

Unit 3c Specific Needs

Mary Cox



A person with specific Particular needs

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Introduction

In this report I have been asked to write about a person with specific or particular needs. It means that I have to find about Mary who works at RNIB. Mary was born with a perfect eye sight but later on her life she lost her eyesight. I will have to describe and evaluate how he or she uses technologies within her life. I will have to find out what technologies Mary uses in her Personal, Social and Work Related. For doing this I will need to write a description of each technology and cover at least three categories which meet their special/particular needs. I will then need to decide whether the technology is personal, social or work related or does the technology come under all three categories. For my report I have chosen to write about Mary. I have found some of the information about the technologies they use on the following website: <http://onlineshop.rnib.org.uk/>

Background information on Mary from the RNIB

Mary was born with perfect eyesight but as she starts growing older she lost her eyesight. Mary works for an organisation called RNIB as a public information. Mary lost her eye sight at the age of 18/19 she is able to see dimply depending on the lightning. Mary suffers from a Disability. Mary is blind. Mary went to a school of disabled students learn how to use a Braille computer. Mary can't do independent things she always needs another person to read for her. This means that she is not able to do many tasks that people with out disability can do, Mary is not completely blind but she is able to see dimply when it's really light. With the help of ICT it made her life easier. Mary uses various technologies in her daily life for Work, Personal use and Social use. Mary used to have a guide and the dog became ill and retired. Mary is on the list for another guide dog so she uses Ultra Cane it's a white stick helps he walking around the house and outside. Mary also uses computer so it can help them to contact their relatives. To do this she uses special Software called HAL Screen reader. Mary also uses Google, BBC, and other website to help her. She uses voice software so the computer can read for her. Mary use computer a lot of computer resources for e.g. Mary orders all her shopping on the internet so she doesn't have to go physically. With the disability affecting her, Mary still work's for earning a living. Mary has not let her disability to come between her successes. She is able to do all these things using the IT resources available. Mary have helped a lot of disabled people and given advice.

Special or particular needs

Mary has a lot of special needs.

- She uses a white canes to use to walk around the house
- Mary used to use a Guide dog but now she doesn't because the dog was sick
- Computer she uses to log on to website for e.g. GOOGLE. BBC etc

- Uses speech and try to use her vision
- Braille Keyboard it helps her to use a computer so she can use the computer to type and do office tasks
- Shopping by correct products
- Be able to walk around her house safely without bumping into things
- Stay in Contact with friends and family
- Listen to music
- Use internet/computer to do shopping
- Website Prom
- Using MSN Messenger with the help of HAL screen Reading software
- She needs to know what colour clothes she is wearing so she use a colour teller
- Use the map to work out her destination so she uses a tactile diagram
- Speech reader because it reads her all the work in the office
- She uses a Hal Screen reader software so the computer can read for her
- Chrome talking watch so it reads the time for her when ever she wants to

What are Mary Cox's personal and social needs?

Mary personal needs are to listen to music, use internet, listen to BBC and also she needs to know what colour clothes she is wearing for a party and work. For that she uses a colour teller which says the colour when you touch to your clothes. Mary needs a lot of time to complete a task as she can't see. In addition in her free time she likes watching Television, Mary have an Audio speech in the movies so it tells the person what's happening in the movie. Mary doesn't have a problem travelling around town because she uses a Digital Ultra cane so it meets Mary needs so she doesn't fall on the floor and the Digital Ultra Cane acts like an assistance. In fact other people have worse eyesight than Mary able to travel around town as well or better than Mary can. Mary use either a Digital Ultra cane or a guide dog and have received appropriate training.

Mary uses Digital Ultra Cane because you never know what kind of construction they're going to do or what part of the bus tunnel they're going to close down or whatever the case. It's good to have a technology like the Digital Ultra Cane it meets Mary needs as she doesn't know about her area a lot so the digital Ultra Cane acts like assistance so it helps her to walk safely and quicker. The Digital Ultra Cane sends signal bounces off whatever is in front of it and then sends the signal back to me. It might go to a foot on each side so you can use it to the left or the right and pick up things. Mary also use it up and down she uses at all time. So if you're using it left and right and up and down, you're still going to get to something with your cane before you move it back down. Mary just keeps it moving all the time.

Mary also uses Chrome talking watch in her daily life. Mary needs to know the time it announces the time when ever she wish to just by touching the screen of the watch. Mary benefits Chrome talking watch as when she needs to do task. Chrome talking watch is easy to use functions buttons announce the procedure for setting the time.

Since the OWASYS Mobile Phone is invented it meets the need of most of the People like Mary in their Social and Personal life. The mobile phone is specially adapted to the needs of blind and visually impaired people like Mary. Mary needs an OWASYS 22c Mobile Phone as she can stay in contact with her family and friends. When Mary receives a call the mobile phone reads out the number and the person name and also as she receives a call or a message the mobile phone vibrates twice and she will hear a short melody. As she is away from the office if she receives a call from the boss to do another task it can be really helpful rather than checking her email. The OWASYS 22c mobile phone has all the features that Mary needs to make calls and receives calls.

Mary uses Hal Screen Reader in her Personal and Social life both the Software allows a blind/visually impaired users like Mary to hear rather than see what is happening on the computer by converting the on screen display to speech. The software meets Mary needs she can contact her family and friends using the MSN the software helps her as she can feedbacks the software talks to you as you're having a conversation with another person. She can also use to check her emails and reply back. The software talks to you as you type by word and character. It reads and spells out any text on the screen when she is reading the email.

Mary also use the Hal Screen Reader in her Personal life as now a days every single person uses computer and it's really important in everyone's life even a blind or a disabled person When Hal Screen Reader wasn't invented so blind people like Mary or visually impaired wouldn't be able to read and use the computer. Mary use computer in her daily life so the Hal Screen Reader provides her with a lot features so it can me her life more convenient and comfortable. The software is fast and responsive and talks to you as an assistant and also it talks as you type, by character, by word or both.

As Mary uses the Hal Screen Reader in her personal and social life, Mary also uses the Braille Keyboard in both her Social and Work related.

The Braille Keyboard is very effective in meeting the needs of Mary Cox because it allows her to improve on her performance so she won't take ages looking for a specific alphabet while she is online or when she is sending an email to her family members or friends. This will also improve her accuracy so if she get's use to using the Braille keyboard she will remember where a specific letter is so that would make her type the correct letter. I have listed many more reason why Mary uses the Braille keyboard in her social life in Page 19.

