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# 3C-The impact of ICT on person with special particular needs

#### Introduction

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Many people ubiquitously make use of technologies on a daily basis to run with daily activities. Technologies have caused a massive impact on our working style as they allow us to carry out a number of activities. These activities vary from communicating, for entertainment, guidance and furthermore. Technologies have assisted every individual on the whole whether they are in



employment, schools, and if they are facing disability. Up till now I have described what technologies I make use of and how it causes an impact on my daily life. I have also written a report on how adults in employment utilize several of technologies and an evaluation on how the technologies facilitate them. Subsequently, in this report I will be writing a detailed description on the technologies operated by an individual who is facing physical disability (This is when a person cannot or finds it difficult to move certain body parts I.E hands and legs. People who suffer from physical disability are those who cannot walk or move affectively. There disability is due to the extent of the damage to the spine, for example one has the ability to walk but cannot move there hands, there are some cases where people cannot move any body parts, this is only when they are paralysed from the neck downwards.). This person needs the assistance via ICT and hence this individual is Maria korelli who cannot walk; therefore she is confined to wheelchair. She works at the Churchill estates housing agency. These agencies initially carry out valuation of properties and sell them on the market associated with Churchill estates agency.

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Maria korelli makes use of many technologies to assist her in carry out a number of tasks whether it is to word process information using MS word or too move from point A to point B with a specially developed technology such as an electronic wheelchair. Maria is the receptionist at the South Woodford branch, she needs the assistance of ICT and modern enhanced technology so that her work is easier for her and thus, in this report I will be writing about two categories of technologies Maria korelli utilizes to fulfill numerous of tasks on a daily basis, the category is then subdivided to the actual technology made use of which enables a particular requirement to be achieved These tasks can vary from accessing the World Wide Web through web browsers which is the form of internet technology or communicating via Mobile phones which is a communication technology. These are standard technologies which every individual makes use of depending on whether they have access to them. Maria korelli is part of those individual as she also uses standard technologies in achieving her needs and purpose of work carried out by her. Additionally, Maria Korelli makes use of another category of technology. These are specialized technologies which provide people facing disabilities to run with an array of events devoid of confronting problems. She needs specialized technologies for assistance in working as she is bound to an electronic wheelchair, and therefore she relies on a particular technology that is specialized and is intended to meet the needs of individuals facing disabilities and so is called specialized i.e. speech synthesizer. Maria Korelli uses a number of technologies alongside with wheelchair in her daily life. Thus, in this report I will describe in extent, the technologies used by a person with special particular needs. This person I will talk about is Maria Korelli whose life is shaped up with the provident of numerous of technologies which we find in our working environment today and has expanded to a very large extent.



# What are standard technologies?

Standard technologies are the technologies used by every individual to help them achieve tasks that they want to VIA technologies. For example, to gain information on a particular topic, an individual can retrieve information from web browsers such as Mozilla Firefox. This is an example of an internet technology which is placed in the category of standard technologies. There are many more standard technologies which are accessible, however the main standard technologies which Maria Korelli is dependent on and relies on to make her life enjoyable and equally progressing as she is facing disabilities are as follows,

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- ➤ E-MAIL
- > <u>Video conferencing</u>
- > Ms word

I will now describe how Maria Korelli uses each of these technologies; I will be giving specific examples of how they are used and how it makes her life easier.

# Standard Technology no 1.

#### Email

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E-mail is shorthand term meaning Electronic Mail. E-mail is much the same as a letter, only that it is exchanged in a different way.

There are a number of email software's that user may be assigned to, these email software's vary from the following,

- Hotmail
- Yahoo mail
- Google mail (etc)

Above are examples of email software's that are used by millions of users for the provident of emailing and communicating with others when contacts are added. Once contacts have been added, people are at the ready of sending and receiving email whenever and at any region Maria Korelli is facing disabilities as she is bound to a wheelchair. Email software's have assisted Maria in many occasions. The software has met Maria's personnel, social and work-related use affectively.

## Maria Korelli's-Personnel use of E-MAIL

Email software's have assist Maria to carry out numerous personnel tasks in her life as she is bound to a wheelchair. She uses email software that affects her directly to ensure that she can attach files and data. In her personnel time, email software enables her to attach important files on the software itself so that she can send data to the required destination. Maria Korelli sends CV's through email software to job centres allowing her to apply for a job where there are vacancies at the comfort of her own armchair, which prevents her from going to agencies, knocking on door steps and furthermore. Seeing that she is confined to a wheelchair, email software's allow her to send CV's to online job centre web pages somewhat then struggling to get to the job centres on her wheelchair to submit her CV so that an organisation/business can reply back to confirm her being employed. Email software's have allowed her to carry personnel related tasks very quickly and easily, it has enabled her to work as a normal person would do.







