

Get going on the Internet

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KnowWare

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Get going on the Internet

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The KnowWare idea

KnowWare's main aim is to assist you!

One of my goals is to spread easy to understand knowledge at a fair price. KnowWare began in Denmark in April 1993. Other publishers in Denmark have been forced to reduce their prices to keep pace with KnowWare. KnowWare is not trying to maximize profit.

I publish KnowWare alone, and do not advertise. I believe that good material at an economic price will sell itself. The higher prices of other publishers can be blamed on the large number of employees, high marketing and advertising costs, which you, the reader, have to pay for.

The first English editions of KnowWare booklets are being distributed in many different countries for several reasons. One is to introduce you to the KnowWare idea, another is so local publishers who may be interested in republishing in their own language, can see what we have available.

If you are interested in publishing KnowWare in your country, please contact me at mm@knowware.dk

Free bumper sticker

You can get a free bumper sticker measuring approx. 5 x 60 cm: KnowWare's Internet address www.knowware.dk in white type on a clear background.

Write or e-mail your address with the word "bumper sticker", and I will send you one (while stocks last).

For further general information about KnowWare Publishing, see KnowWare's homepage at www.knowware.dk

Coming

If these first 3 booklets sells well, other booklets will be published. KnowWare has published more than 30 different computer booklets on various subjects: Windows 95, Word, Excel, Access, Internet, WWW, Homepages and WebDesign, Publisher 97, DOS, Windows 3.1 etc.

Book

Else Brundbjerg: "Isak Dinesen, Karen Blixen: Woman, Heretic and Artist", 300 p., (sold more than 24.000 in Denmark) US\$ 9.95

With best wishes, Michael Maardt, **KnowWare**

The latest news, titles in preparation, tips, opinions, lists of suppliers, title availability in different languages, etc. etc. can be found at the **KnowWares** web-site www.knowware.dk

About this booklet

This is an introduction to the Internet. You can read it even though you may be a complete beginner on the Internet, though I assume that you are used to using a computer. I write about a Windows PC, but most of the material here will be relevant to a Macintosh or other type of computer. The illustrations in the booklet are all from a PC running Windows 95.

All the information in the booklet was checked just before publication. But it is a fact that the Internet changes so rapidly that some things may already be obsolete. You will also have to remember that this booklet describes many different programs, which are often available in several different versions, constantly updated. This is the reason that you will sometimes find that what is written here does not exactly describe the program you are using. Throughout the booklet I am using the Internet Explorer 4.0 browser, but nearly everything is still relevant even though you may be using another program.

If you have any comments on the booklet, I would be very happy to hear from you. Maybe you have found a section difficult to understand, or you can suggest an improvement, or you have found something which is out of date.

My address is torbkj@inet.uni2.dk

Enjoy your reading!

Torben Kjær

A big thank you to everybody who commented on the manuscript before publication.

I suggest you also read the booklet *Brug internettet optimalt* (published Jan. 1998 og erstatter hæftet *Ud på World Wide Web*), which is a guide to some of the best and most useful websites. You will learn more about using the World Wide Web from *Brug internettet optimalt*, and be inspired to get much more out of the Internet.

Save time

All home-pages (addresses) mentioned in this booklet can be found on KnowWare's web site.

www.knowware.dk/dk/

which includes a link to a page with links to all the web addresses described in this booklet.

So there is no need for you to enter the addresses yourself.

When you are on the page, you can find the address you want by using your browser's 'find' function (usually **Ctrl+F**)

What is the Internet?

The Internet is a global network of computers. There are many different types of computer on the Internet – PC's, Macintosh and many others – many of these computers are parts of smaller networks, which are also just as varied. The Internet is based upon a common language which allows all these computers to talk to each other.

Beside this common language, the Internet is actually no more than a huge collection of cables, computers and software. These computers are connected together in a continuous net. Most of the physical connections consist of optical cables or telephone lines which are either bought or leased from telephone companies. In some cases signals are transmitted via satellite links.

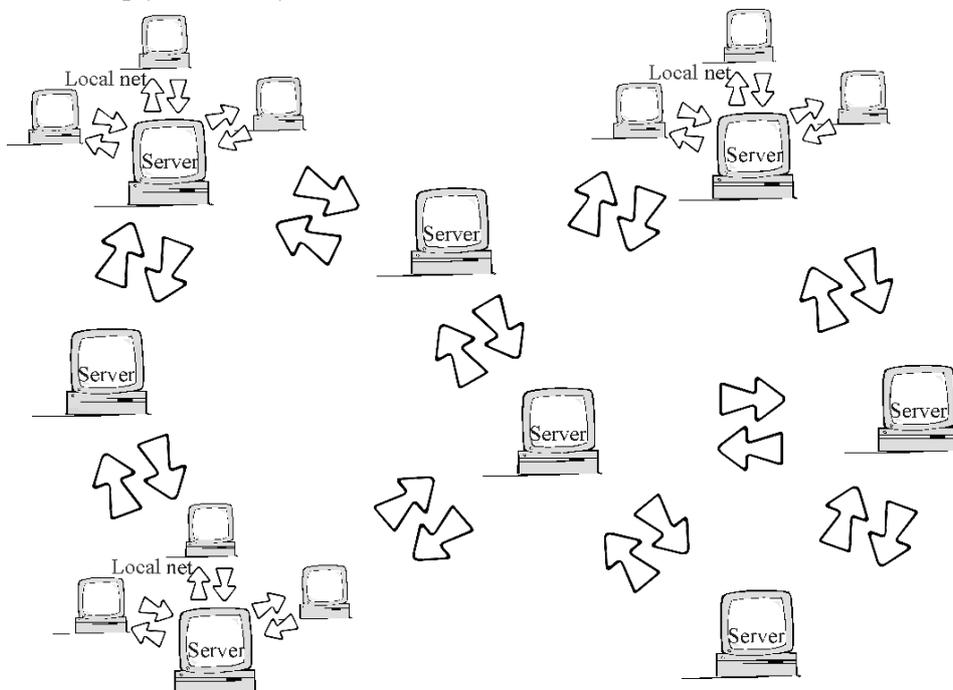
It is difficult to find the Internet in the physical world. Many of the connections are also used for other purposes, like ordinary voice telephone calls. And many of the computers are only attached to the Internet occasionally. The easiest way to understand the Internet is to use it.

The Internet is a decentralised network of computers or cables with no central connections being so important that if they are put out of action the entire net stops. Even if part of the net stops working, the rest can continue uninterrupted. All communications simply find a way around the

damaged area.

You will often hear that the Internet is nothing more than anarchy. In one way this is correct, because there is no one institution which owns it, but in practice a few institutions do control certain aspects of it. The owners of each individual network, usually companies or Internet service providers, take decisions about their own networks. So no-one can make rules or regulations for the entire Internet. But owners of individual networks can control their own part of the net. But this does not count for very much as it is nearly impossible to check that these rules are not being broken.

Even though the Internet really became a mass medium in the middle of the 90's, its roots go back to the sixties. The initiative to set it up came from the American defence establishment, which started a research project with the aim of linking different types of computer together in a large network. The autumn of 1969 saw the first two computers on two American university campuses connected together. Slowly more and more computers were attached to the network. At first there were few things the network could be used for. A file could be moved from one computer to another. As time went by, different ways of using



the net were invented. In the 90's the use of the Internet has exploded. Now there are millions of computers attached to the Internet, and new ways of exploiting it are being found all the time.

Developments on the Internet go incredibly quickly. As soon as a new or improved program is produced it can be distributed around the world on the net in a flash. So it is quite usual that within a few months of the release of a new program it is in use by many million people. It has become normal practice that the even the best programs for using the Internet are free, or can be tried out for a period without payment, before the consumer has to pay for them.

What can the Internet be used for?

Today there is a tidal wave of programs for the Internet, which give innumerable ways of using it. So there is no 'right' way of using the Internet, but many different ways, depending on your interests and needs. However, no-one can do without the two most important uses: e-mail and the World Wide Web. E-mail is electronic post between users of the Internet. The World Wide Web is a huge collection of pages, all mutually interconnected with each other. These pages can contain text, pictures, films, sound and much more. Using the web is a bit like flipping through a huge book that has been written by millions of authors.

As well as these two, there are many other options. The Internet is home to many thousands of programs which users can fetch and use on their own computers. The Internet also allows users to talk to each other like an ordinary telephone, or by using written messages. And it also contains 'newsgroups' where users can discuss (in writing!) many different subjects.

Because of all these different uses, the Internet can be perceived in many ways. Some may see it as a huge library, which they can wander around in, others may think of it as an enormous notice board, which lets them exchange messages with the whole world. Or it can be seen as a huge hard disk, full of free programs and files. Or maybe it is an improvement on the postal service, or the biggest shopping centre the world has ever seen!

Myths

There are many myths about the Internet. The biggest is that "the Internet is full of pornography, bomb making recipes and Nazi propaganda". Nothing could be further from the truth. By far the largest part of the Internet has nothing to do with pornography or propaganda, and, unless you are specifically looking for these things, you will not find them. There is no reason to stay away from the Internet for this reason. But remember that the Internet mirrors the interests of its users, and with at least 80 million users spread around the world, it is obvious that you will find things which you disagree with, or find boring or a waste of time.

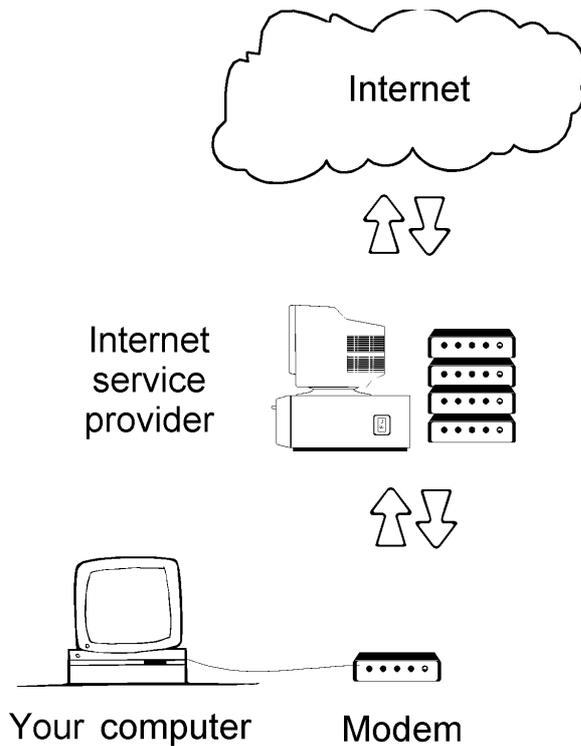
Another myth is that "the Internet is owned by the USA". It is correct that the Internet started in the USA, and that the American part of the Internet still dominates. But as a consequence of the decentralised nature of the Internet it is impossible for any country to 'own' the Internet. It consists of many networks, each of which is owned by some country, company or other organisation. So America cannot make rules for use of the Internet outside the American part of it.

A third myth is that 'all information on the Internet is available to everybody'. This is far from the truth. There is masses of information which can only be retrieved if it is paid for, or if you have permission to see it for some other reason.

And luckily it is also a myth that "Internet users are all socially maladjusted and sad computer freaks, with nothing better to do with their time"

Different ways to be connected to the Internet.

There are several different ways of being connected to the Internet. At its heart are the computers which offer some service or another to other Internet users. These computers are a permanent part of the Internet. They are connected to the net 24 hours a day, so they can always be used. These computers are called *servers* or *hosts* and are usually owned by companies or organisations. Servers can contain web pages, transport electronic post or carry out a number of other functions.



The majority of computers are not servers. But computers which are only connected to the Internet when the user wishes. These computers do not contain anything which other users can get to. By far the largest number of private Internet users are in this group. To use the Internet in this way, you need to attach a *modem* to your computer. A modem allows a computer to communicate with another computer using the telephone system. Via your modem you ring up to your Internet service provider (ISP) which is a firm you have paid to give you a connection to the Internet. If an ordinary telephone does not give you a fast enough connection, then another option is ISDN. This is an improved telephone system, which you can connect to via your telephone company, though it is usually more expensive. In some places it is also possible to connect to the Internet in other ways, via a cable TV connection, for instance.

Finally there are some networks which are

not a part of the Internet, *on-line services* like the American owned AOL (*America Online*) and *Compuserve* (recently bought by AOL). These on-line services are owned by single firms, they take a monthly subscription to use them and they use a different technology to the Internet itself. These networks are *not* a part of the Internet. In practice, however, many of these on-line services are slowly intergrating with the Internet, and will probably end-up being an special area of the Internet, though they will still cost extra to use.

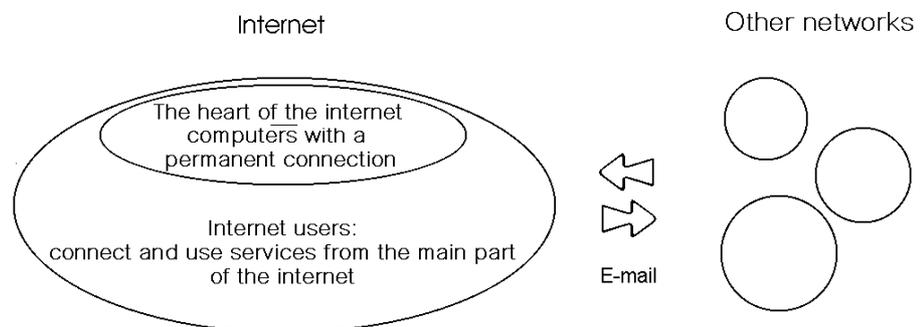
There are also a large number of local nets in firms and institutions which are not a part of the Internet.

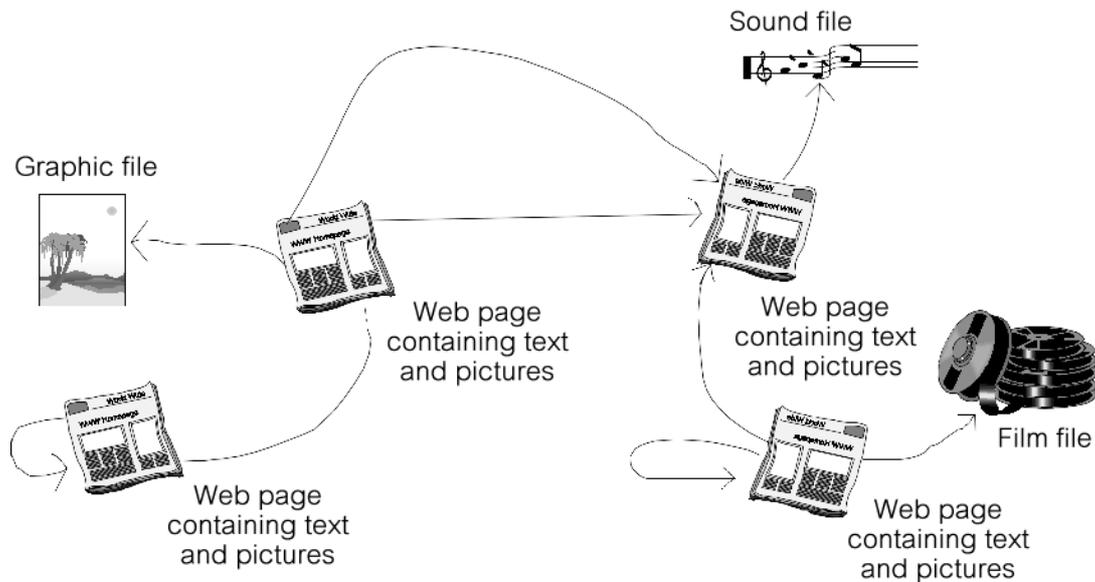
Many local nets and on-line services are able to send e-mail to the Internet thanks to special *gateways*, which 'translate' e-mail from one computer network to another.

So there are many different ways to be 'on the Internet'. Some have a direct connection and offer various services to users, others connect when they want to use it, while others are only able to send electronic post to the net.

Nobody knows exactly how many people have access to the Internet, but estimates set the figure at between 50 and 100 million worldwide.

Nearly every country in the world can access the Internet, and using a portable computer and satellite telephones it is possible to access the net from just about anywhere on earth. It has now become normal for expeditions to Mount Everest to communicate with the rest of the world via the Internet.





