ICT & Myself

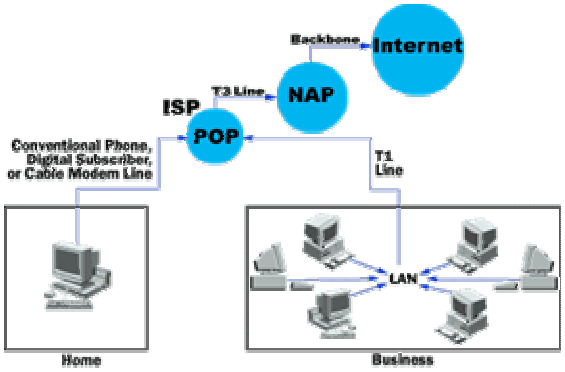
Introduction

My name is Peter Sutton; I am a student at King Williams College, Isle of Man. I use ICT all the time; I am woken by a digital alarm clock, my food is cooked in a digital controlled oven and I am driven to school in a computer assisted car. I also use ICT in less mundane tasks, for example recording, mixing and mastering my own music and then make it available to the globe community on my own website (www.theprosthetics.net).

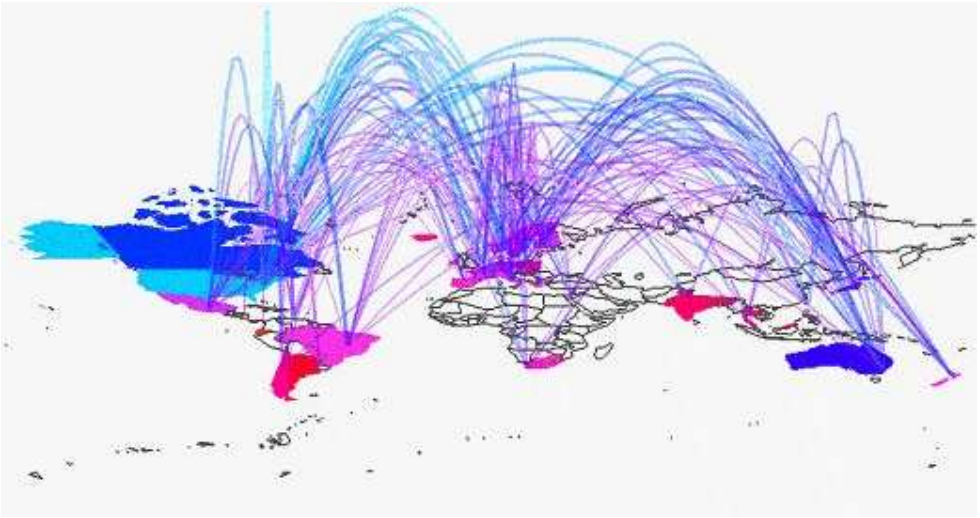
On the coming pages we will see how I use ICT for social, personal and work purposes at home and school.

Personal at Home – The Internet

The Internet is a global collection of interconnected computers, both personal and servers, using the TCP/IP protocol (Transmission Control Protocol / Internet Protocol). The Internet started in 1969 as four host computers. Increasing rapidly over the past 35 years the Internet has grown to tens of millions of systems worldwide. The Internet is a collection of networks, some larger and more important than others, thus we get the Internet hierarchy; this is best shown in a graphical form (see right/above).



At the bottom of the hierarchy, the personal computer uses a phone line (Digital or Analogue) to "dial-up" and connect to a POP. A POP is a Point of Presence, owned by large communication/Internet Services Provider companies (For example BT or Wanadoo, ISP for short); they create backbone connections around a country. Users "dial-up" or connect via a dedicated line to their ISPs' local POP server. Once connected, the computer system becomes part of the ISPs' network and users can view or download data on any public page or file resident on computers or systems in this network. POP servers are connected to NAP (Network Access Points) dotted around the world, these NAPs are connected together to form the massive world wide network we call the Internet. Below is an "Internet Map" that shows the interconnection of NAPs between different countries.



