

Introduction to the Internet and On-line Communications

F1F9 10 - Overview

In this brief look at using the Internet, we try to demonstrate:

- what the Internet is and very briefly how it works;
- how you navigate around Internet pages and between World Wide Web sites;
- how to search for specific information using the Internet;
- how to use electronic mail (email)

The Internet is available across the world, and is used by upwards of 250 million people, with the number increasing all the time. If everyone makes responsible and sensible use of the system it will remain a resource that is interesting, useful and fun. Irresponsible use however, such as using the Internet to exchange or access material that is offensive or illegal, is likely to mean that the Internet loses much of its freedom. If this happens, the vast majority of users who make good use of the Internet will find that their use is restricted and less effective.

Outcomes

- 1 Identify key components, terms and issues associated with the use of on-line communications.
- 2 Locate information using basic Internet/Intranet facilities.
- 3 Use email and on-line forms to communicate electronically.

Activities



During the course of your study, you will find some suggested activities. These are indicated by the icon shown on the left and shaded text.

Do not restrict yourself to doing only the suggested activities. Part of each study session should be used in exploring the features that are available to you in using the Internet and email, in order to fully familiarise yourself with these features. Do you have a particular interest or hobby? Use this as a starting point for carrying out your extra activities. Once you have some experience of these basic skills, effective use of the Internet is, like many other topics, largely a question of gaining more experience and improving your skills through practice. As you use the Internet more, so you will become more familiar with using search tools to find the specific information that you need.

What does the Internet and On-line Communications mean?

The Chamber's dictionary definition of the Internet is:

the Internet: *noun* a global computer communications network providing almost instant transfer of electronic data from one computer to another, linking business, academic and private users.

The Cambridge dictionary definition of an Intranet is:

Intranet: *noun* a system of connected computers which works like the Internet and which enables people within an organization to communicate with each other and share information.

In other words, the Internet and an Intranet work along the same lines, but the Internet is basically open to all and the Intranet is a private network of computers. If you are studying this unit at a college, you will have access to the student Intranet of your organisation.

On-line communication is the method of communicating through the Internet.

For the moment, let's start by saying that the **Internet is a system that connects computer networks throughout the world**. They are linked together by fibre optics and telephone lines to form one huge worldwide network. Most of the networks that make up the Internet are in places like businesses, colleges and universities, government departments and so on. When a college, for example, becomes part of the Internet, it gives anyone who uses the Internet access to some parts of its computer network and the information held there, and in return students and staff at the college get

access to Internet resources throughout the world. The Internet is **used to transfer information, files and electronic mail, and as a means of conducting business and shopping.** In recent years the general public have had easy and cheap access to the Internet and there has been a huge growth in the numbers of people throughout the world who are able to use it.

A brief history of the Internet

The Internet really started in 1969, when a very small number of computers owned by the United States government and military were linked together to provide better information services. This was largely for military/defence research, and also to 'spread the risk' by avoiding having the entire nation's critical defence research data held at one site. At that time, such projects were lavishly funded, especially in the US, because this was the height of the Cold War. The space exploration programme was also at its peak. This network was called ARPAnet. At first, only those in the defence industry and government in the US had access, but in the 1980s the system was opened to colleges and universities. That network was called JANET.

Growth of the Internet

That growth has continued, and is getting even faster. The Internet consists of millions of computers which are linked together. Almost anyone can now gain access, because even if you don't work for the government, or at a university, you can get access through a commercial **Internet Service Provider (ISP)** usually free of charge eg Virgin Media, Orange, BT, Sky, AOL, Tiscali, Pipex, Tesco, etc.

Legislation

The following page gives details of some of the legislation you need to be aware of when working online. You will note that you can find much of the basic information, simply explained on the BBC Bitesize website.



Activity

You have not yet covered the section on how to browse the Internet, so will be unable to access the Internet references below. Simply read each section briefly, without trying to follow the links at the moment. You will be referred back to the web links further on in this course.

Regulation of Investigatory Powers Act

In July 2000, the Government passed the above legislation, its stated aim being to give the UK police and security services the same right to read email as they currently have to read postal mail and to tap telephone messages, under warrant from a judge. You will find further information at: <http://security.homeoffice.gov.uk/ripa/about-ripa/> and many other sites.

