## Oxford Cambridge and RSA Examinations

# OCR GCSE IN APPLIED ICT (DOUBLE AWARD) 1494 UNIT 3: ICT SURVEY PORTFOLIO 

## CANDIDATE X - EXEMPLAR MATERIALS

This collection of exemplar work is designed to accompany Unit 3 of the OCR GCSE specification Applied ICT for teaching from September 2002.

First certification will be available in June 2004 and every January and June thereafter.

This document aims to demonstrate the relationship between candidates' work and the assessment criteria statements. The examples provided represent just a few approaches from a small number of candidates and are not intended to be comprehensive or interpreted prescriptively.

The examples exemplify different standards of work. Some of the examples demonstrate a consistent approach across the objectives, whereas others demonstrate a different standard of achievement for each objective.

Teachers are referred to Section 2.3 of the Teacher Guide (Determining a Candidate's Mark) to further assist their marking.

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## Applied GCSE

## Unit 3 <br> Exemplar Portfolio

## Candidate X

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You may also refer to OCR website (wwe oct.org. uk) for current version

| Criteria |  |  | Teacher Comment | Location | Mark |
| :---: | :---: | :---: | :---: | :---: | :---: |
| f1 Identify the benefits available from using ICT in at least some of the areas identified. <br> 0123 | f2 Define some of the needs that are met through the use of IT in rnost of the areas identified and describe the benefits available. | f3 Analyse and interpret the needs that are met and the benefits available through the use of ICT in all of the areas identified. |  |  |  |
| g1 List possible consequences to individuals or groups who have restricted or no access to ICT in at least some of the areas identified. 0123 | g2 Explain possible consequences to individuals or groups who have restricted or no access to ICT in most of the areas identified. | g3 Review and assess possible consequences to individuals or groups who have restricted or no access to ICT in all of the areas identified. |  |  |  |
|  |  |  |  | Total/50 |  |

Teachers should ensure that an OCR Candidate Declaration Sheet is completed for every candidate and sent with the portfolio to the moderator.
Guidance on Completion of this Form
1 One sheet should be used for each candidate.
2 Please ensure that the appropriate boxes at the top of the form are completed.
3 Circle the mark awarded for each strand of the marking criteria in the appropriate box and also enter the circled mark in the final column.
4 Add the marks for the strands together to give a total out of 50 . Enter this total in the relevant box.

Evidence: A survey report and a presentation describing the technologies available to access and exchange information and carry out transactions and detailing the impact of ICT developments on business, working styles and employment opportunities, personal communication, community activities and people with special/particular needs.

| Criteria |  |  |  |
| :--- | :--- | :--- | :--- |
| $\begin{array}{l}\text { a1 With help, identify suitable } \\ \text { resources and carry out } \\ \text { straightforward searches of the } \\ \text { internet to find specific } \\ \text { information, listing the sources } \\ \text { used. }\end{array}$ | $\begin{array}{l}\text { a2 Independently identify a } \\ \text { range of suitable resources, } \\ \text { carry out searches to locate } \\ \text { information efficiently on the } \\ \text { internet and produce a } \\ \text { detailed list of all sources } \\ \text { used. }\end{array}$ | $\begin{array}{l}\text { a3 Identify and use a } \\ \text { comprehensive range of } \\ \text { resources selectively; use } \\ \text { complex techniques to refine } \\ \text { searches on the internet and } \\ \text { check the information found } \\ \text { for accuracy and bias, } \\ \text { correctly acknowledging all } \\ \text { sources used. }\end{array}$ | $\begin{array}{l}\text { A detailed list of internet sites, books and video titles is provided. The candidate has } \\ \text { provided printouts to demonstrate she can search the internet in a meaningful way and } \\ \text { used favourites. This work is worth 6 marks in strand a as there is no mention of } \\ \text { checking for accuracy or bias. }\end{array}$ |
| $\begin{array}{l}\text { b1 Set up a simple database, } \\ \text { enter data collected and } \\ \text { display results of basic } \\ \text { processing. }\end{array}$ | $\begin{array}{l}\text { b2 Set up and use a database } \\ \text { with related tables to enter } \\ \text { and process collected data } \\ \text { and display results. }\end{array}$ | $\begin{array}{l}\text { b3 Use the facilities available } \\ \text { in database software to } \\ \text { analyse the results of a survey } \\ \text { and produce reports. }\end{array}$ | $\begin{array}{l}\text { The candidate has set up a multi-table database although some of the tables could have } \\ \text { been amalgamated. Queries are well documented and real use has been made of the data } \\ \text { in a report. There are data input forms and reports have been produced. There is no } \\ \text { evidence that validation rules have been applied. This work merits 6 marks for this } \\ \text { strand. }\end{array}$ |
| $\begin{array}{l}\text { c1 Set up a simple } \\ \text { spreadsheet, enter data } \\ \text { collected and display results of } \\ \text { basic processing. }\end{array}$ | $\begin{array}{l}\text { c2 Set up and use a more } \\ \text { complex spreadsheet to enter } \\ \text { and process collected data } \\ \text { and display results. }\end{array}$ | $\begin{array}{l}\text { c3 Use the facilities available } \\ \text { in spreadsheet software to } \\ \text { analyse the results of a survey } \\ \text { and produce reports. }\end{array}$ | $\begin{array}{l}\text { A simple spreadsheet has been produced by transferring data from the database tables. } \\ \text { The COUNTIF function has been used extensively to provide numeric data for the } \\ \text { calculation of percentages and charts have been produced. The sheets use suitable } \\ \text { column headings and charts are suitably labeled. Column headers have been formatted to } \\ \text { accommodate the data. The candidate has printed a specific area of the sheet and a chart } \\ \text { in her report and has drawn conclusions using her data. Additional data has been }\end{array}$ |
| imported from the web and used to demonstrate the use of the AVERAGE, MIN and |  |  |  |
| MAX functions, absolute cell references have also been used. A mark of 6 in strand c3 is |  |  |  |
| merited. |  |  |  |$]$

continued...

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This contents page is provided to ease navigation of this material and was not produced by the candidate.

These pages show how I have used a search engine to research teleworking.


Here I have refined the search by looking in the UK only.


I have chosen a web site for the Telework Association.


Here I have selected an article about British Gas homeworkers.


This screenshot shows that I have added pages to my favourites so that I can firid them again.



Sound and animation on this page. Underlined text is hyperlinked to other pages.


Underlined text and images link to pages on named topic. Central clip is animated. Image in right hand corner is a link to return to the home page.


Button on bottom left returns to first page of the business section. Right hand link to home page. These links work in the same way wherever they appear.



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## Report

## Business

## Online Shopping

## Benefits

The benefits of online shopping are that it helps customers to do their shopping without even stepping outside. This service is open 24 hours a day so if you work during the day the customers will still have time to do their shopping. Many shops feel that this is easier for the customers to see a wide variety of the items that they want. These sites are very easy to use and all of the details given out by the costumers are completely confidential.

The customers can decide when they want their shopping delivered and now a lot of the virtual stores deliver on a Sunday. You can pick the time and the date to suit you.
The United Kingdom isn't the only place where you can buy things over the Internet if you live in this country. You can actually shop around the world.

Disabled people get the most use out of this type of virtual shopping as it is easier and they can buy any items they wish. People in wheelchairs in particular won't have any problems with not fitting down the aisles when it is busy or even not reaching the products on the top shelf. The large supermarket chains such as Tesco and Sainsbury's will deliver their shopping for a small additional fee.

It is not only shops that use this Internet shopping a lot of companies are just warehouses and the only way to buy their products is over the Internet. An example of this is Amazon or Jungle.