Computers

There are many different types of computer attached to the Internet. PC's, Macintoshes, UNIX machines and many others. One of the smartest things with the Internet is exactly this, that it allows all these different types of computer to talk to each other. There is usually no great difference between being on the Internet using a PC or another type of computer, so this booklet will be of value for anyone who has an interest in the Internet.

Most types of data available on the Internet can be understood by all computers, no matter what type they are. So there is no problem in sending electronic post between different types of computer, or seeing the same web pages on all types of machine.

Developments

Even though it has become much easier to be an Internet user over the last couple of years you can still run into problems. Programs, standards, modems and everything else change at such a speed there are plenty of chances for something to go wrong!

This incredible development also means that knowledge about the Internet is soon out of date. So you should always take a critical standpoint when reading about the Internet (and that includes the content of this booklet)!

What is the World Wide Web?

The *World Wide Web* (usually known as '*the web*') is an enormous number of what are called *web pages*, which are spread around thousands of servers all over the Internet. These web pages mainly contain text and pictures, but they can also contain sounds, films, animations and programs which can interact with the user.

The special feature of web pages is that they can contain references to each other, which allow the user to jump from one page to another, even though the pages may be in completely different physical locations around the world.

When you follow such a reference - usually by clicking the mouse on the relevant place on the page - you jump to a new web page. This principle is called *hypertext*. References are called *links* or *hyperlinks* because they link web pages together.

To be able to use the web you need a program which can fetch web pages, display them and allow you to move from one page to another. This type of program is called a *webbrowser* or just a *browser* (as it allows you to browse the web). The Webbrowser must be installed on your own computer.

When you work with your browser it feels as though you are moving around the world visiting web pages. In fact it is not you going to the different web pages, but them coming to you. Your browser is actually making sure that the web pages you want to see are sent to your computer where they are displayed on your screen.

The two most used web browsers are: *Netscape Navigator* and *Microsoft Internet Explorer*.

Web pages

There are more than one hundred million web pages on the Internet, distributed among thousands of servers throughout the world. Some of these web pages are rarely changed, if at all, while others are updated continuously. Most web pages display the same content to all users, while others are altered for each situation or each user.

A web site is a connected collection of web pages, all belonging to one particular company, organisation or person. A web site always has an entrance page, presenting the site and working as a starting point for navigating around the pages on the site. This kind of entrance page is usually called a *home-page*.

Home-page is also used in another sense when it means the first page that a browser shows when it starts up. Though this page is more often, and properly, called the *start page*.

A web page does not look the same for every user. Its appearance depends upon:

- The user's computer. The size of their screen and the different options they have chosen can have a huge effect on the appearance of a web page. Colours and certain objects like buttons and text fields can appear different according to whether the computer is a PC or a Macintosh.
- The preferences chosen in the web browser. The user has a lot of control over how a web page should be shown. They can choose be-

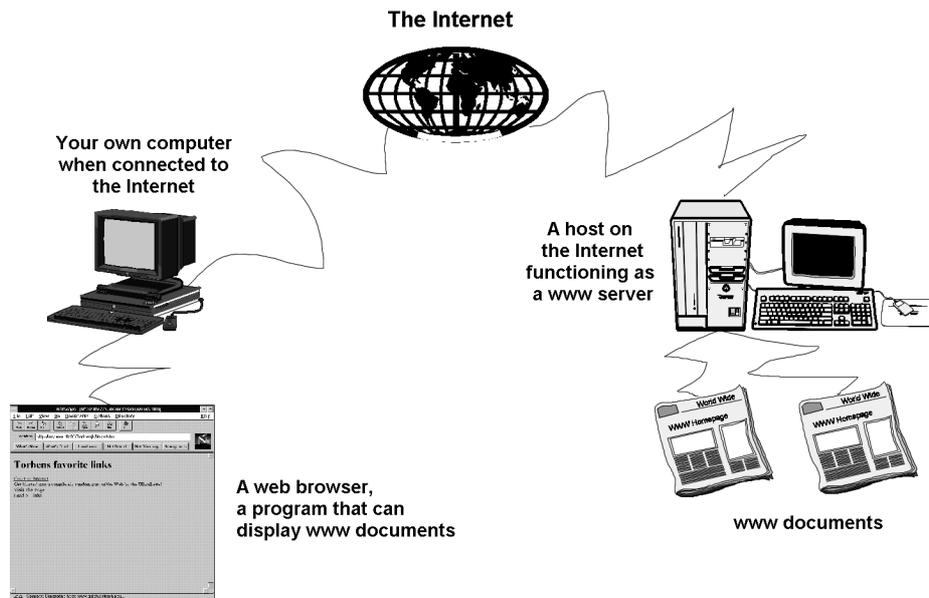
tween different colours and fonts (letter styles), and specify that pictures should not be displayed. The user can also alter the height and width of the browser window, forcing the web page to be displayed within these measurements.

- Web browser. The two most used browsers are Microsoft Internet Explorer and Netscape Navigator. There are certain differences between these two browsers which mean that a web page does not appear the same in them both. There can also be a huge difference between the appearance of a web page in a new and an old version of a browser.
- Web browser accessories. There are certain special accessories for browsers, called *plug-ins* which allow the browser to display special types of file, which they otherwise could not show. There can be a huge difference between the appearance of a web page depending on which plug-ins the user has installed.

Web pages come from a web server

When a web browser is to display a page, it connects to a *web server* containing that particular page. A web server is a computer containing web pages and a program which administers users' access to them.

The browser asks the web server for a particular web page, and if the web server has that page, it is sent from the web server to the browser. In technical terms the web browser *downloads* the web page. As the elements making up the page (text, pictures and so on) arrive at the browser it displays them. As soon as everything is collected the connection to the server is shut off. If the user wants to see another web page on the same server, the browser connects again. Several users can collect the same web page simultaneously without any problem.



All web pages have an address

To be able to see a particular web page you have to be able to find it among the many millions of others spread around the Internet. For this reason we have what is called a *Uniform Resource Locator* (always shortened to *URL*). As the name suggests, a URL is a standard way of describing the location of a particular resource (like the position of a web page). So a URL is an address. Here is an example of an address:

<http://www.lego.com/gb/login.html>

The first time you see a URL it looks very confusing, but in fact it is built up very logically. It contains the abbreviation *http* followed by the name of the computer containing the web page, and then the name and location of the page.

http://

This is the name of the *protocol* used to send the information between the server and your computer. A protocol is a set of rules specifying how communication between computers should take place. Ordinary web pages are sent using *HyperText Transport Protocol*, so most URL's start with the abbreviation *http*. The name of the protocol is always followed by a colon and two slashes (*//*). As nearly all addresses start with *http://* it is often left out when an address is given. It is unnecessary to include it when you type an address in most browsers.

www.lego.com

The address of a web server. All computers on the Internet - so this includes those which are web servers - have an address consisting of a number of words, separated by full stops (called *dots*). In this case the address of the computer is *www.lego.com*. See below for how the computer's address is built up.

/gb/

The position of the web page's folder (directory) on the server. Names of folders are separated by slashes (not back-slashes as in DOS). In this case the web page is contained in a folder called *gb*. There is a difference between large and small letters.

login.html

The file name of the web page. The *.html* extension shows that it is just an ordinary web page. Most web pages have either a *.html* or *.htm* extension. This stands for *HyperText Mark-up Language* and shows that the file is in that format. There is a difference between large and small letters, so `login.html` is NOT the same file as `Login.HTML`.

Computer addresses

All computers with a direct connection to the Internet have an address consisting of two or more words or abbreviations, separated by dots. In the URL shown above, the computer's address looks like this:

www.lego.com

Here are some more examples of addresses of computers:

www.dr.dk

imv.aau.dk

herx1.tat.physik.uni-tuebingen.de

www.cnn.com

home.netscape.com

www.

Addresses are read from left to right. The first part of the address is the name of the particular computer. As many computers on the Internet are part of the World Wide Web, it is very usual that they are called **www**, but there can also be other names, as shown in the examples above.

lego.

The next part of the name shows which organisation owns or operates the computer. There is usually only one part, but sometimes there are several parts, separated by dots to localise the address still further.

com

The last part of an address is usually a country code, showing which country the computer is placed. Here are some of the most common country codes:

dk	Denmark	as	Austria
se	Sweden	no	Norway
de	Germany	nz	New Zealand
fr	France	jp	Japan
fi	Finland	uk	Great Britain
ca	Canada	kr	Korea
au	Australia	ch	Switzerland

You might imagine that the country code for the USA was *us*. And in some cases it is, but in general another system is used in the USA. As the Internet was invented in the USA they do not feel that they need a country code. Instead they use a number of three letter extensions showing what type of organisation each computer belongs to.

com	Commercial companies
edu	Educational institutions, like universities.
gov	The American government
mil	The American military
org	Non-profit organisations
net	Organisations engaged in the maintenance of the Internet.

The *com* and *org* extensions are not limited to the USA, but can be used by anyone who can afford to pay for them. So these addresses can actually be anywhere in the world, even though the majority of them are American. There is also the extension **.int** specifying an international organisation.

Guess an address

Even though web addresses can appear cryptic at first glance, in practice they are very easy to work out. Firstly, they always start with `http://` so there is no need to remember that. And by far the majority of American and international firms' addresses follow the following pattern:

www.companyname.com

So you can usually guess the address. IBM is found at www.ibm.com. Coca-cola at www.cocacola.com. Lego is at www.lego.com.

In most countries, most firms and organisations have addresses looking like this:

www.companyname.countrycode (note, country code is only two letters).

In the Britain the system is slightly different. Limited companies and corporations (and only them) can use the extension 'co' in front of the country code, as in www.bbc.co.uk, public listed companies (and only them) may use the extension 'plc' in front of the country code, as in www.neva-consultants.plc.uk.

Web sites

A web site is a collection of pages centred around a particular subject, company, organisation, service or person. A web site can be many thousands of pages, or very few. The web pages are usually all sitting on one web server, and there is always a home page. This home page is usually some sort of welcome, perhaps containing a map of the entire web site together with buttons or links to navigate around the pages, and information on who owns the site. The home page is usually the page which is sent if you just type in the address of the web server without giving a file name.

Some examples of web sites include Microsoft at (www.microsoft.com), Buckingham palace (www.royal.gov.uk.) and the web directory Yahoo (www.yahoo.com).

This is how you get on the Internet

This section is for those readers who cannot access the Internet yet. It is a step by step guide to how you can get on the Internet from your home computer.

The Computer

Of course the first thing you need is a computer, like a PC or a Macintosh. In theory you can access the Internet with other types of computer, but in practice it is likely to be problematic as it will probably be difficult to find the appropriate software.

The computer should ideally have a graphic user interface. For the PC this usually means that you are using either Windows 3.11 or Windows 95. As with everything else, the bigger and faster your computer is the better, but you do not have to have the newest and smartest machine. As long as it is powerful enough to run Windows you will enjoy yourself roaming around the Internet.

It is usually an advantage for PC users to be running Windows 95: it often happens that programs are first released in a Windows 95 version, with versions for Windows 3.11, Macintosh etc., coming later. And it is also reasonably easy to get on the Internet via Windows 95, because some of the programs you need are included with it.

The Modem

A modem is a device which allows your computer to use the telephone system. A modem is an absolute necessity because the signals from the computer need to be changed into a type which can be transported over telephone lines. Modems come with different speeds, measured in *bps*. The fastest standard modems have a speed of 33.600 bps. I would not suggest that you buy a modem which operates slower than 33.600 bps. A slow modem means larger telephone bills for the same result. Make sure that you buy a standard modem. You should be able to see V.34 and the number 33.600 on the packaging. This guarantees that the modem is a stan-

dard 33.600 bps modem. Excellent modems can be bought for under \$100.

There are two types of modem. An *internal* modem is an expansion card which is built into the computer. An *external* modem is a small box which sits next to your computer. Both types of modem have a lead to a plug which should be put into the telephone socket in your wall. If you do not want to muck around inside your computer, then it is best to buy an external modem. The modem should be attached to your wall socket (the plug from your ordinary telephone can stay connected at the same time) and to the connection on the back of the computer which matches it (there should only be one).

Internet service provider

The next step is an Internet account with an Internet service provider (ISP). An Internet account is like your telephone account: you pay a firm to provide you with a connection to the Internet, just as you pay a telephone company to provide you with a telephone connection. In practice it means that you are given a telephone number to ring using your Internet program. Your computer is then connected via a telephone line to the ISP's computer, which is permanently connected to the Internet. There are many different ISP's in most countries, though the number is falling as competition gets stiffer. Shop around, there can be large differences in price and quality. You will always pay some sort of subscription, either monthly, quarterly or annually. Prices vary between \$50 to \$300 per year. There are also some ISP's which charge for setting up your account, though most do it for free.

There are also a few ISP's which not only take a monthly subscription, but also a charge for the time you are 'on-line'. This will be in the form of a few pence per minute you are using the Internet.

Even though you may not pay such a minute tax to your ISP, you will end up paying for the time you are on the Internet. Because you will be paying your telephone company their usual telephone rates for the time you are on the Internet.

To make it as cheap as possible, most ISP's have set up 'local call numbers', special numbers you can ring to where you are only charged for a local call, no matter where you are ringing from.

Try to choose an IPS which lets you ring at local call rates, this will save you a lot of money.

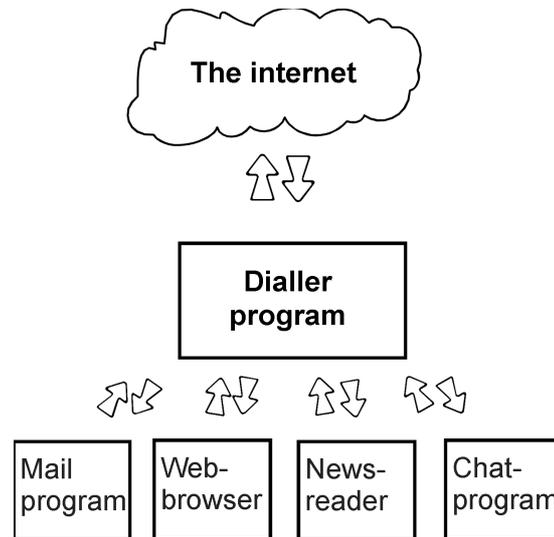
The price is not the only thing to be taken into consideration. It is also a good idea to see what your subscription includes. Does your ISP supply any programs? Is there a manual? Is there telephone support - and if there is, when is it open? (office hours only is no good if you are always at work during that time). If you do not already have a modem it can be a good idea to buy a pack which includes modem, Internet account and a program pack. And it is always a good idea to ask others about the experiences they have had with their ISP. Some have too few modems and a low capacity, making it difficult to connect to them, and slow to use the Internet when you do eventually do get through.

Dialler programs and Internet programs

Internet programs are the programs you use when you are on the Internet, like your browser which you use to look at web pages, and your e-mail program which you use to read your e-mail. Some of these programs may be supplied by your ISP, but if you need others you can find them on the net itself.

Start by installing the programs supplied by your ISP.

The dialler program is a program which calls up over the telephone lines and connects to your ISP. The program looks after all communications between you and the Internet, and sits like a layer between the net and the Internet programs you use while you are connected to the net..



When you start the software you have got from your ISP you will be asked for details of some or all of the programs shown above.

You ISP will supply you with various pieces of information needed for your dialler to function. You will usually use the following:

- The ISP's telephone number, the number that your dialler should ring to be connected to the Internet.
- Your user name . A user name is a name which can identify you among all the other customers at that particular ISP.
- Your password. A password is a code letting you prove to your ISP that you are the person you say you are. In fact it is most a protection for you, as it stops anyone else ringing to your ISP and pretending to be you. So you should keep your password to yourself – and make sure you don't forget it!
- IP-address of one or two name servers. A nameserver is a computer which translates addresses on the Internet from their technical IP form (like 129.142.6.64) to the more understandable everyday form like:
inet.uni2.dk.
The address should be entered into your dialler in its IP form.

And you usually do not need any more. You should have been sent a letter with all this infor-

mation by your ISP. If this is not the case, then ring and ask their help line. It *occasionally* happens that you need more information from your ISP before your dialler will work.

