

Explain the impact of the availability of electronic information on individuals and on society

Task B

Introduction

In this task I am to write a report on how ICT affects me as an individual, and other members of my family. Also, I will extend my report by giving a clear explanation that includes society in general, i.e. people and situations outside my normal experience. To conclude, I will explain in detail how organisations communicate with individuals and society and how this affects those who do not have access to ICT.

USES OF ICT AT HOME

Personal Computers

I use a personal computer to do my school work such as ICT.

Word processing packages are the ones that I use most commonly, with these I can save edit and change text, and print of a document more than once .If I did not have a computer to write out a piece of coursework, which needed writing twice I would have to write this piece out twice which is very time-consuming; with a computer I can type this piece out once, then click print twice. Also if I make an error in my writing, be it spelling, grammar or any other mistake I can edit the text. Another useful function of a word processing package is the fact that it will highlight grammatical and spelling errors for you so your work will become more accurate. This function is very useful but it does not spot homophone or apostrophe errors. Other useful functions included in the latest editions of Microsoft word are the synonym function. If you write click a word and go down to synonym, it will give you a selection of words with a similar or the same meaning. Word processors also provide a function for a border, different layouts, colours, tables and other many useful functions. If my work was entirely hand-written I would have to cross any errors out and write a correction above. This would make the work less presentable and not as formal. This can also come into use for business letters, which when written on computers, are more presentable and look a lot neater and more official.

I scan in pictures to my PC to keep the quality in the photos. If I didn't do this then if the photos were destroyed then they would still be saved in my computer. I use the photos which are on my PC on my personal website. Scanning pictures into my PC is a great way of sending pictures and work to friends but it takes a long time when inputting images into the computer.

Internet:

I use the internet for searching information for homework, communicating with friends and family via messenger and e-mail. Also for checking times for leisure facilities such as cinema listings and times, television programme schedules.

I mostly use the internet at home to research for my coursework because I have to find out a lot of background information in subjects like Information Technology and Business studies. It also helps in completing my homework. I sometimes use the internet at home for leisure time for things such as shopping online for the latest fashion or finding out the latest celebrity gossip on www.hellomagazine.com. The internet is a good tool for doing my research at home but it is not always easy to find what I am looking for. Sometimes the information is not even correct. Often it is best to use a book or a reference programme such as Encarta instead of the internet. I normally use www.google.com because it almost always gives me the correct information. Also you can use the just search the UK button and it just searches information on UK websites.

I download mp3 files from online programmes such as Limewire or www.cooltoad.com because it is a free service and very easy to use. I download them to play on my mp3 player or to listen to on my computer whilst doing my work; the software used for this is Windows Media Player. I search from a database with lots of songs and make a compilation to suit my personal tastes in music. If a new song is on the radio that I like, I can download it into my mp3 player from Limewire and I will then have the song to play as and when I like. It is a lot cheaper than going out and buying the CD or burning the CD on the net. The advantages of the internet are that buying online it can be cheaper in most cases. It contains a vast amount of easily accessible information which can be obtained for free. It doesn't require leaving the house. Broadband is tens times as fast as a normal 56K modem connection. Disadvantages however, are things such as the connection may be slow. Not all websites will respond because they may be out of order when needed. You cannot use the phone line whilst on the internet unless you are running through a Broadband connection. When you are downloading files and software there may be a risk of it containing a virus, which can damage or wipe your drive and computer files and programs. You cannot always find the exact information that you are searching for even using the more advanced search engines.

This is affected by the Internet Code of Practice, and the audience that uses the internet must only be allowed to see suitable pages and not any indecent material. To do this there are blocks systems. For example the AOL Parental Controls, can be set by the administrator so that certain users can only access certain pages. I.e. A younger user would have their account set on a control for their age group that blocked any indecent and offensive pages.



Radio

[Radio](#) is used to broadcast signals across the country. It is used to broadcast music stations and talk stations.

Advantages are that there is a good as a variety of stations can be picked up from one radio player.