## Consequences

The consequences of online shopping is that if people don't have the internet then they will have to find some other way of doing their shopping. For example if you are a disabled person then you would have to rely in someone else doing your shopping for you, which can cause inconvenience for the other person. Schoolchildren are disadvantaged by online shopping because you have to pay by credit or debit card and children do not have access to these unless they use their parents cards.

## Disadvantages

The disadvantages of online shopping is that you will obviously have someone else shopping for you and some people might not want others knowing what they have bought. Even sometimes they might not have what you ordered in stock. I know that this can happen even when you go to the shops yourself but for example when shopping for food they might not have the correct products you asked for so instead they might bring you something else which you may not like but still have to pay for.

Online shopping could lose people their jobs because soon they won't need all of the people on the checkouts as their normal customers will be shopping online, even though they will still need people to do your shopping for them you won't need as many. Sometimes when you send your shopping list to the company it might not send properly due to the faulty software that they use so the buyer won't get their shopping when they actually ordered it for. There are dangers of putting your addresses and personal details over the Internet because on some sites there are people, which hack onto the sites and get your credit card details such as your card number.

These companies such as Sainsbury's and Amazon make a lot of profit when they get customers to buy their goods over the internet, so even though it is saving you time and money, the big companies are getting more profit. As more people use these sites the more costumers they will get because people will put in a good word for them so that enables the company to start making even more money each year.

## Technical Services

## Benefits

The benefits of technical services are that these companies can help you with the learning of how your computer works. All the people that are sent out to help the costumer are all experts and will try their best to help you as much as possible. It is a good idea to have these people on hand to help you because soon everything will be on computer so you really need to learn how to use this type of technology. Technicians will need to be well trained to deal with problems and should therefore command higher salaries.

These services also provide a receive-only service, which means that you can send your query by e-mail or fax if you have this type of technology at home. This is a very fast way of solving computer problems. Sometimes when you buy your computer it is under a guarantee so this help will probably be free in some cases other times you might have to pay a small charge for this help.

Having this type of help at hand you will also learn about how the computer works and why it does things in a particular way.

## Consequences

Some companies do not use technical services within their job, so this will limit people using it and learning about it. Learning about how computers work is a long, hard job and not all computers have the same programmes downloaded so you will have to learn more of them. Skills will need to be updated as technology develops. People with limited access to ICT will not be in a position to take the higher paid jobs and may be stuck with boring manual labour.

## Disadvantages

On the other hand having this kind of help can confuse the customer even more. If you cannot get anyone to fix the particular problem the help desk ay have to get someone else in to do it for this. This could be a long process, especially if you are a business and need to use the computer but can't because it is broken. This can have its effects because you won't be able to see people's wages and how much the company owns or needs to pay.

Even though sometimes this help can be free others you might be asked to pay a small charge. This small charge can actually add up to a lot because you may have to buy new software for your computer, it all adds up.

Sometimes when the people come out to see you and what is the matter with your computer they can charge you for how long it takes to fix it. Even if they don't fix it they could still charge you. Sometimes they charge you for how many hours they are out helping you. This is allowing the company to make more of a profit.

Sometimes when you buy a computer they give you a telephone number for you to ring if you have any problems or need any advise on installing programmes onto it. They may even offer to come out to you, but these technicians might not have been trained in the area you want help.

Allowing advise from the company where you bought your computer from can put people out of a job. This is because the actual companies that fix computer for a living, for example McAfee's helpdesk suite, are not getting enough work because other companies such as time computers are fixing the problems that their own costumers have.

## Customer Enquiries

## Benefits

The benefits of call centres and enquires are that these people running these companies are always on hand when you have any problems or queries. An example of one of these places is Child line. Child line offers help to children who are having difficulties at home or at school etc. Call centres are also used in public businesses such as insurance companies and banks. This gives a different sort of advice to people, for example the use in a bank can help people find out how much money they have in their account, or even if they want to open a new account, all of this is mainly done by communication using telephones.

Custorner enquires is basically the same as call centres because people ring up with enquires asking for help and advice. Wheelchair bound people and others with disabilities can work in call centres because their problems in moving around don't matter.

A lot of companies feel that call centres are a way up on understanding the problems that their customers have. Call centres can make more of a profit for companies and allow them to adjust the way they work. This means that soon there won't be centres where the public can go for advise, it will soon all be done using technical communication.

Some of these organisations do not make a profit such as Childline; these companies obviously need money to enable them to work but they do NOT make any profits from offering their advise to people. Like many other organisations Childline is completely private and confidential. This means that the people you talk to aren't allowed to tell anybody your problems. This even means that your call is not allowed to be printed up on your phone bill even though some of them are completely free.

The operator is very commonly used to give people the time and if they need help and don't have anyway of getting to a telephone or even if they have no money. This is a very good idea but they do get a lot of hoax phone calls. This wastes their time because there could be people out there that actually need help.

The emergency services evolve round call centres then from the centres they will be able to get in touch with the ambulances, police, and fire fighters. These companies also get a lot of prank phones calls. This can be a very dangerous trick because they still have to come out to see if anything or anyone needs their service. At least they are there to offer us help when we need it and it is completely free.

## Consequences

There are consequences to call centres and enquires. People do think that is funny to play a trick and then cause the services to many difficulties. These people working for these call centres do not paid a lot even though they are offering advice to people. They do a lot of work for whatever company they are working for and do not get appreciated for it. It is a very boring and stressful job to do but they still do want to work there so that they can help people when they are troubled.

Workers at call centres are monitored throughout the day. Targets are set for answering and in some companies they get paid for how many calls they have received each day. A new problem
for workers is that a cail centre does not have to be in this country. Many companies are finding that it is cheaper to have their call centres in India or other poorer countries where wages are much lower and costs much cheaper. This could lead to workers losing their jobs.

## Advertising and Marketing

## Benefits

Advertising and marketing help businesses make a profit. This type of business attracts costumers to buy their goods. This is used by posters and leaflets sometimes delivered to your door. It can be used to advertise new shopping centres or even performances and concerts.

This advertisement can help all sorts of people buy products. Sometimes this marketing process is used on the internet. Normally it comes up with a message when you are on another site informing you what items or concert there are available.

You don't normally notice it but advertising is used each day for all sorts of things.

## Consequences

The consequences for advertising are that when companies produce leaflets and posters they tend to over exaggerate the type of things on offer and then when you get there it is not very impressive. This is a common technique used for a lot of businesses so you do have to be careful where you go and what you buy. It does cost companies money to produce these posters and sometimes they don't always work. Sometimes people are just not interested in the goods or performances they are advertising. This is very unfortunate for the organisations because they are not making any business so no profit can be made.
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## Community Activities

## Cyber Cafes and Libraries

## Benefits

Cyber cafes enable people to access the internet if they don't have the internet connection at home. Cyber cafes are more social as you are able to meet new people. Cyber cafes allow you to check your e-mail accounts while you are out.

Cyber cafes are an easier way to find sources. They enable people to work during their lunch breaks using the Internet or even just the average computer prograimme for example word or excel. Many businesses do not let staff use the internet for private research at work. Workers can take advantage of cyber cafes at lunchtimes to book theatre tickets or holidays for example.

These cafes are situated in major towns so that they can get more customers so they can get more profit. They do sell drinks and little snacks so that you don't go hungry whilst using the computers. The United Kingdom has 250 Cyber cafes and 143 countries have Cyber cafes. Some schools have opened cyber cafes before and after normal school hours so that children who do not have the internet at home can do homework or other things on the web.

## Consequences

Even though Cyber cafes are very popular, they do have their down sides. You do have to pay for this service. The amount depends on how long you are using the computers for.