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#### Maria Korelli's-Social use of E-MAIL

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Email software's have been a major aspect in Maria Korelli's life; this is because it helps her communicate with family and friends. The first thing Maria korelli needs to send and receive emails is an email address. Once she has created an email account a number of processes can commence. This varies from sending messages or attaching data from saved files. Maria Korelli is confined to a wheelchair therefore she cannot visit her friends and member of her family regularly. Thus she relies on her email software to communicate with these people on a daily bases. She does this to ask there well being and how they are running with life's daily routine. An affective means of communication can be carried out between Maria and who ever she wishes to interact with as this occurs simply with the access of her email software. In addition to the fact that she uses email software to communicate with family members and friends, she also utilizes the software to attach, send, and share images, video links and a number of media related data with friends and family. Maria sends images of herself and her friends to her family members; this allows them to see the images as soon as possible once they have received the message. Images can be sent via post but causes delays by the late post delivery and could be misplaced. Email software's are extremely quick and easy. Maria Korelli can carry out the task of sending and receiving messages as well as sending files precisely with the use of email software's. The header of an e-mail includes the From: To: and Subject: fields. In the 'To:' field she can enter the email address of the person she is going to send it to, and in the Subject: field Maria Korelli enters the subject of the message. The part below the header of the e-mail is called the body and it is where she types the message so that it can be sent to the person she wishes. Spelling the correct address is critical with an e-mail. Like with a normal postal letter, if Maria Korelli gets the address wrong it won't go to the correct receiver. If she sends an e-mail to an address which doesn't exist the message will come back to her as an Address Unknown.

#### Professional use of E-MAIL.

Email software has enabled Maria to carry out work related tasks. It has allowed her to communicate with staff member that she works with at work. She can use email software to communicate with staff at her workplace. It has enabled her to communicate quickly and very effectively. Because she is confined to a wheelchair, moving about to different rooms in her workplace is considered extensively intricate. Thus, email software cause a massive impact on her. They allow her to inform staff members of important information quickly and easily i.e. change in work schedules. This keeps the organisation she works at running extremely efficiently.

Evaluation of email software assisting Maria. Over thousands of people facing disabilities over the world rely on using email software's. Email software's have enabled Maria to stay in touch with any recipient she has added on her contact list. Email software allows Maria to gain access to the messaging service and send messages to her friends, workers and family members instantaneously. The service is extremely quick and reliable. Seeing that Maria Korelli cannot walk and is bound to a wheelchair, email software's precludes her from knocking on door steps and departing to any organisation or destination. She moves from point A to point B on her wheelchair to clearly communicate with people or deliver a particular message i.e. communicates with family members. Email software has allowed her to stay at home and do work at home and prevents her from going out or moving to different rooms or department to communicate. Email software meets Maria's personnel, social and work related needs splendidly. Email meets Maria's professional needs by enabling her to communicate with the out side world. Maria can use email to answer customer questions or enquires.

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Churchill estate is an extremely busy organisation, email software allow Maria to email recipient from other branches of the some company. She can email agencies from another branch of the same company to inform them if a surveyor is needed to valuate an individual house and make judgment on the price rate of the property that is to be sold on the market with the name of Churchill estate. Email software allows her to communicate with surveyors working at a different branch of the some company in a situation when they are needed and thus keeps the Churchill estate organisation running smoothly. Additionally, email software avoids her from moving about to different branches informing them of information as she is bound to a wheelchair and is extremely intricate for her to do so. Email software is clearly assisting her. The technology very similarly meets her personnel needs. The software allows Maria to .stay at home and do work at home and prevents her from going out and about. It allows her to communicate with family members at the comfort of her own armchair and thus the software allows her to work proportionally too how every normal person would do on a daily basis. The email software equally lets Maria to attach and send important files i.e. CV's on an online job centres web page to obtain a full time job to keep her active and gain a weekly or daily wage. When the email is sent, the delivery report shall occur and if successful, Maria will receive a message from job centres that shall respond to her requests. The job centres can inform Maria if she is selected to work as part of an organisation and thus meets her needs when applying for jobs as she is able to communicate and receive response. Also, email software meets Maria's social needs as it enables her to communicate with friends. She can send and receive images, music and files with friends that she has on her contact list. Email software avoids the movement she will need to conduct in order to reach her friends house or meet up with them outside. Email software keeps her in the comfort of her own armchair and thus allows her to communicate with friends she desires too. This meets her social needs proficiently. As with many technologies and software's, email software's have advantageous features and a few number of drawbacks. The advantages of an individual facing disabilities such as Maria and her making use of email software is clearly observed as this is substantially that the software provides quick and easy use. The software avoids Maria from moving around and communicating. Seeing that email is sent instantaneously, additionally it enables her to be notified if a delivery of a particular message is successful, straightaway. The traditional method of communicating using letters and posting them ultimately keeps senders unaware for a long period of time. A reply comes back from the intended receiver and only then Maria and many users are alert of the successful delivery of the letter. Another advantage of using email software is, it is extensively easy to use and therefore is user-friendly. All Maria has to do is gain access to a keyboard and mouse. The conjunction of both hardware's allows users to have quick and easy use as keyboard is used to write the messages and on the other hand; a mouse is used to approve and send the message written. However, like many other technologies there are few drawbacks of the technology. The drawbacks are that email software can be worked if an internet connection is not accessible. Without a particular connection such as a ADSL, email software cannot work as it needs internet in order to work accordingly. However, this particular drawback can be solved. Maria can inform a technician to amend the connectivity so that she can use her email software. She can do this at home or at work. On the whole, the advantages outweigh the disadvantages. As long as the internet connection is accessible the email software is at the ready to be used. Email meets Maria's professional needs by enabling her to communicate with family members, friends and the out side world.