Computer Misuse Act

The Computer Misuse Act became law in August 1990. Under the Act hacking and the introduction of viruses are criminal offences. For further information, look at:

<http://www.bbc.co.uk/schools/gcsebitesize/ict/legal/1dataandcomputermisuserev1.shtml>

Copyright, Design and Patents Act

The Copyright, Designs and Patents Act 1988, is the current UK copyright law. It gives the creators of literary, dramatic, musical and artistic works the right to control the ways in which their material may be used. The rights cover: Broadcast and public performance, copying, adapting, issuing, renting and lending copies to the public. This summary was taken from:

<http://www.bbc.co.uk/schools/gcsebitesize/ict/legal/2copyrightrev1.shtml>

http://en.wikipedia.org/wiki/Copyright,_Designs_and_Patents_Act_1988

Wikipedia is an online encyclopaedia which can be edited and added to by people browsing or surfing the Internet. Always double check any information you find on the site, as although it is edited by volunteers, it is possible for people to add inaccurate information.

Data Protection Act

This Act was introduced to protect people from misuse of their private data which has been stored on computers.

<http://www.bbc.co.uk/schools/gcsebitesize/ict/legal/0dataprotectionactrev1.shtml>

http://en.wikipedia.org/wiki/Data_Protection_Act

Activity



Internet Explorer

Make a note to go to the BBC Bitesize pages later when you have completed the section on browsing the Internet. Click on the 'Test' buttons and carry out a short test to see how much you know about each of the topics.

<http://www.bbc.co.uk/schools/gcsebitesize/ict/legal/>

Text only | Help

BBC Search [Explore](#)

GCSE Bitesize

[Bitesize Home](#)
[Subjects](#)
Art & Design
Business Studies
Design & Technology
DiDA
Drama
English
English Literature
French
Geography
German
History
ICT
Irish
Maths

[Home](#) > [ICT](#) > [The legal framework](#)

ICT [Print](#)

The legal framework

The Data Protection Act	Revise	Test
Data and Computer Misuse	Revise	Test
Copyright	Revise	Test
Viruses	Revise	Test
Exam tips	Revise	

Connecting to the Internet

What equipment do you need?

Using the Internet at home is slightly different from using it at college or in business, in that you are connected in a different way.

Perhaps the first question should be - how do we start? We'll assume that you are working with a standard Windows based PC system, although much of what we are saying will also apply to other systems such as Macintosh.

First, how do you connect to the Internet from home? (See Appendix)

Hardware

You obviously need a computer, and the faster your processor, and the more memory your machine has, the better. The other essential piece of equipment is a **modem**. Many computers come with an **internal modem** already fitted, so that you simply connect a lead from the back of your computer to an ordinary telephone socket. If your computer does not already have a modem, you will need an **external modem** which connects to your computer.

Most of us will not want to know any details about how a modem works, except to know that it converts the signal from your computer into a format that can be transmitted through the telephone system, and converts the incoming signal back into a form your computer can understand.

This process of **MO**dulating and **DEM**odulating the signal is how the modem got its name. The most important thing about a modem is its speed, measured in bits per second. Basically, the **higher the number, the faster the data gets transferred**. This type of connection is normally a dial up

connection and you are charged for the amount of time your telephone line is connected to the Internet.

As technology has progressed, there are now other ways of accessing the Internet. **Broadband** is a very quick way to access the Internet. Broadband speed is a measure of how fast data moves along phone lines and into your computer. The speed at which you connect will vary according to the area in which you live. This **speed** is measured in **megabits per second (Mbps)** and is usually shortened to 'Meg'. An 8 Meg speed is four times as fast as 2 Meg.

Taking the ISP Orange as an example, it is possible to connect to the Internet without a traditional modem, but by using a broadband modem/router. It is possible to connect wirelessly (although a telephone line is still needed).



Broadband router

It is also possible, with the use of a dongle router, to have mobile Internet access, designed for use with a laptop computer - no land line is required.