Disadvantages are that the signal isn't always clear. There are so many stations that there is no longer room for anymore to be made.

I use a radio alarm clock to wake me up in the morning. I prefer to have it on the radio because some of my favourite radio shows are on in the morning and I

don't miss them because they wake me up. Often if there is a good, upbeat song on then it puts me in a good mood for the day. I set my alarm on a night time to set off in the morning ready for school. I normally set my alarm clock for 7:45am. My radio alarm clock does its job well but because I don't change it very often it is quite easy to forget the process of changing the settings.

MP3 Player & CD player

My mp3 player helps me to relax and be entertained. I can listen to the music of my own choosing. My mp3 player is small and portable with personal ear phones. I can wear it around the house or take it out with me including when I go on holiday or long journeys. My personal mp3 player has a limited memory size and so I cannot hold as many music tracks as I would like. I sometimes haven't the time to change the files so I have to listen to music I have become bored with. I like to play CDs on my CD player because it helps me to relax after a school day. I also use it because songs can have an effect on my mood. I use the CD player mostly after school because it helps me to chill out. Playing CDs is good for relaxing me although CDs can be very expensive and when I buy a CD from the shop I cannot necessarily choose what is on the CD. It can also be quite complicated to use certain features on my CD player.

Kitchen Appliances:

Washing up the pots after a meal is a boring job so using a dishwasher saves time and effort and allows me to do something more interesting or fun instead. I put on the dishwasher once per day after our evening meal then I empty it later on in the evening. The dishwasher mainly does a good job but it does need to be looked after or it will need repair and it can become very expensive.

I use the microwave when I need to make some food quickly. It is also handy for cooking vegetables in water or pasta if all of the hobs on the oven are occupied. I use the microwave at meal times and if I would like a snack. Using the microwave is a good way to heat up food. Sometimes it is not convenient to heat up bread or pastries though because they end up rather soggy and hard!

Debit/Credit Cards:

I use a debit card because it is a lot easier than giving cash and getting a lot of change. I can go into shops and hand my NatwestSolo card to the assistant and all I have to do is sign and it takes the money straight out of my bank. I do not have to worry about spending more than I have because it is a debit card and it does not allow me to spend more than I have. Each month I get my wages paid into my Natwest account. This is a lot easier than having to get a cheque from the company because it could have complications with it. My cash card is fine but sometimes the cash machines say out of order and I cannot get to my money when I need it and not all shops accept NatwestSolo cards.

VCR/DVD:

I use a VCR in my bedroom to watch my favourite movies and to record TV shows when I am out with my friends. This is useful because I can then watch the TV show later at night when I get in. I use the VCR when I need to relax for a couple of hours. I use it 2 or 3 times a week.



A VCR player/recorder is really good but you are extremely limited to watching those things you have. Recording some things is illegal so I have to be careful not to break the copyright laws. Sometimes it takes a bit of time to set up and to learn how to use the machine properly.

I use the DVD player because my TV has surround sound and you can only fully appreciate it with a DVD. Once every 2 weeks I rent out a new DVD because it is a lot better quality than a VHS and has a lot of extra information about the film on it. The DVD player has great quality and sound but the DVDs can be very expensive to buy from the shops and it is illegal to buy copies. You are limited to play only what is in your collection.

Without the personal computer I would only be able to play games on such things as game-boys and play-stations. Without the availability of word processors all writing would take a long time and be more time consuming. I would not be able to copy CDs, and music would have to be played via a stereo or hi-fi. I would not be able to shop online either or even email.

Television:



The television is one of the most widely used forms of I.C.T. and was used on various occasions throughout the 2-day period. Almost every household in the UK has one, or sometimes more. It is very simple to access, but without I.C.T it would not work at all.

The T.V works by projecting millions of small dots known as 'pixels' onto the screen, our brain amalgamates these dots together to form a clear picture.