Mary Cox uses various technologies for her personal and social use. She use Ultra canes to walk around. She find quite boring when walking in the street so she have an DABS radio it talks to her as you press the tuner button. As she moves the frequency announces the radio station so it let her know what station she is in because the voice tells you. In the other hand she uses Ultra Sonic detector obstacle for work and personal use that's a device vibrates when an obstacle is detected.

Mary Cox's needs to stay in Contact with family and friends so when she is on the MSN she uses special software which reads the text on the screen. She uses special Computer programs to scan and read snail mail and checks her e-mail online, but

When it comes to locating a classroom or a hotel room

What are Mary Cox's profession needs / work related?

Mary profession is really hard because some time the manager give a task to Mary so she needs to use the map to work out how to get to the destination so she uses tactile diagrams to help her find her way. Mary also needs to use the telephone a lot when she is at work. For work related Mary uses an OWASYS 22c Mobile phone so she is contact with her client and her boss every day.

Mary uses various types of technologies in her work related for e.g. Braille Keyboard, HAL Reading Software, and OWASYS 22c Mobile Phone and Braille display etc.

Braille keyboard gives blind people the ability to work with mathematical formulae and score writer programs. And for a person like marry she can perform different kind of office task. Mary can use Braille Keyboard at home or office for work, the Braille keyboard work faster and reliable.

Braille Keyboard is very effective in meeting the needs of Mary Cox because it allows her to improve on her performance so she won't take ages looking for a specific alphabet while she is at work or when she is sending her work to other member of the office. And also when Mary needs to stay in contact with her clients Mary needs to send them email daily so Braille keyboard helps her to type rather than using assistance. This will also improve her accuracy so if she get's use to using the Braille keyboard she will remember where a specific letter is so that would make her type the correct letter. Mary would be able to do a task as a normal person by using a Braille Keyboard. She can also plug the Braille keyboard in her laptop so when she is travelling or even if she is in a hurry it will be quick and convenient to finish a task or even when she goes on a holiday. The Braille keyboard makes it possible for a person like Marry to operate a computer - read the display, send and receive e-mail related to the work, and browse the Web. The Braille keyboard does not have to sit on a desk or a keyboard tray it can be positioned in many places e.g. on your lap, this is helpful to Mary because then she can place the keyboard on a place which is comfortable for her.

One of the most important technology or software in Marry life is Hal Screen Reading software. The software allows her to use a computer in her daily life where ever she is. Hal Screen Reading software meets Mary needs extremely well. There are several reasons for this as first of all she uses it in her Personal Life, Social and Work related. Hal Reading Software helps Mary make his work of the best level. The Software doesn't take too much stress because the program is reading all the work on the computer for her when Mary is at Work. She have a lot of information available to her so when she is doing a task she knows when it begins and end, and even how man items there are in a list Screen Readers allows Mary to navigate through data tables. In addition she can also navigate from heading to heading, get a list of links organized alphabetically, use the tab key to navigate from link to link, and search within the page for keywords,

Personal

Marry uses various types of ICT equipment for her personal use: she uses an Digital Ultra Cane to help her walk around and travel safely, Audio Description when she watches television for entertainment and Owasy 22c Mobile.

Technology 1 – Digital Ultra Cane

Technology 2 – Chrome Talking Watch with a Stop watch

Technology 3 – Hal screen reading software

1. Define Digital Ultra Cane

The Digital Ultra Cane is a new electronic mobility aid, designed to help disabled people like Mary to get you around more easily and safely. It increases the amount of information available to you about obstacles in your path and at head height. This means you can make decisions more quickly. In other words, it gives you more confidence and allows you to walk faster than with a traditional white cane. Digital Ultra Cane is technology for blind and partially-sighted people. The Ultra Cane have hand grip by using sonar to detect obstacles. The Digital Ultra Cane has a handle containing the electronics and the cane shaft itself.

The Digital Ultra Cane can be customised to suit your style and height:

You can also choose your preferred tip from the following:

- Pencil
- Roller ball
- Large Roller ball

2. How does Digital Ultra Cane Work – EXPLAIN THE USE?

Right from the beginning Digital Ultra Cane the task of designing the Ultra Cane has been to create a product that genuinely helps vision impaired people - both blind and partially sighted. Digital Ultra Cane allows you to move around with more ease and confidence.

The Digital Ultra Cane is based on an ordinary white cane, but it also uses "echolocation" - it emits ultrasonic waves which bounce off objects in its path and echo back to the cane. It feeds that information through to the buttons on the handle, telling you how far away the object is, and whether it is in front of you or at head height. This gives you more knowledge about your environment, and

enables you to make decisions much more quickly than is possible with an ordinary white cane.

3. Why does Mary use Digital Ultra Cane?

Imagine having a mobility aid that gives you enough information about your surroundings to help you make decisions quickly and naturally.

Marry use the Digital Ultra Cane for different reasons. Mary Cox's use the Digital Ultra Cane in her personal life it helps her to walk around her house safely. She goes to shopping by her and travels by herself. She also use it while going to the work when she is walking in the office she doesn't want to fall or mess up the room so it helps her move around quicker and reliable.

4. How does it meet Mary needs?

You never know what kind of construction they're going to do or what part of the bus tunnel they're going to close down or whatever the case. It's good to have a technology like the Digital Ultra Cane it meets Mary needs as she doesn't know about her area a lot so the digital Ultra Cane acts like assistance so it helps you to walk safely and quicker. Mary hold's it in her right in front of an object and it sends out a signal. The signal bounces off whatever is in front of it and then sends the signal back to me. It might go to a foot on each side so you can use it to the left or the right and pick up things. Mary also use it up and down she uses at all time. So if you're using it left and right and up and down, you're still going to get to something with your cane before you move it back down. Mary just keeps it moving all the time.

5. Too what extent does it meet Mary's needs? / refer back to their special requirements/needs

To some extent it doesn't meet Mary needs because it's expensive and she can't afford. It's also doesn't work in the rain and high wind. Ultra Cane also can't detect anything that's hanging in the air for e.g. branch.

In addition the Digital Ultra Cane is quite heavy so it hard to move around. It's tiring.

