Assistive Technology

Assistive technology encompasses assistive, adaptive, and rehabilitative devices. It enhances safety, promotes self-reliance, and supports skill development.

Reading and writing
Vision loss and blindness can create challenging experiences with reading, writing, and communicating. Implementation of assistive technology in one’s everyday life can have an empowering benefit by providing opportunities to overcome these experiences.

Closed Circuit Television
CCTVs are electronic magnification reading systems that enable users to zoom in and read a variety of printed or writing materials. They are either desktop or portable video cameras that project a magnified image onto a monitor.

SARA Camera Edition
No computer experience is necessary to operate the SARA CE scanner reader. The SARA CE recognizes text, translates it into speech, and then reads the text aloud. When connected to a monitor, users can access customizable low vision features to increase text size, change text and background colors, add space between letters, and highlight words as they are spoken.

Victor Reader Stream
A built-in text to speech function reads books in text format such as those from Bookshare (a national online library of digital books), text files from the computer, downloaded books, and MP3s. VRS also includes a microphone for recording personal notes, meetings, and lectures.

BookSense
An MP3 and FM audio player, text to speech, and Braille file reader. Users can access information for education and entertainment, listen to newspapers, novels, and music or record anything from anywhere in either MP3 or WAV format.
**Washington Talking Book and Braille Library Digital Player**
A varied collection of audio books and magazines on digital cartridges can be read using the simple, large button talking books machine offered free of charge to registered users.

**Kindle**
An electronic book reading device produced by Amazon that provides audio access to thousands of in-copyright books and well over a million more that are either out of print or in the public domain.

**ZoomText**
Computer software that gives users the ability to see and hear what they’re doing in all of their applications. ZoomText reads documents, web pages, and email right through the computer’s speakers. With ZoomText magnifier the computer is easier to see for writing in applications such as word.

**JAWS**
A computer software for Windows that works with a user’s PC to provide access to software applications and the internet. Internal software speech synthesizer and the computers sound card read information from the screen aloud, making both reading and writing simpler. JAWS also outputs to refreshable Braille displays, providing unmatched Braille support to any screen reader on the market.

**Kurzweil 1000**
Enhances the reading, writing, and learning experience with software that speaks text aloud in a variety of natural-sounding voices. Quick access to online books, magazines, encyclopedias, allowing users to pursue their reading interests.

**Resources for print books, audio books, and E-books**
There are a variety of resources on the web and in the community that provides large print, audio, and online books that are compatible with the devices above.

**Amazon book**

**Audio Book**

**BookShare**
**iBook Store**  
www.Apple.com Works with devices: iDevices (iPhone, iPod Touch, iPad) and computer.

**King County Library System**  

**National Library System**  

**Recording for the Blind & Dyslexic (Now Learning Ally)**  

**Project Gutenberg books**  

**Seattle Public Library**  

**Washington Talking Book and Braille Library**  

**Telephones**
There are a variety of traditional corded phones, cordless phones, combinations, and cell phones. Many are designed for ease of use by people who are blind or have low vision.

Using large print, tactile, talking, and amplified hearing devices help people stay connected. In addition, contact your local telephone carrier to find out how to sign up for free directory assistance.

Accessible features on landline phones: large button phones, simple speed dial functions, and tactile dialing.

Accessible features on cell phones: large button phones (JitterbugJ), voice activated dialing, simple speed dial functions, VoiceOver (iPhone), and screen reading programs (Android Phones).
Global Positioning Systems
It can be a fearful experience independently traveling outdoors without the ability to see street signs, traffic lights, or oncoming vehicles. In addition to white canes and guide dogs, individuals with vision loss have another tool to make traveling easier: Accessible GPS.

The GPS uses a collection of 24-32 satellites that orbit the earth. At any given time, at least 4 of the satellites are visible from any spot on the planet. The hand-held device locates the satellites to calculate the user’s location, speed, and direction.

Trekker Breeze GPS
A very simply GPS unit designed especially for those who are visually impaired. It has only 9 buttons that are easy to feel and understand. Most individuals use the device to simply identify where they are; what street they’re on, what direction they’re heading, and what is around them (stores, restaurants, etc.) The GPS can be used anywhere, by anyone who is blind or has low vision.

A person doesn’t have to be particularly savvy about technology, nor do they have to be traveling to faraway places. GPS can be used in cars and buses to identify where a bus stop is and can even tell sighted friends and family how to get to their destination.

The Trekker Breeze is NOT a substitute for a cane – if a person is not able to see what is on the ground in front of them, they will travel more safely using their long cane. The Trekker Breeze has the ability to open up the world or traveling by providing valuable navigation information.

In addition to the Trekker Breeze, other manufacturers have developed similar accessible GPS devices. For assistance in finding the best device for your traveling needs contact SightConnection - we offer one on one training on usage and rentals for GPS devices.

Computers
Both Microsoft and Apple computers come equipped with some features that include accessibility technologies.