There is I.C.T in the remote control, to allow it to send messages to the television through an infrared beam. This is extremely useful. Without the remote control you would have numerous amounts of buttons on the television set, also with a remote you are not required to move to change channel, this is very popular, as people do not like to have to move to change the channel on the television, while eating their tea for example. The remote allows more functions of the television to be accessed, and allows use of teletext. The remote has many functions, e.g. the sky remote is important for their interactive service, 'The red button'. Some of the uses of the red button are such that, while watching sports games one can select which camera to view the game from, during David Blaine's



I watch TV everyday when I come back from school. I also have specific time when to watch TV such as when my favourite soaps come on.

Chat:

I use messaging on my PC to talk to all of my friends out of school. I like MSN because it is a very safe and easy programme to use and is totally free. Mostly, I use messaging on an evening after completing homework. I go on it around this time because a lot of people also go on at this time so there are more people to talk to. MSN messenger is a useful programme to use although it can slow your computer and viruses can easily invade your computer.

Email:

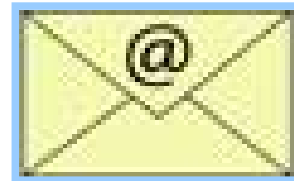
Email is electronic mail, and is used to send long messages to other mail recipients. It requires an internet connection and an e-mail provider such as AOL, Yahoo or Hotmail.

I use email to send out notices or to arrange days out with my friends. Between my friends we send emails to each other telling each other things that we don't necessarily want other people to know. I use e-mail while I am completing homework on the computer or while I am on MSN messenger. This is always on an evening. I also use email to email my teachers if I do not understand my work; it is a quick and effective way of communicating.

Email is a really good way of cheaply communicating with my friends. I can send pictures and attachments. The only trouble with email is that sometimes files can contain viruses and although you can get virus elimination programmes you cannot be completely sure if a file does not have one or not.

Advantages of this are that it is almost instant, fast and easy. You can easily send files and images. Disadvantages include that the e-mail isn't personal. People can attach viruses which can be downloaded without knowing. To use e-mail an internet connection is needed. Junk mail known as SPAM is a big problem but can be controlled using special settings with things like AOL mail controls. E-mail can also be quite intrusive if you are at work or busy.

E-mail is affected by the Internet Code of Practice, Mail and News. One of the points made are that uploaded files and downloaded files cannot exceed a certain limit. This is controlled by the e-mailing system because it has a limit to the file size. Therefore any larger files cannot be sent.



Mobile Phones:

Mobile Phones can be used for communicating in a number of ways; either by call or by SMS (Short Message Service), also WAP (Wireless Application Protocol), and enabled phones can use the e-mail feature from their mobile phone.

Advantages of mobile phones are that they can be used anywhere without the need of a cable. Texts are more private than phone calls. Although there are some disadvantages such as when calling you need a good signal to be able to hear



someone clearly. To use the internet on your mobile you need a very high signal to enable a good enough connection.

Mobile phones are affected the Data Protection Act. When you sign up with a contract phone all your information is stored in a computer and this must be backed up and also the owner must follow the eight principles.

I text my friends for many reasons such as to confirm meeting times when I am going out. Texting is good because it is reliable, they all have mobile phones and it is often cheaper than making an actual phone call – especially from mobile to mobile. I send and receive a lot of texts every day – whenever I need to send a quick message to someone or respond to a message which I have received. SMS messaging on my mobile phone using is ideal for cheaply keeping in touch with my friends. Of course using text messaging to hold

a two way conversation is really time consuming and in these cases a phone call is much more suitable.

Other Members of My family:

Other members in my family use the same ICT technologies as I do, such as the internet. My sisters use the personal computer for their work. TV is the most popular use in my home as it is watched by every single member in the family. Each member in my family has a mobile phone so we can contact each other in case of an emergency. The radio is listened to in the car whilst on a journey. The photocopier is 3 in 1 with the printer and members of my family use it to photocopy documents.

Uses of ICT by Adults in Employment and Businesses.

ICT technologies used at businesses are things like -

- » fax machines
- » computers
- » e-mail
- » the internet/intranet
- » telephones
- » mobile phones
- » electronic organisers and pagers
- » photocopiers

Fax machines are very popular in businesses. They are used to send and receive business documents, data sheets, letters, information, and contracts etc.

