<u>How ICT helps people with disabilities</u>

<u>Introduction</u>
       In this Report I will write about how ICT has evolved for people with disabilities, and what the disabled people use instead of the normal devices and software.
       First off I will list the disabilities t hat people may have. Examples of types of disabilities are:

- Sensory disability.
- Physical disability.
- Learning difficulties.
- Language.

I will choose to look at the things that help people with learning disabilities. The learning disability is a vast cate gory out of the four, as it applies for all the disabilities as it slows down the learning process.

<u>Learning Disabilities</u>
       First off as learning disabilities is such a big category I will bullet point the learning disabilities that are know to us.

1. Speech Recognition
2. Blind & Visually Impaired
3. Cognitive Disabilities
4. Deaf and Hard of Hearing
5. Electronics aids to daily living
6. Mouse Alternatives
7. Keyboard Alternatives
8. Switch Access
9. Text-to-speech
10. Augmentative Communication

Not all of these categories are jus t learning disabilities some are sensory and others are physical, but say a person is deaf this is a sensory disabilities

<u>Speech Recognition</u>
       There are two uses for speech recognition these are Dictation and Computer control. Speech recognition is one o f the desired assistive technology systems. People believe speech recognition is a natural and easy method of accessing the computer.

A dyslexic person who has problems with writing English would use the speech recognition to make sure their English is c orrect. A person planning to use speech recognition must be aware he is required to go through an training session. This is a one-time reading when the user must read aloud an excerpt of text that is displayed during the training feature of the speech reco gnition application. (For an example of enrolment text, please see What Is Speech Recognition) Depending upon the speech recognition software, there is several enrolment training excerpts to select from. A person planning to use speech recognition must be aware he is required to go through an enrolment

(training) session. This is a one-time reading when the user must read aloud an excerpt of text that is displayed during the training feature of the speech recognition application. (For an example of enrolmen t text, please see What Is Speech Recognition) Depending upon the speech recognition software, there is several enrolment training excerpts to select from.

Cognitive Disabilities

A cognitive disability is where a person is not able to concentrate and their attention span is very low. To resolve this problem there has been a watch invented that vibrates every 2 or so minutes so this triggers the person and they know to concentrate. The watch is a valuable tool for clinical trials research and improves subj ect compliance. It can be programmed as a medication reminder for home health care patients or the elderly and can assist in weight loss, smoking cessation and behaviour modification programs. The watch is also beneficial to deaf and hard of hearing person s, stroke survivors and their caregivers, and to persons with Alzheimer's and memory dysfunction. The watch is useful for developing independent living skills.

Deaf and hard hearing

There is devices that allow deaf people to receive TTY calls as it come up on the screen the words being said. The NetTalk -VTM8 is personal communications software that allows you to use compatible voice modems to make and receive TTY calls.

Personal Communicator tool for Learning and Communicating Sign Language. The Personal Communicator creates a common ground for communicating in Sign Language. Using hypermedia technology, the Personal Communicator is a user -friendly program that brings sign language communication capabilities to the desktop and notebook computer. With more than 2500 digital video signs and 4500 English words. The Personal Communicator can be a useful tool in communication, education, and other environments.

Mouse Alternatives

If someone is not able to use a mouse because they haven't got full control in there hands then there is mouse alternatives to help people with the disabilities.

Blind & Visual Disabilities

If a person has problem seeing or is completely blind they would be categorized as hav ing a Visual disabilities. If a person cannot read small type then there are a lot of magnification devices out on the market, which fit almost anything from phones to monitors. For example a person with low vision would use a keyboard with extra large pri nt. If a person is completely blind then they would use a speech recognition device.

Text-To-Speech

A text-to-speech is designed for individuals with reading difficulties. It works by simultaneously highlights and reading aloud of text. There are other devices for people with reading disabilities such as spellcheckers

Mouse Alternatives

There are many mouse alternatives for disabled individuals and where ever someone is disabled there is a device that will overcome this, and the individual will still be able to use an alternative for a mouse. There is a eye gaze system that moves the cursor relatively to your eye. A head -tracking device that moves the cursor according to the movement from the head.

Evaluation

Technology has evolved over the last few years for disabled people to be able to use computers. There is always a way round something if a person has disabilities, as I have talked about in this Report. I have learnt a lot in this report and I didn't realize how many alternatives devices there th at help disabled individuals. The sites I used to research are:

- www.abilityhub.com
- www.charityfocus.org/services/res.php
- www.keytools.com