the accessibility of any material that can be displayed on a computer monitor. The software reads aloud whatever text appears on the monitor, whether it is the library catalog or another resource. Patrons can use different voices, adjust the speed of the reader, and train the reader to skip certain unreadable characters or improve its pronunciation of other words. Of course, any time a sound-producing device or software appears in a library, there is a need for headphones to accompany the software.
- *Magnifiers.* Book and periodical magnifiers can make traditional library materials more usable for patrons with low vision. These units have a tray on which one can place a print publication. Over the tray is a magnifier unit that displays the publication on a screen. As with the computer screen magnifier, setting adjustments are available. Another version of this technology is closed-circuit television, in which the magnifier is hooked up to a television of any size for ease in viewing.
- *Audiobooks.* For patrons with extremely low or no vision, recorded books in various storage formats should be made available. Wonderful work is being done by dedicated talking-book

libraries throughout the world. This particular medium is an easy one to add to any library's collection. Many titles are available as audio ebooks in addition to earlier audio formats (e.g., compact discs).

- *Kurzweil readers.* The Kurzweil reader in its many varieties has had an immeasurable impact on making printed materials available to individuals with no vision. This device scans and audibly reads the information printed on a page.
- *Braille equipment.* Braille translators and printers may also be of use to those patrons who prefer having Braille copies of printed materials. These devices require a computer set up with translating software and an accompanying printer that prints Braille characters on paper. The equipment can be quite expensive, but not many libraries need such a device.
- *Web and interface design considerations.* When designing a library website or database, remember individuals with extremely low vision or no vision who are accessing these electronic resources using screen-reader software. A number of items (such as images) are completely ignored by this reading software. Typically, people who use screen-reading software are also using a simplified, nongraphical web browser. Web designers should review how their pages display in text-based browsers such as Lynx. Images will not display, but in the HTML (hypertext markup language) coding used to make web pages there are image tags that will appear as captions. Designers should make sure all images have image tags. Section 508 of the Rehabilitation Act (section508.gov) provides standards on web design that are now required of all US federal agencies. Other community and public institutions (such as libraries) are following these site design standards as well. The World Wide Web Consortium (W3C), a web standards organization, has a page on its Web Accessibility Initiative that can help with accessibility questions (w3.org/WAI).

Limited motor ability or ambulatory difficulty

- *Touchpad or trackball controllers.* Patrons who are unable to use a standard mouse (such as those with developmental disabilities or carpal tunnel injuries) can use trackballs and touchpads that exert less pressure on their hands, wrists, and arms. Rotating a trackball with one's palm removes the need to grip a controller with the whole hand. Touchpads allow users to control a mouse by moving an index finger along a pad that corresponds with the layout of the monitor screen.
- *On-screen keyboard.* Patrons who cannot enter text using a traditional keyboard may be able to use an on-screen keyboard via software that allows a keyboard to appear on the screen. A user can then click the board using a mouse to select—in other words, type—letters that will appear in a web browser or other application.

Deafness or Hearing Difficulty

- *Teletypewriter.* For patrons who have difficulty hearing, a teletypewriter (TTY) connection offers a means for communicating with library staff members. A TTY device is connected to a telephone at a patron's home and to a telephone at the library so messages can travel back and forth. Some libraries set up a separate line for this service. This can be extremely helpful for obtaining library information, asking and answering reference questions, and making other requests of library staff. Some libraries are finding that virtual reference through web-based chat or instant messaging can be an effective replacement for standard TTY devices.
- *Closed-captioning.* DVD/video equipment should include the option of closed-captioning so that users with hearing difficulties can still make use of videos. Most televisions or television/DVD/VCR combinations include this as an option.

Now, let's make an inventory. What does your library offer in terms of assistive technology resources? List all:

Now that you know what the library has, consider what barriers still exist. List potential access challenges that may face library users and employees with disabilities when they use library technology that is available:

How can library meet these challenges?

Now let's think about the library's digital space. Use the following evaluation form to evaluate the accessibility of your library's website. Answer Yes or No for each question. A longer questionnaire is available at

<http://www.ala.org/ascla/sites/ala.org.ascla/files/content/asclaprotools/thinkaccessible/thinkaccessible.pdf>

1. For anything on a web page that is not text, is there a text equivalent for that item?
2. Is synchronized captioning, audio descriptions, or other equivalent provided for presentations that utilize both audio and video at the same time?
3. If color is removed, can the web site still be effectively used?
4. Does the web page allow users to specify how the page is displayed within the browser?
5. If a link is embedded in an image, is there an equivalent text link?
6. If information is displayed using a table(s), can columns and rows be identified by screen readers?
7. If frames are used, are they accurately text labeled?
8. Can any elements on the display that blink or flash be disabled without effecting access to the web content?
9. If the web site does not conform to acceptable and approved accessibility standards, is there a text only equivalent of the web site?
10. If scripting is used, such as JAVA, etc., is there a text equivalent so adaptive technology, like screen readers, can read the information?
11. If a page uses a special applet, plug-in, or application to view information, is there a link on the same page for users to download the utility they need in order to access and display the information?
12. If online forms are used, can people using adaptive technology fill in and submit all the required information?

13. Is there a way for users, especially those using screen readers, to skip repetitive navigational links?

14. If users are given a certain amount of time for an action or response, is there any indication how much time they have left or an option to request more time?

15. Is there a help page or easily identifiable contact for users who need further assistance?