

The use of ict has changed the way in which people work. Explain the benefits and disadvantages that ict has brought in the work place

Information Technology has brought about an entire industry. Many thousands of people now make their living directly in the information Technology world. Example, Programmers, Systems Managers, Technicians, consultants, Data Processing Staff, Systems Analysts, Network Designers, Network Managers, Web Designers and Technical Authors. Every Week Thousands of Computer-Related jobs are advertised. There are never enough people with the right skills to satisfy the demand.

New Industries have been created as a result of computer technology. For Example Mobile Telephones would not be possible without the databases which keep track of where users are. Automatic cash Machines rely on online checks to validate requests. Many companies have arisen because of the Internet. Many traditional jobs such as construction have disappeared. There is less demand for manual labour. Many old skills are not needed any more. Another example is typesetters who used to set out newspapers were skilled and highly paid, but this process has been replaced by Desktop Publishing. This allows much faster typesetting and transmission of copy between offices. Some Factory workers have been replaced by robots. Production line robots are more accurate than humans, they do not need to take breaks or go on strike and are consistent in their quality of work, but have caused people to lose their jobs. Most jobs have altered as a result of computers. Such as Shop assistants scan bar codes, secretaries use office software and police use databases to track criminals and check on drivers and cars.

Computer-related jobs change very rapidly. It's skills get out of date very quickly. Few people expect to have jobs for life. There are skill shortages because firms have to regularly train newcomers, training is expensive. Firms that do not invest in training often lose staff to those that do. Training is itself big business. Training often costs more than the computer system and network that is designed to support.

Computers and computer communications have made working from home a possibility. This is sometimes called teleworking. The advantages of teleworking are less travel this reduces the environmental costs of commuting and the personal stress and loss of time caused by a daily trip to work, working hours to suit the individual to make personal life easier, You can work anywhere you want And there is savings on expensive office space. The disadvantages of teleworking is less social contact so you won't be able to come up with many ideas, a suitable room has to be found at home and the likelihood of interruptions from the family.

ICT is increasingly used by all workers, workers in general, and particularly those in office jobs, are being required to spend more and more of their working day using computers. This is because computers can increase the amount of work done. This makes businesses more productive and so more competitive. Computers can do the boring, repetitive work and leave employees to do the interesting jobs. However it's expensive to keep investing in the latest and more efficient technology and it takes time and money to retrain staff. There may be job losses as computers replace people for some tasks. Continued use of computers can cause health problems.

When the computers in the supermarket crash the checkout tills come to a stand still and if the crash lasts for any length of time you have to leave your trolleys and leave the store and walk out of the shop empty handed. One reason why the checkout tills cannot process the goods in the trolley is that none of the goods are marked with a price. The barcode needs to be read in order to obtain the price of the goods from the computer. Computer also controls stock levels and processes customer payments at the tills. There are 3 different types of checkout tills POS terminal, EPOS terminal, EFTPOS terminal. Supermarket checkout tills are quite sophisticated with laser scanners to read the bar codes.

All goods found on the shelves in supermarkets are labelled with bar codes. A bar code is a series of black and white lines of different thickness and represent a 13 digit number. A bar code can be read with a hand-held scanner or a laser scanner at the checkout. An ordinary checkout till is called a point of sale (POS) terminal. The barcode can tell us four different things about the product. These are The first two numbers tell us what country the product comes from. The next five numbers tell us who the manufacturer is. The next five numbers tell us what the product is. The last number tells us that the barcode has been read correctly.

The scanner emits a beam of light that reflects off the barcode. The white lines reflect light strongly while the black lines reflect less strongly. These variations in reflection are picked up by sensors in the scanner and converted into a digital signal. Barcodes are cheap to produce. The supermarket computer holds a database containing information on all the products sold in the store. As the item is scanned, the barcode number is passed to the computer where a search is made of the database. When the item is received by the checkout, it is printed on to the customer's receipt. Having too little stock can cause problems for the store as customers could shop in other stores to get food not available in the supermarket. It is often the manager's job to decide the amount of stock to hold in the store. The manager will also know how often new deliveries can be made and will have estimates of the numbers of customers likely to visit the store each day. The barcode helps keep track on the amount of items leaving the store. This can help work out the amount of stock in the store.

Keeping a careful check on the amount of stock in a supermarket is very important. The data base gives information on what to order. Details of special offers such as 'Buy One Get One Free' are stored on the computer, so when the barcode is scanned, the offer appears automatically.