Cyber cafes are putting other cafes and restaurants out of business. This is because only cyber cafes offer this technical service of the Internet, so people would rather go somewhere modern with the latest technology than sit in a average cafes with hardly anything to do.

## On line discussion groups

## Benefits

On line discussion groups enable people to talk about a topic of their chose. A lot of school internet sites have set up a type of chat room for students if they are having problems with a particular topic or if they need help with their hornework.

People can also e-mail people with their problems or when they need advice. These e-mails will be private so that no one will be able to tell who is sending them. This will enable troubled people to confide people with their problems, so that they can be sorted out.

These on line discussion groups basically act as a chat room. It enables people to interact with other people from different countries all over the world.

## Consequences

There are some bad points about on line discussion groups. They can stop people from going out and actually meeting new people for themselves because they feel that it is easier to make new friends over the internet.

E-mailing people for advice can be a bad point as well. Some people e-mail these experts for a joke, when there could be people put there who actually need this advice urgently.

You don't know whom you are talking to. You could be taiking to someone who doesn't know about the subject you have asked about, but is getting paid for it.

Discussion groups can be a very good way for people in wheelchairs or others with restricted mobility to meet and share ideas etc. Those who do not have access to the ICT will miss out on this opportunity of social interaction.

## Information Services

## Benefits

These information services include Museums and libraries. It can tell you information about what services in a specific area. It acts as a book where you can look things up to try and help you out. The things that you can ask can be very basic for example how to look after a certain pet or recipes. You are able to e-mail companies to ask what types of jobs they do there or even how to get to the company. This can be used to see when the next job interviews are being held.

Children at school can access museums like the Louvre in Paris and have virtual tours to see important works of art without travelling abroad.

There are Discs available to help you learn a certain language for example Spanish or German. They give step-by-step instructions to how to speak the language. You can also learn how to use a certain computer programme such as Word or excel. They are available to buy or to go out on loan from a major library. These are very good to use if you have a new job to do and don't understand the programmes you will be using.

## Consequences

Using discs to put in your computer aren't always beneficial to learn from. People may not be able to understand what they are being told to do as some computer programmes are quite hard to understand. For example changing the margins in word. For a lot of people this will come as second nature but for some that have never sat in front of a computer this can be quite difficult especially if you don't know which tootbar margins is under.

Learning a different language using the computer can be difficult. If you cannot hear how the words are pronounced then you will be getting the whole language wrong. The sound won't be very easy to listen to when coming out of a speaker connected to a computer, so it will make it harder to learn from.

People with limited or no access to ICT would not be able to take advantage of these services and might find it difficult to find it difficult to get information. Many forms from the DSS and NHS are available on the net and services like NHS Direct can help many people if they could get access.

## Public transport and travel information

## Benefits

Travel information is very easy to get hold of. It can be found over the Internet or over teletext on your televisions. You can now log in and track aircraft as they fly across the Atlantic and meet people at the airport in time without having to hang around the airport for delayed flights.

It can tell you if there have been any accidents on the major motorways. It can also tell you if any of the motorways have been closed or if there is heavy traffic.

The disabled can use these services to find out all sorts of information which would have been difficult before. In parts of East Anglia buses carry global positioning beacons and you can track them on the internet. You would know when to go out to catch the bus without having to stand in the cold and rain for a long time.

You can install computer programmes telling you how to get to a certain destination, for example Autoroute. This tells you how to get to the place where you want to go to. It gives the time of how long it will take you to get there and lists all of the major motorways, which you are going to use.

## Consequences

If you where looking up if there has been any accidents and are using the television or the internet they might not of updated it for a while so that you could get stuck in traffic even if it doesn't tell you on these reports.

This extra information puts pressure on staff to stick to timetables and may cause them to cut corners and have accidents.

It is not always a clear route that these computer programmes give you. They are like a basic outline of the route. Roads are being built all of the time and because computer programmes haven't got the modern technology to be updated every time one of these is being built you will have to go out any buy the updated version, it could all add up in the end.

## Satellite positioning systems

## Benefits

Satellites are able to pick up signals. They allow us to communicate with the other people around us. They are commonly known to be out in space. This enables scientists to pick up information to what is happening with the planets and what is going to happen in the future. This is a very good source as it is very accurate.

They are also known to be on the sides of people's houses to help them with their signal for their television and this allows them to pick up more television programmes.
Satellites pick up signals for some electrical equipment.

## Consequences

You do have to pay for more television programmes this could be a monthly fee. The more television programmes you have the more it costs. Sometimes sending satellites out into space can sometimes cause problems. It does cost a lot of money to send this type of information out into space and it is not always reliable. It can send wrong information back down to earth and can cause problems at the space stations situated around the globe.
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## Report

## Personal Communication

## The Internet

## Benefits

There are many benefits of the Internet. The Internet allows all sorts of people to use it. There are very positive points about the Internet. The Internet acts like a big book as if can teach people a lot of things. On the internet there are many chat room where you can talk to people that you know or you can make new friends.

It enables people to look for resources for projects. The Internet is used a lot in businesses. A lot of major companies have there own Intranet for example Peugeot. This allows the employees to save important files onto there own intranet, this allows other staff to have access to these resources.

There are a lot of things that you can download from the Internet such as music and games.
The Internet can be accessed from anywhere in the world, but it will obviously be in their language. There are pages that we can access here in the United Kingdom but we need to translate them so we can understand. The Internet is very useful. Now we can access the Internet from televisions due to the modern up date of technology. All schools now have internet access and children can use the web to research all sorts of things much more easily and in some cases get at information which would have been beyond them. We can now get Census data online for example and log into libraries in America and Australia.

People in wheelchairs have gained a huge amount of freedom from access to the vast amounts of information on all subjects which has come from the internet.

## Consequences

Even though people see the Internet as a good part of technology it does have it bad points.
Chat rooms can be very dangerous. There are people that you could start chatting to and they give you wrong information. Schoolchildren are particularly vulnerable as someone could pretend to be friendly and lead them into dangerous meetings. The people that do this are called Paedophiles. If you agree to meet up with them then they could lead you to do something that you really don't want to do.

We do have to pay for the access to the Internet. Some people may monthly or you can pay with your telephone bill. It doesn't cost much but if you are on it continuously it can all start to add up.

## Mobile phones

## Benefits

These days everyone has mobile phones. There are used for communicating with people and sending text messages. They can be taken anywhere. They do have to have a signal to work but now the phone companies e.g. Orange, $\mathrm{O}^{2}$ etc allow their phones to be used in other Places in Europe. This allows people to take them on holiday as long as it is within the area where the phone has a signal. This allows business men and women can take their mobile with them, when they go away with their work company.

Mobile phones are an important way for children to keep in touch with their parents when they are late or need picking up or in case of emergencies.

## Consequences

There can be some bad point to mobile phones. They don't come free, the owner of the phone has to pay for how many text messages they send and how many phone calls they make. If you don't have a lot of credit you can't make as many phone calls.

Mobile phones are very popular and they do get stolen often, but you can prevent this by finding the SIM number.

If you have a mobile phone people can reach you anywhere. This can mean that workers are available 24 hours a day and people may be pressured into working longer hours. Some people deliberately leave the phone at home for a rest.

## Entertainment and leisure

## Benefits

Entertainment and leisure do have its benefits. New types of technology have been invented to provide a new type entertainment for people. DVD are available everywhere and are getting cheaper in cost. They act as a video but people say that they give a better picture. People in wheelchairs who might have had difficulty getting to the cinema can take advantage of this new technology and have a cinema at home.

We use the Internet as a part of our leisure. We can download things from this worldwide service such as music and some short video clips. All of this is helping our entertainment.