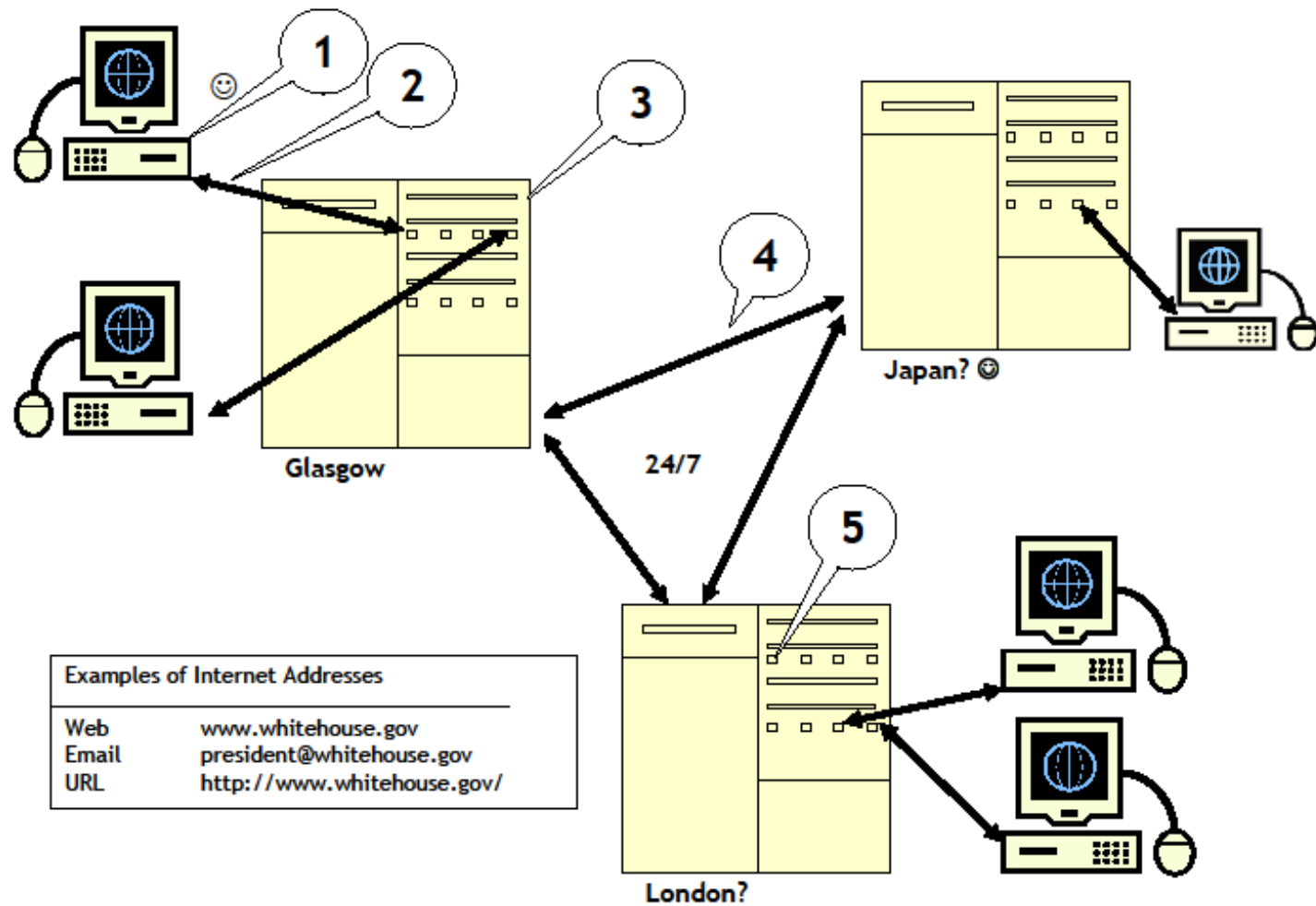
Broadband dongle router

Software

You also need software to connect to the Internet, and to browse the Web, handle file transfers, e-mail and so on. So, where do you get the software?

When you sign up with an **Internet Service Provider (ISP)**, they will give you the software you need to get started, usually on a CD. You will often get disks or CDs with computer magazines that allow you to try the Internet free, and many people find this a convenient way of getting started. The cost can involve a connection charge, plus a monthly fee, but numerous companies now act as your Internet Service Provider free of charge and provide you with an excellent service.

Appendix 1
Internet 1



Examples of Internet Addresses	
Web	www.whitehouse.gov
Email	president@whitehouse.gov
URL	http://www.whitehouse.gov/

Internet Map © Magda Ang 2010