On the net

When your modem is installed and your dialler is correctly set up you are ready to go onto the Internet. Start your dialler by clicking on the icon, you will probably hear it call up your ISP. If everything works as it should, you will be connected within 10 to 15 seconds. With some diallers you will need to enter your password every time you call up, while others can remember it and just connect you automatically.

Some diallers start automatically when you activate another Internet program, like your e-mail program or browser. In other words you do not have to start your dialler when you want to go onto the Internet, you just start the program you want to use. But if this is the case, you should always remember to disconnect from your ISP when you are finished. Remember that there is no problem in using several different Internet programs whilst you are connected.

While you are connected you will be paying ordinary telephone charges to your telephone company. These are usually more expensive during the day than at evenings and over the weekend.

But there are ways to save. Choose the cheapest telephone company available, if you live in a country where there is a choice. Investigate all the different special offers and reductions available (often going under names like 'friends and family' or 'favourite numbers'). Some ISP's are either owned by or have special arrangements with telephone companies and give special offers for Internet users. If you use the Internet a lot, a few cents a minute reduction can quickly save you a lot of money.

The Web browser

You need to use a web browser to be able to move around the web. . There are many different web browsers, but the two most common are *Netscape Navigator* (referred to simply as Netscape) and *Microsoft Internet Explorer* (just called Internet Explorer, to differentiate it from Explorer, the file manager in Windows95). In this booklet I use Internet Explorer 4.0, and the illustrations come from that program.

If you use Netscape there will be some differences in the menu names and other details, but in general things will be the same. I would suggest that you use the latest version of your browser, whichever one you use.

Internet Explorer

To give it its full name, this section describes *Microsoft Internet Explorer 4.0* and it is available in most languages. (Note there is both an American English and international English version). It is 'freeware', meaning it can be used without any payment by anyone. You can choose between a version containing the browser alone, a standard version which also includes an e-mail program, or a full version which is bundled with a number of extra programs.

The Windows 95 version is not just a web browser but changes the way you manage your files. I will not be writing about this function in this booklet.

Netscape

The newest version is called *Netscape Navigator 4.0* which has also been released in several different languages. The program is found in a full version (*Communicator*), which includes e-mail and several other programs. It can also be found as a simple browser (*Navigator*). The program is free for students, and can be used free by everyone else for a 90 day trial period.

Where to find your browser

You should get a web browser from your ISP when you open an account. One might also have been installed on your computer when you bought it. But if that was the case, it is probable that it was an older version, no matter which browser it was. You can start by using the browser you have, but when you have read the section on retrieving files from the net (see page 27) you can find the newest version from both developers at the following web addresses:

www.netscape.com

www.microsoft.com/ie

This is how you use your web browser

The purpose of a web browser is to display web pages and allow you to jump between them. There are no real differences between the way web browsers work. Some have more options than others, but the general principles are the same. These principles are described on the next few pages.

The File menu is used to save the page to your own hard disk, print it out, etc.

The title bar shows the name of the web page you are on. (here Ya-

The button bar, full of useful buttons which should be used regularly.

Program menu

The address field displays the URL for the page you are on. You can see where you are, and often guess your way to more information. You can also type an address in this field and press Enter. Your browser will then download the page you have asked for.

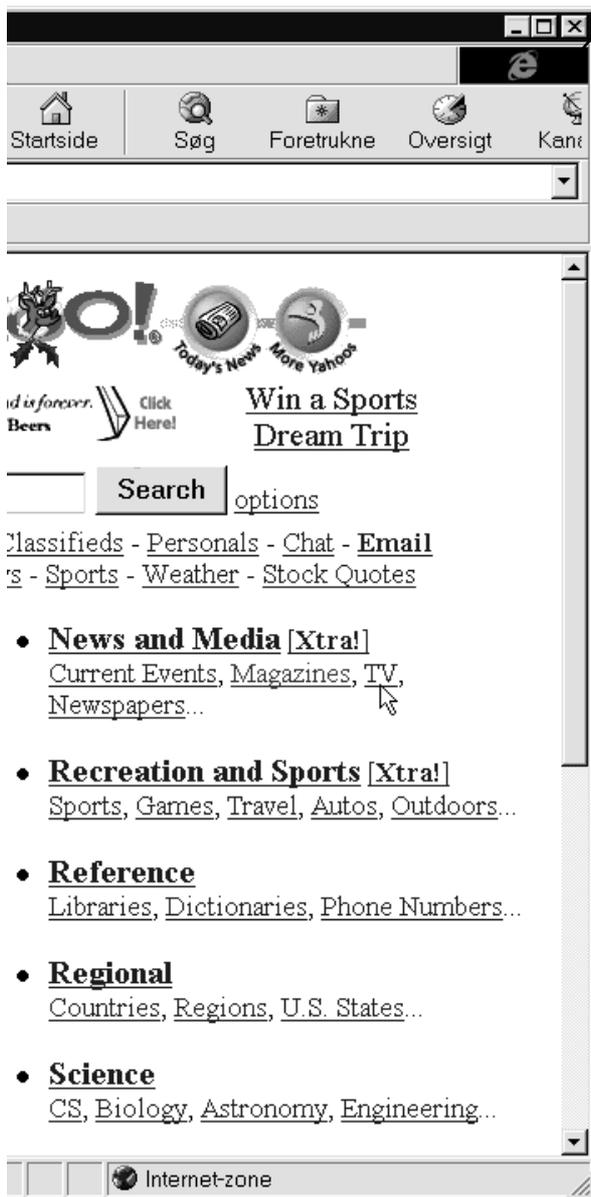
The hyperlinks bar starts off containing a number of buttons to web pages which the browser developer 'recommends'. But these can be altered to point to pages you want, letting you jump to them with a single click.

The page itself is displayed in the big window (this illustration is of the popular web directory Yahoo). Web pages can contain text, graphics, films, sound, buttons, text fields and much more. The words which are hyperlinks are in blue and are underlined, and as you move your mouse over a link the pointer changes to a hand. A link pointing to a page which you have already seen will be in lilac, not blue. This simple change shows you where you have been.

The key symbol shows the security status of the document. Most documents have a broken key symbol, showing that they are not especially secure.



The status line shows what the program is doing, whether it is looking for a server, downloading a web page and so on. When you point at a link using the mouse it displays the URL the link points to. You can see if the link is on the same web site or somewhere else in the world. The URL and name of the file can often suggest what the page is about.



The browser icon shows whether the browser is downloading a web page. When it is moving, a web page is being transported to your computer. When it is still, the browser is finished.

The mouse lets you choose any link in a document and click on it. Most underlined words are links, but pictures can also be links. You can see this if the mouse pointer changes to a hand when moving over

If the web page is larger than the window can display you can scroll up and down or to left and right. You can also change the window's size. The text in the web page will automatically adjust itself to the window's size.

Toolbar

The buttons on the toolbar are for regularly used functions. Those you will click on most are:



Your web browser remembers which web pages you have visited. A click on **Back** jumps back to the previous web page displayed. Even though you may have visited hundreds of web pages, your browser remembers all of them, so you can click all the way back to your start page, the very first page you opened when you started the session. **Forward** lets you jump forward again.



A click on **Home** takes you back to the system's *home page*, the web page the web browser started with. You can make your own choice of which page you want as a start page. Do this in Internet Explorer by opening the page you want, then clicking on *View/Internet options/General* and clicking on the *Use current* button.



A start page should be a good jumping off point for exploring the web. As a default most browsers are set to a page chosen by your ISP or the company which produced the browser (Netscape or Microsoft). It will usually be an advantage for you to find another start page, either one which covers your interests, or a good web index (read about web indexes and search machines on page 24).



When you click on **Reload**, your web browser will download the current page again. You can use this function if the page has not been displayed correctly the first time. (maybe something went wrong during the download, or you pressed **Stop** before the page was completely downloaded.)



Stop is used to stop the browser downloading any more of a page. Maybe you have changed your mind about following that particular link, or it is downloading so slowly that you cannot be bothered to wait any longer. When you stop downloading the browser displays everything it has managed to get. You can follow the links on that part of the page you have, even though it is not complete. You can also use **Back** instead of **Stop** which stops the download and returns to the previous page simultaneously.

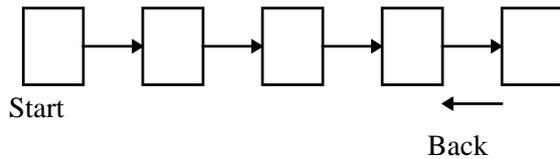
Status line

While your browser is busy downloading a web page there is lots of activity in the status line at the bottom of the browser window. It is here that the browser tells you that it is finding the web server, then that it has found it and is connecting to it, and that it is downloading the web page you have requested. You do not need to keep an eye on what the browser is doing, but as you become more and more used to using your browser you can use this information to work out where in the download process the browser is.

When you move the mouse arrow over a link on a web page you can see what address it points at on the status line. This will show you if it is an internal link on the same web site, or a link to another web site.

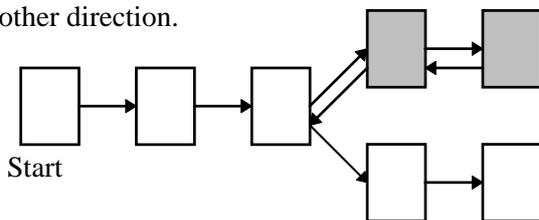
Your browser remembers where you have been

The browser remembers all the pages you have visited since you opened it. These web pages are like pearls on a necklace, which you can work your way back along by pressing the **Back** button:



If you want to return to a web page a long way back in the chain, you do not have to use the [Back](#) button. Instead you can choose the *File* menu. This menu lists web pages in the order you visited them. You can return directly to one of these pages by clicking on the title. You can also return directly to your start page by clicking on the [Home](#) button.

But this list of web pages is unfortunately incomplete. The browser only remembers the direct path from your current page to your start page. If you have used the [Back](#) button and then moved off in a different direction (by following a link or typing in a new address) then the pages you visited during your diversion will not be included on the *File* menu and you cannot return to them by using the [Back](#) button. The drawing illustrates two pages (marked in grey) can no longer be reached using the *File* menu or the [Back](#) button, because the user has moved in another direction.



By default your browser shows all links on a page in blue. If you have followed a link, the blue text will change to lilac, not only on the web page you came from, but on all web pages containing a link to that page. This is a quick way to see if you have already visited a page which a link is pointing to. The browser remembers the pages you have visited for a certain number of days, after which the text returns to blue.

When the browser is closed and re-opened it starts afresh and you cannot use the [Back](#) or [Forward](#) buttons, or the *File* menu to visit pages you visited last time you used your browser. However, it still remembers the pages you have visited. You can see a list of all the pages you

have visited over the last 20 days by clicking on the *History* button. This list shows every single page you have visited over this period, including those shown in grey in the drawing above.

The pages are sorted in the date order you last visited them, and you can go to any of them by double clicking on it in the list.

Your favourite pages

If you want to be sure that you can return to a web page after it has been deleted from the list of visited pages, you need to add it to your personal list of favourite pages. When this is done, your browser will remember the web page's address and title, so you can click your way to it at any time without having to remember its address. The web browser never deletes your list of favourite pages.

When you are at a web page you want to add to your favourites, choose the *Favourites* menu, and choose *Add to favourites*.

In the dialog box, choose '*No, only add page to Favourites*'. The title of the relevant web page will then be added to a menu which you can display by clicking on the *Favourite* button again. Click on the title of the web page to go to it.

The list can be edited by choosing *Favorites/Organise Favorites*: This lets you delete an entry, change its name, create folders containing web pages dealing with the same subject etc. etc. Your most visited web pages should be put in the *Quick links* folder, which is already on your favourites menu. These favourites will then appear as buttons on the *Quick links* bar, so you can jump to these pages with a single click.

It is a good idea to use your *Favourites* enthusiastically while you are surfing around the web. Add to *Favourites* every time you arrive at somewhere you might want to return to. Better to have too many entries on this list than too few. You can always delete them again. When the list has become too long to manage, you can divide it up into folders.

Subscriptions

Channels and subscriptions are new functions, first introduced in Internet Explorer 4.0.

A subscription is a development of the concept of favourites. You specify a web page and ask your browser to visit it automatically at a set time. You can either request your browser to just get a single web page, or all the other pages it links to. Afterwards you can read the pages at any time, even though you may not be on the Internet. This has the advantage that the pages open very fast (because they are already on the computer) and you save a lot of money as you do not have to be online whilst reading. Of course, your computer has to be turned on at the time you have asked your browser to get the pages.

How to create a subscription.

Open the web page you want to subscribe to. Choose *Favorites/Add to Favorites*. Choose *Full Subscription* (if you only choose a part subscription the pages will not be downloaded, instead a small star will appear next to them in the list when they have changed). Click on the *Options* button, which will bring up a chain of dialog boxes where you will have to take some decisions.

You will be asked, among other things:

- How many web pages should be downloaded, should all links on the page be collected, or just the one page? If you decide to download more pages, you should specify how many linked pages deep you want to go. If you choose to download two links deep, then not only will all the pages the first page links to be downloaded, but also all the pages that *these pages* link to. If there are several links on a page, this can quickly mount up to be several hundred pages, so you should be very careful when making this choice.
- How often should the pages be downloaded - daily, weekly or monthly? If the pages are only changed once a week, there is no reason to fetch them every day.
- What time each day should the pages be retrieved? Remember that your computer has

to be turned on at the specified time for the subscription to work.

- Do you need to give a user name and password to get the page? This is not necessary for most web pages.

You can check all your subscriptions by choosing *Favorites/Manage Subscriptions*. This will show you when the page was last downloaded and when it will be downloaded next. When you want to read the page click on it in the list and read it in your browser as usual.

Channels

A channel is a subscription which is controlled by the publisher of the web page. Instead of you specifying your own subscription details, you choose to use those specified on the web site itself. The publisher has already specified which pages should be downloaded, how often and so on. In contrast to an ordinary subscription which you can always create, you can only subscribe to a channel if the web site itself has set up a channel for you to subscribe to.

You can get a list of channels by clicking on the *Channels* button. These are *not* channels which you have subscribed to, just a list of some channels which are available for subscription. You can get a list of more channels by choosing *Microsoft Active channels guide*. You can look for channels in several different subject areas here.



You can subscribe to a channel by clicking on a special link on the page. There will usually be a button marked *Add Active Channel*. The web page is then added to your subscription list. The owner of the channel has specified all the details for you already, i.e. which pages should be downloaded and how often. You can change these details by using *Manage subscriptions*. (You might need to change the time when web pages are downloaded if the channel is set up for a time when your computer is not switched on).

Pictures

Pictures on a web page can be links, just like text. In some cases the entire picture can be the same link, in other cases a picture can contain many different links.

It can take a long time to download a web page containing many pictures, especially if you are connected to the Internet using a modem. If you do not want to see the pictures you can switch them off. This can save you time (and so money), and these pictures are often just for decoration and are not a vital part of the web page. Pictures are switched off by choosing *View/Internet Options/Advanced* and remove the tick in the *Show pictures* check box. Pictures are then shown as small icons. If you want to see the picture, then just click on the icon. But remember that some web pages are virtually useless if you cannot see the pictures. This is especially so if they contain pictures which are links.

If you want to save a picture on your own computer, click using the right mouse button (Macintosh: Hold the mouse button down a couple of seconds), then choose [Save picture as...](#)

Frames: Several web pages at once

On some web sites you will see that your screen is divided up into several sections (called *frames*) each of which can contain its own web page with its own scrollbar. Frames make it possible to produce more advanced web pages. There can be a small window containing a contents page and a large window containing the web pages themselves. By clicking on buttons in the contents page you can move around between the other web pages, while the small window stays the same.

Even though there may be several frames on screen, there is still only one address in the address field. If you add a frame based page to your favourites list it is not certain that exactly the web page you are displaying will be added. Instead you can add the frame on its own by right-clicking within its frame and choosing [Add to favorites](#), though this means that the other frames will not be included.

If you print a page using frames you should specify whether you want to print out the page as it appears on the screen, or if you want to print out each frame separately (only possible in Internet Explorer 4).