Advantages are that it is fast and effective. It can store a large amount of names and addresses and has a large memory. It can copy out documents and images easily. They come with a variety of features like scanner, copying system and cordless telephone.

Disadvantages are that they can be very expensive and also when used in business with frequent use they can easily run out of paper and ink within a short time and messages may not be received.

Computers in businesses are used to process and print out documents. They may be used to create professional brochures, flyers and other documents as well as for typing up reports and creating questionnaires. They can also be used to store data such as names and addresses of people in a database.

The advantages of using computers in a business are that everything is produced and printed out neatly and professionally. Corrections can be made without any trace of alteration and data can easily be made into graphs and charts.

Disadvantages are that some of the programs may be down and which if one goes down on one will go down on all as the computers are linked. Some programs may not be working because of faults. A power cut can occur and you could lose unsaved information and it could cause problems with the computer, but regular saving can help to reduce and prevent this.

E-mail in a business can be used to send and receive business documents and files which can contain either text or graphics or a mixture. Some businesses have separate e-mail accounts to the different working departments whereas others may have a shared account. Businesses use e-mail to send out online news letters and special offers as advertisement online to try and promote their business. The advantages are that it is fast, easy and free and the message can always be received even if the computer is turned off or not connected to the internet. The e-mail can be printed, saved or forwarded. Disadvantages are that you must be connected to the internet to use the service and the recipient must also have access to the internet to receive the message. Viruses can be attached and downloaded to the e-mail which could destroy or damage software or hardware.

Internet is used to research written information about projects that the business could be working on. It can be used to find graphics and images and other required things. It can be used to host a company's website which will help with advertisement and can be accessed by more people anywhere in the world. Advantages are that information can easily be found and inappropriate sites are filtered to restrict people from visiting them. The internet is worldwide and using this to host a business website means that it is open to more people worldwide to view the page and hear about your company. It helps with promotion of the business. Disadvantages are that the internet could go down and could cause problems.

Telephones are used to keep in contact with other members and are very popular. It is also used to ring up customers and customers can in return call the company. It can be used to order stocks and cancel stocks, arrange meeting and make appointments and many other things. Advantages of using a telephone are that it is fast, easy and personal. It can be used for a variety of reasons and can be used to contact people from anywhere in the world who has access to a telephone. Disadvantages are that they may need more than one phone line and could always be busy if there aren't enough phone lines. If there is a power cut then the phones may be down for a long time and it could cause a big problem as one of the main communications would be out of order.

Mobile phones are popular in businesses but not as popular as most of the other technologies. They are very useful when you are travelling as they are portable. You can keep in contact by using it for voice the same way you would a normal land line phone or via text or e-mail with a WAP enabled phone. Advantages are that it is easy to keep in contact with other people in your business. You can use your phone from anywhere in the world and it doesn't require a cable or phone line connection. You can also use a phone to research limited text information via WAP. Disadvantages are that you need a good signal for sufficient usage of the phone. Your phone may not be compatible to call overseas and you may have problems connecting to the internet with a low signal.

Electronic organisers and pagers can be used to send and receive short messages, reminders, calendars date and time, store memos. Pagers and electronic organizers are very useful in businesses because they can be used to set schedule and appointments so that they don't clash.

Advantages of these are that they are fast, effective and reasonably cheap to buy. Organisers have many useful features that are helpful in a variety of ways.

Disadvantages are that they run off battery power which isn't always reliable and may run out at any time.

Photocopiers are used for making identical copies of a sheet or several sheets. They are very versatile and can be used to copy only a certain section on a page or a full page. They can make one copy or several hundred copies. And they can also be altered so that the copies are darker or lighter or go from coloured to black and white.



Advantages are that they are fast easy and effective.