The tills in a supermarket are on a Local Area Network(LAN). The Local Area Network is connected to Wide Area Network(WAN) so data can be passed to suppliers bank accounts

Tesco were the first supermarket to introduce loyalty cards . Customers are given points when they spend so much on their shopping. At the end of the year they are given money off at the store depending on how many points they have collected. These are available to customers with loyalty cards. Loyalty Card holders can scan the products when they take them off the shelves. These goods can then be packed into bags and boxes in the trolley.

Some supermarkets are spending millions of pounds on buying mainframe computers. These computers have got tera bytes (1 million Mega bytes). These mainframe computers store a profile of the customers buying habits to help keep track of who's buying what.

One of the problems with shopping is that when the customers get to the checkout they have to unload the goods from the trolley and put them on the conveyor belt to be scanned, they then have to load their shopping in to bags and put them back in to the trolley. The self scanning scheme is a trust scheme and occasionally customers may have to have all or part of their shopping rescanned at the skill as a security check. When a customer leaves the supermarket, the hand-held scanner is passed to the cashier. The data held in the scanner is downloaded and an itemised till receipt is printed.

Many of large supermarket chains have internet shopping. When the programme is run it is connected to the stores computer. The customer chooses what they want to buy. The customers then send the order to the supermarket. When the supermarket has collected all the goods from the stores shelves, a van takes the goods from the store to the customers house. When shopping online with a supermarket, products are highlighted that are brought regularly by the customer to help them decide what to buy. When an order is made, the details are passed on to the supermarket's computer, it is then paid for by the customer's credit or debit card. A suitable delivery time is then made. When the supermarket receives the data, the products are taken from the shelves and packed in to boxes and then loaded in to a van.

When Tesco first introduced the online shopping, it orders rose from 15,000 to 60,000 orders worth ££5,000,000 each week. It also created 7,000 new jobs and extended the number of stores offering online shopping to 300 stores. To cater for half a million online customers, the supermarket installed 80 internet servers at a web farm where the orders from the internet were processed and passed on through a computer network to stores.

HP Bulmers is a cider making company. The company produces the brands of Woodpecker, Scrumpy Jacks and also Strongbow. The company uses over 400 computers, for the making of the cider. The making of the beer can be used on a variety of computer hardware. There are around 1000 employees and approximately 500 of these use computers. Old systems are being replaced by new systems. Problems with the old systems. There was more than one customer file used. The system was expensive.

Advantages of new computers. It can take a variety of different hardware , Electronic data interchange. Orders and invoices are now sent and received electronically. EDI works by connecting personal computers to modems. Now they can deal electronically with all its main suppliers. Process control by computers, Computers control fermentation, Microfiltration, and the movement of the cider. In a control room a single person can control several computers. If there was any mistake with the computers it could be changed whereas with the actual equipment it could ruin 50,000 gallon batch of cider. Frequent tests are performed on the cider, Laboratory systems record result. The computers measure the alcohol quantity. To make sure the cider is highest quality frequent tests are performed on it! Laboratory systems record results changes can be made if necessary. Although the quantity can be measured the flavour has to be tasted by a human taster, So HP Bulmers has panel of alcohol tasters.

National Air Traffic services (NATS) computing system that controls one of the most complex air space regions in the world and is at the leading edge of air traffic control technology. NATS carries out highly technical research to find new ways of safely handling the rising volume of traffic. NATS also runs and maintains a nationwide network of radar, radio and navigation equipment to ensure an efficient and effective service.

The object of air traffic control is to ensure that aircraft are safely separated from each other during flight. In the U.K there can be 5000 flights a day for ATC to manage safely. They can only work for 2 hours at a time because of the intense concentration levels. The controller has radio contact with all the pilots to all the aircraft at all times.

NATS computing system controls and monitors the flight paths of aircraft over the U.K. The object of air traffic control is to ensure that aircraft are safely separated from each other during flight. In the U.K. there can be 5000 flights a day for ATC to manage safely. They can only work for 2 hours at a time because of the intense concentration levels. The controller has radio contact with all the pilots to tell the aircraft at all times. radars can be used to monitor courses and track down planes.

There are two main types of radar used to track aircraft: Primary radar and Secondary radar. Primary radar: is the traditional form of radar where a beam of energy is transmitted from the radar dish. When the beam strikes an aircraft the energy's reflected back to the radar dish, providing data on the aircraft. Secondary radar: relies on each aircraft having a small transmitter called a transponder. Each aircraft is allocated a code keyed in to the transponder. The ground radar station transmits a request to the transponder in the aircraft that replies by transmitting the unique code together with data on the aircraft's height.

