

Texto Tipo: Artículo Informativo

Texto Narrativo

People with disabilities meet barriers of all types. However, technology is helping to lower many of these barriers. By using computing technology for tasks such as reading and writing documents, communicating with others, and searching for information on the Internet, students and employees with disabilities are capable of handling a wide range of activities independently. Still, people with disabilities face a variety of barriers to computer use. These barriers can be grouped into three functional categories: barriers to providing computer input, interpreting output, and reading supporting documentation. Hardware and software tools have been developed to provide functional alternatives to these standard operations. Specific products, and approaches to using them are described below.



Mobility Impairments

Some wheelchairs may not fit under standard height computer tables and some computer users do not have enough use of their hands and arms to operate a standard keyboard or mouse.

Equipment which provides flexibility in the positioning of monitors, keyboards, documentation, and tabletops is useful for many individuals with disabilities. Plugging all computer components into power outlet strips with accessible on/off switches makes it possible for some individuals to turn equipment on and off independently.

Blindness

Individuals who are blind cannot access visual material presented on the computer screen or in printed materials.

Most individuals who are blind use standard keyboards, however, Braille input devices are available. Braille key labels can assist with keyboard use.

Speech output systems can be used to read screen text to computer users who are blind. Special software programs, called screen readers "read" computer screens and speech synthesizers "speak" the text. The availability of earphones for individuals using speech output systems can reduce the distractions for others nearby.

Hearing and/or Speech Impairments

Speech and hearing disorders alone do not generally interfere with computer use. However, modern speech synthesizers can substitute voices and thus provide a compensatory tool for students who cannot communicate verbally. Students with portable systems can participate in class discussions once adapted computers provide them with intelligible speaking voices. Word processing and educational software may also help students who are hearing impaired develop writing skills.

Specific Learning Disabilities

Educational software where the computer provides multi-sensory experiences, interaction, positive reinforcement, individualized instruction, and repetition can be useful in skill building. Some students with learning disabilities who have difficulty processing written information can also benefit from completing writing assignments, tutorial lessons, and drill-and-practice work with the aid of computers. For example, a standard word processor can be a valuable tool for individuals with dysgraphia, an inability to produce handwriting reliability.