The Internet allows a user to read, watch or listen to people's data regardless of their global location. Billions of times larger than any library or museum, the Internet is the largest source of information in the world; at any one time there are millions of people doing research using the Internet. Friends, family, business contacts and people with shared interests' use the Internet to share files and information. Internet chat rooms, forums, message boards and user groups allow people to communicate, exchange files, share ideas or information with others; a good example of this is the site talkbass.com. This site is a source of useful and interesting information; this site contains an area for people to upload their own mp3 files for others to listen to and a forum where people can seek advice on a particular subject.

What do I use it for?

For personal reasons I use the Internet to discuss topics of interest on forum, for example, bass guitar on bassdogs.com or digital recording on Computermusic.com. I use FreeWebs to host and maintain my website, www.theprosthetics.net, where my music, photographs, written work and short films are available to everyone. I also use the Internet to exchange, upload, download and discuss samples (short sound files of synthesized or recorded sound) on Freesounds.com. I use the Internet to keep my recording system (E-MU 1820) up-to-date and working properly by downloading the latest drivers and supporting software from the E-MU website. I use the Internet to buy musical equipment, for example, electric guitar strings from Stringbuster.com and recording hardware from Sub.co.uk. I use the on-line porthole e-mail service Yahoo to send and receive e-mail from and to friends, family and contacts.

What are my needs?

I need a safe, uncluttered, virus and ad-ware free source of information and data. I also need a system that allows people, worldwide, to view and download my creative work.

How does it meet my needs?

Everyone in the world has the chance to add their thoughts, ideas, files, information and products to Internet and as a lot of people have the Internet is an unmatched resource for just about anything. The Internet meets my needs because it contains all the data and products I will ever need. I only need a tiny proportion of all the information available, for example, FreeWebs or bassdogs.com. Sadly the Internet is not a completely safe, uncluttered, virus and ad-ware free, however by just being smart about the way I use the Internet and I have never had a virus or ad-ware problem that could not be quickly resolved.

Evaluation

The Internet is very effective source of information; in just a few clicks you can find exactly what you are looking for. The Internet does have its downside, like all technologies, for example viruses and ad-ware but these inconveniences rarely appear and when they do they are easily resolved. Pop-ups and other 'force' advertising methods have never bothered me and I do not see it as a downside to the Internet that; nor I do not feel the need in investing in pop-blockers or the like. There is no single alterative to the internet, to get the same information and data that the Internet provides I would have to use libraries, museums, information centres, newspapers, talk direct to specialist, the postal service, make phone calls and subscribe to magazines. As can be seen from the list of alterative the Internet is an all encompassing source of information that efficiently meets all my needs.

Social at Home – Communication

In the 21st century ICT is everywhere and used for everything, it can be found in our homes, places of work and our pockets. With developments in wireless technology our gadgets have become more portable, smaller and less power hungry. I will examine how I use ICT for socializing by taking a close look at one particular device I use.

I use ICT for socializing everyday; to communicate with my friends and family. I use MSN Messenger 7 for online messaging and audio/video conversations, online forums to have in depth discussion about numerous topics and soon will use a program to create and record

music with others musicians over the internet. Let's take close look at the device I use most regularly for socializing; my mobile phone, the Nokia 7260.

How does it work?

This is the Nokia 7260, one of the latest and most advanced mobile phones. It features an integrated VGA camera, integrated FM radio, voice recorder, clothing and shoe size converter and flash messaging. The high resolution display has 65,536 colours in a 128 x 128 pixel screen. It has an ergonomic menu system you navigate through with a 5-way joystick. The phone can receive and send, flash messages, multimedia messaging with adaptive multi-rate audio clips and synchronized media integration language, short message service and picture messaging, e-mails and perform instant messaging. The high-resolution camera comes complete with night mode and can capture video. The phone can connect to other devices through its multiple wirelesses and wired connections; high speed circuit switched data, enhanced/non-enhanced general packet radio service, infer-red, Pop-Port™ and extensible hypertext mark up language. All data transferred is protected using digital rights management with open mobile alliance forward locking. The phone offers a number of features to enhance phone calls; internal hands free speaker, voice recorder, voice dialling, voice commands and polyphonic ring tones using the international standard musical instrument digital interface. The phone can run JAVA programs and comes pre-installed with two games, glamour pinball and backgammon, and pre-installed utilities; size converter, World Clock II, Converter II. It also comes with other features such calendar, wallet, dairy, stopwatch, note pad and to-do list. The phone has three hours of talk time and 350 hours of stand by time. The art-deco phone has a total volume of 72cc. Sim-card free the phone costs around £170.