Disadvantages are that some of the page(s) may be cut off. The ink cartridges may run out and may only copy half of the document. Images that are copied from colour into black and white may be dark or not very clear once printed. When copying anything the user has to be aware of any copyright on the images or documents, because this could

otherwise cause the company fines and other forfeits.

Use of ICT by Special Needs People

ICT technologies used by a person with special needs are things like -

- » Touch screen
- » Magnifier
- » Voice typing and reading
- » Sound enhancer
- » Hearing aids

Touch screen is to be able to control what happens on the screen by touching it rather than using a mouse. This is helpful for people who cannot control a mouse properly or for those who don't have very good hand-eye co-ordination. It is also useful for people who may have difficulties holding a mouse.

Advantages of these are that they are easy, effective and can be used by anyone.

Disadvantages are that they are limited and may be expensive. If someone has a problem with controlling their hand's movement then it's not very useful.



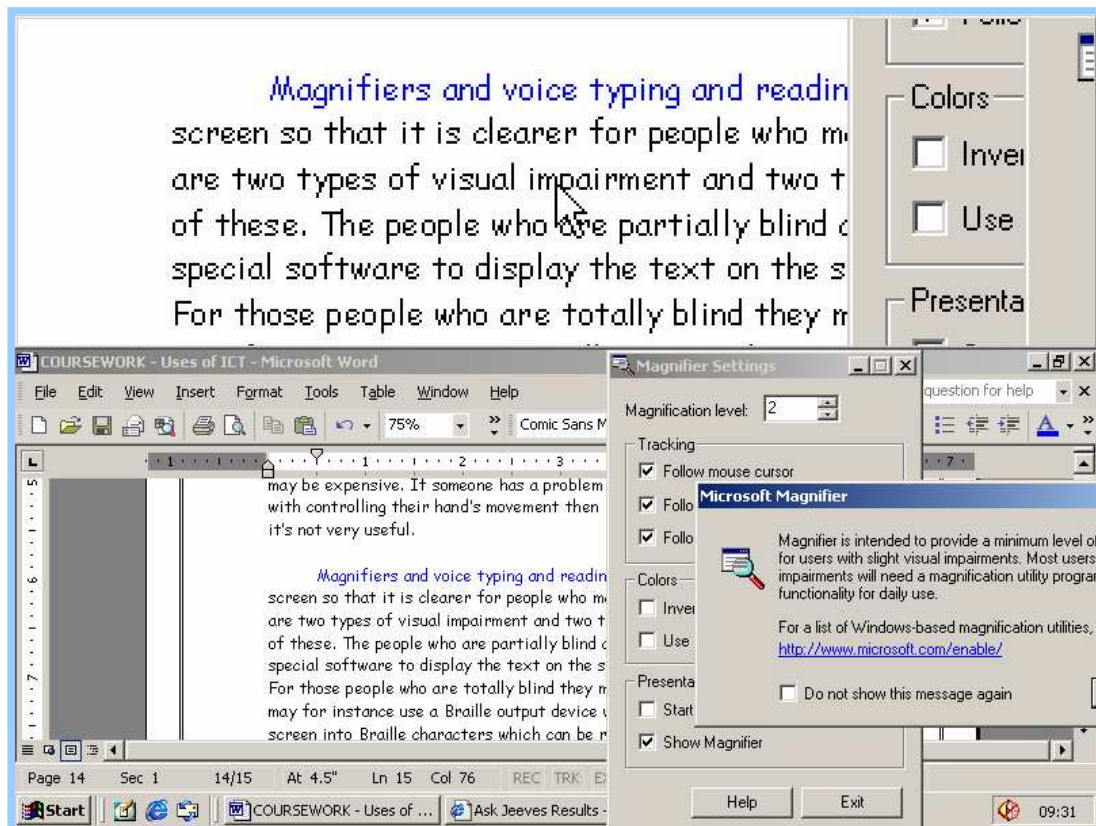
Magnifiers and voice typing and reading are used to magnify the screen so that it is clearer for people who may have vision problems. There are two types of visual impairment and two types of technology to suit each of these. The people

who are partially blind can use magnifiers which use special software to display the text on the screen in extra large fonts.

