Life in the information age

COMMUNICATION

Communication is a key part of life and it affects the way we as humans live. We talk to each other and make signs and signals as part of natural every-day life. Without communication, human life would be reduced to a quality not much better than animals. Therefore the development of communication is always going to be a positive impact on human life and interaction.

ICT has affected communication in an incredible way. It has enhanced speech and written communication, whilst introducing other methods. I will investigate the difference ICT has made to communication, below.

Prior to the introduction of technology, communication existed as speech, and the writing of letters. Firstly, with the introduction of the telephone, communication became long-distance with the ability to converse with people far away.

In the 20th century new inventions helped to increase they way we communicate, but none more catalytic than the invention of the computer system.

Different ways of communication using today's computer, include:

Being able to word-process and print documents them instead of handwriting saves people's time and effort. Also the printed copy is usually of a higher quality and standard than handwritten versions.

Computers in a network can communicate with each other effectively, setting up bulletin boards and internal forums for communication between computers and their users. This is useful because ideas can be shared that cannot necessarily be said. Pieces of work can be copied, shared, and discussed without the environment becoming noisy. Structures like this are often used in schools, between staff and students alike.

Computers with internet access can send emails, which are electronic messages. This has enabled people to communicate, similarly to letters, to other people across the world. This has not quite replaced normal mail but is clearly faster and more useful. Sending and receiving are instantaneous and save the user money and time.

Computers with worldwide network access can also use instant messaging services to hold live conversations with other people. In individual windows, conversations are updated regularly to show conversation activity.

"A FAMILY of six escaped a house fire unhurt. Two adults and four children left their home, in Acresfield in Adlington, after a blaze broke out in a child's bedroom. They were alerted by smoke alarms at 7.25am yesterday. The mother had been awake with her

seven-month-old baby while the rest of the family were asleep. Firefighters were called to tackle the blaze and crew commander Mark Appleton, of Horwich fire station, said: "Luckily they were all out of the house when we arrived. It was the smoke alarm which saved them and we would urge everyone to take advantage of the free smoke alarm fittings that we offer." There was smoke damage to the upstairs of the semi-detached property and fire damage to one bedroom." From the Bolton News[1]

CRIME

Crime has always existed. It is a problem which affects or is caused by many of us, and it is usually crime that grips, and has gripped. The headlines for many years.

The problem with crime is that it has forever been on agendas of governments around the world to eradicate crime, from the petty to the mass murders.

The quality of ICT has increased, and it has never been better than now, in the information age. Even as good as it is, ICT cannot really be selective of who uses it, and the technological advances hold no morals, as they are machines without minds to interpret these.

With this problem, ICT can be used for either the good or bad. Below are two examples of using ICT for good, and ICT for bad purposes in terms of crime.

Image[1]
This is an image of the interior of a police patrol car. They have been equipped to a high-standard of technology built for aiding the fight against crime. Typically, they would specialise in communication between units and HQs, as well has perhaps holding a database of users, suspects, and anyone on file.

Extract[2]

In the very near future, experts believe most crimes will involve computers

Recently, the Internet Fraud Complaint Center, a joint creation of the FBI, the DOJ, and the National White Collar Crime Center, reported it

had received 1,000 complaints of fraud each week since opening in May. It is estimated that by the time the center becomes fully automated later this year, it will be receiving more than 1,000 complaints a day. And that's only the Internet fraud cases. If the statistics are any indication of the overall volume, cyber-crime is growing and, in the opinion of some federal law-enforcement officers, soon may rival the number of immigration and drug cases now flooding the southwest border courts. Unlike those crimes, the caseload will be spread across the entire country.

EDUCATION

Education has come a long way over the past 200 years, and much of this has come about along with the introduction of ICT to the system. Computers speed up assignments, various software help interactive learning and programs are created to benefit teachers and students alike.

Education, originally, was not compulsory until the reign of Queen Victoria. If education had never become compulsory, and was only provided for those who could afford it, then economy would never spend as much money on tools and learning equipment as they do today. Before 1836 only the richest of society engaged in developing knowledge. Since Queen Victoria, education has been compulsory for those under sixteen years of age, and available to all. However, the level and quality of teaching was still poor. Those who attended Sunday schools had hardly any equipment to use, and the best of society in the 19th century barely had a book of pages to write in. The following extract comes from a website which gives a detailed description of the writing and recording instruments used in the 1800s. N.B. No technology was involved at this stage.

