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ICT and Society

Key points

Information technology has created an entire new industry. Many thousands of people now make their living directly in the IT world.

ICT - Information Communication Technology

Examples of jobs created: Programmers, Systems Managers, Technicians, Consultants, Data Processing Staff, Network Designers, Network Managers, Web Designers, Technical authors.

New industries: Mobile Telecommunications, ATM (Automatic Teller Machines - cash machines which rely on online checks to validate requests) and many companies have arisen because of the Internet.

Old / Changed jobs: Many traditional jobs have disappeared with less demand for manual labour. Typesetters (used to set out newspapers) and some factory workers (replaced by more 'reliable' robots).

Changed jobs: Most jobs have changed as a result of computers. For example secretaries can use office software, shop assistants scan bar codes and police use databases to track criminals. ICT has had an enormous impact on society.

Teleworking: Computers and computer communication have made working from home a possibility.



Advantages: less travel, working hours to suit the individual, no need to live near the work place, savings of expensive office space.

Disadvantages: Less social contact, a suitable room has to be found at home, likelihood of interruptions or distractions from family.

EPOS - Electronic Point of Sale

EFTPOS - Electronic Funds Transfer at Point of Sale

Credit cards - allow the holder to borrow money when making a purchase and settle up later.

Debit cards - transfer money that is already in someone's bank account to settle a bill.

'Cashless society' - some people think that eventually few transactions will be in cash. Smart cards will allow you to charge them up with money and use them for small transactions. However, some people prefer to use money, some people may not be able to obtain bank accounts or credit and small transactions are often only possible through cash.

Health and Safety - people who use computers can suffer from health problems. Some issues are only now appearing because computer use has grown so rapidly.

Legislation under the Health and Safety at Work Act (together with European Directives) covers some of these problems.

Stress - job security threatened by introduction of new computer systems, worry about coping with new technology and ways of working. Information overload where users are pressurised to produce more and more information.

Muscular and Joint problems - Repetitive Strain Injury (RSI) pains resulting from carrying out an activity repeatedly. Posture - people who spend a long time sitting at a PC need to ensure they are sitting correctly.

Safety issues - computers are often in control of situations that are potentially hazardous to people. These systems are designed to be fail-safe. Include aircraft navigation, Air Traffic Control, Nuclear power stations.

Visual problems - Eyestrain, leading to headaches and discomfort. Flicker effect of screens can trigger headaches. Offices sometimes have lighting conditions that make reading the screen difficult.

Remedies - anti-glare screens, larger, higher resolution monitors (more comfortable to look at), correct positioning of monitors, regular eye-tests for employees.

Safety issues at work - Electrical equipment, risk of electric shock, trailing leads can be tripped over.

Privacy - computers make it easier for people to access information. For any particular person there is a huge amount of data stored on many databases. Privacy concerns include where organisations with data use the information for direct marketing, criminals / hackers can find private information about people.

Misuse of computers at work - employees can abuse computer resources by playing games when they should be working, by installing illegal software, by viewing 'questionable' websites, circulating offensive or irrelevant material via company e-mail. Many companies have a code of conduct to deal with such matters.

Data Protection Act - 1984 (revised 1988) Act designed to cover storage of personal data on computer systems.

Data subject - an individual who is the subject of stored data. Data subjects have rights under the Data Protection Act.

Details of Data Protection Act:

Data must not be acquired and processed unlawfully.

Personal data must not be passed to other organisations without the consent of the data subject.

Data must only be used for a specific purpose.

Personal data should be accurate and up to date.

Suitable measures must be taken to ensure the safety of personal data.

Data should be the minimum required for the purpose and must not be kept longer than is reasonable.



Other legislation includes: Computer Misuse Act (1990) and The Copyright, Designs and Patents Act (1989).