6. Evaluate Digital Ultra Cane – good and bad features?

Advantages of Digital Ultra Cane

Today's modern canes are lighter and, consequently, can be longer without becoming clumsy. Many good cane travellers use Digital Ultra canes which extend. With proper training, these canes give the traveller much greater preview of the landscape, allowing a much faster and safer walk with confidence. If the batteries do run out while you are out with the Ultra Cane, you can simply use it as an ordinary white cane until you are able to replace or recharge

The straight Digital Ultra canes function much better than their folding or telescoping counterparts; they aren't as wobbly and as heavy.

Disadvantage of Digital Ultra Cane

The digital Ultra Cane safety in the environment must be a top priority, and at this stage of development, we do not think this Ultra Cane meets these requirements. Digital Ultra Cane is that it doesn't work in the rain as well as in high wind it doesn't send the signals so it will be quite dangerous.

Digital Ultra Cane is hard to adapt to. The feedback you get, through your fingers, accesses a part of the brain that creates mental maps subconsciously, so, when your brain has become used to the signals, you'll find you are getting around with a lot less effort than before.

But using a cane, a guide dog or even an electronic device isn't as easy as it looks. The movement of the cane has to be synchronized with each step so that there is enough time to process information and react, and blind people have to guide their dogs and listen carefully to the world around them for clues.

7. Alternative technology for Digital Ultra Cane

The digital Ultra Cane is not waterproof and the ultrasonic beam does not work in high wind. The Alternative technology is the new model of the Ultra Cane The "splash proof", which means that you can take it out in any weather. Like other electronic equipment, such as radios and mobile phones, it isn't advisable to submerge it in water. The new and latest Digital Ultra cane can meets Mary's need because you never know when it's sunny or rainy so it meets Mary's needs better than the old Digital Ultra Cane as it can work in high wind and rain. It would benefit Marry as she is away from the office and her house so it doesn't stop working in the middle of the way going home.

Even if it does stop working in the rain, gently wipe the face of the sonar transducers with a clean, dry handkerchief or tea towel. This will absorb any rain droplets resting there. Alternatively, you could place it close to, but not touching, a radiator or heater. The interference from high wind is minimal to non-existent.

In addition the Digital Ultra Cane is rechargeable so Marry can recharge the battery whenever she wants. The new Ultra Cane is designed to work with both rechargeable and dry cell batteries, whichever is most convenient to the user.

The rechargeable batteries can run out very suddenly so do carry a spare set. To some extent even the new Digital Ultra Cane doesn't meets Mary's need as the batter doesn't last for long. However The Digital Ultra Cane's also gives a low battery warning it will also tell you that your rechargeable batteries are going to run out, but instead of the 45 minute warning you get for dry cell batteries, you may experience a more protracted warning.

If the batteries do run out while you are out with the Digital Ultra Cane, you can simply use it as an ordinary white cane until you are able to replace or recharge.

Chrome Talking Watch

1. Define Chrome Talking Watch

The Chrome Talking watch is specially design for blind people. The Chrome Talking Watch provides useful functions to run your daily routines more efficiently. For example, you can set up the 4 talking alarms to remind you of 4 medicine-taking time, or use the talking stopwatch to time and track your activities it's feature include

Time and Date Announcement – lets you hear the time as well as the date announcement.

Four Talking Alarms – helps remind you of daily routines.

Talking Stopwatch with Lap – lets you keep track of your time spent on activities and record lap times.

Hourly Time Announcement – lets you hear the time every hour on the hour.

If the person touches the display it gives a Voice announcement of: normal time, alarm time, calendar-day, date. Stop watch-timer. Lets you hear the time whenever you like with a touch of the bar. It's easy to set time. Chrome talking watch is great for men or ladies.

2. How does the Chrome Talking Watch Work – EXPLAIN THE USE?

With the touch of the bar when ever you like it announces the time. To hear the time announcement, simply press Talking. The watch announces. The watch lets you set 4 daily alarms, follow these steps to set the alarm. You can easily turn on and turn off the alarm watch.

You can set the watch to announce the time every hour on the hour.

3. Why Mary Cox does use Chrome Talking Watch?

- Tells time in pleasant male and female voice
- Speaks **time and date**
- Talking alarm with 20 second beep sound
- Talking stopwatch timer with elapsed time announcement
- Talking count down timer that announces remaining time
- Talking announcements for setting operations for normal time, alarm time, date and timer setting operations

Mary uses the technology for various reasons as I have listed above. She might also use the Talking watch while travelling.

In addition she can benefit when she is doing the task in the office as she is given a certain time to complete the task. She can also use the watch socially and personally.

4. How does Chrome Talking Watch meet Mary needs?

The Chrome talking Watch meet Mary needs as she needs to know the time it announces the time when ever you wish to just by touching the screen of the watch. Mary benefits Chrome talking watch as when she needs to do task. Chrome talking watch is easy to use functions buttons announce the procedure for setting the time. If someone doesn't recognise Marry and ask her for time Marry can also help other people by telling them the right time.

5. Too what extent does it meet their needs? / refer back to their special requirements/needs

Mary needs an assistance to tell her the time but she uses a Chrome talking watch instead so she doesn't need anyone to tell the time. It meets her need as she needs to use in her daily life. Chrome talking watch have an alarm clock so she needs to wake her for the job or any other personal work in the morning or any other time.

To some extent it doesn't meet her needs as some assistance may be required when changing the batteries.

6. Evaluate the technology – good and bad features? Advantages/disadvantages

The advantage of Chrome talking watch is the watch is extremely Easy-to-use function buttons announces the procedure for setting the time.

The disadvantage of using Chrome talking watch battery runs out quick but you can replace the battery it's quiet complicated to replace the battery and also for a blind persona like Mary she have to take to shop to replace the battery so it's quiet expensive and also the process it long.

7. Alternative technology

The alternative technology for Chrome talking watch could be the latest models as the battery doesn't run out. The latest technology of Chrome Talking watch will benefit Marry as the batter doesn't run out quickly and the watch is resistance to water. And In addition it doesn't break easily and the latest watch is more stylish than the old model.

Hal screen reading software

1. Define Hal Screen reading Software

Hal Screen reading software is a screen reading program for people who are blind that converts on-screen display, including graphic objects labelling, to speech.