CD ROM have now been added to our computers to enable us to get the best out of our PC systems. This provides a better quality picture and a better sound.

Another benefit of new technology is that we are all getting more leisure time and workers should be able to relax away from work and not be as stressed. If they are refreshed when they go to work they will work better.

## Consequences

Unfortunately even though the prices of DVD players are going down they still do cost a lot. As well they do not allow you to record television programmes onto he actual DVD yet.

Downloading things off the Internet can cause problems with your computer. If you keep downloading it is possible for your computer to catch a virus. This could upset all of the programmes stored onto your computer and also your access to the Internet.

## Education and long-life learning

## Benefits

Education is a big part of life. Schools now have very modern technology to help with the learning process. Teachers are very qualified and can help children from any age. A lot of children do find education quite boring but it really pays off when it comes to finding a job.

Companies now want to employ people with really high grades so that they can get the best out of their organisation.

You are still able to study even when you have a job so long-life learning is possible.

## Consequences

When you have left school and go on to studying at university or college you o have to pay fees.
Some universities do charge a lot especially if they are well known. For example Oxford or Cambridge.

A lot of people feel that they get a lot of homework but all of this homework depends on where you get in life.

Being taught by computers all of the time may not encourage children to use text books, so they won't be able to look things up using the older method of teaching.
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Report

## Working styles and employment opportunities

## Working from home

Call centre workers from British Gas have joined the Automobile Association's telework programme. Around 25 employees now work from home on a full-time basis answering customer enquiries.

Teleworking at the AA started in 1997 with a pilot involving 10 call-handling staff based near the organisation's Leeds call centre. The staff, including some with disabilities who were recruited for the project, were provided with computers, ISDN lines, and home office furniture and answered breakdown calls routed through the Leeds centre.

By the end of 1998 the success of the pilot had boosted the number of teleworkers to 25 with plans for a total of 150. In April 1999, the AA decided to close the Leeds call centre, but to carry on with the teleworking programme. The staff based at the centre were given priority for the 125 teleworking posts, but most took voluntary redundancy.

There are now 50 teleworkers in the Leeds area, and another 100 based near the AA's remaining call centres at Newcastle and Manchester. Half of the 50 Leeds teleworkers are now drawn from British Gas Services.

There have been some changes to the teleworking operation since the pilot. Staff are no longer recruited directly into homeworking, for instance because they didn't get any sense of the AA's corporate culture. Now they recruit people as normal call handlers, but say the job has the potential for teleworking. When a teleworking opportunity comes up call handlers can apply for it. Another change is that the teamleaders supervising the teleworking are no longer centre-based, but work from home themselves.

In the first two years, teleworkers worked a special split shift covering the AA's busiest times for breakdown calls, the rush hours of $7.30 \mathrm{am}-11$ am and $4.30 \mathrm{pm}-8.30 \mathrm{pm}$. Staff at the centres normally work a single 8.75 -hour shift. Now teleworkers work various hours according to business needs.

The remarkable productivity of the teleworkers in the pilot - measured at between $37 \%$ and $45 \%$ higher than normal call handlers, has settled back at a still creditable $30 \%$ but this was one of the factors that convinced managers to carry on with the programme. Another was the low turnover rate among home-based staff of $5 \%$ a year, half the AA's normal rate and one fifth of the average rate for UK call centre agents. Nevertheless the high set-up costs for a home teleworker, around $£ 5,000$ a year, mean that though the numbers in the group are expected to remain level at around $10 \%$ of call handling staff, they are unlikely to be expanded beyond the 150 mark.

## Benefits

Working from home means that you don't have the pressure from the other employees or the manager/boss.

Thanks to modern technology even when you are still at home you can still interact with the other employees because of the e -mail.

E-mail allows you to send programmes so even though you are at home it is basically like being at work. A lot of people prefer being at home because you don't have to dress smartly and as long as you get all of the work done that you would normally do at a day at work, you won't feel that you have to revolve your day around work. A mother could fit work around taking her children to school or plan to work while her baby is sleeping. Disabled people in wheelchairs who are unable to travel to work would be just as suited to homeworking as an able bodied person.

## Consequences

The consequences is that when you send your work home is might not send then you have no-one to witness it and tell your boss that you have actually done it. You could also miss important memos about your work and your will no be there to find out. Bosses might take advantage of the situation and give out more work expecting staff to work longer hours. E-mailing your work backwards and forward between home and work you could allow your computer to catch a virus, a lot of places do and anti-virus programmes but it could still happen.

The company could lose out if the worker says they did the work but didn't, the company could lose money and the worker may lose their job.

Working from home you would miss out on all the social interaction at work and may get bored and this could lead to you not working as well as you could.

## Use of e-mail, mobile phones, laptops at work

## Benefits

This modem technology now allows you to communicate without any hassle. Laptops are like small computers but they have more advantages. These advantages are that they are very lightweight and can be used wherever you are. They can be powered by battery and then charged at night using electricity.

Mobile phones allow people to take their phone wherever they are and can talk to people. These can be used in businesses because them the staff can be tracked down wherever they are. Not only are they used in businesses but in social events too. Offices have begun a pattern of work known as hot desking. Each worker does not have their own desk. They sit at any desk, plug in their laptop and with their mobile phone can be found anywhere. This saves the company expensive office space.

E-mail can be used to send messages to people around the world. This can be used in companies which are positioned all around the world, so it can allow them to see what their other plants are going to do in the future.

## Consequences

Even though there are good points about this type of communication it does have its down side too. When you are using your laptops and the battery runs out if you haven't saved your work before you could lose it all.

Mobile phones are very popular and are also very popular with thieves. They do get stolen a lot. Thanks to the police force they are getting easier to track down using the SIM number people can find this out by dialling a number onto their phone.
Candidate $X$

E-mailing things backwards and forwards can be a problem when your computer catches a virus but there are programmes that can prevent this for example NORTON ANTI-VIRUS.

## How people interact at work

## Benefits

Normally we presume that the way people interact at work is by mouth, that is partly true but half of the time they use computers. E-mail is usually used for this because it is quick and easy and whilst the worker is waiting for a reply they can carry on working.

Faxing is another way people can communicate. Faxing is basically like a telephone and a scanner combined. Typing on the actual keyboard on the fax machine helps or you can hand write it and put it in the machine. This saves time because once it has sent you only have to wait for a reply.

## Consequences

The consequences are that when trying to e-mail the other person might not be able to receive it because they might not be in work or they could not be on the computer with their actual e-mail address. E-mails can also take a very long time to come through so if it is very important and you want he other worker to read it straight away it would just be easier to ring them.

Fax machines can also be very hard to use especially when you have never used one before. Telephoning can be a lot easier and is probably more commonly used so the worker can get a more accurate answer from the other employee.

## The types of jobs now available

## Benefits

New jobs are being invented every day. Information technology is used a lot in these. New call centres are being produced to enable businesses to make more of a profit, by bringing more customers to shop or bank etc, with them. Also because more jobs have become available more people can get employed so more people are making money.

## Consequences

As more jobs have become available more people are obviously being able to get employed. Businesses need these people because it is easier to get all of the work done, but if there are more people then the business will, have to pay more for their wages or the business will have to decrease each member of staff gets.

People no longer have a job for life and in a working career they are likely to have to retrain several times as technology takes one job away and creates others.

Having more jobs available in a business means that the employees will have to train them so the work isn't getting done when it should. Having more people working in a certain section means that the staff will have less work to do between them-which is a positive point, but this could result in them not getting paid their normal wage.