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# Standard Technology no 2.

#### MS word.

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MS word is word processing software enables users to input information. This is initially a PC technology as its use is associated with the computer. The software allows information to be inserted and is this information is displayed on the monitor. A number of major organization and businesses use this particular software to present work more professionally. You can get the latest MS word software or the most updated version of the software. The old version of the software is MS word 2000 whilst the updated models are significantly MS word 2008. This is a standard technology as it is not



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specialized and it is used not only by individuals without disability but also users with some sort of disability. In basic terms it is used by every single user. MS word as a form of ICT assists Maria and is used for personnel, social and professional uses.

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#### Maria Korelli's- Personnel use of MS word

At home, ms word is used by Maria to write up CV's. The software enables her to input information based on her education and her experienceso that employers are aware of her past experiences and qualification in order to employ her. The information is processed so that it can be sent of to job centres when she is applying for a specific job. Although she is at the moment working at the Churchill estates agency, she intends on sending of her CV to job centres and ultimately, hopefully gaining replies from a number of work placements. She does this so that she can select which job is most applicable and easier for her as she is a suffering a physical disability. MS word enables Maria to create a good and professional looking CV; she does this in her personnel time. The CV that she creates with the assistance of MS word is attached to email software's such as yahoo messenger. Subsequently, she can send of her CV to job centres online. MS word meets her needs because it allows her to design a good looking CV which may attract employers. Without MS word, Maria will need to write out her CV which looks unprofessional and employers may not be impressed. Writing information is substantially a very long procedure and thus the software keeps her CV looking aesthetic and information is inputted on the software very efficiently and thus her needs are achieved at a very good standard.

#### Maria Korelli's- Social use of MS word

MS word is extremely useful software when it comes to word processing letters. When Maria's internet connectivity fails to approach, this will stop her from going on chat rooms and sending and equally receiving messages. However what she can do toovercome this matter due to connectivity problems is write letters using her MS word processor and then print letters out. She can print these letters out and send them of to the required receivers which are her friends that live abroad. They can then communicate through the means of sending and receiving letters through post. However, this can be time consuming due to late post delivery and the high expense to post letters. This matter can be easily resolved. What Maria can do is communicate via telephone with friends that live abroad. This maintains great communication at the relaxation of her very own armchair and is an extremely easier procedure. This precludes her from going out on her wheelchair and posting letters to friends, which can be intricate for an individual facing physical disability. Conversely, if both telephone and internet connectivity failed to approach, MS word can be extremely handy as it enables and ensures that Maria can still communicate and socialize with her friends due to short term connectivity or phone line loss. In general, MS word enables Maria to socialise as

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with the access of her fully functioning computer, she can word process letters that can be sent of to friends that live abroad that she knows, once the print out is successfully taken. Thus, MS word keeps Maria socialising without possible hurdles coming in her way.

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## Maria Korelli's- Professional use of MS word

Maria's professional uses of MS word are too input and communicate information at her work placement. She works as a receptionist which requires less moving about. MS word is extremely needed by her because information passed on by her colleagues may need to be word processed and sent of to different organisations. Thus, she receives information from colleagues which requires word processing using the relevant software. MS word provides guidance to the request of word processing information placed by her fellow colleagues. The software allows easy access and use. Maria simply gains access to the software and once she has fulfilled this criterion she is at the ready to input information using the conjunction of her keyboard and mouse After she has word processed the required information with the aid of MS word, she can print out the information to review and subsequently send of the information to the required destination. This keeps the business she is working at running smoothly as organisations outside are kept alert of recent events taken place in the Churchillestate agency and work force within the organisation are equally informed by external members or parties of any updates when they have received a reply. The software allows an extremely easy use and thus meets Maria's professional use.

