

# Information Studies

## The Effects of I.C.T

### Essay

## The Social and Economic Effects of I.C.T

We are now in an “information age” and our society is very dependent on information storage and communication. Around the World millions of people and companies are dependant on computers to process information. Some of the main uses of computers are based around advertising. Software technologies such as the Internet have created and opened new paths, never thought imaginable before. Computers are constantly being updated and upgraded so that they are capable of executing most 21<sup>st</sup> century tasks. Below is a list of programs, applicable to computers that are used worldwide.

### **Computers, Software and the Internet**

Microsoft Excel Databases: Allows the user to store any type of information whether its Numerical or alphabetical.

Microsoft Word Document: Enables the user to construct letters and word-based documents, then able to forward to any other machine via the Internet.

Internet: A super technological space often referred to as the “information superhighway”. Hundreds and thousands of people are able to access the Internet through their computer. The Internet is basically a big chain in which people can join themselves to by logging on. The Internet is capable of processing and transferring information from one computer to another in seconds.

These are only some of the programs that have been used within companies to produce documents for advertising etc. but this is not all that computers are used for. Computers are also used to store data such as financial, economic, employee and customer information. Although it seems risky to allow companies to hold your personal information, you can feel safe due to the Data Protection Act amended by the British government in 1998.

### **Personal Privacy**

Businesses and companies around the World all hold personal information on both you and I. They store such information on super sized databases made for the sole purpose of recording who you are, where you live, what your job is, how much money you earn etc, etc. They want this information, so that they can refer to it for future preference and for advertising opportunities. But, “they have my personal information you say, then what’s to stop them from distributing my information to other people”? Well, what actually prevents these companies from giving out your personal information is The Data Protection Act amended in 1998. The Data Protection Act is basically a law, which prevents companies from sharing certain areas of your personal details with other businesses. Also the Data Protection Act unnoticeably guides the businesses or companies who have your details to check that the information they have is correct and accurate.

### **Advantages and Disadvantages**

The technological advances in computers and the Internet have allowed thousands of people to complete in seconds, which would have normally taken days to complete using other sources such as books. Other advantages of using computers and the Internet are that people are now able to search, sell and purchase items without having to leave the comfort of their own home, not only that, but they can also search for things over the net and from thousands of locations around the world giving them a wide variety of choice.

Although there are all these advantages there are just as many disadvantages. As the Internet can be accessed and edited by anyone who has access to a computer that is connected, it is inevitable that criminals will take any opportunity to gain from what they can. The ability to purchase items over the Internet using your credit card is just one of the many ways that criminals can manipulate the system. People who may have the details of somebody’s credit card can easily purchase items illegally using their card, this is known as **Fraud**.

### **Security Risks**

Fraud is one of the most common Internet crimes around. Over £1,000,000 worth of items is effectively stolen through the use of other people’s credit cards every year. CCG’s (Credit Card Generators) can be easily found on the Internet through the use of some **Crack Networks**.

**Crack Networks** are illegal web sites that are placed on the Internet through a unauthorised extension such as www.crack.box.sk. They are normally search-based sites, which allow you to search the **Network** for illegal products such as password crackers, hacks, viruses and much more. CCG's are just one of the illegal products that can be found on Crack Networks, they use a complex formula, which can create new and old credit card numbers that would pass most security checks, mainly because they were created using the official formula.

### **Protection Against Criminal Activity**

Although all of these security risks are a strong deterrent to buying a Internet surfing computer, there are programs that have been created In order to protect yourselves from the **hacking** ability of others, these are known as **Firewalls**. Firewalls are basically applications, which are active (running) whilst you are connected to the Internet. They alert you as to any incoming or outgoing operations or tasks being executed from either your machine to the Internet, or from the Internet to your machine. They then give you the opportunity as to whether to allow the action to continue or whether to terminate the task. Some sophisticated and may I say expensive firewalls also give you the opportunity to track where the operation(s) originated from (in the World) and to report, log or investigate who the person executing the operation is and what it is they are doing.

### **Effects on Employment**

The introduction of computers has introduced many thousands of new jobs and specializations into society. Thousands of people have now found jobs such as IT consultants, software programmers and engineers and special effects experts. Although thousands of new jobs have been created by the fast growing use of computers, many hundreds of thousands of other jobs have been made obsolete, and have consequently disappeared. These jobs are mainly lost in the car production industry. The companies who produce cars are quite a large percentage of the businesses that have switched from manual labour to using computer - controlled machines, to construct their cars. This has made millions of workers redundant, as their services are no longer needed, replaced by the electronic mind of a computer.

In the U.K the percentage of unemployed has risen from 5% in the 1970's to 13% in the year 2002. This proves that the introduction of computers into society has had a major effect on the population as a whole. This has

caused a major change in the structure of employment in the U.K. Managers within the U.K are no longer employing mass amounts of staff to write up and to file documents, as both tasks can now be done easily at in one go, by one person and in a quicker time.

### **Positive Effects on the Environment**

As computers that have been introduced into society have the ability to connect to the Internet, it is no longer necessary for some people to have to leave their house and travel to work. This means that people no longer have to get up early and plan their journey, as they don't need to leave their home. This reduces stress and makes working a more comfortable and relaxing thing to do. Working from home, normally means that you are not required to travel or leave your house, this obviously reduces the amount of people who are travelling to work in their vehicle, consequently reducing traffic, noise, more stress ☺ and pollution. A reduction in pollution means that the air is cleaner and that working from home is a much more economically friendly way to work..

### **Ethical, Moral and Social Issues**

“Do computers make society more or less equal”? The answer to this question is tricky, but I feel that I could answer no and explain why I say this. I think that computers do not make people more or less equal, simply because it is only a possession. Millions of people around the World have possession of a computer, but there are also millions who don't, this does not make the person who doesn't own a computer any less of a person than the one that does. All it means is that the person who owns one needs one or has more money than the person who doesn't own a computer, There are thousands of examples like this around the world which involve the same issue e.g. Some people have cars, others don't, I own a computer console, my friend doesn't and somebody I know owns a certain toy or game, which I haven't bought. What I'm basically saying is that everyone in the World has something that somebody else hasn't, so how can you think about the issue of equality over a simple computer when in the same instance there are much greater things that cause inequality like slavery and poverty.

I conclude that by introducing computers into society has a worldwide sphere of influence over all aspects of life including jobs, life-styles, the environment, privacy, crime and technological advances. Through the introduction of computers a whole countries work structure can be turned

on its head and the level of sophistication of a countries industrial side can strengthen and rise in power. IT (Information Technology) is now an important part of our everyday lives and we are totally dependant on computers, at the moment. If all the computers in the World were to just stop functioning, there would be total chaos and the world would take decades to recover.