Java: Programs in a web page

Java is a programming language which can be used to write small programs that are then included in a web page. Yes, a web page can contain programs (called *applets*), just like it can contain pictures and forms. Using Java a web page can contain games, animations, it can let you draw pictures in it, or do many other things. The program is run by the web browser on your own computer.

You need to be a little patient as it can take several seconds for a Java applet to start after a web page has been downloaded. Badly written applets can crash your computer, but the developers of Java maintain that it is impossible for them to contain viruses.

Forms

Some web pages contain what are called *Forms*. These contain text fields which can be filled out after clicking on them. You can press buttons, click on drop down menus and so on, and so send information to a web server. In this way a web page can be used for two way communication. You can send your address, a comment about the web page, the number of your credit card, a search term or a chess move. Depending on how the form has been set up, you can type text into fields, put text into check boxes and make choices from a drop down menu. Here is a form from the Danish search engine *Jubii*:

INDTAST SØGEORD:

Seg

Vis resultater fra

After filling in a form, you will usually need to press a button to send the information. Sometimes you can send the form simply by pressing your [Enter](#) key.

It is not the web page itself which receives your input, but a program on the web server containing the page. The program can react to your input and send a new page as an answer, which could be a page containing the results of your search.

Of course, it is only on your screen that the form is filled in. Even though others may have downloaded the same web page at the same time, they get an empty form!

If you send information using a form, you will normally be shown a warning. This is to tell you that anything you send *could* fall into the wrong hands. This is very rarely a problem, but if you send personal details or the number of your credit card it is worth considering.

Right click

When you click with the right hand mouse button (on the Macintosh you should hold the mouse button down for about a second) on a web page a small menu is displayed. It is a good idea to use this menu frequently as it includes shortcuts to many useful commands, some of which can only be accessed using this menu.

Most of the menu points are only relevant if you click on a picture or a Hyperlink. Instead of jumping to a link, you can add it to your favourites list, for example. This is very practical if you find an interesting link but you do not have time to see what it contains because you are busy doing something else. This right-button menu also lets you save a picture to your hard disk.

Several windows simultaneously

If you choose *File/New/Window* a new browser window opens displaying your start page. This new window is totally independent of the other browser windows, so you can work in several windows simultaneously. You can read some text in one window, while you are downloading a slow opening web page in another window. There is no need to waste time waiting for a page if you can do something else while it comes down.

Printing

You can print out a web page by choosing *File/Print*. A web page can easily cover many paper pages, and you cannot see how many before you start. If there are frames on the page you can choose whether to print out all frames separately or just the screen picture as you see it on your screen.

Problems

From time to time something goes wrong when you try to download a web page by following a link or write down an address in an address field. Here are some of the most common problems:

You cannot make a connection to the web server

Every time you ask your web browser to download a web page you start a complicated process which can involve several different computers between your own and the web server. It is not always possible make a connection at your first try and you just end up with an error message. The first time this happens you should not just accept it but try again (by clicking on the link again or typing in the address a second time). In many cases this is enough and you will connect this time. If you have tried several times and still nothing happens, it could well be that the web site does not exist.

The web site cannot be found

You have either typed in an address which does not exist, or followed a link to a web server which does not exist (like *www.non-existent-server.com*). It can also be that you have made a mistake in the address – a single incorrect character is enough to stop your browser finding the web site.

File not found

The computer can be found, but either the path or the file name is incorrect. Maybe you have made a mistake in the URL or have used large or small letters in the wrong places.

It is not certain that it is your fault. Maybe the web page has moved or changed name. If the web page can still be found on the same server you might be able to find it by removing parts of the URL until you find a page which can be used. If the incorrect URL is:

www.kongehuset.dk/prinsesser/alex.html

then start by typing:

www.kongehuset.dk/prinsesser/

in the address field. If this still does not give results then try:

www.kongehuset.dk

and see if you can find the page you want from this first page.

The web page never downloads

It sometimes happens that the browser never manages to completely download a page. Even though the browser icon shows that there is activity it appears that it has actually locked up. This means that something or other has gone wrong and in all probability nothing will happen no matter how long you wait. Click on **Reload** to start again.

The web page is downloaded very slowly

The server could be overloaded because too many people are trying to access it at once. You will either have to accept the low speed or try again later.

Web pages containing many pictures take a long time to download. You can tell your browser not to download the pictures.

You can click on **back** or follow another link even though the page is not completely downloaded. This speeds up your surfing.

How to find what you want

Beginners often ask: where is the main index? The answer is that there is no main index of all web pages on the web. Quite simply there are too many web pages for this to be practical. But on the other hand there are many directories and search machines put together by different companies and individuals. It is impossible to make any sense of the web without using some of these web directories and search engines. This section describes some of the most used.

There are two fundamental ways of searching the net. Indexes are hierarchical subject based lists of web sites and web pages. Search engines are databases of the contents of most of the world's web pages.

Simply stated: An index lets you search by category for a web site, whilst a search machine lets you search for a web page containing a specific piece of text.

Using an index is a little like looking for a book in a library. If you are after a book about Japanese art, first you go to the non-fiction section. Then you find the section dealing with foreign countries. Then you find the shelves dealing with Japan, and finally a shelf with books about Japanese art. The only way you can use an index is if you have an idea of what it is you are looking for.

Using a search machine is completely different. A search machine is actually an enormous database of all the words which appear on all web pages on the entire Internet. You can search by typing in one or more words, and the search machine will display a list of all the web pages containing that particular word.

There are advantages and disadvantages with both methods. The advantage with an index is that it is easy to use, and you do not have to spend so much time to find what you are looking for. The disadvantage is that indexes only contain a fraction of the web pages which exist on the Internet.

But this can also be an advantage. It means that you are only presented with web pages which other people have evaluated and found interesting. And indexes are very influenced by the peo-

ple who collate them. This means that American indexes contain many links to American pages, Danish indexes include mainly Danish pages and so on. This can be both a good and bad thing, depending on what you are looking for.

The big advantage with search machines is that they give you access to nearly every web page on the Internet, and you can search for very specific things. The disadvantage is that they are very difficult to use and it can take much longer to find what you are looking for.

Use an index when:

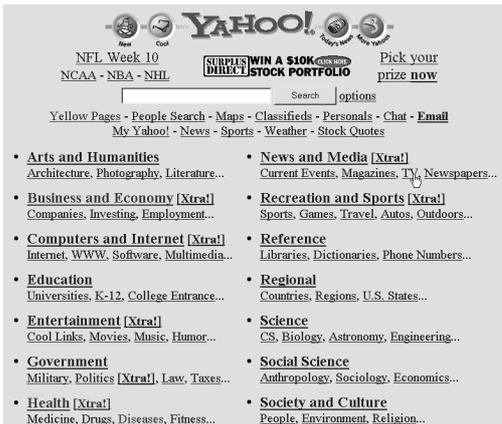
- You are looking for a well known web site, commercial web sites or web sites owned by companies or organisations.
- You are looking for web sites dealing with a broad subject.
- You are not looking for anything in particular, but just want to see what is available on the net.

Use a search machine when:

- You have had no luck using an index.
- You are looking for a home page put up by a private person.
- You are looking for web sites dealing with a very specific subject which cannot be found in any index.
- You are looking for information about a combination of different subjects.
- You are looking for web sites in a language which is not covered by any of the indexes you know.

For example: If you want to find a web site about playing with Lego, then use an index (this subject is so broad that it will almost certainly be covered in one index or another). But if you are looking for information about the connection between smoking and a particular sickness then you will probably have to use a search engine. If you are looking for a firm which produces car radios, then use an index. If you are looking for your Spanish pen-friend's home page, then use a search machine.

Indexes



One of the best indexes of web pages on the web is called Yahoo and is found at

www.yahoo.com. Yahoo is a hierarchical index of web pages on the web. In many cases Yahoo is the best place to start when you are looking for something particular.

You can either click yourself through the various main categories, or enter one or more search words in the search field, which will give you a list of categories containing them in the title or description.

The main page shows the 14 main categories which Yahoo uses to classify all the web sites it contains. The small words shown under each category are the most used sub-categories in each section. Click on the category which is the nearest match for the subject you are looking for. This will display a new page containing sub-categories of the category you chose. On this page you can choose a new sub-category, and continue in this way until you have found the right category.

If you are looking for a web page dealing with Japanese art, first choose *Art*, then *Ethnic*, *Asian* and finally *Japanese*. Voilà: A index of pages on the web dealing with Japanese art!

This sub-category consists of four parts: Where the sub-category is placed within the hierarchy, a search field, a list of further sub-categories, and a list of web pages belonging in the displayed sub-category.

As well as the hierarchical index, Yahoo can also offer another index. *What's New* is an index of the latest web pages on the web. This section lets

you keep an eye on developments on the web. *What's Cool* is a list of especially good or experimental web pages.

Many countries have their own Yahoo-like lists. These contain web pages organised by subject and are used in roughly the same way as Yahoo. If you are after a web page in a particular language it is always worthwhile starting with such an index.

And to find these indexes? They can be found by using Yahoo (choose *Countries* from the main menu).

Searching for web pages

If the indexes named above cannot help you find a web page then you will have to search for it yourself using a search engine (sometimes known as a search machine). Search engines are integrated into an ordinary web page by using forms. They work differently and the same search can give different results on different search engines. This is because they work in slightly different ways. When you type in one or more search words the search engine looks for them in its database of web pages. Search engines collect their information by sending special programs (called web crawlers, spiders, or agents) around the net which look for new web pages and then add them to their databases. In practice this can be done in many different ways, so there are differences between the different search machines. There are also differences between how the different searches are undertaken. So the same search on different search machines will seldom give the same results.

At present AltaVista at altavista.digital.com is one of the best search machines. It is easy to use and usually comes up with the most web pages for a given search. Alta Vista searches in nearly all text in all web pages on the net.

Type in one or more words in the text field. If you have several search words just leave a space between them. Put the most characteristic word in first. Let us try looking for material about Brazilian samba music. The most natural word to search for is:

samba

Always enter the word in its shortest, most general or international form. If you put down a foreign form (for example, in Danish it is called *sambamusik*) then you will only come up with pages written in that language.

AltaVista works for a moment, then sends a new web page containing a list of the web pages which it reckons match your search criteria. In this case AltaVista comes with a message:

Documents 1-10 of about 40000 matching the query, best matches first.

As it says, this means that AltaVista has found about 40,000 web pages which contain the word 'samba'. The titles of the first ten of these pages are shown. It will usually be the case that the majority of these pages are totally irrelevant. In this case the next thing to do is to search again where you cut down the number of pages shown by adding further search words.

You can search more effectively in many different ways. We are still looking for pages dealing with dancing the samba. You have tried the word 'samba' and got about 40,000 results. Naturally enough this is completely unrealistic. So you must try and narrow your search down. This can be done by adding more words. We are mainly interested in samba from Rio, and so type in the following words:

rio samba

which gives about 50,000 results, *more* than before!! The reason is that Altavista has now found both web pages including the first word *and* pages including the second word. If you want to specify that *both* words *must* appear on all the web pages found, you must add a + in front of each word.

+rio +samba

The narrowed down result now contains about 4,000 web pages. Checking these out will almost certainly show that most of them have nothing to do with Rio de Janeiro. So instead of searching for rio we will have to be even more specific and search for Rio de Janeiro. This is done like this:

+"rio de janeiro" +samba

The reason we have put Rio de Janeiro in quotes is that we want to tell the program that we are only interested in web pages where the three words *rio de janeiro* appear next to each other in exactly that order. Quotes have to be used every time you search for a sentence or phrase where the order the words appear is important. This search now gives us about 2,000 web pages.

A web page containing the words *Samba-dancers in Rio de Janeiro* will not necessarily be found by this search. This is because we have specified the word *samba* and not *samba-dancers*. So if the single word *samba* is not on the page it will not be found. But there is something you can do about this. By adding an asterisk (the star sign – *) to a word we can specify that anything can appear here. The asterisk works like a joker in a card game – it can stand for anything.

+"rio de janeiro" +samba*

This search will find any web pages containing the words *samba-dancing*, *samba-festival*, *samba-party* and so on.

When you search using a search engine you can search in all languages using the latin alphabet. Even though the search engine will usually be on an American computer it also contains web pages in many different languages.

The answer from a search machine is not a 'real' web page, sitting on the web server. It is actually a special web page which is created to match your search words.

You can add a web page which is created by your search to your favorites in exactly the same way as you do with ordinary web pages. When you choose the address again, the relevant search machine is called up and the search carried out again. Of course, the result may well be different this time, as other web pages have appeared on the web since the first time you tried searching.

Some tips for searching on AltaVista

- Use as many search words as you can. The more you use, the more precise your search will be. But be careful that you do not find what you are looking for because you are using too many words!
- Remember that you can search in many different languages. Searching for *car auto* finds pages in English, German and Danish.
- You can specify which words should *not* appear on a page by putting a minus sign (hyphen) in front of a word. Searching for *wine* finds all the pages concerning wine. By searching for *wine -france* most of the web pages dealing with French wine will not be displayed.
- Be careful using the * character. In some cases this is an advantage, in others a distinct disadvantage. Adding a * when searching for *cat** will not only show pages containing 'cats', but also those containing 'caterpillar'!
- Be careful with the ends of words and plurals. Searching for *car* will not find the word *cars* on some search machines.
- Check your spelling. A single letter misspelt will make your search meaningless.

Downloading programs

One of the best things about the Internet is that you can download programs to use on your own computer. This can be done from your web browser. Just as a web page can include links to other web pages, it can also contain links to files which are available to users of the Internet.

When you choose a link which points to a file, the file will be sent to your computer and saved to your hard disk. In technical terms this is called *downloading* a file.

The Internet is bulging with programs for your computer. Most of these are either *shareware* or *freeware*.

Freeware are programs which may be used for free, and which may be freely copied and given away.

Shareware is the name of a special type of software, which you are allowed to copy and try before deciding whether or not you want to buy it. Most of the programs on the Internet are shareware. There is normally a time period of 30 or 60 days during which you can try the program. If you want to go on using it after this period you must pay for it. When you pay for a shareware program you do not talk about buying it (you already have it on your computer), you talk about *registering* it. Shareware programs always contain information about how they should be registered.

Before running up your telephone bill getting hold of a program you should just check that it can be used on your computer. If you use Windows, you should not download a program for a Macintosh, and you should remember that there are differences between Windows programs. 32-bit Windows programs can only run on Windows 95 or Windows NT. If you use Windows 3.11 you should not download a 32 bit program. If you run Windows 95 you can usually run a program designed for Windows 3.11 (usually called a Windows 16 bit program), but you should only do this if there is no version available for Windows 95.

Programs are spread around the Internet on thousands of different computers, but despite this they are not so hard to find. A number of services on the Internet specialise in giving easy access to these many thousands of programs. The best are to be found at www.shareware.com and www.filez.com. Here is an example of how you use www.shareware.com

Shareware.com lets you search for names and descriptions of nearly all the shareware and freeware programs to be found. When you have found the program you want, you can download it to your own computer, and start using it.

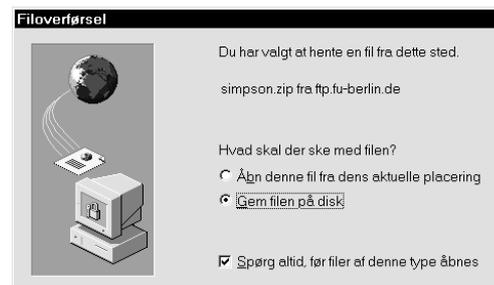
1. The first page of *shareware.com* contains a text field and a roll down menu containing the names of various operating systems. Choose which operating system you want to find programs for in the roll down menu (i.e. Windows 95, Macintosh or another). It is important that you choose the correct category, or the programs you find will not work on your computer. The list includes a category called *PC Games*. This is because many PC games run under DOS, and so will not be shown if you only search for Windows programs (even though the games will run fine on a Windows computer).