## ICT skills and training employees

## Benefits

Training more people to do a certain job means that big companies and organisations can have more people working for them so the work can be done in less time. Businesses will be able to get Candidate $X$24
more done in a week so they may be able to earn more money for the company so staff could get paid more and the company could be earning more profit.

ICT skills do now get more people a job. Just knowing the basics mean that employees can use common computer programmes, for example word and excel. ICT skills are very easy to learn. There are a lot of classes around the U.K, which teach people these skills so it's not as if you can only learn them at school. The majority of these classes are free some of them you may need to pay a small fee.

## Consequences

Training new staff does mean that the other employee doesn't really get a lot of their own work done. In some cases this member of staff may need to tack their work home with them or do overtime. It can time to train a new employee and sometimes very stressful. It is obviously better if this new member of staff has the skills required for the particular job because it does make things easier for the member of staff trying to train. him/her.
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## Report

## People with special/particular needs

## ICT in improving access for people with disabilities

Nobody realises but computer technology can help people that find it difficult to learn etc. Stephen Hawkins is physically disabled. He uses speech synthesisers to help him communicate with people. Is one of the cleverest people there are and thanks to this new technology he is able to get his knowledge down on paper. Many other people with disabilities have found useful employment with the help of ICT.

You are now able to buy computer programmes that tell you what you are writing so that if you are partially sighted you will still be able to write something that actually makes sense. For people who cannot see at all on the majority of keyboards there are dents in your keyboards so that they will know whereabouts a certain letter is. They could also use voice activated systems to input data and the physically disabled could do too.

This technology is not only used for people with physical disabilities but for people with learning problems, speaking difficulties, mental disabilities etc... It is a very popular way to for those with these difficulties because they are able to learn at a speed at which they are comfortable. Multimedia programs work with more than one of our senses and help reinforce learning for those with learning difficulties. Children at school can use overlay keyboards which help by making it easier to choose a key. Predictive word processors, touch screens and spellcheckers are other tools which help children to learn.

In some cases this will become very useful as some people learn faster than others, so learning by this technology then everyone will be able to learn and no one will become impatient will other students in their classes.

Older people can use ICT to keep in touch with family members all around the world. They can learn new skills, explore family history and use chat rooms with people with similar interests. They can also log into the vast amounts of information on health or gardening and set up self help groups.

## A survey for the use of mobile phones <br> 15-45 age group

The point of this survey is to identify the age group of who uses mobile phones the most and in what context. Below is a series of questions, which apply to a wide age group who may or may not use mobile phones.

Age group

- 15-25
- 26-35
(1) 36-45

Do you own a mobile phone? (Please tick relevant boxes)
Yes (if yes please proceed)

- No (If no, Thank you for your time)

Is your mrobile phone:
o Pay as you go

- Contract

What make is your phone?

- Nokia
- Siemens
- Motorola
- Panasonic
- Phifips
- Ericsson
- Sagem
- Samsung
or Other
What network is your phone on?
- Orange
- Virgin
- $\mathrm{O}^{2}$
- B.T cellnet
- Vodafone
- $T$ mobile

Does your mobile phone have internet access?
$\square$ Yos
$\square$ No

Did your business supply you with your phone?

```
- Yes
```

What do you mostly use your mobile phone for?

- Sending text messages

Making phone calls

- Accessing the Internet
- Playing games

How manylext messages do you send per week?
$\square$ Under 10

- 11-20
- 21-30
- 31-50
- Over 50

How manytext messages do you receive per week?

- Under 10
- 11-20
- 21-30
- 31-50
- Over 50

How manyphone calls do you make a week?

- Under 10
- 11-20
- 21-30
- 31-50
- Over 50

How many phone calls do you receive per week?

- Under 10
- 11-20
- 21-30
- 31-50
- Over 50

If you have a pay as you go mobile approximately how much credit do you use per year?

- thnder $£ 10$
- £ $10-£ 40$
- £40-£70
- £70-£100
- Over $£ 100$

Thank you for your co-operation.


## Database design sheet

Fill in the following table(s) for the design of your database

| Name of Table | People Surveyed |  |
| :--- | :--- | :--- |
| Fieldname | Data Type | Data validation |
| ID Number | Number | - Primary |
| Name | Text |  |
| Age | Text |  |
| Gender | Text |  |
| Owner of a mobile | Yes/No |  |


| Namc of Table | Phone Features |  |
| :--- | :--- | :--- |
| Fieldname | Data Type | Data validation |
| Phone | Text | $\sim$ Primary |
| Weight | Number |  |
| Talktime | Number |  |
| Standby | Number |  |
| Vibrate | Yes/No |  |
| Games | Yes/No |  |
| WAP | Yes/No |  |
| Height | Number |  |
| Width | Number |  |
| Depth | Number |  |


| Name of Table | Phone Information |  |
| :--- | :--- | :--- |
| Ficldname | Data Type | Data validation |
| ID Number | Number | - Primary |
| Make of Phone | Text | Һ Foreign |
| Paying Scheme | Text |  |
| Internet Access | Yes/No |  |
| Business Supplied | Yes/No |  |
| Network | Text |  |


| Name of Table | Phone Usage |  |
| :--- | :--- | :--- |
| Fieldname | Data Type | Data validation |
| ID Number | Number | - Primary |
| Txt Mssgs | Yes/No |  |
| Internet | Yes/No |  |
| Calls | Yes $/$ No |  |
| Games | Yes/No |  |
| Credit use per year | Text |  |
| Outgoing texts | Text |  |
| Incoming texts | Text |  |
| Outgoing calls | Text |  |
| Incoming calls | Text |  |



| Phone |  | Weight | Talktime | Standby | Vibrate | Games | WAP | Height | Width | Depth |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ericsson |  | 84 | 13 | 290 | - | $\underline{V}$ | $\checkmark$ | 100 | 48 | 20 |
| Motorola |  | 101 | 4 | 160 | $\underline{1}$ | $\checkmark$ | $\bar{r}$ | 90. | 48 | 21 |
| Nokia |  | 105 | 2 | 300 |  | V | 人 | 118 | 50 | 21 |
| Panasonic |  | 103 | 5 | 190 | $\checkmark$ | $\checkmark$ | $\checkmark$ | 97 | 23 | 49 |
| Phillips |  | 89 | 4 | 140 | $\checkmark$ | --- | $\checkmark$ | 103 | 47 | 20 |
| Sagem |  | 92 | 3 | 180 | $\checkmark$ | $\checkmark$ | $\overline{\mathbf{v}}$ | 105 | 19 | 46 |
| Samsung |  | 96 | 4 | 120 | $\underline{\square}$ | $\checkmark$ | $\checkmark$ | 91. | 47 | 23 |
| Siemens |  | 84 | 5 | 250 | - | $\checkmark$ | $\checkmark$ | . 103 | 46 | 21 |


| ID number. Make of Phone | Paying scheme | Internet access | Business supplied | 1- Network |
| :---: | :---: | :---: | :---: | :---: |
| 1 Nokia | Pay as yougo |  | --- | Orange |
| 2Nokia | Pay as you go | . | $\checkmark$ | Orange |
| 3Nokia | Contract | $\checkmark$ |  | Orange |
| 4 Sagem | Pay as yougo |  | - | Vodafone |
| 4 Siemens | Pay as yougo | $\checkmark$ |  | Orange |
| 5 Siemens | Pay as yougo | - |  | T mobile |
| 6 Sagem | Pay as you go | $\checkmark$ |  | T mobile |
| 7 Nokia | Contract | $\underline{\square}$ | $\cdots$ | Orange |
| 8 Nokia | Contract | $\checkmark$ | L | Orange |
| 9 none | none |  | - | none |
| 10 Philips | Pay as you go | - |  | Orange |
| 11. Philips | Pay as you go | - |  | Orange |
| 12 Nokia | Pay as you go |  |  | O 2 |
| 13 Siemens | Pay as you go | I |  | Orange |
| 15 Nokia | Pay as you go |  | - | 02 |
| 16 Nokia | Contract | - | - | Vodafone |
| 17 Nokia | Pay as you go | $\checkmark$ |  | Vodafone |
| 18 Nokia | Contract | $v$ | $\cdots$ | Vodafone |
| 19 Samsung | Contract | $\checkmark$ | -- | Vodafone |
| 20 Samsung | Pay as yougo | $\checkmark$ | $\cdots$ | Orange |