Evaluation of MS Word assisting Maria: MS word is used by a huge amount of organisations, workers and individuals globally. The software allows busy organisation to successfully word process and communicate information, workers to confirm and review reports of a particular business and allows individuals to input information required from them when studying and consuming and seeking awareness of a particular topic at primary, secondary or further or in basic terms; higher level. The software itself has widely assisted these groups of people and in the same way it has enabled Maria to have a better working conduct in her life. The software's keeps her on track on her everyday job, whether it is to socialize or to carry out work. The software is meeting her personal, social and professional needs. It is significantly meeting her personal needs because the software supports her to create CV's that are aesthetic and professional. The software ensures that she can send the CV that she created to the job centre via job centre web pages; online. This allows her to submit her CV online through the relaxation of her own armchair as she needs software to input information, which MS Word clearly aids her to do so. Maria can do word processing of CV's in her personal time as she has a computer and MS word installed. This precludes her from going out to internet café's on her electronic wheelchair as she has access to her very own computer. To some extent, the software is enabling her to achieve her social needs. This is simply because when her internet connectivity fails to approach and her communication via instant messengers and email software are unsuccessful, she can use MS word to type up letters and send them off to friends she has made via chat rooms, that also live abroad. This assures that she can stay in touch with her friends and enables her socializing to commence. Equally, MS word is meeting her professional needs as it permits her to word process information that is required from her at her workplace. All these needs are ultimately ensuring that she is able to work as an active individual devoid of physical disability will do. Like many technologies/software/hardware's, MS word has several of advantageous features and a few drawbacks. A good feature of MS word is that it is user-friendly and significantly easy to use. The software allows information to be processed in a way which may look more presentable. This can aid Maria to when she needs to create CV's or in a number of occasions where presenting information on a piece

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of paper is essential. The main drawback of this particular technology is that when information is word processed it may in many cases be printed out for confirmation or to send the information to a particular receiver. Thus, when an individual decides to input information, he or she will need to subsequently print out the information. A printer will be needed for the information inputted on a computer to be printed For instance, at work Maria word processes letters and without a printer she will be unable to print out the letter processed in the first place and therefore the software wouldn't meet her professional needs. Purchasing printers can be relatively costly and further long term costs are added on i.e. ink cartridges. Maria should frequently update her current MS word status so that she has a paramount experience at home or at work. The updated version of MS word shall provide a much enhanced formatting and word processing which shall aid Maria and fulfil her targets as she can't walk and so the software shall secure her from carrying out physical movements of her legs. However, MS Word has a spellchecker which picks out the grammar mistakes users make. Microsoft word spellchecker can be improved as this is it should enable users to rectify the mistake with what the software thinks is the best match. Many individuals including Maria would prefer this to Word's cautious policy of merely flagging such words in red and making the user choose the correction. If this improvement was made, then it is assured that users have a much more valid experience which will keep the English language and grammar at high standards as the software can suggest an improvement that can be made that is better and much quicker then what the user will decide on processing. Overall, the software on the whole has many good points, bad point and a suggestive which is reliable, quick and easy. Without the software, Maria would have to write her

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improvement that can be made but is assuring that information is inputted in a way which is reliable, quick and easy. Without the software, Maria would have to write her CV on a piece of paper and send them of by knocking on door steps of job centres. However, her electric wheelchair guides her from reaching the required destination safely but is extremely intricate for her to do so if the footpath is surrounded by numerous of individuals. With the access of MS Word, she can create a CV's and then submit it on an online job centres web page which makes her life much easier. Also, writing a number of different information on a piece of paper which is the past traditional method, makes things really dull and slow ICT has developed a program to overcome this matter which is 'MS word'. It is more interactive and user-friendly. On the whole, MS word is enabling Maria to communicate easier and efficiently with diminutive amount of movement. The software is allowing Maria to communicate in such a way because it is fast and a very quick way of communicating.





### Standard Technology no 3.

#### <u>Video conference</u>

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Video conferencing is when you communicate with another person and you can see each other. Many users use video conferencing in the form of a webcam. Video conferencing are extremely useful because they allow users to observe and communicate with one another. When Maria uses a webcam, the people who she allows can see her. This is usually her friends, family and workers. She firstly gains access to video conferencing software named 'net meeting'. From her she can send an invitation for the required people or group of people to view her webcam. Once the webcam is on they can see her live from there computer. Video conferencing is an ideal way to communicate with family who are abroad, friends and workers. Video conference meets Maria's personnel, socid and professional needs to a great extent and makes her life progressing and enjoyable.