2. Next type one or more words in the text field. If you already know the name of the program you want, then all you need do is enter it here. Or you can type in a word describing the sort of program you are looking for. Searching takes place using both the name of the programs in the database, and a short English description, so your search word must be in English. In this example I have typed in the word *simpsons*, because I want to find software having something to do with the TV series *The Simpsons*.
3. After typing in your search word and clicking *Search* a list of results is displayed, in the form of file names and descriptions. The word you searched for is highlighted in bold in the description. In this example I have found a number of programs, pictures and sounds which are connected with *The Simpsons*.
4. When you have read the description you should click on the file name of the program you have decided you want. You will then be shown addresses of the various computers

where this program can be found for download.

5. The addresses are sorted by country. Choose a computer as close to your location as possible, or in the USA. It may sound paradoxical but it is often faster to download a program from the USA than from the country next to yours. Experience will teach you which is best.
6. Click on a file name. You will be asked if you want to open the file or save it to your hard disk. It is usually best to start by saving the file. Before doing anything, some web browsers will issue a warning that programs downloaded from the Internet may contain viruses. This is correct, but the danger of getting a virus infected program is not so great that it should stop you getting programs from the Internet – though the risk is large enough that to make it sensible to install an anti-virus program

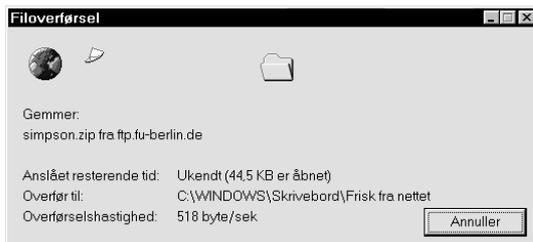


7. Next is to specify where on your hard disk you want the program saved which you are downloading. It is a good idea to have a specific folder just for this. Give it a name like *New from the net*. This will mean that you will always know where these downloaded programs end up.



8. The file will now be downloaded. A small window will keep you informed as to how

much of the file has been transferred, and how long it will take before the process is completed. It can take a long time to get a program file. It depends on how large the file is and how fast your modem is. A file filling about 5 MB can easily take an hour or more to download. You can minimise the window and carry on using your browser while this is happening, so you can surf around other web pages while you are downloading a file. You can even download several files simultaneously if you wish.



When the file is downloaded it should be installed on your computer. How this is done depends on several things. In some cases the file is compressed using a packing program (a special program which shrinks files so they are quicker to download from the Internet). If this is the case then the file first needs to be unpacked or expanded (read about how this is done a little further on). In some cases the program is ready for use. It can be started by double-clicking on the icon which usually has the program's name under it. But most programs have to be installed first. This is done by double-clicking the icon called *Install* or *Setup* and then answering the questions about how the program should be used. If you are unsure, just accept the suggestions the program makes itself.

Unpacking and installation

Nearly all the programs you can find on the Internet are in *packed* files. Imagine that you want to transport a Volvo in container which only measures a half metre in every direction. Can it be done? Yes, but only if you cut the car up into very small pieces and pack them as tightly as possible in the container. Packing (or compression) programs do the same with files. By using a packing program you can make files much smaller. So a file which filled 2MB now only

fills 1MB. A packed file like this (or several packed together) can also be called an *archive*. The advantage with this is that the file is easy to transport. Before it may have filled two diskettes, but after being packed it only uses one. And when the program is downloaded from the Internet it only takes 10 minutes, instead of the 20 minutes it would have done unpacked. Another advantage is that several files can be packed together into one file. This makes it easier to manage its transportation and storage.

Technically the method used to pack a file is that the pack program analyses the file, and changes it to a format so it fills less space. For example: If somewhere in the program there is a sequence looking like this: 2525252525252525, the pack program can change this to 8x25. But just as you cannot drive a Volvo which has been cut into small pieces, you cannot use a program in its packed state. Before the file can be used it has to be unpacked.

There are many different packing programs, each of which uses its own format to pack programs. The most used format for PC's is called *Zip*, and you will almost certainly find files packed in this format. You can recognise them by their **.zip** extension.

WinZip

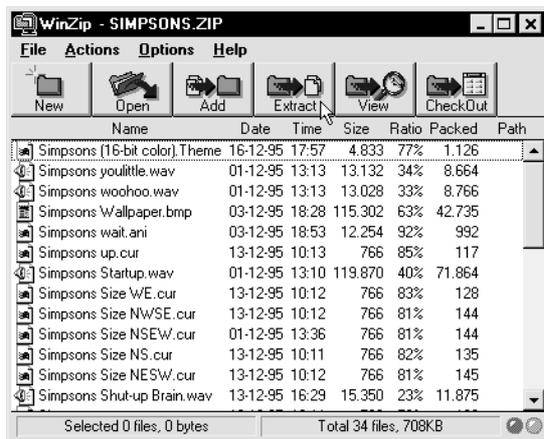
WinZip is a brilliant packing program which PC users often need to use. The program is very easy to use after you have learnt to get to know it, but it may seem a little confusing the first time. The program is shareware and can be found at www.winzip.com

I have downloaded a theme for my desktop for Windows 95 (this is a background picture, new icons and mouse markers etc.). The file is called **simpsons.zip**. I copy the file to my hard disk in a folder I call **simpsons**. Notice the icon which looks like a filing cabinet in a clamp. This means that my system recognises the file as a zip file which cannot be used until it is unpacked.

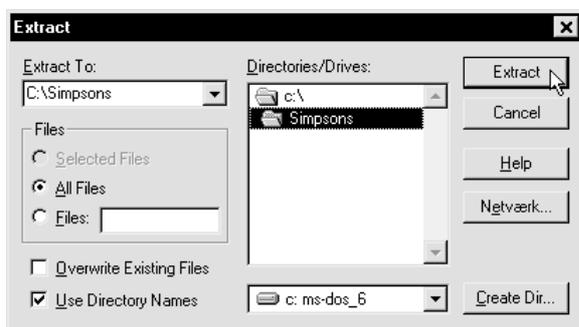
Now I open the **simpsons.zip** file by double-clicking on it. As I have installed WinZip on my computer it is



automatically registered that I am trying to open a zipped file, and the program takes over and shows this window:



We do not need the top menu this time. Underneath this are a row of buttons and a big window showing the contents of the compressed **Simpsons.zip** file. This shows that it contains many files (34 in total) and I can see the names and sizes of them all. I simply want to unpack every single file, so I click on the *Extract* button. The program now asks me where the files should be placed after I unpack them.



I choose to put them in the same folder as the compressed file, i.e. in the **Simpsons** folder. Then I click on the *Extract* button. And there it is! After a couple of seconds all the files are there in their original size and ready to use. The packed file is still there, even though its contents have been copied and unpacked. This means that you can pack the file out again if you need it. If you don't think you will use it again, you can delete it.

It is a good idea to use a fixed procedure when you download files. Create two folders just for downloads – if you use Windows 95 you could call them **New from the net** and **unpacking** – and put them on your desktop. Every time you download something, put it in the **New from the net** folder. After you come off the Internet, copy it to **unpacking**, unpack and install the program, and then you can delete the contents of the **unpacking** folder. If you have enough space on your hard disk you can keep the packed file in the **New from the net** folder. This means that it is always to hand if you want to install it again, or if a friend wants a copy.

Virus

When you download a program from the Internet there is, in theory, a risk that it can infect your computer with a virus. Everybody has heard about viruses which can take over your computer and destroy all your data. In practice the problem is not so great as journalists make out in newspapers and computer magazines. I have worked intensively with computers for over six years and have only twice met a virus, and their effects were fairly innocent on both occasions. But for safety's sake it is a good idea to install an anti-virus program which can intercept any dangerous viruses if the worst should happen.

But first we should just see what a virus actually is. A virus is a little program which can copy itself – hence the name. And most viruses are programmed to muck up your computer by deleting or corrupting files, writing idiotic messages on your screen, or in the worst case deleting the contents of your hard disk.

There is nothing mystical or supernatural about a virus. Just like all other programs they do what they are told to do by the person who programmed them. The programmers themselves may be anti-social, who do not feel they have enough excitement in their lives, so get their kicks from trying to sabotage other peoples' computers. The problem with viruses is that they are programmed to hide themselves inside other programs so that you do not spot them. In this way they can spread from one computer to an-

other – by being downloaded from the Internet, for example.

You can only infect your computer with a virus by downloading a program or certain other files (from a word processing program, for example) and then using them. The most common virus at present is one called a *macro-virus*, which can hide in files produced by the word processing program Word or the Excel spreadsheet program. You *CANNOT* get a virus into your computer by looking at web pages or reading e-mail.

Luckily there are what are called anti-virus programs which can be installed on your computer to guard against it being infected by a virus.

Anti-virus programs can be bought everywhere you can buy software. Well known ones include *Norton Anti-virus* and *McAfee Anti-virus*. You can get an excellent anti-virus program at:

www.mcafee.com

Anti-virus programs run in the background while you are working with the computer. If you download a virus infected file from the Internet, the program will warn you that it has detected a virus in a certain file. If this happens, keep calm and just do as follows:

1. Delete the virus. This should be a simple task with the help of the Anti-virus program. Normally the file hiding the virus can be salvaged, but in bad cases this may not be possible.
2. Carry out a thorough virus check of your entire hard disk. This should also be a simple process using your anti-virus program.
3. Check all your floppy disks for viruses by putting them in your disk drive and running the Anti-virus program on them.
4. Contact everyone you could have passed the virus on to (or who could have passed it on to you). That is everyone you have exchanged files with since you got the virus, both by diskette or over the Internet.

Where are the files to download?

I have described how to download programs from www.shareware.com above. There are many other places which offer programs for download, all working in roughly the same way. If you want to find programs to help you use the Internet, you can find them at:

www.tucows.com

If you know the name of a specific program or the name of the company which makes it, you can often download it directly from the company's web site by guessing the address. For example, McAfee's anti-virus program can be downloaded from

www.mcafee.com

and the Eudora e-mail program can be found at:

www.eudora.com

You can download browsers and accessories from

www.browsers.com

If you cannot find the browser you want there (for example in the language you want) then you can find them at the developers' own sites:

www.netscape.com

or

www.microsoft.com/ie

depending on which browser you use. Note that these programs are often downloaded slightly differently to others. When you download Internet Explorer the first thing that happens is that a small program about a half megabyte in size is downloaded and started. This program then looks after the rest of the download.

Accessories for your web browser

A Web browser on its own can only show ordinary web pages. Some web pages have built in films, music, programs and animations which the browser on its own cannot show.

Plug-ins are extras for your web browser which allows it use these formats. When the browser itself cannot show a particular format, then it calls on the accessory to do the job for it. Plug-ins are a kind of building brick which expands what it is possible for your browser to do. Using one lets you watch a film directly from a web page, or play music.

There are literally hundreds of plug-ins for various purposes. Three or four of them are very popular as many web pages will only display correctly if you have them installed. These plug-ins are described below. You can find a list of plug-ins for download at

www.browsers.com.

Plug-ins are programs which you need to download and install (read how to download programs on page 27). The program attaches itself to your browser itself, so it is activated next time you open a web page containing a file which uses the plug in to work.

Remember to check that the plug-in can be used with your browser and operating system. Some plug ins can only be used with certain browsers. And some plug-ins are included with the browser from the start. Which these are depends on which browser and which version you have.

RealPlayer

RealPlayer is a plug-in which allows your browser to play sounds and show films in special RealAudio and RealVideo formats. RealPlayer can be downloaded from www.real.com.

Radio on the net

There are a lot of radio stations on the Internet. Some of them are ordinary radio stations which also broadcast normally. Others are totally new stations which can only be heard over the net. You can hear these radio stations by using your web browser and RealPlayer. Try:

www.timecast.com

www.thedj.com

www.firstradio.com

You can find a list of radio stations at:

[www.yahoo.com/Business and Economy/Companies/News and Media/Internet Broadcasting/Real Time/](http://www.yahoo.com/Business_and_Economy/Companies/News_and_Media/Internet_Broadcasting/Real_Time/)

Shockwave

Shockwave is a plug-in which allows your browser to show animations and programs in two different formats (called *Flash* and *Shockwave* respectively). They are used to build small games or cartoon films in web pages. The plug-in can be downloaded from www.macromedia.com, but is already included with Internet Explorer 4.0. You can see an example of a web site which uses Shockwave at www.msn.com.

Quicktime

Quicktime is a plug-in which allows your browser to show films in the special Quicktime format. It can be downloaded from quicktime.apple.com. There a quite a few web sites which show films in Quicktime format, including www.cnn.com.

Adobe Acrobat Reader

PDF is a special format for laying out pages with text and pictures. PDF files are actually designed for printing out the pages on paper, but for practical reasons it is also used for some web pages. You can download the *Adobe Acrobat Reader* which can display these files from www.adobe.com.

Shopping on the net

There are lots of shops with goods for sale on the Internet. The most usual things on sale are CD's, CD-ROM's, books and software, but you can also buy other things. There is an index of English speaking shops at

[www.yahoo.com/Business and Economy/Companies/Shopping Centers/Online Shopping/](http://www.yahoo.com/Business_and_Economy/Companies/Shopping_Centers/Online_Shopping/)

The level of service for things bought over the net can be much lower than that you are used to. It can easily take a month before what you have ordered actually arrives in the post. It can also be very difficult to get the firm to take responsibility for a complaint about the goods you have bought. On the other hand, you can often save a lot of money by buying in the USA or England.

Credit card numbers and security

To be able to buy at these Internet shops, it is nearly always necessary that you have an international credit card, like VISA or Mastercard. You order your goods, fill out a form with your name, address and other relevant information, including the number of your credit card.

No matter where in the world you buy a product, it is the law of your own country which applies to a credit card purchase. In most countries this means that in order for money to be debited from your credit card, you must give proper authorisation. Whether this can be given over the Internet is an unanswered question, so in theory it is the firm which sells you the product which takes the risk as they are sending you the goods without real proof of your identity.

So if money is charged to your account without you actually buying anything, all you need do is go to the credit card company and tell them that the transaction was unauthorised. In most cases this will lead to the amount being credited to your account. So, assuming you keep an eye on what is charged to your account, there is no great risk involved in buying things over the Internet.

There is a slight risk that a third party could eavesdrop on the personal details you give when making an Internet purchase. To minimise this

risk, *secure websites* have been created. All data sent to these pages is encrypted into a special code so that no one except the person running the page can see it. When you request such a secure web page you will see a dialog box telling you that you are entering such a secure area. You can always check that you are in a secure web site by looking at the status line in your browser, which will display an icon of a locked padlock or key.

While you are in this secure web area, all data sent using a form will be encrypted so no one else can use it. As soon as you leave a secure area you will see a message informing you that all future pages are insecure.

Customs duties

You should know a little about customs regulations when buying over the Internet.

In theory you should pay import duties and sales tax on all goods bought. If the goods you buy are sent by post it is likely that they will be held by the customs authorities and you will have to pay these charges before they will forward the goods to you. So remember that these extra costs should be added to the price you pay on the Internet.

It may be that a parcel or letter slips through without the customs stopping it. In this case you have a duty to report this to the customs and pay the necessary taxes.

The same applies to programs or other information which you download via the Internet to your computer. The law in most countries states that you should declare to your customs or tax authorities that you have received these goods, and pay the relevant duty and tax on them.

In practice there are very few who do report their net purchases. But in future as the value of these purchases grows this is likely to become an international problem, and governments and tax authorities are busy studying models of how an 'Internet tax' could be applied in order to stop this loss of revenue.

Electronic mail

Electronic mail (e-mail) is the method you use to communicate directly with other Internet users. In its simplest form you simply send a piece of text to another Internet user. In most cases they will receive it within a few seconds.

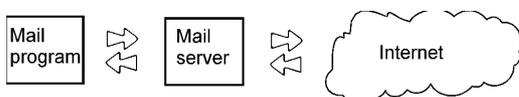
Most Internet users have an e-mail address. This consists of three parts. A user name, an 'at' sign (@) and the address of the computer the user is attached to. Here are some examples:

`torbkj@inet.uni2.dk`
`president@whitehouse.gov`
`tva@dr.dk`

On most English language computers the 'at' sign is on the '2' key, though you might have to hold down both the 'ctrl' and 'alt' keys simultaneously to access it. It means simply that the user is *at* the computer given in the next part of the address. This computer functions as a *mail server*, meaning that it looks after receiving, sending and managing electronic post. You will need a mail program on your computer if you want to use e-mail. There are many excellent mail programs available, most of them free. You will probably have come across Eudora, and Netscape includes an e-mail module. Outlook Express is included with Internet Explorer and it is this that I will use as an example here.