What are my needs?

To socialize I use my mobile phone to call and text (SMS) my friends and family and store phone numbers. My needs from a mobile phone are simple:

- Make and receive calls
- Make and receive texts (SMS)
- Contact list
- Be alerted of calls and messages silently
- Be alerted of calls and messages in a noise environment
- Long battery life
- Durable

How does it meet my needs?

There are many advantages to using this phone over cheaper devices, for example the increased connectivity and advanced messaging abilities. It can replace your diary, calendar, digital camera, digital video camera, internet browser, e-mail application, alarm clock, watch, phone book and travel board games.

There are also many disadvantages to this phone over cheaper devices, for example the colour screen is not easily visible night or day, polyphonic ring tones are not as loud as monophonic ones, the larger amount of software has caused my phone to crash on a number of occasions, lower durability when compared to cheaper, older phones and with all the technology there is no room left for a vibrate alert.

Does this device meet my needs and allow me to socialize?

No. I don't want or need the amount of feature the phone has to offer, this device is a palmtop that can make calls, I need a phone. Here is a prime example why this phone does not meet my needs, the phone locked-up in my pocket whilst I was out, my parents need but could not because the phone had malfunctioned; the device had failed its single purpose, allowing me to communicate. I need to be altered of texts (SMS) and incoming calls silently because I am often in situations where it is imperative that I read messages as soon as they arrive without anyone else hearing, for example in chapel, the school library and classes; this phone does not offer that capability and therefore failing one of my fundamental needs. When I store a contact into my phone book I need 2 fields of data only, contact name and number, I do not need or want to store e-mail addresses, home address, and so on. For me the phone system is too complex the extra functions make using it slow and, at times, frustrating. I do not believe that this device meets my need to store contacts. I only need and want to send SMS text messages but because the messaging system has become so clogged with other more complex messaging systems the messaging system has become bloated and illogical; so yet again this device does not meet my needs. I spend my free time recording music or out with my friends, as you can imagine these are both very noisy environments and being alerted of a call or message can be done by a loud ring tone and vibration alter. This phone has polyphonic ring tones which are quieter than monophonic ones, due to the more complex amplifiers needs to make the polyphonic sound; this phone failing my needs for a loud ring tone. Due to of more advanced features, like polyphonic ring tones, it is not plausible to include a vibration system for two reasons, there is no room and the device is not robust enough to withstand the vibrations; this phone has failed my need for vibration alert. The casing is thin, the electric equipment is dense and complex; it is obvious that this phone is no where near as durable as some of the cheaper phones. This phone is not durable enough for me.

Evaluation

In conclusion I would like to say that mobile phones reach a point where they were stable, durable and functional since then manufactures have added more and more features at the expenses of the my needs in a device designed for socializing. My preferred alternative to this mobile is the Nokia 1100 (Right). Here are the key features in Nokia's own words:

- Compact communications tool designed for reliability
- Long-lasting battery
- Built-in flashlight
- Durable cover with anti-slip sides
- Sleek silicon key mat with large keys
- Reminders and alarm clock
- Changeable Xpress-on™ covers

This phone fulfils my needs much better than my current phone and it only cost £35.

Work at School – Data Capture

Whilst at school I need to use ICT to help me complete my work to the high standard the teachers expect. This may involve many forms of ICT; this section explains how I use the use the Kodak EasyShare CX7530.

How does it work?