A standard computer can be adapted by adding a screen reader, which enables the computer to 'talk'. The screen reader will speak the text in its focus and the user navigates through menus, dialog boxes, edit fields and so on. The computer is controlled by a standard keyboard using key combinations called keyboard shortcuts, instead of a mouse. Some blind people also use a Braille display, which provides information on the screen on a tactile display, which sits underneath the keyboard.

2. How does the technology work – EXPLAIN THE USE?

Hal Screen Reading is a program for people who are blind. The software converts on screen display to speech.

Hal works by recognising and reading information from the computer screen aloud through your computer's soundcard. The information provided is comprehensive.

3. Why Mary does uses the Hal Screen Reading Software?

Hal Screen Reading is a program for people who are blind. The software converts on screen display to speech.

The soft ware enables you to do all the different features I have listed below:

Hal Screen Reading meets Mary's Needs:

- ✓ Easy browsing of Internet web pages and other applications even where there is little or no keyboard access.
- ✓ The Comprehensive online and context sensitive help.
- ✓ Reads or spells out any text on screen: documents, menus, web pages, emails.
- ✓ Read icons and Internet graphics labels and announces font and style information.]
- ✓ Talks as you type, by character, by word or both.
- ✓ Monitor markers alert you to screen changes and new information.
- ✓ Choice of nine voices or creates your own using variable speed, pitch and volume.
- ✓ Choice of 9 different languages new languages are being added all the time.
- ✓ Read word, line, web page, document or entire Window at a single key press.
- ✓ Reads or spells out any text on screen
- ✓ Fast and responsive

4. How does it meet Mary needs?

It meets Mary needs HAL Screen Read because if Hal Screen Reader wasn't invented so blind people like Mary or visually impaired wouldn't be able to read and use the computer. Mary use computer in her daily life so this software provides her with a lot features so it can me her life more convenient and comfortable. The software is fast and responsive and talks to you as an assistant and also it talks as you type, by character, by word or both.

Hal allows blind/visually impaired users like Mary to hear rather than see what is happening on the computer by converting the on screen display to speech. The software meets Mary needs as she can do shopping online so she knows she is buying the right product so the software gives an introduction about the product. It reads and spells out any text on the screen when she is reading the email.

5. Too what extent does it meet Mary needs? / refer back to their special requirements/needs

To some extent Hal Screen Reader meets Mary needs as the software will talk you through its automatic and user friendly installation. Hal Screen Reader sophisticated technology makes all kinds of Windows applications, the Internet and email, easy to use. Mary can use the software for research and also the task that she is given in the office to complete. Hal works by recognising and reading information from the computer screen aloud through your computer's soundcard. The information provided is comprehensive: Hal not only reads text but also recognises Windows dialogs, icons, buttons, menus and controls. Hal comes complete with online and context sensitive help and full manual both in print and on audio CD. All these features meets her needs as she is able to do her personal work and assignments quicker and the software is reliable with the help of the Braille Keyboard she can type and use the computer as a normal person.

To some extent Mary doesn't meet the needs of the Hal Screen Reading because someone else can read for her people to read to them on a regular basis. The advantage of using another person to read to you is that it is simple and effective. A drawback is that you have to rely on the other person and you may not wish to some extent you might not want someone else to read materials which are private or confidential.

6. Evaluate the technology – good and bad features? Advantages/disadvantages

Hal is designed to meet the ever changing needs of today's IT environment. Accordingly, Hal does not alter either the operating system or application software in any way. The software will meet Mary needs as the Hal is stable and reliable, whether installed on a home PC or business network server. It also ensures that your computer and software will remain compatible with that of friends and colleagues, thus keeping your lines of communications open.

The advantage of Hal Screen reader

With Hal reading software, it can meet Marry's needs as the software a web page can be as simple as reading a word processor document. Web pages are easier to navigate using Hal. Screen reading is fast, accurate and automatic.

If you use the mouse, you have to choose high visibility mouse pointers. If you prefer the keyboard, you can browse the web and replicate using a mouse. Marry can use Hal for applications where there is no keyboard access to areas of the screen.

Marry can also benefit from the Hal screen reader as it announces graphics labels automatically and reads through frames and tables quickly and accurately. Hal also offers quick navigation keys, full spelling and attribute announcement, easy form filling, focus tracking and much more.

Hal is designed to meet the ever changing needs of today's IT environment for blind people like Marry. Accordingly, Hal does not alter either the operating system or application software in any way. This means that Hal Screen reading software is stable and reliable for users like Marry as she might have a lot of Personal work. Hal Screen reading software is installed on a home PC or business network server. It also ensures that your computer and software will remain compatible with that of friends and colleagues, thus keeping your lines of communications open.

The disadvantages of Hal Screen reader is when a person like Mary buys first they don't know how to download so they need a special technician to connect to the computer.

In addition Hal screen reader takes a lot of time to adapt to the software. The software reads really fast. And also the voice that you hear is that the person not really familiar with it takes time to get used to.

7. Alternative technology

The alternative technology for Hal can be a newer version which will have a lot more features than the old one. The latest version of the Reading Software can benefit Marry as she can control the software and she can use for any kind of work. There are also other latest versions of HAL Screen Reader available which have other languages for e.g. Spanish, French, and Swedish etc.

Social

Mary uses various technologies which helps her in her social related life. All these technologies I have mentioned them in the first page. She uses Hal Screen Reading software on the computer to communicate, she communicates through internet. She is also able to communicate through phone which is connected to her computer.

Technology 1 – OWASYS 22c Mobile Phone

Technology 2 – Hal screen reading software

Technology 3 – Braille Keyboard

OWASYS 22c Mobile Phone

1. Define OWASYS 22c Mobile Phone

OWASYS 22c Mobile Phone allows you to make and take phone calls and text messages without the use of a visual display. The OWASYS 22C mobile phone uses state-of-the-art speech synthesis technology to talk to you and make all of its features accessible to you. The mobile Phone is specially designed specifically for people who are blind or have low vision

2. How does the technology work – EXPLAIN THE USE?

The mobile phone is easy to hold talking mobile phone with well-spaced tactile buttons. The OWASYS 22c mobile phone announces all the information you need to operate it in synthetic speech. No sight required. No visual display. You can make calls on the go, and send and receive text messages.

The OWASYS 22c Mobile Phone is easy to use. There is a dedicated key to access the phonebook, an information key that verbalizes your position within the phone's menu system and a key to easily switch to hands-free mode. The phone has an ergonomic design with tactile keys, embedded antenna, vibrating alarm and a choice of 56 ring tones. The battery will give you up to eight hours' talk time and 200 hours' stand-by time. The OWASYS 22c Mobile only takes 3 hours charge and it lasts for 200 hours.