Setting up your mail program

When you start your mail program it automatically checks your mail server to see if you have received any post. If you have, it will be downloaded to your computer. When you send a letter it will be sent from your computer to the mail server, which then takes over and sends it to the person it is addressed to.



There are several advantages with this way of doing things. Firstly you can receive e-mail at any time without having to have your computer switched on. The mail server is always operating and it looks after any messages until you collect them with your mail program.

And secondly, you can access your mail server no matter where in the world you are, and no matter what computer, what mail program or which ISP you are using. All you need do it enter your *e-mail address* and the *address of your mail server* and your e-mail program looks after the rest.

Most mail programs ask for these details the first time you use them. All mail programs need to know the following:

- Your name (user name)
- Your e-mail address
- The address of your mail server
- Your password

The mail server's address is usually *mail* followed by your ISP's address. For example, my ISP is called uni2, and my mail server address is *mail.uni2.dk*. Occasionally you will find that there are different addresses for incoming and outgoing post. If this is the case, you will have to enter both of them in the mail program.

Guiden Internet-forbindelse

E-mail-servernavne

Serveren til indgående post er en server.

Angiv navnet på serveren til indgående post.

Server til indgående post (POP3- eller IMAP-server):

En SMTP-server er den server, der benyttes til udgående post.
 Angiv navnet på SMTP-serveren.

Server til udgående post (SMTP-server):

< Tilbage Annuller Hjælp

No matter which mail program you use, the first thing you must do is enter your own e-mail address and the address of your mail server. You cannot use the program before you have done this. You will also be given the choice of entering other information. This can include your name, to be included with all the mail you send, and also an organisation name (company or university etc.) if this is relevant.

put their addresses in these fields. However some mail programs *do* send any reply to everyone who received the original mail – be careful, this may not have been what you intended.

When you reply to a mail, the text of the original mail will automatically be included in the new mail. The > character will appear in front of each line to show that it is quoted from the original message. This is often a good idea. If you receive a letter consisting of a number of questions, you can just add your replies in the right places. So your reply will look like this:

Hi!

Thanks for your mail. You wrote:

>How do you know if there is an elephant in your refrigerator?

That is easy to see. You will notice the footprints in the margarine.

All good things,

Torben

You should only include the original text if there is a reason to do so. Many users of e-mail programs which automatically quote the original mail forget to delete it. So you often receive mails which appear, at first glance, to be the same mail as you sent out, and you have to scroll through it before you find the reply.

Off-line

If you use an hour or so to read and answer your mail, it will quickly become expensive if you are on-line the whole time. So most e-mail programs let you use them *off-line*. This means that you can break the connection with your ISP ('putting the phone down') as soon as you have received your post. You can then read it in piece and quiet and take your time replying. When you are finished you ring in again and send your e-mails.

'Foreign characters'

Some years ago it was a big problem sending mails which included country specific and accented characters such as æ, ø, é and ß. This problem is virtually solved, as there is now a standard in force for sending them. This has been descriptively named *ISO-8859-1*. Most normal mail programs follow this standard without you having to do anything, so you can use any of these characters. In some programs you may have to specify that ISO-8859-1 be used, as they default to use the American US-ASCII which only contains standard English characters.

If you are using a computer or program which cannot use special characters, or know that the recipient cannot see them, you will have to use the nearest equivalent English characters, or write things out in full (the £ currency symbol is one example where misunderstandings could arise – safest to use the word 'pound' if you are unsure!).

Signature

Most mail programs let you compose a *signature*. This is an ending which will be added to all the e-mails you send. For example, I could write *yours sincerely, Torben*, or write out my address and telephone number. If you write to people all over the world, remember to write your signature in a language they can all understand, which will probably be English.

You should be a little careful with what you include in your signature. It is not certain that you want everyone you send e-mails to to know your physical address or telephone number. On the other hand it can be a very good idea to include the address of your web page, if you have one.

Many choose to include a quotation in their signature. This is usually a bad idea, as such signatures are usually ignored when reading e-mail. To set up your signature in Internet Explorer 4.0 choose *Tools/Stationery* and click on the *signature* button.

Attached files

You can attach any type of file to your e-mails. This is done by choosing *Insert/Attach file* and then choosing a file on your hard disk. You can attach anything, text from a word processor, graphic files, program files, but remember that the person you are sending the file to should be able to use it. So a Word file will be useless if they haven't got the Word program, and a Windows program is useless for a Macintosh user.

You should also remember that if you attach a large file it will take a long time for the person you send it to to download it. So you should only send large files (bigger than 1MB) if you have arranged it beforehand. When a file is as large as this it is a good idea to pack it before sending it using a packing program. (read about the packing program WinZip on page 29). Very large files (larger than 5-10 MB) should not be sent by e-mail as they can give server problems both when received and during the transmission process.

Smileys

Smileys are special pictograms which have been invented to show what mood a writer is in. A smiley looks like this: :-) formed by a colon, hyphen and right bracket, and means that the text should be taken to be ironic or a joke. For instance:

Yes, the weather in Denmark is always good :-)

If you rotate this page through 90 degrees you can see that the smiley looks like a smiling face (hence the name). Smileys are used to emphasize the meaning behind a sentence, but be careful not to use too many of them. An e-mail containing many smileys is a sure sign that the sender is new on the Internet.

- :-) This is the most usual smiley. It shows that something should be taken ironically, or just for fun. Sometimes it can be used to add a little energy to a message. The nose is often left out, hence: :)
- ;-) Shows that the sender is winking. Usually a sign that the message is ironic.
- :-(Shows that the sender is upset or annoyed.

- 8-) Shows that the sender has dark glasses on (!?). There are hundreds of different smileys, most of which are much sillier than this.

E-mail and net etiquette (netiquette)

Netiquette describes how you should behave on the Internet. As most people are still beginners in the world of e-mail it often happens that misunderstandings arise because they have not learnt how to behave properly on the net. The advice given below is both for your own and others benefit:

- Never send advertisements by e-mail.
- NEVER WRITE E-MAILS USING ONLY CAPITAL LETTERS! It is nearly unreadable and very impolite, rather like carrying on a conversation by shouting all the time.
- Try not to make your language too harsh. A hard tone in an e-mail often seems much worse than the same thing said in an ordinary conversation, because the people involved cannot see each others reactions. So you risk getting an angry reply to an e-mail which was meant to be friendly, but was written a little too harshly. A single well placed smiley can often show what you really mean.
- Sooner or later you will receive a chain letter via e-mail. Do not send them on, and do not answer them. Chain letters are stupid and a waste of other people's time, whether they are on paper or sent by e-mail.
- You will also receive warnings about new, dangerous and mystical viruses. Some people mistakenly believe that e-mail can contain viruses. Ignore them, and do not forward them. In nearly all circumstances they are a hoax. Mistaken warnings about e-mail viruses spread incredibly fast, and are a kind of virus themselves in that they waste more time than all the real viruses that actually do exist.
- Are you sure that you are sending the e-mail to the right person? Many people send their first e-mail from a friend's computer, or from one in a library or school. If you answer this mail it could well be someone other than the person you think who will end up reading it.

- Remember that e-mail (and all other communication over the Internet) is not secure. In theory anyone with a little technical knowledge could read your mail. So it is not a good idea to entrust great secrets or wild gossip to an e-mail. Imagine the worst possible situation, that your boss/wife/worst enemy/girlfriend/local police (make your own choice) happens to read that particular e-mail. And remember that people can archive their e-mail for years.
- Remember that an e-mail always exists in at least two examples. Even though you may have deleted your copy, the person you sent it to may have kept theirs. You cannot burn your letters on the Internet.
- It is very easy to make an e-mail public, by forwarding it or sending it out to a newsgroup (read about newsgroups on page 40). So be careful what you write about!
- You should also be careful about forwarding e-mail you receive. It is always best to just check with the sender before doing it. On the other hand, there is no need to be nervous about doing it if there is a good reason for it and you know that no problems will arise.
- Never attach large files to an e-mail.
- Do not over use e-mail. Meaningless and irrelevant e-mails are a nuisance. Some things are better said on the telephone or face to face than by e-mail. E-mail should be used to improve communication, not to confuse things!
- Do not send films, fun programs or similar unless you know that the person you are sending them to will enjoy receiving them. It is quite possible that they have already received them from three other people, and maybe they do not have a computer which can use them anyway.

Communicating with mobile phones

If you have a mobile phone which uses the GSM system it is very probably that you can send and receive messages using *SMS (Short Message Service)*. This means that you can send e-mail from your mobile phone to the Internet, and re-

ceive e-mail on your telephone. You should not have to have any kind of special account to use this service, all that should be necessary is that your phone supports SMS.

Check with your mobile phone provider to see if this service is available.

Mailing lists

A mailing list is a list of e-mail addresses of people who are interested in a particular subject. Imagine that you use e-mail to communicate about your common interest, which happens to be Chinese foreign policy. Instead, if you send your letter to a mailing list, it will automatically be sent out to everyone who is on the list. And you will receive all the mails which other participants have sent in to the list.

Technically, what happens is that the person who has written the mail sends it to the mailing list's address. And a program there makes sure that it is forwarded to everyone on the list. A mailing list address has the same form as an individual's e-mail address, but with the list's name instead of a person's address. For example, the address of the mailing list which deals with news from Pakistan looks like this:

pakistan@asvm.inre.asu.edu

You can find a long list of mailing lists at:

www.neosoft.com/internet/paml

You can search for mailing lists dealing with particular subjects at:

www.liszt.com

When you want to be added to or removed from a list of subscribers you should not write to the same address that you use when you want to send a contribution. That would mean that every subscriber could read your request to subscribe. Instead you send it to an address where a program administers the list.

The most usual of these administrative programs are called LISTSERV, LISTPROC, MAILBASE or MAJORDOMO. The most common is LISTSERV, but all the programs are very similar. All programs are used by sending a

command to the program via e-mail. Depending on which program is used, you become a subscriber by sending an e-mail which includes the following commands in the text of the message (do not write anything on the subject line).

If the program is called..	..you write:
LISTSERV LISTPROC MAILBASE MAJORDOMO	subscribe <list name> <your first name> <your surname> subscribe <list name> <your first name> <your surname> join <list name> <your first name> <your surname> subscribe <list name>

If you are a fanatical runner, you will certainly want to subscribe to the mailing list called *dead-runners-society@utxvm.cc.utexas.edu*. But to become a subscriber you should address your request to *listserv@utxvm.cc.utexas.edu*. As the text of the letter you should write:

```
subscribe <list name> <your first name> <your surname>
```

If Anthony Owen would like to be on the mailing list, he writes:

```
subscribe drs Anthony Owen
```

The reason that you have to write the list's name (or abbreviation in this case) is that the same Listserv program can administer more than one mailing list. There are many different commands which can be sent to the Listserv program, but the only other one you should know is **signoff**. Writing **signoff** followed by the list's name will remove you from the list of subscribers. You can practice this rather complicated procedure by subscribing to a test mailing list. E-mail to

listserv@vm.cnuce.cnr.it,

with the body of the message saying

```
subscribe test-1 <your first name> <your last name>.
```

The way you can subscribe can vary a little from list to list.

There are also mailing lists which are not designed so that the subscribers can communicate with each other. These are mailing lists which are actually no more than newsletters or advertisements for various companies. And there are mailing lists which can be subscribed to just by writing your e-mail address in a text field on a web page.

How do you find an address?

There is no kind of central or comprehensive register or directory of e-mail addresses on the net. In Denmark the major telephone company has set up a database of e-mail addresses, which you can search using a name to find a person's e-mail address. This is at:

www.katalog.tele.dk

Other countries are slowly doing the same. If you are looking for an e-mail address internationally, you can try one of these addresses:

www.bigfoot.com

www.four11.com

They are international databases of e-mail addresses. The search is carried out using a name, and if the person is to be found in the database, you get their e-mail address. These databases are far from comprehensive. If you do not find who you are looking for here you might get a result by searching for the person's name using a search engine like AltaVista. If you are lucky enough to find a home page for the person, this will often include their e-mail address.

Newsgroups on USENET

USENET is a collection of more than 20.000 *newsgroups*. 'Newsgroups' is actually an unfortunate name as they have very little to do with news! Rather a newsgroup is a sort of discussion club, which is composed of numerous e-mails collected together in one place. Every newsgroup concerns a particular subject, and can be used for discussion, questions and answers, suggestions and publication of relevant texts and so on.

There is not a lot of difference between using a newsgroup on USENET and using ordinary e-mail. Instead of sending e-mail to a person, instead you send it to a newsgroup where every Internet user can read it.

Just as there are mail servers for distributing mail, there are also *news servers* for distributing articles to newsgroups. All news servers on the Internet are connected via a net (hence the name USENET), which is used to distribute the articles between them. Using this method, an article you send to a particular news group is sent to all news servers all over the world carrying that group within a couple of days. Articles are only stored on a news server for a short time, usually about a week, before they are deleted.

A hierarchy of subjects

There are newsgroups for every conceivable subject: philosophy, computers, sex, cooking, Shintoism, kite flying and much more. Anybody can make a contribution to a group, express their opinion, make a suggestion or ask a question.

As with everything else in the computer world, these newsgroups are also arranged in a hierarchy to make them more navigable. There are at least 20,000 newsgroups at present, and the number is still rising. At the top of the hierarchy are such groups as:

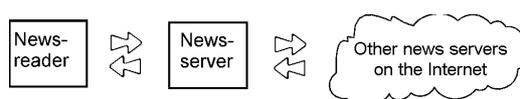
<i>comp</i>	about computers, networks, software, etc.
<i>sci</i>	about science.
<i>rec</i>	hobbies/sports/art/books/films, etc.
<i>soc</i>	cultural and social subjects, religion, etc.
<i>talk</i>	debate about anything and everything
<i>news</i>	about USENET itself
<i>misc</i>	anything which cannot be classified as any of the above
<i>alt</i>	different subjects, anything from TV series to dumb blondes to pseudo intellectual discussions about sex and relationships. In practice this is where most of the action is.

The actual newsgroups are found further down in the hierarchy, with more descriptive names. If you are interested in african culture, then look in the group *soc.culture.african*, if you oppose the Internet, then look in the *alt.destroy.the.internet* group, and if you are interested in cats, then *rec.pets.cats* is for you.

Newsgroups can be entertaining and worth while, but they can also be a complete waste of time. Many contribution are in the wrong place, or are just endless discussions about meaningless subjects. Some newsgroups never deal with the subject they are supposed to, or are openly a spoof group where no real discussion ever takes place. In reality no more than one third of all newsgroups actually contain any real activity. There is a huge difference between the tone and atmosphere in different groups. Some groups are dominated by a particular culture or opinion. Others are a permanent battlefield between different groups. Yet more are very apathetic, or concentrate on rather obscure and nauseating subjects (though often in a rather amusing way).

Newsreader

A newsreader is a program that displays newsgroups and their articles for you, and allows you to send contributions to a newsgroup. A newsreader is very similar to a mail program. Just as a mail program sends and receives electronic post via a mailserver your newsreader let you read and send contributions to newsgroups using a newsserver.



There will be a newsreader included with your web-browser. In the case of Internet Explorer this program is called Outlook Express which is also used as a mail program. It is started by choosing *Change to/News*.

The first time you open your newsreader you will have to enter some information, the most important being the address of your news server. This is often your ISP's usual address, prefixed with

the word news and a dot. So my ISP is UNI2 and they run a news server called *news.uni2.dk*.

Guiden Internet-forbindelse

Navn på nyhedsserver

Skriv navnet på den nyhedsserver (NNTP), som Internet-udbyderen har givet dig adgang til.

Nyhedsserver (NNTP):

Hvis Internet-udbyderen kræver, at du logger på nyhedsserveren (NNTP), og hvis du har fået et NNTP-kontonavn og en adgangskode, skal du markere afkrydsningsfeltet herunder.

Nyhedsserveren kræver, at jeg logger på

You will also be asked for your e-mail address. This is so that people reading your contribution can see who you are.