The code is checked against the flight plans held in the computer to obtain the flight code and destination of the aircraft. The data in the radar systems are combined on the radar screen to provide information for ATC that they require to manage it safely to its destination. That monitors each plane's flight path through the sky on its journey to its destination. This avoids collisions with other planes or other objects which are disrupting their flight path.

Ground radar stations are located across the U.K. and throughout Europe. The different European countries have agreed on a standard format for this data so that it can be exchanged across country boundaries. European wide network for the distribution of radar data is called radar data distribution network (radnet).

As the radar scanner rotates, data is collected continuously a feed through a computer network to all air traffic control centres. This common exchange format is called all purpose structured euro control radar information exchange (asterix). This ensures that each air traffic control centre can extract the radar data for the airway of their operations

ICT and Banking was One of the first business organisations to use ICT., Always has been at forefront of technology. Banks need ICT because it's Ways of paying for goods and services, Cash, Plastic Cards, Cheques, Direct debits. Cash- Can be drawn from a cash machine at any time of day. Generally used for smaller items such as food. Plastic Cards- A safer method of carrying around cash. Is a quick and easy way to pay for goods that usually exceed £10. Cheques- More convenient way of paying bills by post or when plastic cards aren't accepted. Direct Debits- A popular way to pay monthly and annual payments without the hassle of having to pay a bill or go to the bank.

Banks use the following systems MICR (Magnetic Ink Character Recognition), TPOS (Electronic Funds Transfer at Point of Sale), EDI (Electronic Data Interchange), Credit Card Use, EFT (Electronic Fund Transfer), Credit Card Fraud, Smart Cards, Cheque Clearing. MICR- Cheques have a unique code at the bottom which is written by a special ink, containing magnetic particles that are read by a MICR. It identifies the cheque's unique number, the sort code for the account holder's bank and the customer's bank account number. EFTPOS are check out tills connected to a computer, with the bar code scanner and it can transfer money from a customer's account using customer's credit and debit cards. EDI is Credit card use- Credit card use is made very easy by advanced ICT in bank and other places that accept credit cards. EFT- Is where money is transferred electronically. Credit card fraud- When a card is reported stolen or lost the details of this card can be broadcast electronically to cash machines and point of sale terminals in shops, so the card can no longer be used. Smart cards are made so that the information is virtually impossible to copy. Cheque clearing- This process takes approximately 3 days from when the customer pays in a cheque to when it is cleared. Cash machines use VDU is where messages appear giving step by step instructions to the customer. Keyboard is where the customer types the information such as their pin number. The is where the plastic card is inserted and must be inserted the right way round. The amount of cash that the customer required is released here. ATM Used by many people when banks are closed or there are queues inside. ATM's allow people to; Get Cash out Find out balance in their account, Change PIN, Make Deposits e.g. putting cash or cheques into account, Obtain a mini statement listing recent transactions.

Benefits For Banks is that they are 24 hour service. Fewer staff needed, Customers Cannot withdraw money they don't have, Staff free from doing routine transactions.

Benefits For Customers is Like anonymous nature, 24 hour service. Close parking available, Fewer queues.

24 hour service provided to satisfy customer demands. Fewer staff needed because computers do most routine work. Impossible for customers to withdraw money they don't have in their account. Staff free from doing routine transactions so more profitable sales orientated work can be done. For Customers Like anonymous nature, machine cannot think if a cheque book is stolen or if they are over spending. 24 hour service is Ideal for people who work irregular hours.

Parking available near some dispensers so process is quicker for customer. Fewer queues because transactions are made a lot quicker.

Plastic cards used to purchase off the internet, or to be swiped through a checkout, A quicker way of paying without carrying around loads of cash, Safer way to carry around large amounts of cash, If it gets stolen the users account can be closed down and use of the card stopped.

Fraud is when a card being lost or stolen, Cards being copied (counterfeit), Payments made over the telephone or internet when card isn't present. To prevent fraud you either Close an account, Lowering the 'floor' limit, The use of a hologram, Introduction of the smart cards, Card fraud is on the increase. Fraud prevention When the customer realises their card is missing they have to contact the bank and CC companies immediately. Credit card details are then broadcast electronically to cash machines and POS terminals so the card can no longer be used. Lowering the 'floor' limit is when after a customer spends a certain amount of money the shop assistant is required to seek authorisation that CC isn't lost or stolen. Using a hologram makes credit cards difficult to copy. Smart cards are virtually impossible to copy.