For those people who are totally blind they must rely on other sense. They may for instance use a Braille output device which converts the text on the screen into Braille characters which can be read off a touch pad. There is also software that can read to the user what the text on the screen says.

Advantages are that people who may not be able to see the screen to read the text can still read and find out what it says without needing to see it directly.

Disadvantages are that they need the special software which may be expensive to buy. If the software has a fault then they are unable to use it.



Sound enhancers and hearing aids are for people who have hearing difficulties. You may be able to buy a special telephone hand set that amplifies the volume of the speech so that it is louder and clearer to listen to. They may also use special hearing aids which are hidden in the ear and can make the sound clearer for the user.

Advantages of these devices are that they make it easier for people with hearing difficulties and they are relatively cheap to buy.

Disadvantages are that they may not always meet the needs of every person and they cannot make it possible for a deaf person to hear.

Uses of ICT by Local Community

ICT technologies used by the local community are things like -

- » internet
- » chat rooms
- » public transport and travel information
- » GPS

Internet is used in public libraries for research and access to public records. Usually a library will now have all their books and resources linked to an online catalogue which covers the whole country. Members can request a title and have it order to a branch in their county. In addition it can be used to renew books, pay fines and make reservations.

High speed Internet/Telephone kiosk points located in many train/bus stations and hotels can be used to gain access to web-services, check and send e-mails.

They can be used by inserting phone cards/coins.

The advantages of this are that the internet is being used by more people and more information can be easily and quickly accessed.

Disadvantages are that not all people have easy access to the internet.

Chat rooms are where you can chat to people through the internet whether it is friends or family, by typing messages to each other either through a chat room screen or through an IM (instant message).

Advantages of this are that people can keep in touch and chat to people from anywhere in the world easy and fast.

Disadvantages are that they are not personal and you may not always know who you are chatting to. People can lie about their identity.

Public transport and travel information is now available from web-sites which cover all aspects of your travel needs. They include rail information, National Express Bus information, plane bookings, Underground connections, water taxi, cross-channel ferry crossings and Euro star train travel.

Advantages of these are that you can fast and easily access travel information for faster and safer journeys.

Disadvantages are that if the site is down you cannot access the information and may have to find alternative ways.

GPS stands for Global Positioning Systems and is a worldwide system of satellites and their ground stations which are used for identifying earth locations. They are owned and used by the United State Department of Defence. By triangulation of signals from three of the satellites, a receiving unit can pinpoint its current location anywhere in the world to within a few metres.

Advantages are that they can easily locate anything in the world.

Disadvantages are that they are not very economical but GPS receivers have been miniaturised to just a few integrated circuits and so are now more economic

The use of ICT within the police force

The uses of technology within the police forces in England have greatly increased the way in which the police serve and protect the population for the better. The aims of the Police force in England has been and will always be to both solve crime and to try to prevent it from happening. The way in which the police go about investigating crimes has been revolutionised by the improving technology that has become available to the police.

“Science and technology has transformed the fight against crime and will continue to do so. From forensic science such as DNA and fingerprints, to technical equipment like breathalysers, and speed cameras, and Information Communication Technology such as the Police National Computer and Airwave, new technology is helping the police combat crime”. – Home Office Minister John Denham.

The technology that the police now use is entirely different from that used two decades ago. One of the first crucial introductions of new technology in the police force was the mobile radio. These are battery-operated radios that allow the control room and officer on the beat to communicate important information such as the location of criminals or crimes that are occurring. The police have developed a nation DNA database that allows DNA to keep a record of anyone who has committed any crimes in the past. It is similar to the keeping of fingerprints of anyone who has been arrested.