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# Maria Korelli's- Personnel use of Video conferencing

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Video conferencing is a very active form of ICT for individual facing physical disability or multiple disabilities. The technology meets Maria's personnel needs significantly because she is able to communicate with family members. It is a similar way of communicating through a mobile phone but is to a great extent, much more enhanced. With video conferencing Maria can visualise users and in the same time communicate. Seeing that Maria cannot walk, paying visits to her family members is difficult for her and thus the video conferencing means of ICT has enabled her to stay in touch with family members that live in the local area or even abroad in her personnel time. Either her or her family member can send an invite in which the digital imaging conference takes place once the parties have accepted the invitation. Maria regularly, video conferences with family members because she is seen to be a loving woman who considers family relationship very important. With video conferencing, she can communicate with family members whenever she decides to and at the comfort of her own armchair. Maria wouldn't need to travel to different destinations to visit her family members and if she decides to it will be intricate for her, she can video conference which is a very real and easy experience as she can see her family members and her family members can see her as if they were actually visible in sight. The technology creates a huge impact on Maria because if she hasn't seen her family members and most importantly her parents for a long period of time because of not having the ability to go out and visit them on account of her disability, the video conference enables 24 hours/7days a week use and so she can communicate via video conferencing through the means of her computer anytime keeping her in touch with family members. She can observe a digital image of family members on the monitor of the computer and in the same time, communicate. Video conferencing fulfils her wish to see her parents who she may have not seen for a very long time unfortunately due to her not walking. Her wheelchair assists her but makes matters a bit difficult when there is footpath loaded with a number of people. Therefore, the technology enables her to stay at home and communicate with family members.



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# Maria Korelli's- Social use of video conferencing

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Similarly to personnel uses, Maria additionally uses video conferencing to socialize. Using video conferencing via computer enables Maria to commence with conversing and visualising her friends. She can video conference through instant messengers such as windows live messenger and furthermore. Maria can send webcam invitation through instant messengers and communicate with friends at a much more enhanced way. She can socialize with friends by simply sending instant messages to one another; however video conferencing is a much better way of communicating. Once the invitation is accepted by the intended user who Maria sends the invitation to, both parties are at the ready of observing each other once the digital imaging has loaded completely. With video conferencing, Maria can video conference with new friends that she has made and hence she can see who the individual is for a much advanced communication/experience or for security reasons. Some users may be hackers and thus by communicating with friends Maria knows, she can video conference to see if it is a hacker or her friend due to the behaviour the user is showing which clearly shows flaws in the individual. If it's a hacker, then Maria can easily notify her friends about this particular matter. Video conferencing enables Maria to socialize in the same way every individual do in today's society. This doesn't exclude her from the activity of socializing by video conferencing and so she can socialize and make friends.

#### Maria Korelli's- Professional use of video conferencing

This technology can make life a lot satisfying for people who can't move around, these people often suffer from physical disabilities. Maria is part of these individuals as she is suffering from such disability. Churchill estates are a considerate busy organisation and therefore if Maria wants to keep her job role, she will need to work fast, accurately and attend everyday and on time. However, seeing the she is disabled, it minimizes the chances of her working at the pace a perfectly fine individual would have and attending her workplace on time and without any absences because she cannot walk so if her electronic wheelchair wasn't functioning ideally, this will prevent her from reaching her workplace and may cause lateness. When there is an important meeting; Maria would need to attend on time and without absences as the company may admire her skills and ability to make appropriate decisions towards the company, making them prosper in many ways. If she failed to attend the crucial meeting (i.e. financial investments meeting) and be part of the meeting, an alternative can overcome this matter. Video conferencing can be used by Maria. She can attend the meeting from home via video conferencing through the means of her computer. A video invitation via computer can be sent by a staff member who is physically present in the meeting. Once Maria has accepted the invite, her digital image appears on the interactive white board at the meeting. A physical disabled individual cannot move around but his or her brain is still functioning and thus Once Maria's digital image appears, she is then non-physically part of the meeting and she can suggest a particular point by dictating through her MIC which enables her message to be passed through and the meeting then builds up. Video conferencing has allowed Maria to work as a normal individual will do. With this format of ICT, she is able to be a part of important meetings that a normal individual would have, thanks to this form of ICT which makes her life a lot satisfying because she can communicate in meeting and her and members of staff digital image appears which makes it look like as the people that she is communicating with are visibly in sight. Without the technology, a number of flaws will occur as she can't attend important meetings and ultimately she will feel as if she is useless as a member of staff at the South Woodford Churchill Estates branch.

