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"Look at the social, economic, legal, ethical and moral effects of using ICT systems"

Before the 1980's, there were relatively few computers that were in existence, and the ones that were in use were very large, slow and unreliable. It has only been In recent years that computers have started to take a major part of our daily lives.
This revolution in ICT is a very important one, as it affects the way we work, spend leisure time, think and basically live our lives. Although most people welcome the idea of a life built around computers, some people say that this is a negative thing for society.

Social and economic effects
We are now in an 'information age' and out society is very dependant on information storage and communication. Many people are now using some form of information technology to help them.
With the introduction of computer controlled technology, employment patterns have changed considerably. Changes include:
1. Many manual tasks such as assembly work in factories are being performed by robots.
2. Many industrial processes operate non-stop and are continually being monitored and controlled by computers.
3. There are fewer paper-based systems in offices.
4. More and more people work from home
5. Computers are sometimes used to monitor the performance of their users.
Due to ICT systems, it makes it easier to upgrade things like driving licences. They now have to be in credit card form, and the technology now allows a photo of the driver to be put on the card.

In the case of economic effects, ICT systems seem to have positive and negative effects. On one hand, the systems can save the firms lots of money due to the fact that computers can perform tasks very quickly, they never get tired and they don't need a salary. This on a whole saves an industry money. However, on the other hand, the computers are doing jobs that workers used to do, so the labour isn't required anymore. This is a case of computers taking over jobs from humans, which causes unemployment.

Businesses and offices
Computerised systems such as databases, spreadsheets and word processors are in high use in a modern, everyday office. In this case, computers replace pens and paper to make what people now call 'Paperless offices'. This means simply that the office keeps all their records and different data on computers, not on paper.
Typists within industries have benefited with computers greatly because of word processing packages. The old method of writing on a typewriter is rarely used nowadays, as word processing allows the typist to edit and manipulate the text.
Communicative options in a modern office have grown vastly as well. Thanks to things like LAN networking and the Internet – data can be sent to a different computer in seconds, which is obviously much faster than sending it by the old method of postage. This saves companies time and money. Other communication options include video conferencing (where people can see and talk to each other over the internet thanks to a camera – even though they be in different countries)
However, ICT businesses and offices has its downsides. For example – All employees have to be trained with computers and multi-skilled, but not everyone has the opportunity to learn. Also, many jobs are being lost with the introduction of computers, as they are taking over jobs that workers usually carry out.

Legal effects

With the growth of information systems, there was a growth in computer crime. ICT is a new way for people to steal money from either individuals or companies. With the use of the internet, people known as 'Hackers' can obtain personal information such as a credit card number and use it to their advantage. This has led companies to start holding less cash than it used to. Many more employees are now paid by cheques or direct payment into their account.

ATM (automated teller machines) have been introduced in many different places across the globe. This is a system for obtaining cash from a cash dispenser using a credit card. The credit card has a number called the PIN number stored in a magnetic stripe at the back of the card. When the person using the card signs with an accepted signature, the money is taken from their account. More and more of these are being set up around the world as the ease of use is popular among shoppers.

However, it is because of credit cards that the companies lose hundreds of millions of pounds every year due to fraud. There are many ways that are being developed to try and stop this (EG – Retinal scanning, a separate PIN code and fingerprint scanning) There are many other ways that criminals can steal money by using the ICT available. These ways include Electronic fraud (the use of communication systems to commit fraud), Phantom withdrawals (money which has been debited mysteriously using an ATM without the person who owns the card using it) and software piracy (the illegal copying of computer software)

Because all of these things are happening, the *computer misuse act of 1990* was introduced. This act makes it a criminal offence to gain access to important and personal information that belongs to someone else.

However, even though there are many ways for criminals to perform illegal acts using ICT systems – there are also many ways (using computers) to prevent crimes.

Things like tagging systems, speed cameras and house security systems are in widespread use all over the world where they are needed.

Ethical and moral effects
The internet provides access to an almost infinite amount of information created by many different people. This is why the internet is so popular. However, the problem with this is that this information is freely available to anyone – and some of that information may be unsuitable for certain people. For example, searching pornography on the internet in the USA is perfectly legal, but in parts of the middle east it is not and seen as a very serious offence.
There is a problem for governments as they have a very hard time restricting access to these sites, and as the issue is very serious, pressure is put on them to sort it out.
Another large problem with the law and ICT, is widespread software theft. Even though its is an offence to copy or steal software – the vast majority of people owning a computer have programs that haven't been bought by them. The problem with this is that there is no way that any law enforcers could ever really prove that the software hasn't been purchased by the individual – and even if they could, it would be impossible to punish everyone who had done it, as there are so many.

Health and safety effects
The most basic way of using ICT systems with health is to keep patient records. Most hospitals nowadays hold patient information on databases and this provides more accurate and up-to-date information because records of drugs taken, treatments, tests etc. are kept in one place and are therefore less likely to get lost. The GP can search, amend or delete the records when needed. Letters can also be made from these records and then sent out to certain people.
Computer systems in a hospitals can also help:

1. Diagnose patients
2. Match symptoms with illnesses
3. Scan in search of things like cancers
4. Operate using robotic arms
5. Model new drugs and predict possible effects
6. Help the lives of the disabled (e.g. – robotic wheelchairs and robotic limbs)
7. Monitor the bodies conditions (e.g. – monitoring a sportsman in order to determine his fitness level)