The buttons on OWASYS 22c mobile phone provide good tactile and audio feedback. Text messages are read back and names of callers and those dialled out are also said. An information button provides spoken guidance of where the user is within the menus. The phonebook stores up to 250 contacts with entries for: name, address, home phone, mobile phone, office phone and email address. It has a vibrating alarm and can be switched to hands free mode. It comes with a serial port and earphone.

3. Why Mary does use the OWASYS 22c Mobile Phone?

The OWASYS Mobile Phone lets Mary listen to her phonebook, call registers, received and edited messages, Mary identification, signal coverage and other common mobile phone functions. The phonebook stores up to 250 contacts with entries for: name, address, home phone, mobile phone, office phone and email address. It can help Mary as she can call her family whenever she wants. Mary will also use the mobile phone to stay in contact with her clients. The phone lets you to send text message and received text messages.

- ✓ The user can listen to their phonebook, call registers, received and edited messages, caller identification, signal coverage and other common mobile phone functions
- ✓ The Phonebook which lists name can store up to 250 addresses, home phone, mobile phone, office phone and email
- ✓ Listen to your text as you compose, edit, send and receive messages
- ✓ The mobile phone is well built and stylish

4. How does it meet his/her needs?

The OWASYS 22c Mobile Phone is specially adapted to the needs of blind and visually impaired people like Mary. Mary needs an OWASYS 22c Mobile Phone as she can stay in contact with her family and friends. When Mary receives a call the mobile phone reads out the number and the person name and also as she receives a call or a message the mobile phone vibrates twice and she will hear a short melody. The buttons on the mobile phone are widely spaced and are easily found and operated. All functions are controlled from the keypad.

In addition Mary can store up to 250 contacts she can call her family or her friends whenever she wants. Mary can also stay in contact with her clients when they need help instead of writing email.

The OWASYS 22c mobile phone has all the features that Mary needs to make calls and receives calls.

5. To what extent does it meet Mary needs? / refer back to their special requirements/needs

The purpose of this mobile phone that it has been specifically designed to help those who are blind or have visual difficulties that makes it hard to read small screens on mobile phones. All the features on the phone are supported by audio feedback. The facilities are more basic than most up to date mobile phones but it has the advantage of being simple to use. It meets Mary's needs as she is blind and she can't read visually so she needs a mobile phone that have all the features that Owasy 22c have.

To some extent the mobile doesn't meet Mary's needs as she uses a lot so the battery runs out quickly because it only last for 6 hours. And also she might need assistant to change batteries, Sims card and to recharge her mobile phone.

6. Evaluate the technology – good and bad features? Advantages/disadvantages

Advantages

The OWASYS 22c Mobile Phone plays two low tones if you lose Network coverage and two high-pitched tones when you go back into Network coverage.

The buttons on the phone are widely spaced and are easily found and operated. All functions are controlled from the keypad. The OWASYS 22c Mobile Phone talks to you and not the other way round.

It has all features you need to make and receive telephone calls using an easily understood speaking interface. But it doesn't have screen because a blind user doesn't need one.

Disadvantages

For a beginner like Mary the OWASYS 22c Mobile phone is really expensive it costs £300 and also it is really hard to learn all the features because it's hard for her to see and she needs an assistance to help her for the first 2 or 3 months. When you buy the mobile phone on the first time it's complicated because the shape of the mobile phone is not like a normal mobile phone that a person uses so it's quite hard for the user to insert the Sims card.

In addition she can't divert someone call to another mobile it's important because sometimes she might be busy so her husband can attend the phone.

7. Alternative technology

The alternative technology for OWASYS 22c Mobile phone is the latest phone that came out recently with is OWASYS 112c. OWASYS 112c have the following features that are better than the old models the battery last for longer, it has excellent Audio voice and it can save twice as more contacts than the old Model. The latest model of OWASYS will benefit Mary as the batter last for longer and it have excellent audio voice and it can also save twice as more contacts than the old Model of OWASYS because Mary meets new clients every day so Marry is able to store more contacts.

Hal Screen Reading Software

1. Define Hal Screen Reading Software

Hal Screen Reading Software is out spoken is for Windows is a screen-reader that allows blind and visually impaired computer users to easily and effectively control applications in the Microsoft Windows. The software converts on screen display including graphic objects labelling to speech.

A standard computer can be adapted by adding a screen reader, which enables the computer to 'talk'. The screen reader will speak the text in its focus and the user navigates through menus, dialog boxes, edit fields and so on. The computer is controlled by a standard keyboard using key combinations called keyboard shortcuts,

instead of a mouse. Some blind people also use a Braille display, which provides information on the screen on a tactile display, which sits underneath the keyboard.

2. How does the Hal Screen Reading software work – EXPLAIN THE USE?

Hal screen reading Software allows the blind, visually impaired and learning disabled computer user to access the graphical user interface. Not only does out spoken but it also gives audio feedback of screen text, it also allows the user to navigate without a mouse. All commands are intuitive and easy to learn.

3. Why does Mary use Hal Screen Reading Software the technology?

Hal Screen Reading software converts on screen display to speech.

Mary needs to use the Hal Screen Reading software when Mary is the MSN Messenger it can read the screen display and reads what Marry has written on the screen. The software is quick and responsive so you can set in the same pace as you type. Marry can also use the HAL screen Reading software so she can stay in contact with her clients and Marry can use it to write emails to her family and friends. Mary can also use the software to send her office task to her boss.

4. How does it meet Mary needs?

Hal allows blind or visually impaired users like Mary to hear rather than see what is happening on the computer by converting the on screen display to speech. The software meets Mary needs she can contact her family and friends using the MSN the software helps her as she can feedbacks to her friends, the software talks to you as you're having a conversation with another person. She can also use to check her emails and reply back. Mary also uses the Hal Screen reading software to send email to her clients and friends. The software talks to you as you type by word and character. It reads and spells out any text on the screen when she is reading the email.

5. Too what extent does it meet Mary needs? / refer back to their special requirements/needs

It meets Mary needs as she needs to write emails to her family and friends. Mary also needs to stay in contact with her family. So sometimes she uses MSN the software talks to you as you type and it also tells you what the other person has written. The software is reliable so it gives Mary accurate information. The software Works with any font, including accented characters and symbols. In addition the Hal Screen reading software is quick and responsive.