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10 Evaluation of Video conferencing assisting Maria: Video conferencing is an entertaining way of communicating somewhat then sending instant messages and is a common thing used in today's society. A great number of individuals facing physical disability would prefer video conferencing over sending instant messages because the video conferencing method is more interesting, live and keeps them going. Video conferencing have changed the way Maria carries out tasks on a daily basis whether it is for personnel, social or professional uses. The technology has assist Maria to not be excluded from a range of activities due to disability. The technology has maintained her social, personnel and professional use. Firstly, the technology is meeting her personnel needs because she is able to communicate with family members at any gap between 24 hours/7 days a week. This keeps her alert of how her family members are and she can clearly see her family members on the monitor of her computer through a webcam. This avoids her from blaming and accusing herself for not visiting her family members regularly due to physical disability and her internal state. With video conferencing she can see them and this form of ICT enables great and a realistic experience. Thus, video conferencing keeps her on track of family matters which are personnel that she is able to do with one to one video conferencing at anytime without having to leave her door step. The technology similarly meets Maria's social use because of the reason that she is able to communicate with her jolly-well good fellows. The technology aids Maria to communicate how every normal individual would do through instant messengers. She can make new friends through the means of instant messengers and video conferencing and thus video conferencing is meeting her social needs. Additionally, video conferencing meets Maria's professional needs because she is able to be part of a business meeting that she couldn't attend due to her electronic wheelchair not working. The technology significantly aids her and enables her to see members of staff on her monitor and communicate with members of staff as if they were visibly in sight. Ultimately, the technology avoids her from failing to be a part of important financial meetings because of the reason that her disability was the cause for the downfall of not attending the meeting. Without a device such a web cam that enables users and Maria to video conference, people that were facing physical disability couldn't attend meetings if there current status was impossible for them to do so i.e. electronic wheel chair needing replacement. Therefore, these people will fill depressed because of the fact that they aren't able to work how a normal individual could have but thanks to the enhanced form of ICT, today we see physically disabled people being part of important meetings via video conferencing and attaining a number of tasks with ease. Video conferencing like a large number of technologies has a few advantages and drawbacks. The advantages of video conferencing are it is considered expensive to purchase a webcam and the low cost is a one off price. No further money needs to be spent afterwards in order to make use of it and also, video conferencing is an efficient and live form of communication. You can visualize the person you are communicating which is a great observed feature of the technology on the whole. However like many technologies having advantageous features, the disadvantages of video conferencing is a permanent internet connection needs to be available. If you do not have an internet connection available you will not be able to communicate through certain forms of video conferencing such as webcam, the quality of the pictures which you see may not be very clear and streaming may also be very slow especially at peak hours when everyone is using them. Quality increases with price so once again 'price' can be an issue for some people. Overall, the advantages outweigh the disadvantages because as long as the physical disabled person is able o conference with another interface for personnel, social or professional use then that's what is all needed because the technology makes ones life much more productive. The disadvantages are not a cause

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for concern and can be dealt with in ease. Conversely, the improvement that can be made to the technology is that multiple users meaning more than one party can enter the conference, if necessary. This may provide a much more enhanced experience. Another suggestive improvement is that Maria should regularly update her current video conferencing software. The latest and the currently best video conferencing software is a SIGHTSPEED because the video is real-time at about 25 frames per second.

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# <u>Specially-Adapted ICT Hardware + Software that Maria Korelli can use to make her life easier: Electronic wheelchair.</u>

Specially adapted ICT hardware is technologies which are targeted at people with disability. The technology provides assistance to these people so that they are able to carry out numerous of tasks without the disability itself stopping them from carrying out and thus is so called specialised. Maria herself is facing disability and she uses specialised technology. The disability which Maria is facing is significantly physical, which means the specialised technology that she requires is an electronic wheelchair because she cannot walk The electronic wheelchair shown on the right is fitted with Mecanum



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wheels (sometimes known as Ilon wheels) which give it complete freedom of movement. It can be driven forwards, backwards, sideways, and diagonally, and also turned round on the spot or turned around while moving, all operated from a simple joystick. The joy stick works with electrical power and is a very crucial hardware which Maria uses in her life. The Wheelchair is meeting her personal, social and professional needs.

## Maria Korelli's- Personnel use of her electronic wheelchair.

The electronic wheelchair is an extensively important specialized technology which Maria uses and is the only category of specialized technology that Maria is using in her every day life because of the reason that she doesn't require the assistance of additional specialized technology, as her main downfall is that she cannot walk. Electric wheelchairs are designed to move when the operator does not have the strength to do so herself. While there is a huge assortment of styles and specialized fittings, the main mechanism by which they function is the same they are powered by a battery and controlled by a small computer-like interface.

Maria uses her wheelchair at home so that she can relocate around to certain areas in her house, at any period and whenever she desires. She uses her wheelchair to move from her living room to her kitchen and from her kitchen to her upper level of her house. She does this using her fixed elevator in which she moves her wheelchair into the elevator and presses the required button to get to the upper level of her house which is her bedroom. To some extent, an elevator is specially designed in houses to enable individuals facing physical disability to get to the upper level of there houses and so can be observed to be something that meets the needs of people facing disability. With her wheelchair, Maria can move around to any room in her house with the presence of her electrical powered joystick and thus is pleasingly meeting her needs. Devoid of a wheelchair, it will be nearly impossible for Maria to carry out any procedure because she won't be able to move as her legs are not functioning. Alternatively, she can slide about on the surface to get to point A to point B but can be seen to make her feel extremely unhappy of her personality because of the reason that she cannot act and proceed with task as a normal individual would have done. Specialized ICT hardware's enable Maria to move around with joy and to any rooms at her house. She can use her wheelchair to grab hold of anything she wants to by moving around using her joystick.