"Children learned to write on slates, they scratched letters on them with sharpened pieces of slate. Paper was expensive, but slates could be used again and again. Children were supposed to bring sponges to clean them. Most just spat on the slates and rubbed them clean with their sleeves…"(Victorian Schools, www.nettlesworth.durham.sch.uk/time/victorian/vschool.html) [1]

During the 20th century, governments, especially in the United Kingdom, began to take more of an interest in education. Budgets included money for public schools and education. However, computers were not made available until the 1980s with Apple Mac Computers, and before this time, various printed workbooks were produced: lined, squared, handwriting and simple plain pages were produced to make learning most interesting.

Teachers began to use computers to help with organisation and preparing documents for classes. Also, one of the first departments within schools to use technology was the design and technology department itself. As part of design, Apple Macintosh plc allowed their computers to be used for computers in schools and this was the start of a technological boom. Also, various photocopying and printing companies such as Canon began to implement their machinery, from the work office to the school staff room. All these technological advances had made education less of a difficulty, at the close of the century.

With the new millennium has come the urge from nations across the world to have at least one computer in each of the classrooms in their nations. Over the last year alone, the US government have injected $5billion into technology in classrooms. And Britain has set a determined goal to have a computer in every classroom.

Businesses have found a new market within the education sector and have capitalised. At nowhere else can unique teaching instruments and programs be found. Computer suits with identical sets of programs have been found in few other places besides schools, colleges and other educational facilities. Teachers have also benefited from technology available to schools.

"Seventy-seven percent of public schools had a majority of teachers who used the Internet for instruction during the 2003–04 school year, up from 54 percent in 1998-99…"(Fox, 2005, p. 42) [2]

Having ICT in classrooms and throughout schools is definitely on the increase. And today, teachers are able to have some of the finest software in their classrooms, to aid teaching. The whiteboard is still in use, but alongside a new SMART board which has been introduced to allow teachers to work with their computer while teaching.

We are living in the Information Age. But people differ as to how the computer has affected education. Some people believe that ICT has done very little for developing the education system. For example, Oppenheimer (2003) in his book titled *The Flickering Mind: the False Promise of Technology in the Classroom* concluded that placing computers in the classroom has been almost "entirely wasteful." [3]

EMPLOYMENT OPPORTUNITIES

Over the years, ICT and computers have become part of the everyday workforce. Their abilities allow them to do tasks which mean that they are now part of the bigger picture of employment. This analysis looks to explore how ICT plays a part on employment opportunities, and what effect it is having on people.

Employment, all over the world, has been simply grouped into three different stages: primary, secondary and tertiary work. In some cases it is more than just these three stages.

Primary work lies at the beginning of the process of work. People who work in the primary sector of society find and gather raw materials. They extract raw materials such as picking cotton and digging for oil. Before machines were built to aid this, tasks such as these were often difficult. Now people use digging machines, harvesters in farms, massive oil tankers and drillers to gather raw materials underwater. However this is not quite ICT. Also this has hardly affected the employment opportunities, in the primary sector, in a negative way. These machines are ever being produced, and they require people to control them and work on them. That is why this industry is ever-growing. The problem lies in the fact that the primary sector is too easily exploiting the raw materials on this earth which are non-renewable. Deforestation (the process of cutting down trees in mass number) is taking place, oil constantly removed, and various other sources of finite materials are running dry. These actions are all being encouraged by the fact that machinery is being created for these purposes.

Image[1] – Vehicles have become more complex, and enable us to do many things. In this image some machinery destructs a forest to make space for human development. It is

In the secondary sector, products are manufactured and put together, ideas and services are put together, and basically, everything to be presented to the public for sale is prepared here. The secondary sector is far more complex than first, because quite often, there are several levels in the secondary sector. Businesses want to create employment opportunities and therefore create several stages in the production of a product. They branch out. They diversify. Etc. The secondary sector is where computers and ICT have had the biggest effect on employment opportunities. This is because since the introduction of machinery, different types of production have been established.

- Continuous processes – whereby products are repetitively made quickly. This is awkward for people to do and becomes boring. Therefore jobs have been lost here and remain lost as long as ICT exists. Also, ICT systems control the machinery and therefore even more jobs are non-existant.
- Batch processes – where computers and humans work alongside. Originally, products made in batches were made by humans. Not much jobs have been lost with the introduction of ICT, and in fact, more employment opportunities have been created as people need to operate the ICT systems.
- Job processes – individual pieces of work such as commissioned paintings do not involve ICT, and therefore human skill is still required, to the utmost.