To some extent it doesn't meet her needs as the screen Reader software reads the page in order that it appears in the source code of the document. So the user might only want the user to read a single line or a paragraph when reading an email. And also the software is a lot expensive.

6. Evaluate the technology – good and bad features? Advantages/disadvantages

Advantage

The advantage of using the screen reading software that there is more information available to Mary. Modern Screen readers let Mary know where lists begin and end. Also the Screen readers allow Mary to navigate through data tables, going from cell to cell and the table has been marked up correctly.

Disadvantages

For a beginner like Mary Hal Screen reading is quite hard to use as it's complicated and extremely hard to adapt to the voice. If you don't know how to use a screen reader, testing with a screen reader can be frustrating and counterproductive. In fact, you could mistakenly think that nearly everything you've created is inaccessible, when the real problem may be that you just don't know how to use a screen reader properly.

In addition Screen reader users hear the title of the web page, then each text element in the order that it appears in the source code of the document. It's quite frustrating for Mary because the Mary might only want to know only a paragraph. And also she needs to listen very carefully because sometimes Mary can hear the word being miss-pronounced. So when she is on MSN she can't figure out when the software has said 'there' and 'their' it can be very difficulty because she might miss a lot of words.

Mary can't hear the meaning of a graphic unless it has alternative text. Also it's quite hard to learn the keyboards short cuts for screen reading.

The main disadvantage of using a HAL screen Reading Software is that it doesn't have as many features as a later version of Dolphins. If users change the software he will find many difficulties because the software is different.

7. Alternative technology

The alternative technology for Hal Screen Reading software will be the latest version of Dolphins which have many different languages. Dolphins will provide Mary with more information than the old Hal Screen Reading Software.

Braille Keyboard

1. Define Hal Screen Reader

A keyboard designed for blind enabling them to able to activities on a computer. A Braille display is a device, typically attachable to a computer keyboard that allows a blind person to read the contents of a display one text line at a time in the form of a line of Braille characters. Braille Keyboard allows user to send email and use MSN Messenger.

2. How does the technology work – EXPLAIN THE USE?

To use a Braille keyboard all the user has to do is attach the keyboard to their PC and then they can start using the keyboard. It is very easy for a blind person to use it because the keyboard has Braille on it so the user will find the alphabets on the keyboard very easily. The Braille are dots which help and guide the user to find the letter they are looking for. The keyboard helps the user write anything they want. The keyboard, usually, is placed on the desk but it also allows you to place the keyboard on the user's lap.

3. Why does Mary use the technology?

Mary uses the Braille keyboard when she is communicating online so she can write whatever she wants to her friends and family, she can even send emails, so she will also be able to type faster. Mary won't have problems finding the alphabet she is looking for that would also increase her typing speed and she will also be able to use any other symbols such as: £ or \$ and etc. Mary can use different symbols to express things when she is communicating. Mary can also improve her accuracy, performance, and typist. Mary can also use the Braille Keyboard to type emails on the computer and send them to her clients.

4. How Hal Screen Reading Software does meet Mary needs?

The Braille Keyboard is very effective in meeting the needs of Mary Cox because it allows her to stay in contact with her family and friends. Mary can also use the Braille Keyboard to type emails and Memos so she can write emails for her clients. Mary also uses the Braille Keyboard to improve on Mary's performance so she won't take ages looking for a specific alphabet while she is online or when she is sending an email to her family members or friends. This will also improve her accuracy so if she gets used to using the Braille keyboard she will remember where a specific letter is so that would make her type the correct letter. She can also plug the Braille keyboard when she travels so if she is bored she can plug the keyboard into her laptop and communicate or even when she goes on a holiday. The Braille keyboard makes it possible for a person to operate a computer - send and receive e-mail, and browse the Web. The Braille keyboard does not have to sit on a desk or a keyboard tray it can be positioned in many places e.g. on your lap, this is helpful to Mary because then she can place the keyboard on a place which is comfortable for her. 8 key chordic Braille keyboard prove it to be the best way to stop the development of muscular and skeletal injuries. Back, shoulder, neck, arm, wrist and hand pain or discomfort is prevented using the Braille keyboard so no physical damage is done to the body of Mary.

5. To what extent does it meet Mary needs? / refer back to their special requirements/needs

Braille keyboard allows Mary to write emails to her contacts such as: friends and family. She can communicate online with all her contacts, using the Braille keyboard will also improve her performance so she types much faster, it will also improve her accuracy so she won't spend lots of time in search of a specific alphabet instead if she uses the keyboard for a long time she will remember where a specific alphabet is.

Marry can also attach the Braille Keyboard to her laptop so when she goes on a holiday or when she is traveling, she will still be able to have the benefits of the Braille keyboard because she can attach it to the laptop. The Braille Keyboard is really small so Mary can position the keyboard, she doesn't have to use the keyboard while it's on the keyboard tray instead she can just position it on her lap. The keyboard also prevents any development of muscular and skeletal injuries. Back, shoulder, neck, arm, wrist and hand pain or discomfort this makes using the keyboard safer for her because she won't suffer from any injuries.

To some extent the Braille Keyboard doesn't meet the needs of Mary because it takes quite a while for a sighted person to become adept at reading Braille files as either plain text or ink print dots so Mary could take a long time in getting adapted to reading and using the Braille keyboard because the Braille doesn't form the alphabet on the keyboard which doesn't help Mary a lot.

6. Evaluate the technology – good and bad features? Advantages/disadvantages

Advantages of Braille Keyboard

Mary benefits Braille keyboard such as it can improve her performance so she will be able to type much more faster that helps her because when she is communicating online she won't have to spend a lot of time searching for a specific alphabet. This will also improve her accuracy so as she gets adapted to using the keyboard she will naturally know where an alphabet is located, she can even attach the Braille keyboard to a laptop so she can use the keyboard to communicate or email her contacts while she is traveling or if she doesn't want to communicate with her computer maybe she finds it more comfortable to communicate using a laptop.

Disadvantages of Braille keyboard

Mary will have to adapt at reading Braille files or using the Braille keyboard because it could take Mary a long time to be adapted to the keyboard and also the Braille on the keyboard doesn't actually form the alphabet so it's not benefiting Mary a lot. It only has tiny dots which she has to count to know a specific alphabet.