A cheque is given to a company. The company pay the cheque to their bank. The bank types in amount of cheque in magnetic ink characters. All cheques sent to a clearing house. Details of transactions are sent on magnetic disk to Bank of England. Cheque is sent to customers bank and deducted from their account. Companies bank is notified that cheque has been cleared. The whole process takes a minimum of 3 days

A customer writes a cheque to a company from which they had just purchased something from. The customer must fill in the amount of the cheque to prevent fraud. The company pay the customers cheque into their bank. The companies bank type in the amount of the check in magnetic ink so that it can be read at the clearing house with an MICR. All cheques are sent to a clearing house in London. The cheques are sorted into bank sorting code numbers. The details of the transactions are sent on magnetic disks to the Bank of England. The bank then transfers the amount on the disk from the customers bank to the companies bank. The cheque is sent from the clearing house back to the customers bank identified from the sorting code number, the amount will be deducted from the customers account. The companies bank receives notification that the cheque has been cleared from the companies account. The whole process takes a minimum of 3 days.

Bankers' Automated Clearing Service (BACS) was Set up by larger banks to to deal with standing orders and direct debit payments. •BACS houses the swift computer for the UK. Used to pay 2/3 of all monthly salaries. Used to pay regular bills. Keeps a diary of all payments to be made. These payments are made and transferred between the banks on magnetic tape. Not many people have heard of BACS.

Bankers' Automated Clearing Service

Set up by larger banks to to deal with standing orders and direct debit payments. BACS houses the swift computer for the UK which deals with international payments. Used to pay 2/3 of all monthly salaries directly to employees accounts. Used to pay regular bills e.g. pensions, council tax, mortgages, loan repayments etc. Keeps a diary of all payments to be made. These payments are made and transferred between the banks on magnetic tape. Not many people have heard of BACS, shows reliability and success.

Money into accounts, Pensions, Wages and salaries, Prepares data of wages to be paid. BACS processes data. Money removed from business account.

Money out of accounts, Bills to be paid on a regular basis, Bank given authority when a direct debit form is filled in, Direct Debits are flexible.

The majority of payments made each year are paying Pensions, Wages and salaries Day 1: Business prepares data, of wages to be paid, employee names, wage totals, bank accounts. Data is transmitted to the BACS computer electronically. Day 2: BACS processes data and passes to employers banks. Day 3: The money from the wages is removed from the business account and the employees accounts are credited. The process of paying salaries is by BACS. (Money out of accounts). People have to pay bills regularly e.g monthly, quarterly or annually. The customer has to fill in a direct debit form to give the bank authority to make regular payments. They are ideal for paying a telephone bill where the amount varies. Customer is notified 10 days before, if the amount is going to vary.

A call center is a place offering help and support to people. The call center may need to help customers, staff or members of the public. A call centre is a place that offers help to people over the telephone, no matter where they are in the world. call centre is a place where peoples questions and problems are answered. Inside a company to help support different departments, for example, an ICT support center. For a local council that needs to provide help on a range of issues, from questions on refuse collections to council tax payment. call centre's are broadcasted all over the world to help people with their problems. They are also free to call.

The equipment use for a person who works at a call centre, Headset helps the person to work at the call centre and to communicate easier while writing down the problem.

This is the kind of person who you would talk to, Someone who speaks clearly , Someone polite, Some one with confidents, Someone who knows what there doing. You need someone who is useful on computer and understands what to do if somebody calls a call centre. Call centres help people all over the world. They can help people and find people on their computer. They can speak to people with out getting cut off, with multi phone lines. The people at the call centres are there to help people find their problem and help solve it. The worker or specialist in the call centre can use their monitors to help track the customers and help solve the problem from start to finish. These are just some of the things what a person at a call centre needs, Telephone/headset, computer, pen and paper to write there details down inorder to fix there problem. If you needed to get in touch with a call centre you could either get in touch by phone, e-mail or by faxing the company and they could help you.

Working in a call centre can be very stressful at times, and hard working. When people phone at times and they do not understand what they are on about you can get very Argumentive and confusing and boring. The work at a call centre is very hard and stressful. It takes a lot of control and a lot of patients to do. You have to be very good and quick on the computer and be able to take down details while you are on the phone taking down notes. Home Working Equipment Needed is a Scanner ,Laptop computer. Digital camera and web cam., Modem., Fax, Phone. People Communicating With the Offices. use E-mail. (Very fast), Phone, Fax.