| Incoming texts | Outgoing calls | Incoming calis |
| :---: | :---: | :---: |
| 31-50 | Under 10 | Under 10 |
| 31-50 | Under 10 | 11-20 |
| 11.20 | 11-20 | 11-20 |
| Under 10 | Under 10 | Under 10 |
| 31-50 | 11-20 | 11-20 |
| 31-50 | 11-20 | 21-30 |
| 31-50 | 31-50 | 31-50 |
| 31-50 | 11-20 | 21-30 |
| none | none | none |
| Under 10 | Under 10 | Under 10 |
| Under 10 | Under 10 | Under 10 |
| 11-20 | Under 10 | Under 10 |
| -31-50 | Under 10 | 11-20 |
| Under 10 | Under 10 | Under 10 |
| 11-20 | Under 10 | Under 10 |
| Over 50 | Under 10 | Under 10 |
| 11-20 | 31-50 | 21-30 |
| 11-20 | 21-30 | 11-20 |
| Under 10 | Under 10 | Under 10 |



Screenshot showing design view of People Surveyed table.


Screenshot showing design view of Phone Features table.


Screenshot of the Phone Information design view.


Screenshot of the design view of the Usage table.


Libulensmin inak nites
Screenshot showing both the All Data entry form and the People Surveyed entry form.

imuletinumunantiou
Screenshot showing the other three data entry forms.


This screenshot shows the relationships table and the primary keys in bold.


Query to show people surveyed who use text messaging.


Query linking items from all four tables showing main phone features and that only one person uses WAP internet although all phones have it.


| AMrantiMment |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  | Psylig actem | Nibacis | Cridi use pertise | Prions | Oulativg 1696 |
|  |  |  | Pay as you go $^{\text {Pay }}$ | Vedatsie | Oreit El 100 | Nocioa | Over 65 |
| 16-26 |  | female | Pay as yoe po | Crange | over ctigo | Siemens | 25-60 |
| 15-25 |  | femise | Pry as you po | Crange | overeti0 | Sipmens | 11-20 |
| 15-85 |  | max | Pay as yau po | T mabile | over ctide | Sugers | 21.60 |
| 15-26 |  | femare | Pay as you po | T metile | over ciad | Sipment | Over 50 |
| 15-25 |  | femase | Pry as you go | Craspe | Over Etoo | Nokica | Over 50 |
| 15-25 |  | femave | Pay as yas go | Cranpe | Over flab | Noila | $31-60$ |
| 16-86 |  | female | Pay as you po | OQ | 70-100 | Nekis | U-6er 10 |
| 15-25 |  | max | Piry as you po | 02 | 10-40 | Nokja | Unopr 49 |

Query on two
fields to show those in the 15-25 age range who own a pay as you go phone.



目是


| Uses Internet | Name |
| :--- | :--- |
| $\square$ | Abbey |
| $\square$ | Amanda |
| $\square$ | Carol |
| $\square$ | Cheryl |
| $\square$ | Chloe |
| $\square$ | Esther |
| $\square$ | Kelen |
| $\square$ | Lisa |
| $\square$ | Natalie |
| $\square$ | Nicole |
| $\square$ | Richard |
| $\square$ | Russell |
| $\square$ | Sam |
| $\square$ | Yvette |
| $\square$ | John |

30 May 2003

| ID number | Txt Mssgs | Internet | Calls | Games | Credit use per year | Outgoing texts | Incoming texts | Outgoing calls | Incoming calls |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | FALSE | FALSE | FALSE | TRUE | over $\$ 100$ | 31-50 | 31-50 | Under 10 | Under 10 |
| 2 | FALSE | FALSE | FALSE | FALSE | over £100 | Over 50 | 31-50 | Under 10 | 11-20 |
| 3 | FALSE | FALSE | TRUE | FALSE | none | 11-20 | 11-20 | 11-20 | 11-20 |
| 4 | FALSE | FALSE | TRUE | FALSE | £10-£40 | Under 10 | Under 10 | Under 10 | Under 10 |
| 5 | TRUE | FALSE | FALSE | FALSE | over $£ 100$ | Over 50 | 31-50 | 11-20 | 11-20 |
| 6 | FALSE | FALSE | TRUE | TRUE | over £100 | 31-50 | 31-50 | 11-20 | 21-30 |
| 7 | TRUE | FALSE | FALSE | FALSE | none | 31-50 | 31-50 | 31-50 | 31-50 |
| 8 | TRUE | FALSE | FALSE | FALSE | none | 31-50. | 31-50 | 11-20 | 21-30 |
| 9 | TRUE | FALSE | FALSE | FALSE | none | none | none | none | none |
| 11 | FALSE | FALSE | TRUE | FALSE | Under £ 10 | Under 10 | Under 10 | Under 10 | Under 10 |
| 12 | TRUE | FALSE | TRUE | FALSE | 70-100 | Under 10 | Under 10 | Under 10 | Under 10 |
| 13 | TRUE | FALSE | FALSE | FALSE | over £ 100 | 11-20 | 11-20 | Under 10 | Under 10 |
| 14 | TRUE | FALSE | FALSE | FALSE | over E 100 | 31-50 | 31-50 | Under 10 | 11-20 |
| 15 | TRUE | FALSE | FALSE | FALSE | 10-40 | Under 10 | Under 10 | Under 10 | Under 10 |
| 16 | TRUE | FALSE | FALSE | FALSE | none | 11-20 | 11-20 | Under 10 | Under 10 |
| 17 | TRUE | FALSE | FALSE | FALSE | over $£ 100$ | Over 50 | Over 50 | Under 10 | Under 10 |
| 18 | TRUE | FALSE | TRUE | FALSE | none | 21.30 | 11-20 | 31-50 | 21-30 |
| 19 | TRUE | TRUE | TRUE | FALSE | none | 11-20 | 11-20 | 21-30 | 11-20 |
| 20 | TRUE | FALSE | FALSE | FALSE | Under £10 | Under 10 | Under 10 | Under 10 | Under 10 |
| Text Messages TRUE FALSE | Number $\begin{array}{r} 13 \\ 6 \\ \hline \end{array}$ | Percentage |  | M Text Me WAP In Phone Playing | ost Popular <br> ssaging <br> ernet <br> alls <br> Games |  |  |  |  |
| WAP <br> Internet <br> YES <br> NO | Number $\begin{array}{r} 1 \\ 18 \end{array}$ | $\begin{array}{r} \text { Percentage } \\ 5 \% \\ 95 \% \\ \hline \end{array}$ |  |  |  |  |  |  |  |
| Phone Calls <br> TRUE FALSE | Number $\begin{array}{r} 7 \\ 12 \\ \hline \end{array}$ | $\begin{array}{r} \text { Percentage } \\ 37 \% \\ 63 \% \\ \hline \end{array}$ |  |  |  |  |  |  |  |
| Play Games <br> TRUE FALSE | Number | $\begin{array}{r} \text { Percentage } \\ 11 \% \\ 89 \% \end{array}$ |  |  |  |  |  |  |  |