7. Alternative technology

The alternative technology to a Braille keyboard is another Braille keyboard which is portable, wireless, has a mouse on the keyboard which allows controlling what is happening on the monitor screen. This Braille keyboard allows Mary to learn to type on the keyboard in minutes or hours. It also prevents Mary's body from being damaged because when you use the keyboard your upper body relaxes and stops the development of muscular and skeletal injuries.

Work Related

Technology 1 – Braille Keyboard

Technology 2 – Hal screen reading software

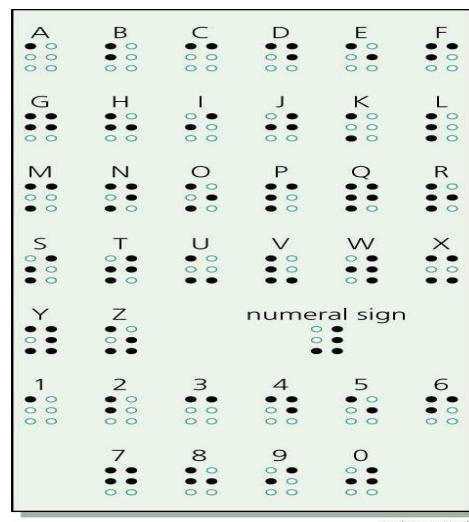
Technology 3 –

Braille Keyboard

1. Define Braille Keyboard

Braille Keyboard is a system of writing and printing for blind or visually impaired people, in which varied arrangements of raised dots representing letters and numerals are identified by touch.

I have shown you an example of Braille Keyboard on the left each letter or number is represented by dots, the blind or visually impaired person can recognise the letter by reading the dots.



2. How does Braille Key Board work. Explain the use

You connect the Braille Keyboard in to your PC just like you connect a standard keyboard: you plug it into the keyboard port. Using Braille Keyboard each letter or number is made up of 6 dot positions that are arranged in a rectangle comprising 2 columns of 3 dots each. A dot may be raised at any of the 6 positions.

3. Why does Mary use Braille Keyboard?

Mary uses the Braille keyboard when she is doing her office work so she can write so she can complete her task in the office before the deadline, Mary able to send emails to her boss related to the work so she will also be able to type faster, she won't have problems finding the alphabet she is looking for that would also increase her typing speed and she will also be able to use any other symbols such as: £, % and etc. Mary can also write emails to her clients to stay in contact with them. She can use these symbols to express things when she doing her finance. Mary can also improve her accuracy, performance and typist.

4. How does it meet Mary needs?

Braille keyboard gives blind person like Mary the ability to work with mathematical formulae and score writer programs. And for a person like Mary she can perform different kind of office task. Mary can use Braille Keyboard at home or office for work, the Braille keyboard work faster and reliable.

Braille Keyboard is very effective in meeting the needs of Mary Cox because it depends her life on Braille Keyboard because if this technology wasn't invented she wouldn't be able to do office task and work. It allows her to improve on her performance so she won't take ages looking for a specific alphabet while she is at work or when she is sending her work to other member of the office. And also if Mary is give a task it will take less time to complete. This will also improve her accuracy so if she get's use to using the Braille keyboard she will remember where a specific letter is so that would make her type the correct letter. She can also plug the Braille keyboard in her laptop so when she is travelling or even if she is in a hurry it will be quick and convenient to finish a task or even when she goes on a holiday. The Braille keyboard makes it possible for a person to operate a computer - send and receive e-mail related to the work, and browse the Web. The Braille keyboard does not have to sit on a desk or a keyboard tray it can be positioned in many places e.g. on your lap, this is helpful to Mary because then she can place the keyboard on a place which is comfortable for her. 8 key chordic Braille keyboard prove it to be the best way to stop the development of muscular and skeletal injuries. Back, shoulder, neck, arm, wrist and hand pain or discomfort is prevented using the Braille keyboard so no physical damage is done to the body of Mary.

5. Too what extent does it meet Mary needs? / refer back to their special requirements/needs

Braille keyboard allows Marry to do her work in the office so she can use the computer in her daily life. Using the Braille keyboard will also improve Mary performance so she type much faster, it will also improve on Mary accuracy so she won't spent lot's of time in search of a specific alphabet instead if she uses the keyboard for a long time she will remember where a specific alphabet is. Mary can even attach the Braille keyboard in things such as laptop so when she goes on a holiday or when she is traveling, she will still be able to have the benefits of the Braille keyboard because she can attach it to the laptop and complete her work effectively when ever she is free. Mary can position the keyboard, she doesn't have to use the keyboard while it's on the keyboard tray instead she can just position it on her lap. The keyboard also prevents any development of muscular and skeletal injuries. Back, shoulder, neck, arm, wrist and hand pain or discomfort this makes using the keyboard safer for her because she won't suffer form any injuries.

In addition Mary can write email and send to her clients and her boss if she is at work or at home.

To some extent Braille keyboard doesn't meet the needs of Mary because it takes quite a while for a sighted person to become adapted at reading Braille files as either plain text or ink print dots so Mary could take a long time in getting adapted to reading and using the Braille keyboard because the Braille doesn't form the alphabet on the keyboard which doesn't help Mary a lot.

6. Evaluate the technology – good and bad features? Advantages/disadvantages

Advantages

Braille Keyboard does not require any resident software to work with your computer. Braille Keyboards work independently of when you run your computer. Braille Keyboard improves Mary's typing performance. Braille Keyboard allows Mary to position the keyboard any where she would like. Braille keyboard is reliable. Mary can use the Braille Keyboard to write emails to her boss and her clients.

Disadvantages

Braille Keyboard doesn't form the alphabet from the Braille. Braille keyboard takes a very long time for a user like Mary to get adapted because the Braille Keyboard just came out recently in the market.

In addition Braille Keyboard is more expensive than a normal keyboard.

7. Alternative technology

The alternative technology to a Braille keyboard is another Braille keyboard which is portable, wireless, has a mouse on the keyboard which allows controlling what is happening on the monitor screen. The latest Braille Keyboard will allow Mary to learn to type on the keyboard in minutes or hours. It also prevents her body from being damaged because when Mary uses the keyboard her upper body relaxes and stops the development of muscular and skeletal injuries.