The Advantages of Working From Home is, Improved quality of life ,No stress of travelling to the office. Travelling time is saved, Cost of travelling saved, Flexible working hours. Increased self-esteem by being trusted to work at home. Can be at home with child/s. The Advantages to an Employer. is that it Saves cost of offices , Greater loyalty from employees because of the trust given to them , Often workers increase the amount of work they do from home.

The Disadvantages to Working at Home Is Possible feeling of isolation and there is No social contact with fellow workers. The Disadvantages to an Employer is that it is More difficult to share idea's with other members of the team , Additional costs of home working equipment., Modern ICT systems are used in industry to improve efficiency, lower costs and increase sales and Without investigating ICT systems, companies would not be competitive in the market place.

Making and selling cars is a very competitive industry. In recent years many of the smaller companies have gone out of business or have been taking over by the well-known car giants like Ford motor company.

The first stage involves using computer design software to produce 3D images of the car. CAD 'Computer Aided Design' software is used to produce accurate scale drawings for all the components that make up the vehicle. These drawings include the exact dimensions and materials needed and this information is then passed from the design software to the computerised machinery that make the parts. The linking of the design network through the network to the manufacturing industry is known as CAD/CAM

Computerised robots perform many tasks in the making of the cars. Large companies have more than a 1000 The generation of robots are First generation-These are programmable robots but they lack any input sensors so they are unaware of their surroundings. For example, if a robot was programmed to spot-weld the panel of a car but the car was not positioned correctly then the weld might take place in mid-air. Second Generation-These robots include sensors that feed data back to the computer making them 'aware' of their surroundings. These might include sensors, light and heat sensors. Third generation-These are the latest robots under development in research laboratories that can 'learn' on the job. Robots operate under artificial intelligence software and can adapt and reason with the incoming data to improve their performance.

A robot is a mechanical device that can be programmed by a computer to perform a variety of tasks. Robots come in all shapes and sizes depending on the type of work they will be used for.

An actuator is the name given to a device that generates physical movement from a computer data signal. Three types of actuator are commonly used to control the movements of a robot. These are Hydraulic systems ,Pneumatic systems ,Electric motors.

The three types of actuator are: Hydraulic systems, Pneumatic systems and electric motors. Hydraulic Systems-Here, the output from the computer controls the movement of hydraulic rams by pumping oil through pipes. These hydraulic rams, similar to those seen on mechanical diggers, are very powerful and can handle large and heavy objects. Robot movements based on hydraulic systems are slower than pneumatic and electrical systems. Pneumatic systems-These are similar to hydraulic systems in using rams but the pistons are powered by air rather than oil. Pneumatics are not as powerful as the hydraulic robots but the movements are much faster. Electric motors-The most common type of electric

motor used in controlling the movement of robots is a stepper motor. These motors rotate an exact amount for each pulse of electricity sent to the motor and provide very precise movements for the robot.

Mass production aims are to produce as many cars as possible from the factory production lines. There are, however, disadvantages with this method of production including large amounts of money are tied up in the thousands of cars waiting to be sold and customers buying cars are becoming increasingly particular about the options they require.

There are, however, disadvantages with this method of production including large amounts of money are tied up in the thousands of cars waiting to be sold. Customers buying cars are becoming increasingly particular about the options they require. It is quite possible, even with the thousands of cars waiting to be sold, that a car matching the customer's specific requirements may not be available.

Buying cars off the internet makes this new method can reduce the cost of cars by nearly 30% compared with the tradition mass production methods. The car is only made to the customer's order so there is no stock piling of unsold cars. The car manufacturers also save money though not having to store and stock the parts needed in the manufacturing process.

Day 1 The customer configures their personal specification for the car on the internet. The company checks the order and passes the details to 3rd party suppliers. Day 2 Third party suppliers manufacture the parts required. Day 3 parts delivered by suppliers to car company. Day 4 car company assembles car with parts delivered from different suppliers. Day 5 car delivered to customer.

The health service uses ICT in many different ways and these include assisting with hospital administration and enhancing the communication between doctors and nurses. It also plays a vital role in the diagnosis, treatment and care of patients.

