

# Special Report: The benefits of using technology to help children and adults who have communication, cognitive and literacy challenges

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Excerpts were taken from *Technology for Communication and Cognitive Treatment: The Clinician's Guide* ([www.ittsguides.com](http://www.ittsguides.com))

## A New Treatment Paradigm

Technology has slowly crept into our lives. Assistive technology (AT), drill and practice software, and online communication and collaborative tools have become integral components of this evolution and are gaining increased acceptance in the delivery of rehabilitation and education services.

The use of computers in therapy first appeared in the late '70s with the advent of microcomputers. Word processors gradually replaced typewriters. The primary function of computer use was for word processing. In the '80s, computer use in therapy progressed to the use of drill-and-practice exercises that closely resembled workbook activities, but provided instant feedback. This feedback facilitated the learning process. The '90s ushered in easier access to the Internet and more sophisticated software programs with voice output, the ability to customize options in programs, and more interesting and interactive software. Treatment started to incorporate the use of e-mail and Web sites for reading practice, research, and promotion of self-advocacy.

We are now in the midst of a technology transformation that offers even greater opportunities for people with communication and cognitive disabilities. New Internet technologies are changing the way we communicate, collaborate, learn, socialize and manage information. Blogs, text messages, wikis, Facebook, LinkedIn, application sharing, videoconferences and YouTube have become mainstream in society. These new technologies enable us to advance even further in helping people of all ages who have communication and cognitive challenges. We have reached a pivotal point and need to change our mind-set from using only traditional treatment to prioritizing the integration of technology into treatment.

## Help for the Disabled

People challenged by disabilities can benefit from technology in many aspects of their lives. Computers and other devices, when selected and used with the help of a skilled clinician, can help improve communication and cognitive skills related to education,

employment, recreation, and social and medical needs. AT can help individuals increase independence, build self-confidence and self-esteem, and improve quality of life. Better, more affordable technology holds great promise for individuals with disabilities. Some professionals and family members have welcomed this development of new resources to help others with open arms, some have avoided, resisted, or ignored these helpful tools, and others are unaware that new and exciting treatment opportunities exist. Children and adults with a broad range of difficulties resulting from strokes, head injuries, degenerative diseases, developmental delays and disorders and learning differences can independently handle a wider range of activities with the help of software and devices to read, write, organize, remember, learn, communicate, and search for information.

## **Technology Provides Solutions to Improve Quality of Life Quickly**

- Professionals and family members who want to learn more about using technology to improve the communication or thinking of a family member may become involved in online coaching and training programs with the help of online access and application sharing with a qualified professional.
- Individuals who have disabilities may be motivated to try to help themselves maximize progress after formal treatment sessions have ended. There are many software programs which can provide drill and practice exercises with feedback to help improve reading, writing, talking, listening, thinking and memory skills.
- People who can't read may learn to use a screen reader in just one or two sessions. The computer will read aloud what they select. They may then be able to enjoy an online newspaper, read e-mail from a friend, or read bills or recipes scanned into their computer.
- Stroke and head injury survivors and children with developmental issues who have visual perceptual deficits may benefit from text-to-speech software that highlights and enlarges each word as it is read.
- Children and adults who are unable to write but who speak clearly and have good cognitive skills may benefit from voice-recognition software. It enables them to talk and have the computer type what they say.
- People who can write but have difficulty thinking of words and organizing written narrative may benefit from graphic organizers to help brainstorm and write coherent messages and documents.
- Word prediction technology and online dictionaries are helpful for people who have difficulty thinking of words.
- Clients who have problems keeping track of daily activities may benefit from handheld and web based electronic organizers.
- People who have difficulty communicating basic needs may benefit from devices with which they can select pictures or words and have the computer speak for them.
- Individuals who can no longer talk on the phone may be able to effectively communicate with others who are far away with the help of free online videoconferencing.

- Family members and individuals who are unable to leave the house may benefit from online support groups.

(For the complete free special report- please email [Joan@innovativespeech.com](mailto:Joan@innovativespeech.com))