Hal screen reading software

1. Define Hal Screen Reader

As I have explained the definition of Hal Screen reading Software in page 10. It is a screen reading Software for people who are blind that converts on-screen display, including graphic objects labelling, to speech.

2. How does the technology work – EXPLAIN THE USE?

Hal screen reading Software allows the blind, visually impaired and learning disabled computer user to access the graphical user interface. Not only does it speak but it also gives audio feedback of screen text, it also allows the user to navigate without a mouse. All commands are intuitive and easy to learn. With Hal Screen reading software, reading a web page can be as simple as reading a word processor document. It allows you to browse the Internet without a mouse. Hal Screen Reading Software announces graphics labels automatically and reads through frames and tables quickly and accurately.

3. Why does Mary use the technology?

Hal Screen Reading is a program for people who are blind. The software converts on screen display to speech.

The soft ware enables you to do all the different features I have listed below:

The Hal Screen Reading Software meets Mary needs:

- ✓ Easy browsing of Internet web pages and other applications even where there is little or no keyboard access.
- ✓ The Comprehensive online and context sensitive help.
- ✓ Reads or spells out any text on screen: documents, menus, web pages, emails.
- ✓ Read icons and Internet graphics labels and announces font and style information.]
- ✓ Talks as you type, by character, by word or both.
- ✓ Monitor markers alert you to screen changes and new information.
- ✓ Choice of nine voices or creates your own using variable speed, pitch and volume.
- ✓ Choice of 9 different languages new languages are being added all the time.
- ✓ Read word, line, web page, document or entire Window at a single key press.
- ✓ Reads or spells out any text on screen
- ✓ Fast and responsive

4. How does it meet Mary needs?

Hal Screen Reading software is one of the programs that meet Mary needs extremely well. There are several reasons for this as first of all she uses it in her Personal Life, Social and Work related. Hal Reading Software helps Mary make her work of the best level. The Software doesn't take too much stress because the program is reading all the work on the computer for her when Mary is at Work. Mary have a lot of information available to her so when she is doing a task she knows when it begins and end, and even how man items there are in a list Screen Readers allows Mary to navigate through data tables.

In addition she can also navigate from heading to heading, get a list of links organized alphabetically, use the tab key to navigate from link to link, and search within the page for keywords.

5. Too what extent does it meet Mary needs? / refer back to their special requirements/needs

Mary needs Hal Screen reading software very effectively because if this software wasn't created she wouldn't be able to work in an office because all the work is mainly from the computer. Mary can use the software to read emails from her boss and clients.

To some extent it doesn't meet her needs because listening to the Hal Screen reading software is very nerve tracking and also Mary can hear things that are been miss pronounced. In addition listening to the Hal Reading Software it takes longer than

sing our eyes because when you can see you are able to visually scan down a page. There are various times when Mary has to vary the speed according to the document/material that she is reading so it's quite hard and it's time consuming. And also when she is copy, paste or cut things it takes quite a time to develop because she has to slow down the Reading Software in order to copy what Mary needs.

6. Evaluate the technology – good and bad features? Advantages/disadvantages

Advantages

Using the HAL Screen Reading software Mary has options of different ways to navigate through.

Hal Screen Reading Software makes a disabled person live its life as though he was living as a normal person, and continue his work and not let anything come between his successes.

Disadvantages

Mary hears the title of the web page, then each text element in the order that it appears in the source code of the document. It's quite frustrating because the user might only want to know only a paragraph. And also Mary needs to listen very carefully because sometimes Mary can hear the word being miss-pronounced. So when she doing a task Mary can't figure out when the software has said 'there' and 'their' it can be very difficult because she might miss a lot of words.

Mary can't hear the meaning of a graphic unless it has alternative text. Also it's quite hard to learn the keyboards short cuts for screen reading.

The main disadvantage of using a HAL screen Reading Software is that it doesn't have as many features as a later version of Dolphins. If users change the software he will find many difficulties because the software is different.

7. Alternative technology

The alternative technology for Hal can be a newer version which will have a lot more features than the old one. There are also other latest versions of HAL Screen Reader available which have other languages for e.g. Spanish, French, and Swedish etc.

Overall Conclusion

The impact of Information, Communication Technology on (RNIB/Blind person)

Mary relies on ICT. It helps her in various ways she uses different technologies for her disability and the technologies are very advanced as she can use the technologies for different reasons. Mary uses Hal Screen Reading so she can use the computer in her daily life without a computer her life would be really hard and competitive because she won't be able to stay in contact with her family, Mary won't be able to shop online. Without the computer and the Hal Screen Reading Software she won't be able to survive. It has caused many changes in her life as now she is able to do everything as a normal person with the help of ICT.

In Great Britain there are estimated to be approximately a million people who could be registered as blind or partially sighted. Of these approximately 6% have had mobility training and 43% are independently mobile. In the 6% Mary is one of them that had mobility training. There are approximately 100,000 cane users (long White cane and Digital Ultra Cane), approximately 4200 guide dog owners and a very small number of people use an electronic mobility aid or travel aid. It can be seen that a lot of blind and partially sighted people do not use any mobility aid at all.

The design of the new latest technologies has benefited thousands of Blind people in Britain it can enable the user to move safely, good building design and good environment design can make this process easier.

Blind and partially sighted people have the same information needs as everyone else. But many people with sight problems will not be able to understand information unless it is made available to them in a suitable format. It is important to remember that there is no single method which suits all blind and partially sighted people all of the time. Even the same person will use different methods at different times and under different circumstances. Most of the technologies don't help blind people as they need to learn different types of methods.

There are different technologies for blind people or partially sighted people like Mary for e.g. Braille Keyboard or Braille is a system of raised dots which people can read with their fingers. Many blind and partially sighted people prefer particular types of information in Braille, for example information to be used in meetings or to be read silently. Blind people can use the Braille system to use a computer so it can change their daily life and benefits them.

Internet is one of the most significant communication developments since the invention of Braille. For the first time ever, many blind and partially sighted people have access to the same wealth of information as sighted people and on the same terms.

For example, a blind internet user anywhere in the world can now read today's issue of The Times, locate the best restaurants in Paris or search records in the Library of Congress, in exactly the same way as a sighted person might. However, to enable people using this technology to access information on a website, the website must be correctly designed.

ICT technologies has changed thousand of blind and disabled people in England, the technologies made their life so much easier.