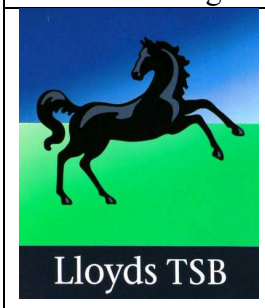
In the tertiary sector, products and services are presented to the public. This, for the first time, requires human interaction in advertising and other tertiary processes. However ICT is developing the tertiary world into a different scene, and almost all businesses and retail shops have computers in them. Computers assist with the purchase of products, and are also very good at keeping stock counts and mathematical details. Today, EFTPOS points are introduced, where people can check-out their own products using self-service check-outs. No people are needed to operate these. Job opportunities are lost there.

We are living in the Information Age. When it comes to employment opportunities, ICT is either working alongside and with human activity or removing jobs from the three sectors in which people operate. Overall, ICT has made a positive impact on businesses themselves but not on employment opportunities. What really makes a difference is the demand for something. If people want something, then people need to work for it, sell it, and advertise it. This invites jobs. If there is no demand, people cannot be paid, because they are not doing anything.

BANKING AND SHOPPING

We are living in the information age. Banking is an aspect of life which has been affected by the ICT revolution. Also shopping online has been made possible by this revolution.

With the Internet, came opportunities to do many things online, including financial transactions and the managing of finances online. High street banks were set up for the convenience of their members. People used to simply go to banks, when they were open, and make their transactions and to find out financial information. Today, people realise the ease of doing things that would normally require going out, by staying at home and using the Internet. It is available 24hours a day, requires not waiting in queues and transactions are speedy and efficient.

Online Banking	Advantages	Disadvantages
	Convenience: Unlike high street banks, online banking sites never close. They're available 24 hours a day, seven days a week, and they're only a mouse click away, as long as internet access is available.	Start-up may take time: In order to register for your bank's online program, you will probably have to provide ID and sign a form at a bank branch. It is easier to start-up by going to a bank physically rather than online.
	Efficiency: You can access and manage all of your bank accounts, and perform transactions easily, even	Learning curve: Banking sites can be difficult to navigate at first, and it can take time to get used to grow comfortable to the

[1]

possibly from one secure site.	interface.
Transaction speed: Online bank sites generally execute and confirm transactions at or quicker than ATM processing speeds, which are in real life.	Bank site changes: Even the largest banks periodically upgrade their online programs, adding new features in unfamiliar places. In some cases, you may have to re-enter account information.
Ubiquity: If you're out of state or even out of the country when a money problem arises, you can log on instantly to your online bank and take care of business, 24/7.[2]	Reliant: websites, based on the internet, are always reliant on an internet connection for their users to use it. Therefore if a ISP breaks down, people are disconnected inconveniently.
Effectiveness: Many online banking sites now offer sophisticated tools to help users to control their finances. Also most are compatible with money managing programs such as Quicken and Microsoft Money.	'Trust' issues: For many people, the biggest hurdle to online banking is learning to trust it. Did my transaction go through? Did I push the transfer button once or twice? Security is important for people who want to avoid fraud.

Case-study – An article from the BBC website in 1998.

"The days of having to stand in a bank queue to pay a bill or transfer money have come to an end. BBC News Online's Andrew Yates looks at a banking renaissance.

Online banking has taken off

Fed up of giving up your lunchtime to go and visit the bank only to be confronted by a huge queue of people?
Help is at hand.
Now bank customers are being given the chance to manage their finances how and when they want, from the comfort of their own homes.
Online banking promises to transform the way we bank.

The UK's major financial institutions are introducing new services which will allow us to become our own bank managers.
Checking balances, paying bills and transferring money can be done with the click of a button.
That is just the beginning.
Soon anything from pensions to mortgages will be sold regularly on the Internet and customers will even be able to bank via their television sets. "[3]

We are in the Information Age. One of the key differences which have taken place over the last ten years is the opportunity of online transactions, which have been presented to the public, and embraced. It has benefited the public, but presented problems for people who operated in the physical shops and businesses. Jobs are being put in jeopardy. However at the same time, new positions are being presented as the website systems introduced need to be controlled. Benefits outnumber the drawbacks of this little corner of the Information Age, and it is one of the highlights of the technological movements happening today.

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