Subscribing

All news readers let you subscribe to any number of newsgroups you choose. This merely means that you tell your newsreader which newsgroups you are interested in (just like adding a web page to your list of favorites). The first time you start your newsreader you tell it which newsgroups you want to subscribe to. Some programs will automatically show you a list of all the newsgroups available (very few ISP's carry all newsgroups, most carry only a limited selection). With other newsreaders you will have to download this list yourself. As this list can be very long it can take some time to download. Once you have this list you can mark the newsgroups you want to subscribe to. This subscriber list can always be altered later. If you cannot find the groups you want by working down the heirachy you can always search for a word, and all the newsgroups containing that word will be displayed.

You choose a group from your subscribed list by double-clicking on its name. The newsreader will then download the subject lines from all the messages in the selected newsgroup. Then you can click on one of the messages to see it on your screen.



The illustration above is Outlook Express displaying a list of all newsgroups in the top window on the left. The newsgroup *dk.chat* is marked. The right hand windows shows the contents of the newsgroup. I have marked one of the articles, which is then displayed in the big window in the lower half of the screen.

Threads

There can be literally thousands of messages in a single newsgroup. To be able to make some sort of sense of this huge amount of information all contributions are divided up into *threads*. A thread consists of the *original posting* plus all the answers and commentaries to it and each other. As long as postings keep being sent on the same subject, the thread will continue.

A thread starts when an article is replied to by another user. Imagine that you have sent in an article with **Antique chair for sale** to the **gb.junkshop** newsgroup. All articles replying to this original article will be headed **re: Antique chair for sale** and will belong to the same thread. This thread only stops when nobody replies or comments on the articles in it. Some threads can (and do) continue for years.

Most newsreaders are built up around this concept, so that every comment in a thread can be read in the correct order. This means that it is also very easy to drop a thread when you loose interest in it. If a thread has been running for some time then it is probable that the first article has been deleted on the server, and so it can be very difficult to find out what the discussion is actually about.

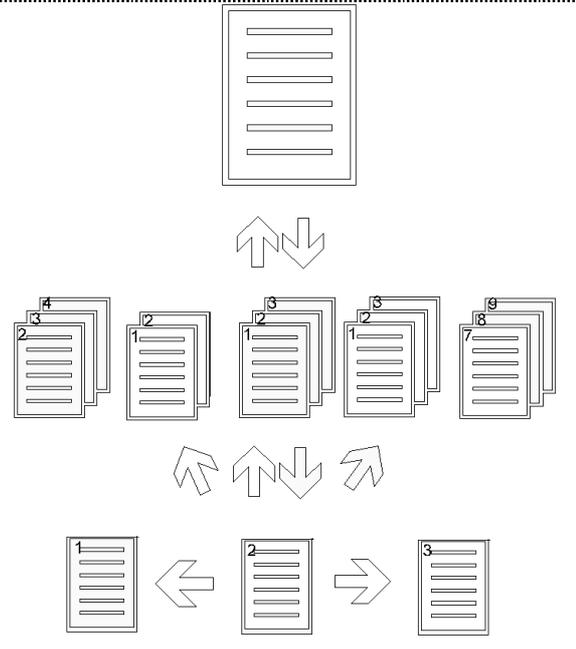
Using newsgroups

When you use USENET, you should know the difference between the three different levels.

Top Level: All the newsgroups you subscribe to. You can remove newsgroups you no longer wish to subscribe to, and add others to the list. If you click on one of the newsgroups in the list, you jump down to the next level.

Middle level: All the articles in the newsgroup, sorted by threads. A thread can contain any number of articles. The first article may be too old and hence has been deleted. When you click on one of the articles you go down to the lowest level. You can also start a new thread by sending in an article.

Bottom level: This displays the the article on screen, so you can read it. If there are any hyperlinks in the text you can follow them. You can also reply to the article.



Joining in the discussion

In Outlook Express you join in the discussion by choosing the **Follow Up Article** button while you have the contribution you want to reply to on your screen. What you write will be shown as an answer to that post, and hence part of the same thread. A message which is an answer to another message is also called a *follow-up*. Just as with ordinary e-mail the program will automatically insert a *Re:* in front of the subject to show that it is in answer to another contribution. Further, the message you are answering will be included as a quote in your new message with a > in front of every line. If you do not think this is necessary you can delete all or part of it. It is often a good idea to use these quotes liberally, as the message you are replying to will be deleted sooner or later meaning your reply may be hard for other readers to understand.

If you want to start a new subject, then press the *new message* button. Such a contribution is called an original message. Make sure you choose a good subject line for your post. A bad subject line will often mean that no one can be bothered to read it. A misleading subject line can mean that others feel they have been tricked into

using time to read it. Remember that other users pay to read your message in some way or another, not only with their time but also with their telephone bill, because it takes time to download what you have written. Maybe a 1000 or more people will all use a minute each to read what you have written. It soon mounts up.



Most newsreaders can manage to use 'foreign' characters and symbols. Some newsreaders need configuring to use a special character set as is described in the section on e-mail and European characters on page .

Most newsreaders also let you send a personal letter to the author of an article. In this case the

message is sent as an ordinary e-mail and cannot be seen in the newsgroup itself.

When you have read a contribution in a newsgroup, your newsreader will mark that you have read it. Next time you use your newsreader the articles which you have already read will not be shown. This makes it easier to keep track of all the many articles.

How do you find newsgroups?

You can find newsgroups you are interested in by looking at the list of all the newsgroups which are on your news server. This will certainly turn up some newsgroups you are interested in subscribing to. But as the list will almost certainly include many thousands of different news groups, it might well be difficult to find precisely the subject that you are interested in.

You can also find newsgroups as links on the World Wide Web. When you search for a particular subject on an index like Yahoo, you will also be given relevant newsgroups as a result. These newsgroups will nearly always be last on the list, because they start with the word Usenet, followed by the newsgroup's name.

- [Tonya's Ultimate Friends Page](#)
- [Ultimate Animated Friends Page](#) - See all your favorite Friends photographs come to life!
- [FAQ - Friends](#)
- [FAQ - Friends T-Shirt](#) - Info on how to get your hands on the most original Friends merchandise!
- [Usenet - alt.tv.friends](#)

This shows what happened when I searched Yahoo for information about the American TV comedy show *Friends*. Most of the results show links to ordinary web pages, but at the bottom of the list there is a link to a newsgroup called [alt.tv.friends](#). Click on this link, which will start your newsreader and display this group.

FAQ

Many newsgroups are very specialised and use their own jargon. For this reason it is a good idea to follow a newsgroup for a while before you try taking part in the discussion. It often happens that a large amount of knowledge has been accumulated over a period, especially after the same questions have been asked, discussed and answered several times.

Many newsgroups have an enthusiastic participant who has taken it upon themselves to collect all this knowledge in a file called an *FAQ*. This stands for *Frequently Asked Questions*. An FAQ is an article which contains answers to the questions which often appear in the newsgroup. Experienced and long time participants can easily get annoyed if a beginner asks a question which is already answered in the FAQ. There are usually three ways to find an FAQ. Firstly it is often sent to the newsgroup itself. Look for a contribution with FAQ as its subject. Secondly, most FAQ's are sent to a special newsgroup called [news.answers](#). And finally, you can find an index covering most FAQ's at www.cis.ohio-state.edu/hypertext/faq/usenet

Off-line

Following the discussions in newsgroups can soon become an expensive luxury if you have to be on-line for several hours to read all your favourite groups. So most newsreaders can be configured to be used off-line.

Instead of retrieving the entire contents of a newsgroup, you can choose to just get the subject lines of each individual contribution. Then you can mark the articles you want to read, and your newsreader will only download the contents of the marked articles.

Newsgroups and netiquette

When you send a contribution to a newsgroup it is very important that you follow some guidelines for good behaviour. The guidelines already given for e-mail should be followed (read about e-mail and netiquette on page 37). And you should also bear these points in mind:

- Avoid asking members of the newsgroup about topics which have already been answered. See if there is an FAQ for the group and read it first.
- Do not mock, threaten, abuse, hassle or otherwise irritate other newsgroup users. A mocking or abusive e-mail is called a *flame* or *flamemail*, and can result in a *flamewar*, where threats and abuse fly back and forth between different users. A flamewar can really ruin a newsgroup for everybody else.
- Remember that other members of a newsgroup can come from any country in the world, and from a completely different cultural and social background. You cannot be certain that other users know anything about your country, political system, or popular entertainers.
- Avoid sending contributions to a newsgroup if a personal message to a contributor would be better. Most newsreaders let you choose between these two options when sending a message.
- Give some time to consider what you write. Remember that in principle the whole world can read what you send, including your boss, your children and the caretaker of your building. There is no privacy at all in newsgroups. And all contributions are archived forever – not on the news-server itself, but at www.dejanews.com.
- If you answer another contribution, then remember to quote it, or describe what it was about in your own words. When others come to read your message, the original could have been deleted.
- Avoid including the entire message you are answering, just include the important sections which you have decided to comment on.

Unfortunately, you should not count on others following these guidelines. In fact the reverse is true, many newsgroups have a very uncomfortable tone. It seems that most people find it easier to be more stupid, irritating and negative when they write than they would ever be face to face. For this reason some newsgroups are more like men's toilets than anything else!

Newsgroups v. mailing lists

Newsgroups and mailing lists have the same purpose; to allow Internet users to talk about different subjects with each other. But there are differences between the two methods.

Old messages in newsgroups are deleted automatically. This means it is sometimes difficult to follow a discussion if you did not see how it started. On a mailing list the old messages are not deleted. They just stay in your mailbox, and you can decide yourself when you will read them and when you will delete them. You do not need to check with your newsreader to see if any new contributions have been sent. Everything is automatically sent to you.

Further to this, some mailing lists are controlled, meaning that someone has read all articles before they are sent out. This means that your mail box will not be filled up with irrelevant messages which have nothing to do with the subject.

Chat

Chat on the Internet means talking to other users by writing text on your screen. It is mainly used for entertainment and the nearest thing to compare it with are telephone chat groups where one can also just jump into a conversation with complete strangers. There are two different ways of chatting. One is called *Webchat*, and is simply a web page that you download, which allows you to chat with others that also have this page open.

The other method is to download a special Chat program which you install on your computer, which then allows you to chat with other users using the same program.

Webchat

The advantage of Webchat is that you do not have to install a new program on your computer. But Webchat is far more limited compared to dedicated chat programs, and the options available are often clumsy and difficult to use. Different Webchat pages are of different qualities. One of the best examples is at:

www.talkcity.com

There is a long list of other Webchat pages at:

www.yahoo.com/Computers_and_Internet/Internet/World_Wide_Web/Chat/

Each Webchat-page works differently, but there are some things they all have in common. You fill out a field with a *nickname* or *handle*, which is a name you want to be known as. When you want to say something, you should write your text in a field and then click on a button to send it. All webchat systems are built up like IRC, which is described below.

If you use a lot of time chatting, you will get bored with Webchat very quickly and will probably want to try one of the real chat programs. In my opinion the program described here is the best one available.

The Palace

The Chat program 'The Palace' can be downloaded from the parent firm's web page at:

www.thepalace.com

The program is easy to use. All you need to do is install it and start it. Then choose **File | Connect** on the menu. The program will now connect to the Palace server. After a short waiting time you will see a well drawn castle on the screen. It will be full of small figures, most in the form of green balls with faces. These are other users who are connected to the server. You can say something by typing in the field under the picture. Immediately afterwards what you have said pops up in a little talk bubble over your head. It is a good idea to choose the option **Options | Log window**. This allows you to see everything being said,



By clicking on doors, windows, staircases and other items you can move around in the castle and maybe find a quiet place where you can have a longer conversation with one of the other 'beings'. You can see a plan of all the rooms by choosing

Options | Goto room.

You can decorate yourself with different things, chosen from a menu displayed by clicking on a suitcase in the bottom right hand corner of the screen. You can put on a T-shirt, sit on a bicycle, carry a parrot, and various other options.

The Palace is free to use, but you can choose to become a member by paying. This lets you move into other rooms, and build a complete figure instead of just being a green ball, and you can also deposit things and draw on the screen so others can see it.

IRC (Internet Relay Chat)

Internet Relay Chat is a net of servers which together have established a global network of electronic meeting points where you can chat with other users. Originally it did not matter which server you connected to because all servers were part of the same net system. Today there are several nets, with names like Undernet and DALnet, but in practice there is not much difference between them. No matter which IRC net is being used, they are all divided up into different *channels*, where users split themselves up according to their interests.

IRC is completely text based, and so it does not look nearly as much fun as a graphical program when you first try it. However it is much easier to have a real conversation, because the users concentrate on what is being said instead of hopping around and creating themselves. In practice you can end up having much more exciting conversations on IRC than in graphic chat programs.

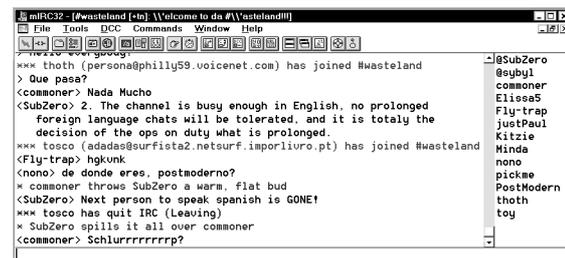
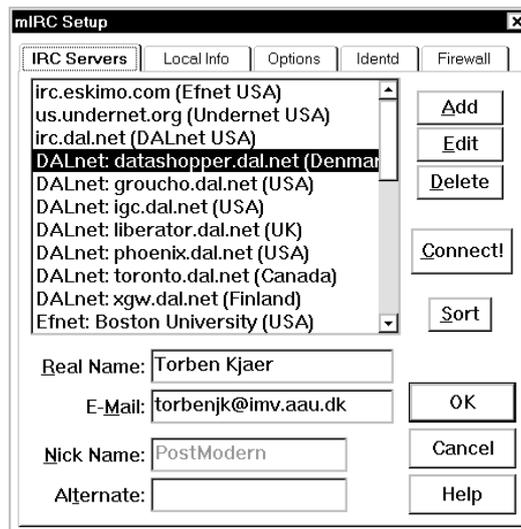
The first thing you need is an IRC client program, which is a program which will connect you to different IRC servers. There are many of these. One of the best IRC programs for Windows is called mIRC and can be downloaded from:

www.mirc.co.uk

No matter which program you use, the way it works is more or less the same. When you start it you will have to choose a server to chat on. The first time you have a go, just choose one at random from the list.

Then you should type in a *nickname*, a pseudonym you want to be known as. When you are connected to an IRC server, the next thing to do is to choose a channel. There are an infinite number of channels with different names for different subjects. Here is an example where I have connected to the *Wasteland* channel.

On the right is a list showing the nicknames of the channel's users. The large window is where everyone is chatting away.



Each comment starts with the user's nickname followed by a > character. Everything you send will just be marked with > and not with your nickname on your own screen. There are continual comings and goings, and there can be several conversations continuing at the same time, so you need to keep a very cool head. At the bottom of the screen is where you write, and as soon as you press *Enter* your text is sent and can be read by the other users.

Some programmers have developed programs which act like people and join in the general talking. Programs of this type are called *bots* (for *robots*) and it can get very irritating if you get in a conversation with them. However there are those which can be very entertaining, like one which sets up guessing games like the TV series *Jeopardy* and awards points to users when they answer correctly.

Even though IRC is mainly for entertainment it has also had its more serious functions. For a while during the coup in Moscow in August 1991 IRC was the only communication possible between Russia and the rest of the world, and reports on the situation there were being continuously sent out via the net.

Form an opinion and be critical

It is more than probable that the Internet will quickly become a part of your everyday life. Before you have realised it, you have got into the habit of using e-mail regularly, and searching the Internet before going down to the library or looking in the telephone directory. For your own sake it is a good idea to form an opinion as soon as you can on questions like how much security you want, or need, how active you will become on the Internet, how much you wish to guard your private life and so on.

Private life

Before you begin to use e-mail for your job, studies or private life, you should be aware that e-mail can rapidly become an onerous duty and an invasion of your private life. E-mail can be used to get employees to work in their free time, and to send up to the minute, but totally unnecessary information, which does nothing but waste people's time.

