Assistive Technology and LDs: A Snapshot

What is Assistive Technology?

Assistive (or Adaptive) Technology (AT) is the term used to describe all of the tools, products, and devices - from the simplest to the most complex - that can make a particular function easier or possible to perform . Some assistive technologies include screen readers, alternative keyboards, head pointing devices, voice recognition software, and screen magnification software.

Who Uses AT?

Often AT devices and products are designed in order to assist a particular group of individuals with specific disabilities. People who are blind or have low vision will often use screen reader software to help them read written text. People with physical disabilities, which render them unable to use a traditional keyboard, might instead use a foot pedal or mouth tube and switch in order to carry out functions on a computer.

What Type of AT Do People With Learning Disabilities Use?

Because learning disabilities affect the way we take in and process information, the most common types of AT used by people with learning disabilities are focused around reading, language, organizational skills, and processing information. Some examples are:

Screen Reading Software

Screen reading software, sometimes called text-to-speech software, will read the text that appears on a computer screen to the user. Screen reading software is particularly useful for individuals with reading disabilities, but is also used for people who are auditory learners, who retain information best when they read it and hear it at the same time.

Speech/Voice Recognition Software

Speech/Voice recognition software, also sometimes referred to as speech-to-text software, will convert the spoken word into text on a page, or into computer commands (i.e. opening files, or navigating software applications) via a microphone. Speech recognition software is particularly useful for individuals who have written expressive difficulties and difficulty using keyboards to navigate software applications.

Word Prediction Software

Word prediction software presents possible words in a dropdown -menu as letters are typed, which the user can select with a mouse click. The software will also predict the next possible word based on frequency of usage and context. This technology is particularly useful for individuals with difficulty spelling, and for people who have difficulty typing.

Optical Character Recognition (OCR)

Optical Character Recognition (OCR) software will convert paper based text into electronic text for use with screen readers. A scanner is needed to scan materials from book or other paper-based text. The OCR will then recognize the letter shapes through imaging analysis and convert them to electronic text. This technology is particularly useful for texbooks, as the pictures and diagrams can be reproduced in place on the page.

Visual Organizers

Visual Organizers are used to present ideas, concepts, information, and related concepts in the form of charts, tables, graphs, flowcharts, and diagrams. This technology is particularly useful for individuals who have difficulty processing, analyzing, and comprehending text-based information but is also used for people who are visual learners.

Electronic Organizers

Electronic or digital organizers are hardware devices or software used for time management and resource organization. This technology is particularly useful for individuals who have difficulty with time management and organization, and is also used by people who are tactile learners and prefer opportunities where they can actually do something physically with the information they are to learn.

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