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ICT and people with special needs

There are many people that have disabilities, but there are many ways in which ICT can help them. ICT can give these people more opportunities in life due to the vast range of specially designed computer equipment.

There are people with sensory impairment. People with sensory impairment include partially blind people and those who are totally blind. Being blind might make even the simplest of jobs e.g. reading letters and bills an uphill task. They might need a video magnifier. Even going to the local supermarket would be difficult because you could bump into things. Blind people can also use a special keyboard called the Braille keyboard to put data in to the computer. Sensory impairment also includes people who are deaf and people who lack clear speech. There is technology to help them e.g. spell checkers, Touch screens, Speech recognition systems, predictive word processors and an overlay keyboard.

There are also people with physical disability. A physical disability affects the person's mobility. Voice activated systems are available to put data in to the computer for people whose disability has affected their writing.

People also have learning difficulties. Someone who has learning difficulties finds it harder to learn than other people. Everyone learns in different ways. Learning disabilities can affect the way people read e.g. dyslexia and the way people write.

Unfortunately people might have more than one disability, multiple disabilities. If mobility is a problem then you can use the Internet to do simple tasks without leaving the house. You can do your shopping, order games, DVDs, films etc. They could also use voice activation device to help them with simple tasks such as opening windows and doors. They can issue commands using the device.

If a person can not speak or if their speech is not clear then they can use voice synthesisers to speak words by the non speaker or speech synthesisers to enhance spoken words in a loud environment.

In my main investigation, the special need that I will be focusing on is limited mobility. The technologies that I will be focusing on are:

- 1. Voice recognition system**
- 2. Email**
- 3. Online ordering**
- 4. Electrical equipment**
- 5. Cordless phone**
- 6. Electric vehicles**

Main Investigation

Voice recognition system

Another piece of technology that might be good for some one with limited mobility would be voice activation. The way voice activation works is that it digitises your voice, and stores it on the hardware. All you do is issue commands to the device. You can do the simplest of tasks without having to move. Environmental control systems help people to control their home environment through a single switch, for example, opening and closing windows and doors, TVs, radios, doors, intercoms, telephones, lamps, curtains, windows, riser recliner chairs and beds, and alarms are among the devices that can be controlled. It is adapted to the environment they feel at ease in.

Email

E – Mail is a technology, which is used by everyone in today's world and is getting bigger and bigger. E – mail, short for electronic mail, can be used to e - mail friends and family around the world and is also used in offices and schools for ordering supplies etc. The advantages of e – mail is that the message is usually received almost instantly. It is very easy to compose, send, and reply to an e – mail. Large files e.g. video clips, audio files and documents can be attached. It is a convenient and low cost form of communication and the best advantage I feel for a person with limited mobility it that messages can be sent from your computer without having to leave your desk. This will help the people with limited mobility to use E– mail to contact family and friends around the globe. They can al so use it for online ordering without having to go to the local high street or even to the supermarket, which makes it easier on them without being dependant on other people.

Online ordering

Also the internet would be a crucial tool for a person with limited mobility. You can do anything on the internet from ordering games, films and groceries to paying your bills. Instead of going to shops and stores to order large products or even small ones, you can sit at home and order without having to go anywhere, which makes it simpler for people with limited mobility. Using the internet, you can also buy e.g. airline tickets using the internet. You can plan you whole trip using the internet. This is much better than using a phone because using the internet, it would be more efficient. You can also order cinema tickets, tickets for concerts and many other attractions via the internet.

Electrical equipment: -

Adjustable beds have made it easier for people to sleep. It makes it easier for them to sleep because they can choose the preference of where the bed is. They have a remote control which controls the bed, making it go up or either down. Some of these beds also have built in massage systems. This would be useful for them because it could make the feel more relaxed and make it easier for them to sleep and ease the pain.

There are also specially designed baths available. These baths make it easier for the person to get in and out of the bath. These are called walk in baths. They come in all sorts of shapes and sizes for the persons liking and there are many things to hold on to inside the bath so that they can manoeuvre around easily. This allows them to be more independent.

If a person with a limited mobility has difficulty walking up the stairs, there are technologies there to help them. The technology is called the stair lift. Basically instead of using the stairs, a special chair is installed on your stairs which lifts them upstairs. This makes it easier for them to go upstairs and downstairs if they have trouble walking.

Cordless phone

Cordless phones would be ideal for someone with limited mobility. They allow a person to make calls and also receive calls on a phone that is not attached to a phone line. This would be great for them because they would not have to get up and walk back and forth to the phone. They can do whatever they need to do from they place that they are situated.

Electric Vehicles: -

The people with limited mobility, there are many electrical vehicles available to the. They can use such thing as electric wheelchairs, motorized scooters and other helpful vehicles. These technologies can make it easier for the person to get around to places. Before they would have to use a manual wheelchair. Using a manual wheelchair would be much harder and wood need arm stamina to get to places or they would need some one behind them pushing them. These new technologies allow the people to be more independent rather than relying on other people to help. Electric wheelchairs and motorized scooters help to get those with limited mobility from A to B, easier and quicker

Evaluation

All the technologies mentioned before are useful and very helpful to people with limited mobility.

The advantages of having a voice recognition system are that it helps the person. They would not longer have to get up and do the task, instead they just issue the command it can be done. This would make a bit more self reliant rather than asking someone else to do it for them. The disadvantages are that the system could one day develop a fault and it can be a pain to repair

The email is a great technology. It allows them to keep in touch with all there friends and family. They can send e.g. pictures of them selves to friends and family and they can also receive pictures and other files. This is great because if they do not get out it much, they can still keep in touch. However the disadvantage of the email is that they can carry viruses, and the sender & the receiver must make sure that there account is not full because otherwise they will not receive the emails. And also important emails can get lost.

Ordering via the Internet is good because they can get everything they need from the internet. It would be easier for them to order from t he internet because then they do not have to go their local high street and it could get frustrating for them. The disadvantage of the net is that the person would not be able to see face to face exactly what they are purchasing. They could be buying a piece of clothing but the complete wrong size. And also people must be careful when entering data such as quantity because they could accidentally order more than they intended to.

All the technologies mentioned before are useful and very helpful to people with limited mobility. They are very efficient to use and they also make their lives easier and simpler. They can do all the things as those that do not have disabilities. The technologies help them with everyday life and to lead a normal life. Stair lifts are good to go up and down the stairs instead of having to use the stairs although they are quite expensive to purchase. Environmental control systems are helpful to suit a person's own personal environment but take a while to install. E - mailing and online ordering are the best way to purchase anything you want nowadays and help a lot of people not just those with disabilities it also helps those without any disability.

The most popular technologies from the ones that are mentioned before are: e - mailing, stair lifts, online ordering and modified software. A lot of places are helping those with limited mobility like stores, cinemas, shops and many other places. They have made bigger spaces for wheelchair access, handicapped parking disabled toilets.

Technology is getting bigger and there will be many more ways of helping people with disabilities to make the life just a little bit easier. Also with newer technology there are problems but we can get through those by asking for help but with these technologies they tell you everything you need to

know and is put onto a CD or even a DVD. There are so many technologies that help those with limited mobility and in future there will be many more to come.