This is a high resolution CCD (Charge Coupled Device) 5.36 million pixel digital camera, with a 5 million pixel image resolution in a 2560x1920

configuration. It has a maximum 15 times zoom; 3 times optical zoom and 5 times digital. The camera is designed of use in most situations; to create this flexibility the aperture setting can vary from f/2.7-5.2 (wide) to f/4.6-8.7 (tele) and the shutter speed ranges from 1/2 seconds to 1/1400 seconds. To increase the accuracy of each shot there is a true image finder in the rear of the camera. The camera has advanced reviewing feature, for example slide show and zoom seen on an indoor/outdoor high resolution, 134 thousand pixel display. The camera has 7 different setting to all the user to take the best picture; these are auto, portrait, landscape, night, close-up, sport and movie and three different colours modes, colour, black and white and sepia. The device features 4 different white balance settings; auto, daylight, tungsten and fluorescent and four different flash modes; auto, red-eye, fill and off. There is also a Burst mode which takes 4 photographs in quick succession. The camera can also take movies in a variety of formats, including high and low resolution MPEG-4 or QuickTime. The camera can also tell what way up the picture is being taken and rotates the image to correct the orientation. The camera has a built in 32MB memory but this can be expanded with a flash card. Images can be loaded to a computer via a USB cable to and then used, shared, edited, print or achieved.

What do I use it for?

Design & Technology course work states that I must record the method in which my project is constructed; the easiest way to do this is with a digital camera. Images are taken at every stage of the project, uploaded to a computer and then added to my course work.

What are my needs?

I need a device that will allow me to easily capture each stage of my project, in detail with little knowledge of photography.

How does it meet my needs?

The entire EasyShare range from Kodak was designed to bring digital photography to the masses in an easy to use device, which is exactly what they have done; allowing me to capture my project work with very little understand of photography. The camera as has 3 times optical zoom and 5 million pixels a picture meaning it captures the detail, allowing me to accurately document each stage of the projects construction,

Evaluation

The Kodak EasyShare CX7530, along with other Camera in the EasyShare range, were designed for the basic home user without any previous photographical understand, because of this it allows to effectively take pictures even though I have no real photographic understand. A similar alterative to this product would be the Canon SD300; this digital camera would also meet all my needs.

Personal at School – Hardware and Software

School is not all work, during breaks and lunch time there is time to relax and spend time doing what you enjoy most. For me that is playing bass guitar. As it is not practical to carry a bass amp to school every day I take the Zoom 506II FX bass effects pedal.

How does it work?

This is a DSP (Digital Sound Processor); the analogue signal from a bass is feed into the 'Input' jack on the rear of the device. This signal is then converted to digital, processed and then converted back to analogue; this signal can then be amplified by any amplifier. The device offers a chain of high quality digital effects, some designed to emulated analogue effects and others to create

complex synth style sounds. The effects on offer include 5 types of compression, 12 types of distortion with adjustable gain, 4 band equalization with variable phase control, noise reduction, amp simulator, 21 modulation and chorus effects and 4 types of echo and delay. 36 pre-sets can be stored across 6 banks allowing you to keep your favourite settings. The unit can be battery powered, making it portable and practical. An expression pedal can be used with this device to alter effect parameters whilst playing, giving you greater control over the sound. The device has a built-in tuner; meaning there is no need for a separate tuner also this allows very easy tuning whilst playing. This device has a built-in amplifier meaning you plug head phones into the output at hear and loud clear signal.

What do I use it for?

I use this device at lunch and brakes to play bass guitar, I use the devices' amplifier for headphones and I use a variety of effect to make my playing more pleasurable and constructive.

What are my needs?

I need a device which can be taken anywhere, this means it needs to be self contained, battery power and a portable size. I need a device that combines a tuner, effect pedals and amplifier so I do not have to take a lot of equipment back and forth. I need a device that can save my favourite settings so I do not have to spend time dialling them up in my limited free time at school.

How does it meet my needs?

This device is completely self contained and battery powered, it is also is only 14cm long and 12 wide making a potable size. This device has a built in tuner, 33 different effect (max of 8 simultaneously) and an on board amplifier, this means I only need to carry a pedal, bass, cable and headphones around. The device allows me to save up to 36 different setting making it easy and fast for me to find my favourite ones.

Evaluation

This product has been internationally recognized as the perfect practise and low end stage effects pedal and I agree with this. I have used this device for 2 years and found only one small flaw, it is not easy to tell which of the two pedals moves to the next pre-set or the pervious one, but this is easily remedied by writing it on with marker pen. I think this device does a good job of meeting my needs and I will be using it for many years to come. As an alternative, with the same level of functions, in a similar price range, the Alesis Bass FX pedal could be used; it is almost identical to the Zoom 506II in operation and features.