Here are some interesting facts about the DNA Database:

- FSS chief scientist Dr Bob Bramley is a leader in setting quality standards for the forensic science community as a whole and has responsibility for The National DNA Database as the custodian.
- Dr Bramley is responsible for ensuring that all laboratories analyzing DNA Samples are reliable and compatible with other profiles on The National DNA Database. The FSS is not the only lab that provides samples for the Database.
- The NDNAD now holds more than 2 million criminal justice samples - These are samples taken from suspects charged, reported, cautioned or Convicted for a record able offence.
- Government investment of £187 million is funding a major expansion Programmed of the NDNAD.
- DNA samples can be taken from anyone suspected of, charged with, Reported for, or convicted of a record able offence, and checked against Records on the NDNAD. This database helps the police to pursue any suspects that leave any evidence of DNA on the crime scene. Which in the large majority of the crimes that happens today is the case.

Another public service that has been improved by the introduction of I.C.T is London Transport.

Advances that have been made have benefited both the Government in saving costs and the commuter who enjoys lower prices for fares.

Also with the technology that is now currently being used and developed ways of making journeys are quicker and more efficient. The methods of this include:

Technology that currently in use such as magnetic strips in tube tickets and intelligent computer run payment machines that allow commuters to travel faster through paying barriers, and technology being developed such as sensors in the roads that allow the traffic lights to turn green on a particular road so that any buses that happen to be running late may speed up their journey and so keep buses running on time. These methods all contribute to making operations easier, faster and help to lower costs.

Also the safety has improved through the use of I.C.T. This is by such improvements of technology such as a system that allows train drivers to communicate with different stations and platforms and also to each other. This is useful for train drivers to report any faults with any of the tube lines. Trains can be informed of any accidents or delays and know whether to slow down speed up etc. This benefits both underground workers and commuters and has been made possible through the advances made in I.C.T.

Another of the public sectors that has been impacted for the better by the use and implementation of I.C.T is the Health Sector. Hospitals are now much more able to help treat and cure people. This can be seen through some examples of existing technology that is currently being used.

EVALUATION:

ICT has helped raise awareness of issues that effect the environment; be these good or bad. Most organisations or societies now have their own website and email allowing easier communication between them and any supporters. Organisations such as Greenpeace have their own website including information about any issues and also they can gather people for protests and campaigns by advertising them on the Internet. This can be seen as an advantage to the campaigners and supporters of Greenpeace but a huge disadvantage to the companies and organisations that they are protesting against. Issues that organisations such as Greenpeace protest about are usually hugely controversial and there are many points for and against them. When I visited the Greenpeace website they were trying to raise awareness about the ship sailing through the Irish Sea using plutonium. Without ICT communications, this news may now have reached us yet.

The Internet also has many other uses, which affects people. Many of the functions of the Internet are extremely beneficial to people but some of them aren't so good. Fraud and corruption are the main problems with the Internet. Hackers use the Internet to gain access to people's bank account details. People ensuring that they only enter bank details onto a secure site, which shows the padlock symbol on the address toolbar, can prevent this. Also the people that set up the website should use encryption to prevent any unauthorised access to the details when they are being passed through the Internet.

Viruses can also be passed through the Internet; this is usually in the form of an attachment on an email. Viruses can do serious damage to computers; they can delete information or prevent software from functioning. In order to prevent

viruses for being downloaded onto computers, people should only open attachments from people that they know and trust. Though if you do this virus's can still get through, so regular virus checks are necessary in order to find them and delete them from your computer.

Overall ICT has had a positive impact on the environment and the way we live. New technology is always appearing helping to make our lives easier and safer. If I were to write this report again in 10 years time there would be many more technological advances to discuss and the chances are some of them would be even more controversial. ICT is something that we have to live with, we can't get away from it, so the chance should be taken to make the most of the opportunity and enjoy being part of an ever-changing revolution.

Final evaluation of ICT for home and school uses:

Without ICT in the home or at school, life would be made a lot harder. It has now become essential in everyone's lives, if ICT was eradicated from life, then the world would be in total chaos. ICT has become invaluable in modern day life. Without ICT in the home, the only heat would come from a coal fire, with it electric. Without ICT my life in school and at home would be unimaginably different.

Sources of information

www.greenpeace.org
www.google.com
www.ask.co.uk
www.bbc.co.uk