If you begin to use e-mail seriously, it means that you may have to check your post regularly, often at least once a day, or maybe more often. The Internet can quickly become an enormous influence on your everyday life.

Be critical

Experience shows that people often forget to use their critical faculties when something new and exciting bursts on the scene. The famous American radio broadcast of 'The War of the Worlds' and the panic it created shows that a new medium can appear to be much more trustworthy and impressive than that it supersedes, for no other reason than that it is new. There is no reason to make the same mistake with the Internet. There are as many lies, exaggerations and incorrect information on the Internet as there is on any other media.

How can it all be free?

Nearly everything on the net is free. You can find free current affairs and up to the minute news, free programs, and free information about every subject under the sun. But you should be a little sceptical when things are just given away, because there is usually some motive for such generosity. The firm

or person who is giving something away will nearly always want something in return.

Many web sites are supported by advertising revenue, so they want you to stay there as long as possible so you see as many advertisements as they can push at you.

Some firms offer free information about a certain subject in the hope that you will end up buying a certain product. It can often be harder to differentiate between marketing and real information on the Internet than in traditional media.

At other web sites you 'pay' for all the free information or service by giving personal information about yourself, your age, occupation, income and so on. The purpose of collecting these details is usually to be able to come back and try and sell you something. It is also more and more probably that the information is also sold on to other firms.

Information overload

There is a nearly infinite amount of information on the Internet. A search for a relatively obscure subject can give several thousand web pages as a result. A web page about something which interests you can contain several hundred links to other similar pages. The consequence of all this is that you will get used to making quick decisions on whether you have found what you are looking for. You will have to learn to skim over text very quickly (in every language you can understand) if you cannot already do that.

The Law

Due to the Internet's decentralised structure there is no common, agreed, international law that can be applied to it. But some countries try to make laws which apply to their part of the net. In countries such as Iraq and France it is illegal to use programs like PGP to encrypt e-mail. This may well mean that it is also illegal for someone to send an e-mail encrypted in this way from a country like Denmark, where the programs use is legal, to a country where it may not be used. In theory it might also be illegal to send encrypted e-mail which crosses France's borders on its way to the recipient. In practice no one knows how a court would react if a case of this kind was ever to be taken up.

Security

Unfortunately there are many security issues and problems connected with using the Internet. Many of them have no solution at present, but this makes it no less important that you know they exist.

There is a general problem in that you leave electronic footprints everywhere you go. Every time you connect to a server, that server can:

- See which type of web browser you are using.
- See which web page you were on before you arrived at that server.
- Read your IP address. If you are a private user, all this means is that the web server can see which ISP you use. If you are sitting at work, then your address may well show the name of the company you work for. So at www.playboy.com they can see how many visits they have had from your workplace or school. Technically, it is possible to find out exactly which computer visited the site.

But a web server cannot discover your e-mail address.

On several occasions serious faults have also been found in web browsers, meaning that in theory a server could read files on a visitors computer. These faults have always been fixed immediately, but what about the faults which no one knows exist yet?

Another example of your digital footprints is the list of web sites you have visited. Other people who use your computer can follow your movements around the net in detail.

A third example is if you have a home page containing personal information, things like what you do, your picture, your home address, and so on. Think that millions of people can see you, learn your address and so on. I really do not know if this is a problem, because it has never been possible before, but I am sure that some people will find unpleasant and undreamed of ways to use this information.

You should also be aware that it is very easy to search on the Internet. Using AltaVista anybody can search for your name in all existing newsgroups in just a few seconds. This means that anyone could be watching everything you write, even though you thought that you were only talking in a little private news group without many members.

A further little security risk is a little file included with the Netscape web browser, innocently named *cookies.txt*. When you connect to a web server, the server can enter certain messages here. This is usually used to save any configurations you have changed on a web page, so that you find the same options available next time you connect to the same page. But there is no guarantee about what is being written in your 'cookies' file. It could also be personal information which you have given out without thinking, and which then can be used to target advertisements or similar. So be careful when filling out on-line forms which ask you to give personal information.

I could go on describing security and privacy problems like these, but that is not really the point. The point is that you should understand that you can be observed in many ways without you realising it.

The best way to protect yourself is to be aware of the risk, and always be careful. Even though you may have nothing to hide, you have every right to protect your private life. It is better to be over careful than to believe that no one is interested in knowing anything about you. There is no doubt that in the future cases will arise of companies and individuals who have misused information about people's private lives obtained by disingenuous means from the Internet.

Nine good tips

1. Get into the habit of clicking the right hand mouse button on objects – the menu it displays is often very useful.
2. Use your time productively while downloading large files or web pages. Open a new window and do something else while you are waiting.
3. A long list of favorite web sites is worth a lot, and can save you a lot of time. Remember that you can always add the results of a search on a directory or search engine to your list.
4. A good way to follow what is happening on the web is to see the list of the top sites at www.yahoo.com
5. Do not use a search engine before first using a directory like Yahoo.
6. Always check out a web site's URL. Before long you will be able to work out a lot just from this: Is it a company or an individual, what is it about, and most important of all – is it worth spending any time on.
7. Create your own web page if it is at all possible (most ISP's will give you a little space for it). It is fun, you will learn a lot, and most important of all, you will make your contribution to improving the web.
8. Check once in a while if the web browser you are using is still the best available. Maybe the competition is better, or a newer version has been released.
9. Eat healthy food!

Some of the words in the glossary are described more fully in the body of the booklet (see index)

32 bit Used in many different ways, but when in the context of a Windows program (the most common usage) means that it can only run under Windows 95 or NT, and not Windows 3.11.

Applet A small program written in Java and designed to be built into a web page.

AOL American on-line service (the largest in the world).

Au A format for sound files

Avatar A visual representation of an Internet user, which can be in the form of a cartoon figure, a three dimensional shape, a photo of the user himself and so on. Avatars are used especially in chat programs, where you do not see the actual person you are chatting with, but their avatar instead.

Avi A format for video files

BBS Bulletin Board System. An electronic meeting place where a user can find files or communicate with other users. There are BBS's on the Internet, and there are BBS's not on the Internet which can be reached via a their own telephone number.

Beta A program which is not yet finished, but is released so users can try it out. It is best to avoid beta releases unless you really need the newest features, and remember that they can give problems. They are sometimes known as 'Preview versions'.

Bandwidth The name given to the capacity of a connection on the net. The bigger (or wider) the bandwidth, the faster data can be transported. At the time of writing, bandwidth in most places is not wide enough for downloading film or other types of data which make such huge demands on a system.

Bounce When an e-mail is returned to the sender because it could not be delivered to the address given in the to: field.

Client A client is a program which asks a server to perform an operation for it. Examples of client programs are web browsers and mail programs.

Cookie A little piece of information which a web server saves in a file on your computer, so it can be used at a later date. So if you give your name

and address to a web site when you buy something, then next time you visit the site you will be recognised and so will not have to give this information again.

Crosspost To send the same contribution to several different newsgroups, all of which cover relevant subjects.

Cyber A term used for anything connected with the net.

Cyberspace A word invented by the science-fiction author William Gibson, which describes the global computer network of the future. It is now often used to describe the world found on the Internet. It is a word with a very broad meaning, and is also used in connection with virtual reality techniques. The word cyber is misused all over the place, and usually does not mean more than 'we are also on the Internet' (cyber actually comes from the greek kubernan = to steer, and is used scientifically when control systems are being discussed).

Dedicated Internet connection A direct Internet connection (i.e. without using a telephone line and a modem). With a dedicated connection you are always connected to the Internet.

Dialler The program used for ringing up to your Internet service provider.

Dialup Internet connection Connect to the Internet via a telephone line and a modem. With a dial up connection you are only connected to the Internet temporarily, until you tell your program to break the connection.

DNS Domain Name System. A system which 'translates' a computer's address to four numbers separated by full stops or 'dots' (*For example from gator1.uni-c.dk to 130.225.253.128*). An address in this form is actually the only way a computer can understand it.

Domain The area which a computer belongs to. A computer with an address *imv.aau.dk* is called imv and belongs to the *aau.dk* area (which for those in the know is the university of Aarhus in Denmark).

Download To transport a document or other type of file from a computer on the Internet, or a BBS, back to your own computer. See upload.

EFF Electronic Frontier Foundation An organisation which fights for the standpoint that some of the rights named in the American constitution

(for instance, freedom of speech) should also be enforced on the net.

E-mail, e-post Electronic post.

Encryption Coding of data so that it can only be read by a recipient who holds a key, and not by anyone else who may intercept the message. See PGP.

Extranet An intranet which has been expanded to include a firm's customers or other selected organisations.

FAQ Frequently Asked Questions. A list of the most common questions about a subject, together with answers. Read every FAQ you find, you will become much wiser.

Firewall A security system between a local network and the Internet which is used to protect the former from users of the latter. Firewalls are often used by companies which are connected to the Internet, and they often give problems as some programs cannot be used from behind a firewall.

Flame, flaming slang for reacting aggressively against a person in a newsgroup. Acting aggressively means to throw insults, threats and so on at them. It is good netiquette to avoid flaming other users.

Freeware Free software. There is lots of it on the Internet!

FTP *File Transfer Protocol*. A protocol for transporting files on the Internet. When you download files from an web page (like from www.shareware.com) you may notice that the url does not start with `http://` but instead begins with `ftp://` - There is no noticeable difference for you as a user. There are also dedicated FTP programs which are used to transport files between computers.

Gateway A computer or program which translates from one protocol to another. As the Internet functions with common protocols, there is no need for gateways on the Internet itself. But there are gateways to other networks and on-line services, so it is possible to send e-mail from one system to another.

GIF A graphic format which is often used on web pages.

Hit Every movement in a web page. A movement is when one downloads a page, presses a button on a page, follows a link to another page and so on. Popular places like Yahoo or

www.playboy.com can have several million hits a week.

Homepage The central web page in a collection of web pages. A home page is usually a combined welcome to users, a front page for the site owner and an index to other pages on the site. The word is also used to describe the web pages which is shown when your web browser starts.

Host A computer offering some sort of service to users on a network. This could well be as a webserver.

HTML HyperText Markup Language. The language used to write web pages. Actually text files with built in markings which are interpreted by the web browser. The current standard is HTML 3.2.

HTTP HyperText Transport Protocol. The protocol used to transfer HTML documents (web pages).

Hyperlink See link.

Hypertext Text containing links, which are connections to other pieces of text or other resources (like other web pages).

IE4 Microsoft Internet Explorer 4.0 web browser

Infobahn, the The European equivalent of the American 'information superhighway'. Both of these are phrases dreamt up by politicians (or their public relations firms), which have never really caught on.

Internet service provider (ISP) A company offering connections to the Internet.

Intranet A local net using the Internet protocol TCP/IP and ordinary Internet software. An intranet can be connected to the Internet, but it does not have to be.

IP Internet Protocol. See TCP/IP.

Java A programming language used to write programs for web use, which can be stored on web pages, and then automatically downloaded and used on your computer.

Javascript A programming language which can be built into a web page itself, and can be used to develop the functions on that page. This can give moving buttons, animations, simple games and so on. Javascript and Java are two completely different languages.

Cable-modem A special modem used when you access the Internet via cable TV instead of the telephone system.

Coffee (also Tea, Cola etc. etc.) Something you can drink an awful lot of while waiting for web pages to download.

Link A connection from one web page to another web page, or to a film, a sound file, a picture or a program. Connections usually consist of a word which is highlighted with an underline and a special colour, but a link can also be a picture or part of a picture.

LISTSERV A program used to administer mailing lists.

Lurker Someone who follows a newsgroup without taking part themselves.

Mail server A computer on the Internet which can receive and send electronic post.

MIME Multipurpose Internet Mail Extension. Despite its name, a standard description of file formats.

Mirror server or **mirror site** When a file server or web server becomes overloaded due to its popularity, a mirror site is often set up. This is another server which contains exactly the same files or web pages as the original server. Mirror sites are often set up on different continents so that everyone can get quick access.

Mov Extension for a video file in the Quick-Time format

Mozilla Nickname for Netscape (and the name of the green dragon which is Netscape's mascot).

MSIE Microsoft internet Explorer web browser.

MSN Microsoft Network. An on-line service owned and run by the software giant Microsoft.

Nameserver A computer which runs DNS. Your Internet service provider has a nameserver which translates all computer addresses to figures.

Newsgroups Discussion areas where Internet users can discuss, comment and ask questions. Each newsgroup concerns itself with a single subject.

Newsreader A program which is used to read and send articles to newsgroups on the USENET.

NNTP Network News Transfer Protocol. The protocol used to transport newsgroups over the Internet.

On-line service A commercial network for paying users only, often based on different technology to the Internet. In practice the borders between the Internet and on-line services are becoming very blurred. The most widely used on-

line service is now AOL (still known as America on-line in the USA).

PGP Pretty Good Privacy. A program used to encrypt information sent over the Internet. Worth using if you are worried about third parties intercepting and reading your messages. Illegal to use in some countries.

Plug-in A program which is like a building block that can be added to another program to give it new functions. There are many Plug-ins for Netscape, allowing it to show films, display special text formats, three dimensional worlds and so in, directly in Netscape itself.

POP Point Of Presence. A telephone number where you can connect to the Internet. Even though an Internet service provider may be in one place geographically, they often have different telephone numbers in different locations, so users need only ring to a local number to connect.

Protocol, A set of standards for the transmission of data on a network. Protocols may be on several different levels. The basic protocol standardising all communication over the Internet is called TCP/IP, but above this, individual types of program function with their own protocol.

HTTP is a protocol, Gopher is a protocol and e-mail is a protocol.

ram Extension for files in the RealAudio sound format which can only be played by the RealPlayer program.

Server A program or a computer which can offer a service to a client, as when a web server gives access to a web page, or a file server gives access to software.

Shareware Software which may be copied and distributed without charge (via the Internet, for example), but which should be paid for if it is used for longer than a limited try-out period.

Site A 'place' on the net - actually a server. In normal use, the term is not so much used to describe a server, but a collection of pages on a particular server.

Snailmail The old fashioned letters which are delivered by the postman!

Spam, spamming A not particularly pleasant activity which consists of sending the same message to many newsgroups, no matter what the groups are actually about.

Surf moving around the web with no other purpose than to be entertained.

TCP/IP Transmission Control Protocol/Internet Protocol. The standard which makes everything possible. The basic 'language' of the Internet .

TCP/IP-stack A program which you must have on your PC as a layer between the client programs (like a web browser) and the Internet. The TCP/IP stack rings up to your Internet service provider and manages all communication (which are made using TCP/IP). Windows 3.1 and 3.11 do not include a TCP/IP stack, and so you will have to install one yourself.

Trumpet Winsock One of the many Winsocks available free on the Internet.

UNIX A very common operating system for servers on the Internet.

Upload The opposite to download. To copy a file from your own computer to one of the computers on the Internet.

URL Universal Resource Locator. A standard for resource addresses on the Internet. These resources can be web pages, program or other files, e-mail addresses and many other things. A URL describes the exact address and which protocol should be used to access the resource. Examples are www.jubii.dk and <mailto:president@whitehouse.gov>, URL's which describe a danish search engine and the American president's electronic address respectively.

Usenet A large group of newsgroups, where users can discuss and exchange viewpoints on all sorts of different subjects via e-mail.

Virtual A very misused word, given meanings from artificial to non physical, not real to anything taking place electronically over the Internet.

VRML A language used to construct three dimensional objects on the web. There are VRML worlds on the web which you can visit if your web browser is expanded with a plug in which can display these files.

Web, the The world wide web

Web browser A program which is necessary to have in order to be able to read and navigate around web pages on the World Wide Web. Netscape Navigator and Microsoft Internet Explorer are the best known web browsers..

Web pages Files written in a special HyperText format (see HTTP). Web pages can contain text, pictures, film, sound and links to other web pages.

Web server A computer connected to the Internet which runs a program allowing users to download and view web pages on their own computer.

Winsock Windows Socket. The name of the TCP/IP-stack for the Windows operating system.

World Wide Web A gigantic collection of web pages, pictures, text files films and sounds which are all connected to each other via links.

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