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Technologies for the Disabled

Nowadays computers have taken the dominant role in our society. Most jobs now require access to computers and the Internet. But what happens if a person is blind, deaf or physically disabled? The latest technologies are designed to help them use computers, do their jobs in the office, attend school and university or interact with their families at home. Technologies offers many different ways that can lead to normal life for those people. Computers help the disabled people get what they want more than anything else - independence. Devices that help them to perform any activity are called assistive technology.

Different types of disabilities require different approaches. Disability can be divided into five types: physical, sensory, cognitive, psychiatric and health-related.

Blind and visually-impaired individuals use Braille keys to input text. They also use helpful devices such as speech synthesizers. People with dull sight can enlarge text by up to 16 times, using screen magnifier. Disabled people who can't type on a standard keyboard use expanded or ergonomic keyboards, adaptive switches and voice recognition systems. Deaf and hearing-impaired individuals can overcome many difficulties using visual alerts, text phones and electronic note takers.

The great example of using assistive technologies is Stephen Hawking. The scientist suffers from amyotrophic lateral sclerosis (ALS) and has almost no ability to move or speak on his own. Because of this he uses speech-generating system that translates what he types on a keyboard into a synthesized voice. The software includes auto-correction, so that he can type only a few letters, and the system will recognize the whole word and will write it for him. Without such technology, Hawking would not have been able to make his contribution into understanding of the world. He gives lectures in front of hundreds of students and his disability isn't a barrier.