Hospital records are kept on computers, these include patient records which contain Patients illness/injuries, Personal details- Name, address etc, Prescription/treatment. This will allow doctors to refer patients to another doctor or book hospital appointments etc

With patients details on computer this makes it a lot more easier to change their details if they moved house etc than it would if the records were written. It's quicker and easier to store and for details to be kept confidential and from unauthorized access.

Computers help nurses and doctors monitor vital body function of patients e.g heart rate.

With equipment with built in microprocessors, Microprocessors are what make the computer work as each computer is full of silicone chips (microprocessors).

Babies are monitored in incubators and readings are taken of heart beat etc and these are input to the computer every second 24 hours a day. If any readings are received that fall outside the limits programmed into the computer, an alarm is sounded to summon a nurse.

Computers are used to detect or diagnose illness, Data from sensors attached to the patient can be fed into a computer, Computer can indicate potential problems or display the results graphically.

Scan machines controlled by computers produce a narrow beam of x-ray passing through the body in thin slices and different directions. The x-ray signals are fed into a computer and this builds up a 3d picture of internal organs. Computers are used to assist in the training of doctors and nurses by being used to describe and show the different symptoms of diseases so that doctors can practice diagnosing the different illnesses.

They also use this idea to help with training by showing on simulation software the different effects drugs have on the body and in different doses. Instead of writing letters from local GP's to consult doctors at hospitals they use NHSnet which transfers information between them. It connects computerised surgeries around the country which will link them to the hospitals and provides a fast and secure method of transferring data.

In 1974, The Police National Computer (P.N.C) came online to hold data about criminals.

Computers have been used in the police force for many years in their fight to combat crime. The PNC serves all the police forces around the country and it is linked to police stations and mobile terminals in police patrol cars.

For everyday police Work it is vital for police officers to be able to access information on known Criminals. The information held includes, A personal description, Last known address, Details of the offence committed, Methods

used to carry out the offence ,Details of the arrest ,Previous convictions and prison sentences ,Known aliases ,Known accomplices.

This is the largest database held on the police national computer with over 48 million records of vehicles and their owners. The data is constantly updated by the vehicle Licensing authority that handles all the vehicle licences. With the latest software called vehicle online descriptive search(VODS), officers around the country can receive results within seconds of vehicles matching the partial descriptions given by witnesses. Over 24 million enquiries a year are made from this database.

The DNA molecule is the biological building block of life and the structure of each person's DNA is unique. In the same way that fingerprints found at the scene of the crime can lead to a conviction so too can minute samples of DNA when analysed and coded by the forensic team. In the autumn of 2000, the police DNA database reached 1 million records.

Holmes stands for the home office large major enquiry system. For major crimes,such as murder, large amounts of data are collected by the police. This software coordinates the information and looks for similarities with other cases. The latest software,HOLMES II, enables all the data on the PNC to be accessed and it is able to suggest new lines of inquiry based on the data fed into the system.

This is a project known as GRASP-Global Retrieval,access and information system for property! The development of this database is being led by Scotland yard in London with European funding. The database can be accessed worldwide and it's aim is to help police trace high value stolen property. A police officer investigating a theft will key in a description of the stolen property. The software will then dial up the different databases in each country and will return a small digital image of the property that appears to match the description. Selecting these images then produces a full size picture and a description of the object. the crime are photographed Fingerprints found at the scene of and scanned into a computer terminal. The software compares the prints with the stored images in the PNC database and returns the best matches. A fingerprint specialist then examines the results from the computer to make the final match. Tests have shown a matching accuracy greater than 99%.

With the huge advance in technology of mobile telephones it is not surprising that police officers are being equipped with the latest radios to combat crime:

The police radios come with extra features you would not find on models in the high street. From the keypad on the radios officers can directly access criminal and vehicle databases held on the computer.

The met office full name is "the Meteorological office which is based in Bracknell, Berkshire.The met office computer which is used to forecast and collect information. It is one of the most powerful in Europe.The latest system introduced to the met office in the late 90's is the two Cray T3E supercomputers.

A huge amount of data is collected every day to assist in forecasting the weather. The weather data is collected from land based stations, from out at sea, from the air and from orbiting satellites. This data is usually collected using automated instruments. In order to forecast the weather, a computer program has been made to model the behaviour of the atmosphere. The T3E supercomputer, uses a Massively Parallel Processors (MPP) system with 700 processors each working on calculations.

Over the years, weather presenters on television have used various methods to help them illustrate their broadcast. Before the use of computers, a map of the U.K was placed behind the presenter. As the weather forecast was being given out, the presenter would turn to the board and place a magnet on the board.