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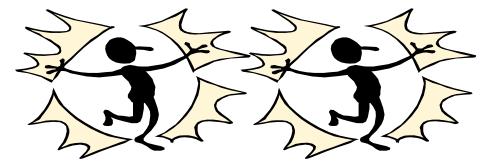
#### Maria Korelli's- Social use of her electronic wheelchair.

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As many individuals like making friends and socializing in there every day life, Maria is also included in these individuals. However, what she finds difficult is to move about as she cannot walk and needs something to give her support. Her Electronic wheelchair is a fantastic piece of hardware which enables her to make movement when she desires to as a normal individual could do. Her wheelchair enables her to make movement and so she can go for a day out with friends on her wheelchair and thus is meeting her social needs excessively because of the reason that she can socialize with her friends and be part of the group at the lovely day out. Unlike a car battery, power wheelchair batteries have to be recharged when they run low. Maria plugs her wheelchair in overnight, just like she would do with her cellular phone. She charges her electronic wheelchair so that it is at the ready to be used for the day out the next day. With her wheelchair, she is able to move about when she is outside and away from home. The wheelchair enables her to better communicate with friends because she is able to make movement and making these movements allows her to communicate with friends. Without her wheelchair, her social life will be sadly screwed because she will then need to stay at home and thus she cannot socialize much ideally as like communicating face to face. Alternatively, she can communicate with friends via instant messengers and telephone but is substantially a much dull way. Conversely, her friends can come round her house but not all individual take out a lot of and continuous spare time to visit Maria seeing that everyone in today's generation are busy and find it intricate to visit friends unless they are very close. With Maria using her joystick and electrically making movements with her wheelchair, she can socialize with friends by going to there houses or for a day out and makes her social life more interesting somewhat then staying at home and socializing via instant messengers.

## Maria Korelli's- Professional use of her electronic wheelchair

Nothing has stopped Maria from carrying out work even though she is facing physically disability. She is working at the Churchill estates at the best of her aptitude and from time to time she is showing commitment and interest to her work even though it is considerably difficult for her to work ideally as a perfectly individual would have. She doesn't show the pain and difficultness she may feel and her electronic wheelchair is the hardware that is the cause for her act. Her wheelchair keeps her active and so she is working in the Churchill estates continuously and at a very good pace. This specific electronic mechanism enables Maria to get to her workplace and devoid of the wheelchair she would be in tremendous trouble because of the fact that she wouldn't be able to arrive to her workplace. Additionally, without her electronic wheelchair, she won't be able to work ideally in her workplace as she cannot work and her movements are unable to occur and thus she will have an unpleasant feeling of herself. Her wheelchair is extremely crucial in her life and without her wheelchair; it will ultimately suggest that a number of working procedure are unable to be carried out by her. He wheelchair Is the cause for every single act she makes and so has enhanced her working life and professional needs.



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Evaluation of her Electronic wheelchair: Assistive devices are rapidly increasing and these devices are very useful for people who have a lack of particular characteristics and so are facing disability problems. A number of individuals in today's society are unable to put up with the fact that they are unable to work productively because of the reason that there legs or arms are unable to work. These people are defined to have physical disability and therefore need the assistance of advanced technology which aids them in this particular disability and the requirement to overcome the hurdles that they may come across i.e. going shopping. Maria also faces physical disability and the hardware that guides her is an electronic wheelchair. In today's society we see a number of individuals who are unable to walk or run freely and thus they use electronic wheelchairs. An electronic power wheelchair is the primary means of day to day transportation for many people all over the world. They are battery powered and some can travel distances of over 20 miles on a single charge. Traditionally a joystick has been used to control the wheelchair and the user is able to move at the direction required by pointing the joystick to the required direction. The electronic wheelchair creates a massive impact on Maria's life and without a wheelchair; there is nothing she can do as a result of the fact that shell be unable to make movements. Her life will be relatively dull to her and she'll find noting but hatred of herself. An electronic wheelchair is assuring that she can work and progress in life. The wheelchair itself is meeting Maria's personal, social and professional needs. It is firstly meeting her personal needs because athome she can move from her bedroom to her kitchen and cook food or additionally she can move from her kitchen to her living room to grab her cordless telephone and phone up a family member or a friend and therefore hardware is substantially meeting her needs and keeping her active, joyful and progressing The hardware is also meeting her social needs because she can go for a day out with friends on her electronic wheelchair which helps her to make movement. In basic terms, the hardware is keeping her on track with her social life. Similarly, the technology also meets Maria's professional needs because the hardware assures that she can work at a workplace. The technology artificially enables her to move and so there is no excuse for employers to not hire her as she is at the ready to work with her electronic wheelchair. However, there are possible improvements that can be made to the normal standard electronic wheelchair. Many people with disabilities do not have the ability to control a joystick in an electric wheelchair. Moreover, they have difficulty to avoid obstacles. Multi-modal systems can be applied to control the movement of an electric wheelchair using small vocabulary word recognition system and a set of sensors to detect and avoid obstacles. Before an electronic wheelchair, a normal wheelchair was available that functioned without needing electricity. A non-electrical based wheelchair can be difficult to use for users and the electrical wheelchair is much more user friendly as it is functioned on electrical energy, whilst the traditional wheelchair which was available had no electrical power and needed a user to push the wheelchair for the patient or the patients rotating the wheels of the wheelchair and thus causing kinetic energy and ultimately the individual is now moving on his or her wheelchair. Overall, the electronic wheelchair is very and extremely great and is meeting Maria's personal, social and professional needs pleasingly. The technology that she mostly relies on her daily life is her electronic wheelchair and without this technology everything will be useless to her.