Mac OS X

VoiceOver
An alternative way for users with vision loss to use Mac OS X. It provides magnification options, keyboard controls, and spoken English descriptions of what’s happening on the computer screen. VoiceOver reads aloud the contents of documents and WebPages and
provides a comprehensive audible description of the user’s workspace and of activities taking place on the computer. It also includes a rich set of keyboard commands for navigating the Mac interface and interacting with application and system controls.

**Screen Magnification**
Zoom is a built-in, full-screen magnifier that can magnify the items on the screen up to 40 times. Users can activate it using keyboard commands, a button on the screen, a track pad gesture, or the scroll ball on a mouse.

**Cursor Magnification**
Independent of Zoom magnification, the cursor can also be magnified so it’s easier to see and follow when moving the mouse.

**High Contrast and Reverse Video**
Mac OS X includes flexible adjustment for changing the characteristics of monitor display. There are setting to increase and decrease contrast, remove color, and even reverse the video to white-on-black or black-on-white.

**Safari Reader**
Safari Reader removes visual distractions from online articles so users can focus on the content.

**Finder Views**
Mac OS X offers four ways to view files and folders to suit the needs of every user. Choose among icon view, list view, column view, and Cover Flow view.

**View Options**
For each Finder view, users can adjust the appearance of items in a window using View Options (Command-J).

**Dock Magnification**
The Dock offers a convenient way to access commonly used applications, files, and folders. Dock Magnification automatically enlarges the icon pointed at.

**Talking Alerts**
When an application needs attention, Talking Alerts automatically speak the contents of dialogs and alerts.

**Talking Calculator** This calculator speaks each button a user presses and the results of the calculation.
Talking Clock
Instruct the Mac to speak the time automatically – on the hour, half hour, or quarter hour. Or users can use a voice command to have their Mac speak the time of day whenever they like.

Windows 7

Ease of Access Center
The Ease of Access Center is a central location to set up the accessibility settings and programs available in Windows. Users can open the Ease of Access Center by clicking the Start button, clicking Control Panel, clicking Ease of Access or Accessibility Options, and then clicking Ease of Access Center. Once in the Ease of Access Center users have the opportunity to activate and learn more about the features below.

Change text size
Allows users to make text and objects larger without losing graphics quality.

Filter Keys
Ignore keystrokes that occur in rapid succession and keystrokes that are held down for several seconds unintentionally.

Keyboard shortcuts
Keyboard combinations of two or more keys that, when pressed, can be used to perform a task that would typically require a mouse or other pointing device.

Magnifier
Magnifies the screen or a portion of the screen to make text, images, and objects larger.

Mouse Keys
Instead of using the mouse, users can use the arrow keys on the numeric keypad to move the pointer.

Narrator
Reads aloud on-screen text and describes some events (such as error messages) that happen while using the computer.

On-Screen Keyboard
A visual, on-screen keyboard with all the standard keys that can be used instead of a physical keyboard. With this function users can also type and enter data with a mouse or other pointing device.
**Personalization**
Change the theme, color, sounds, desktop background, screen saver, font size, and user account picture.

**Speech Recognition**
Enables users to interact with their computer using only voice while maintaining, or even increasing, productivity.

**Sticky Keys** Instead of having to press three keys simultaneously (such as CTRL, ALT, DELETE), users can press one key at a time when Sticky Keys is turned on.

**Windows Vista**

**Ease of Access Center**
The Ease of Access Center is a central location to set up the accessibility settings and programs available in Windows. Users can open the Ease of Access Center by clicking the **Start** button, clicking **Control Panel**, clicking **Ease of Access** or **Accessibility Options**, and then clicking **Ease of Access Center**. Once in the **Ease of Access Center** users will have the opportunity to activate and learn more about the features below.

**Keyboard shortcuts**
Keyboard shortcuts can be found in the menus of programs, or if a letter is underlined on a menu, which usually means pressing the ALT key in combination with the underlined key has the same effect as clicking that menu item.

**Magnifier Enlarge**
Magnifies the screen or a portion of the screen to make text, images, and objects 2-16 times the original. The user can also choose to track the mouse, keyboard, or text editing.

**Mouse Keys**
Use Mouse Keys instead of a mouse by pressing the arrow keys on the numeric keypad to move the pointer.

**Narrator**
A text-to-speech program that reads aloud on-screen text and describes some events (such as error messages) that happen while using the computer.
On-Screen Keyboard
A visual on-screen keyboard with all the standard keys that users can use instead of a physical keyboard.

Speech Recognition
Enables users to interact with their computer using only voice while maintaining, or even increasing, productivity.

Sticky Keys
Instead of having to press multiple keys at once (such as when you press the Ctrl, Alt, and Delete keys simultaneously to log on to Windows), users can press one key at a time when Sticky Keys is turned on.

If you or someone you know will benefit from additional information on assistive technology please contact the SightConnection office.

Our mission
“Enhancing the ability of people with vision loss to lead active, independent lives.”

Programs and services
- Low vision rehabilitation
- Low vision clinic
- Instruction in independent living skills
- Professional counseling
- Safe travel and orientation training
- Education, information and referral services
- Assistive Technology resources
- Adaptive aids specialty store

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