| ID number | $r$ Name | Age | Gender | Owner of a mobile phone? |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 Helen | 15-25 | femaie | TRUE |  |
|  | 2 Amanda | 15-25 | female | TRUE |  |
|  | 3 Abbey | 15-25 | female | TRUE |  |
|  | 4 Geena | 36-45 | female | FALSE |  |
|  | 5 Cheryl | 15-25 | female | TRUE |  |
|  | 6 Russell | 15-25 | male | TRUE |  |
|  | 7 Lisa | 15-25 | female | TRUE |  |
|  | 8 Sam | 15-25 | female | TRUE |  |
|  | 9 Gill | 36-45 | female | FALSE |  |
| 10 | 0 Leanda | 36-45 | female | FALSE |  |
| 11 | 1 Pete | 36-45 | male | TRUE |  |
| 12 | 2 Esther | 15-25 | female | TRUE |  |
| 13 | 3 Chloe | 15-25 | female | TRUE |  |
| 14 | 4 Natalie | 15-25 | female | TRUE |  |
| 15 | 5 Richard | 15-25 | male | TRUE |  |
| 16 | 6 Nicole | 15-25 | female | TRUE |  |
| 17 | 7 Yvette | 15-25 | female | TRUE |  |
| 18 | 8 Kate | 15-25 | female | TRUE |  |
| 19 | 9 John | 36-45 | male | TRUE |  |
| 20 | 0 Carol | 36-45 | female | TRUE |  |
| Age | Number | \% |  | Gender | Number \% |
| 15-25 | 14 | 70\% |  | male | $420 \%$ |
| 26-35 | 0 | 0\% |  | temale | 16 80\% |
| 36-45. | 6 | 30\% |  |  |  |
|  |  |  |  | Own a mobile | Number \% |
|  |  |  |  | Yes | 17 85\% |
|  |  |  |  | No | 3 15\% |



## Depth <br>  <br> Width <br> 






Tak
은


| ID number | Make of Phone |  | Paying scheme | Internet access | Business supplied | Network |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 Nokia |  | Pay as you go | FALSE | FALSE | Orange |  |  |  |  |  |
|  | 2 Nokia |  | Pay as you go | FALSE | TRUE | Orange |  |  |  |  |  |
|  | 3 Nokia |  | Contract | TRUE | FALSE | Orange |  |  |  |  |  |
|  | 4 Sagem |  | Pay as you go | FALSE | FALSE | Vodafone |  |  |  |  |  |
|  | 5 Siemens |  | Pay as you go | FALSE | FALSE | T mobile |  |  |  |  |  |
|  | 6 Sagem |  | Pay as you go | TRUE | FALSE | T mobile |  |  |  |  |  |
|  | 7 Nokia |  | Contract | TRUE | TRUE | Orange |  |  | . |  |  |
|  | 8 Nokia |  | Contract | TRUE | FALSE | Orange |  |  |  |  |  |
|  | 9 none |  | none | FALSE | FALSE | none |  |  |  |  |  |
|  | 0 Philips |  | Pay as you go | FALSE | FALSE | Orange |  |  |  |  |  |
|  | 1 Philips |  | Pay as you go | FALSE | FALSE | Orange |  |  |  |  |  |
|  | 2 Nokia |  | Pay as you go | FALSE | FALSE | O 2 |  |  |  |  |  |
|  | 3 Siemens |  | Pay as you go | FALSE | FALSE | Orange |  |  |  |  |  |
|  | 4 Siemens |  | Pay as you go | TRUE | FALSE | Orange |  |  |  |  |  |
|  | 5 Nokia |  | Pay as you go | FALSE | FALSE | O 2 |  |  |  | - |  |
|  | 6 Nokia |  | Contract | FALSE | FALSE | Vodafone |  |  |  |  |  |
|  | 7 Nokia |  | Pay as you go | TRUE | FALSE | Vodafone |  |  |  |  |  |
|  | 8 Nokia |  | Contract | TRUE | FALSE | Vodafone |  |  |  |  |  |
|  | 9 Samsung |  | Contract | TRUE | FALSE | Vodafone |  |  |  |  |  |
|  | 0 Samsung |  | Pay as you go | TRUE | FALSE | Orange |  |  |  |  |  |
| Make of Phone | Number |  | Percentage |  | Internet <br> Access | Number | Percentage |  | Network | Number | Percentage |
| Nokia |  | 0 | 50\% |  | TRUE | 9 | 45\% |  | Orange | 10 | 50\% |
| Sagem |  | 2 | 10\% |  | FALSE | 11 | 55\% |  | Vodafone | 5 | 25\% |
| Siemens |  | 3 | 15\% |  |  |  |  |  | T mobile | 2 | 10\% |
| Philips |  | 2 | 10\% |  | Business | Number | Perce |  | O 2 | 2 | 10\% |
| Samsung |  | 2 | 10\% |  | Supplied |  | Perce |  | None | 1 | 5\% |
| None |  | 1 | 5\% |  | TRUE | 2 | 10\% |  |  |  |  |
| Total |  | 20 | 100\% |  | FALSE | 18 | 90\% |  |  |  |  |


| 10 number | Make of Phone | Paying scheme | Internet access | Business supplied | Network |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Nokia | Pay as you go | FALSE | FALSE | Orange |
| 2 | Nokia | Pay as yougo | FALSE | true | Orange |
| 3 | Nokia | Contract | TRUE | FALSE | Orange |
| 4 | Sagem | Pay as yougo | FALSE | FALSE | Vodafone |
| 5 | Siemens | Pay as yougo | FALSE | FALSE | T mobile |
| 6 | Sagem | Pay as yougo | TRUE | FALSE | $T$ mobile |
| 7 | Nokia | Contract | TRUE | TRUE | Orange |
| 8 | Nokia | Contract | TRUE | FALSE | Orange |
| 9 | none | none | FALSE | FALSE | none |
| 10 | Philips | Pay as yougo | FALSE | FALSE | Orange |
| 11 | Philips | Pay as yougo | FALSE | FALSE | Orange |
| 12 | Nokia | Pay as yougo | FALSE | FALSE | O2 |
| 43 | Siemens | Pay as you go | FALSE | FALSE | Orange |
| 14 | Siemens | Pay as yougo | TRUE | FALSE | Orange |
| 15 | Nokia | Pay as you go | FALSE | FALSE | 02 |
| 16 | Nokia | Contract | FALSE | FALSE | Vodafone |
| 17 | Nokia | Pay as you go | true | FALSE | Vodafone |
| 18 | Nokia | Contract | TRUE | FALSE | Vodafone |
| 19 | Samsung | Contract | true | FALSE | Vodafone |
| 20 | Samsung | Pay as yougo | TRUE | FALSE | Orange |
| Make of Phone | Number | Percentage | Internet Access | Number | Percentage |
| Nokia | =COUNTIF(\$B\$2:\$B\$21,A24) | = $\mathbf{B 2 4 / \$ 8 \$ 3 0}$ | TRUE | =COUNTIF(\$D\$2:3D\$21,TRUE) | =E24/SUM(\$ES24:\$E\$25) |
| Sagem | =COUNTIF(\$BS2:\$BS21,A25) | $=\mathrm{B} 25 / \$ \mathrm{~B} \$ 30$ | FALSE | =COUNTIF(\$D\$2:\$D\$21,FALSE) | =E25/SUM(\$E\$24:\$E\$25) |
| Siemens | =COUNTJF(\$B\$2;\$B\$21,A26) | = $\mathrm{B} 26 / \$ \mathrm{~B} \$ 30$ |  |  |  |
| Philips | =COUNTIF(\$B\$2:\$B\$21,A27) | $=\mathrm{B} 27 / \$ \mathrm{~B} \$ 30$ | Business Supplied | Number |  |
| Samsung | $=$ COUNTIF(\$B\$2:\$B\$21,A28) | = $\mathrm{B} 28 / \$ \mathrm{~B} \$ 30$ |  |  | Percentage |
| None | =COUNTIF(\$B\$2:\$B\$21,A29) | $=\mathrm{B} 29 / \$ \mathrm{~B} \$ 30$ | TRUE | =COUNTIF(\$E\$2:\$E\$21,TRUE) | =E29/SUM (\$E\$24:\$E\$25) |
| Total | $=5$ UM(B24: B 29) | = B30/\$B630 | FALSE | =COUNTIF(\$E\$2:\$E\$21,FALSE) | =E30/SUM(\$E\$24:\$E\$25) |