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# **Conclusion**

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#### Conclusion

ICT meets Marias needs very well; it enables her to go along with life as normal. These needs are.

One who wants to watch TV may not able to do so due to their disability, which could often be physical disability, one cannot move to the TV if the remote is not in reach; such technologies such as electronic wheel chair can assist them smoothly, enabling them to move more affectively despite their disability.

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The internet plays a major role in every body's lives, people who have learning difficulties can use it to learn because it enables them to learn with more images than ordinary text books. The internet can assist them in spelling, due to such programs as spell checkers which cheeks every thing written and corrects it if wrong.

People, who are powerless to go out, normally suffer from physical disability because they are not equal to move as ordinary people, every body has the need of going shopping, however one who is unfit to do so, can use the internet to purchase any thing they desire.

The internet allows home delivery so they don't have to left a muscle. This lets them experience new technologies despite their disability.

ICT meets a person's social need very adequately and allows them to socialise a lot more.

A person's social needs are to

- Talk on the phone.
- E-mail relatives.
- Live conversations with people.

Everybody in today's modern day society has the need of talking to people via mobile phone technology. For some one suffering from physical disability there life is mostly defined in the house this person does not really meet and talk to their family as often. A mobile phone can allow them to have conversations for as long as they require doing so. Calling will be a good way to pass on everyday greetings. For example one may want to chat with family but cant due to their disability a mobile phone will come to convenience.

Not every one enjoys talking for hours on a mobile phones, it does not give you the ability to do multiple tasks, meaning more than one activity. E-mail allows one to communicate with friends and family if you have trouble walking to see them. With email you can write as much as you wish and do other tasks at the same time. For example one can be writing up an Email and at the same time view other websites. Email enables one to sit In one position and communicate, so for those ill-fated people who are powerless to walk can use Email as their main source of communication. If a person is blind or has problems with sight then, there is a Braille keyboard that allows blind people to use the internet.

Maybe E-mail and mobile phones are not enough for a person, for example one may want to see their relatives because they have not seen each other for a long time. Video conferencing is the perfect piece of technology that allows people with disabilities, to

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see their family as if there in front of them, for example both parties can view each other on screens.

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ICT meets a person's professional need with people who have special and partial needs, these needs are

meetings

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- conversations over the phone
- using the internet to access company progress

One who is physically disabled and works for a big company, has the need to attend important business meetings, unfortunately that person has trouble moving around. Video conference can allow a person to attend meetings through screens, which both parties can view and hear each other. It is as if the meeting is taking place in front of the disabled person. This technology really aids people with professional needs.

Businesses all have the need to communicate with all sorts of different people. One who is physically disabled can use mobile phones to talk to people who they have business with. For example one may work on the online auction site EBAY. They can communicate with their buyers through the phone if necessary. This meets a person's professional need.

One who is suffering from speech difficulties may not enjoy going out a lot, in order for that person to experience a normal life he requires his necessity, which may be buying clothes, groceries or new electronic gadgets the internet allows this to take place from home, so one can enjoy life without the need of always going out.

As seen on the reports there are many technologies to assist disadvantaged people. ICT will carry to improve technologies for these unfortunate people to try and make life to it's assuage.

Life for disabled people is not easy, they go through a lot of agony which makes the situation a lot worse, ICT tries to make this all fade away by inventing technologies that will take their minds of things and let them experience life for what it has to offer not for what it is.

ICT's role in meeting both a persons partial and special needs, are at its excellence. ICT allows both people with partial and special needs to enjoy life with the facilities it provides. People with special needs need a lot more of a support from technologies to enable them to do the simplest of things. However ICT has played a major role in disabled peoples life, and they appreciative for it.