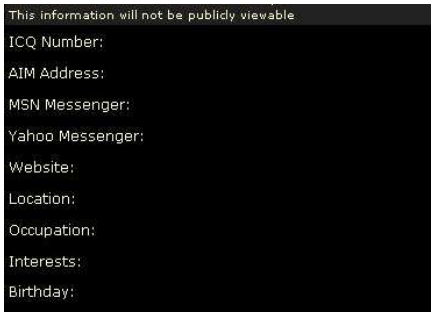
ICT Legislation & Myself

In the developed world most aspects of our lives are controlled, in some respect, by government legislation. For example the way we drive our cars and build our houses. With an increase in ICT, legislation has been drawn up to control the way in which it is used, with the intention of protecting us. In this essay I will examine the way in which this legislation affects the way I use ICT.

The Data Protection Act

The data protection act (1998) was drawn up to protect our privacy by controlling the way in which information stored about us can be used. This legislation aims to protect us from people that are prepared to exploit the information for their personal gain. How does this legislation affect me?

How the Act affects me



This legislation affects all stored information about living people. I come into contact with this legislation most often by using the internet. On the internet I fill out many forms asking for personal information. For example the registration forms for a bass guitar message board. It requests e-mail addresses, websites, location, occupation, Interests and birthday. This is sensitive information that I wouldn't like to be publicly available; the data protection act stops this from happening. At the top of this form it says, "This information will not be publicly viewable." This is not just a good will gesture it is a legal requirement. When I fill forms in, like this one, I feel protected by the act. I choose to enter some information that I wouldn't have included were it not for the protection the act provides.

How the Act protects me

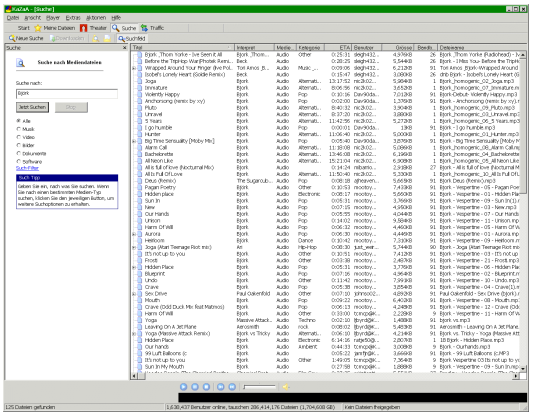
I believe this act affects the way we use ICT more subliminally than other pieces of legislation implemented to protect us from others prepared to abuse ICT. This act gives me a sense of privacy and protection, allowing me to feel safe when entering sensitive information on the internet, software registration and other such forms.

Staying Within the Law

This law protects me but it also restricts my activities. For example the act stops me from handing out other people's personal information in, e-mails, on message board and on internet forums without their permission. To stay within the law I must examine the information I supply on the internet, in the form of message board posting, emails and instant messaging and consider if the information I am giving out is restricted by the act.

The Copyright, Designs and Patent Act (1988)

How the Act affects me



The Copyright, Designs and Patent Act (1988) is designed to protect the creators of any product. This law affects the way I use music CD and software. To keep within the law I must not create copies of software or music. I find this law restrains me; I would like to create copies of some software and music for myself and others to use. Although I would benefit from copying, the

companies that created and produced the software would loose sales as a consequence. This legislation is designed to protect companies from ICT users, like me, from taking advantage of CD re-writers and other such hardware. One area in which this legislation particularly restrains me is the reproduction of music.

How the Act protects me

I compose and record my own music. The music is my intellectual property and I would do not want others to clam they created but I do want others to hear it. The copyright laws automatically give me full rights over my intellectual property; this means I can place my music on the internet and know that, should it be stolen, I can launch legal action against the person.

Staying Within the Law

As a "session bassist" I perform many songs by many different artists. Since it would impractical to buying many albums, sourcing a track off each, it would make sense to use file sharing programs like Kazaa; getting the songs fast and free of charge. However this is illegal and carries a hefty penalty. To stay within the law I use the new, legal, form of Napster where artistes are paid royalties. I agree that this legislation should be used to restrain people like me, otherwise software and music companies would find themselves losing profit and unable to fund software and music in the future.