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Typical Phone prices

Chart showing how many people have each mobile phone network
graph to show who has which make of mobile phone

Chart showing most popular use of mobile phones


QYES
aNO
A chart showing how many people use WAP on their phone


## ICT and Society

## Introduction

In my survey I have decided to find out about how many people own a mobile telephone, also to find out what sort of things that they use their phone for. Such as phoning people or sending text messages etc. Not only this but to also see which mobile phone companies sell more of their make of phone, some of the possible answers for this are Nokia, Samsung and there were some more.

I decided on this survey because nowadays the majority of people of all ages have a mobile phone and I was interested to see what network and model these phones were. It was also a subject they everyone had their own opinions on because some people think that mobiles have some bad points as well as good points and it would be their chance to express them.
Companies such as Orange and Nokia would be interested in my results of my survey because these were the most popular network and make of phone. Ten people out of the twenty I asked had a Nokia phone this is $50 \%$, also ten people have an Orange mobile telephone.

## Collecting the data for my survey

I decided to collect the data for my survey by creating a questionnaire. I decided to ask questions such as "What make of mobile phone do you own?" and "What network is your mobile phone?"


Above is a copy of my questionnaire. I produced this using Microsoft Word because I thought that it was appropriate for this.

## Filling in the data Collection sheet

I filled in a data collection sheet with the results of my questionnaire because I felt that this way is easier to read all of my data that I have collected. By doing this I didn't have to keep turning the pages of my questionnaire document over to collect it all together.
I did take time to write all of this but I did benefit from this at the end.

## Setting up the database.

The software I used to set up the database was Microsoft Access.
I decided to use this software because I felt that I could use the wizards to help me set up the database and also the layout of the documents are easy to read.
The tables I set up were called:

- People Surveyed
- Phone Features
- Phone Information
- Phone Usage

I used more than one table because it was easier to separate all of the information that I collected. I separated them into these tables because in each table are different sets of information requires to use from my questionnaires. I also downloaded some information from a website about the different phones available.

## Finding things out from my database

I carried out several queries (searches) on my database. For each query I searched for a common thing that nearly all of my mobile phone users used such as the Internet. One of my queries was "How many people out of the twenty that I asked used the Internet on their mobile phone". I found out that there was only one but I still made this my query.


For each report I used the access wizard to help me produce them and I did the same for my reports that I did for my queries because I felt that these were the most popular questions that I asked people. An example of one of my reports is:


This report is showing how many people use text messaging on their mobile phone the most.

The people in this report are of different ages although most fall into the 15-25 category. It shows that only one person out of the whole questionnaire uses the Internet on their phone. This shows that the Internet isn't a very common use on a phone.


## Analysing the results of my survey

The software I used to analyse my results of my survey was Microsoft Excel. I decided to use his software because it lets me calculate percentages and draw charts to see accurate results of the answers to each question that I asked. Also it is a very easy programme to use and gives a professional look overall.

I obtained the data from my database in Access and copied and pasted it onto my spreadsheet. For each table that I produced on Access I copied it onto a new sheet but in the same document in Excel. This enabled me to still keep the results separate from one another.

I set the spreadsheet out in a more professional way by formatting the column headings and also labelling the bars at the bottom of the page so I could look up the information easier. For the headings for each column I had to wrap text so I could read it clearly.

On each sheet I carried out an analysis of the results of my survey by doing this I was looking to see if there were any trends that phone users follow. I did this using the COUNTIF formula. This enabled me to find out how many people had a Nokia phone for example. From the figures I was able to calculate the percentage for each response.

| Make of Phone | Number | Percentage |
| :---: | :---: | :---: |
| Nokia | $=\mathrm{COUNTIF}(\$ \mathrm{~B}$ \$2:SB\$21,A24) | =B24/\$B\$30 |
| Sagem | =COUNTIF (\$E\$2:\$B\$21,A25) | = B25/\$B\$30 |
| Siemens | = COUNTIF(\$E\$2:\$B\$21,A26) | = B26/\$B\$30 |
| Philips | =COUNTIF(\$B\$2;\$B\$21,A27) | = $\mathrm{B} 27 / \$ \mathrm{~B} \$ 30$ |
| Samsung | =COUNTIF(\$E\$2:\$B\$21,A28) | = $\mathrm{B} 28 / 5 \mathrm{~B} \$ 30$ |
| None | =COUNTIF(\$E\$2:\$B\$21,A29) | = B29/SB\$30 |
| Total | =SUM(B24:B29) | =B30/\$B\$30 |


| Make of | Number | Percentage |
| :--- | ---: | ---: |
| Phone |  |  |
| Nokia | 10 | $50 \%$ |
| Sagem | 2 | $10 \%$ |
| Siemens | 3 | $15 \%$ |
| Philips | 2 | $10 \%$ |
| Samsung | 2 | $10 \%$ |
| None | 1 | $5 \%$ |
| Total | 20 | $100 \%$ |

The Nokia was by far the most popular, owned by half the people surveyed. Next was the Siemens with $15 \%$ followed by a group of others all on $10 \%$. In all $85 \%$ of the people I asked owned a mobile phone.

I used graphs to show my results, I also produced these on Excel and found it very easy to follow the simple instructions.
graph to show who has which make of mobile phone


## Conclusion

My results showed that only 5\% use the WAP internet facility on their phone, it is obviously not as good useful as on a full size screen. Only a third used their phones for phone calls and $11 \%$ used them for playing games. I think this may be due to the fact that $70 \%$ of the people who responded were in the 15-25 age group and young people have got into texting as a means of keeping in touch with friends. $80 \%$ of them were female, but I don't think that girls text more than boys.


The most popular network was Orange, exactly half had an Orange connection, but strangely one person had a phone and no network connection.

Chart showing how many people have each mobile phone network


I downloaded some prices from the internet to see what the range was like. Prices varied considerably and one phone, the Sony Ericsson can be bought $£ 82$ cheaper in some shops than others. Some phones are given free if you sign a contract but one cost up to $£ 315.99$.


I used a Query in Access to look at the people in the 15-25 age group who had a pay as you go phone. This screenprint shows the result. Most of them spend over $£ 100$ a year on their phone which is about $£ 2$ a week.


I collected some data about individual phone features from a website and was surprised to learn that less than half have a vibrate option. All of them had a WAP function despite my survey finding that people did not use it. The size of these phones is fairly standard, averaging around 10 centimetres tall although there is a larger difference in width between 5 centimetres and less than 2 , although the thin ones tend to be fatter because they have a flip down section. Talktimes and standby times also vary widely between 2 hours and 13 hours for the former and from 120 hours to 300 hours on the latter. The most popular phone in my survey only has a talktime of 2 hours.

I think my survey has been a useful exercise. I have learnt some things from the results but also have developed my ICT skills in researching producing this report.

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