

SECTION 9 - THE INTERNET AND NETSCAPE

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WHAT IS THE INTERNET?

The Internet is a world-wide collection of computer networks, co-operating with each other in order to exchange information and data, using a common communications protocol, known as TCP/IP. These computers are attached to local, area, regional, national and international backbone networks.

The physical makeup of the internet consists of telephone lines and satellite links. The Internet itself does not contain any information, so it is a mistake to say "I found this on the Internet", when in fact it should have been "I found this on a computer linked to the Internet". It is important to remember that the internet is just the "wire", in other words, the means of communicating.

A BIT OF HISTORY

No one person created the Internet, however a project was started in 1962 by the United States Department of Defence's Advanced Research Projects Agency (ARPA), run by J.C.R Licklider. In 1967, ARPA's Lawrence Roberts published his "Plan for the ARPANet" world-wide network, which was built around new technology allowing exchange of information. ARPA wanted to create an infrastructure that would survive attack and would continue to function even if large sections of it were destroyed in nuclear war or natural disaster.

Over the next two decades the network that evolved was used and funded primarily by academic institutions, scientists and the government. These organisations used the Internet to communicate by email and shared data over a wide area.

It was in 1992 that the US government pulled out of Internet management and access to the network started being offered to members of the general public for the first time, by commercial companies. By 1996 the number of Internet users connected had grown immensely to 47 million. Recent reports show that 168,000,000 people are now on the Net and this number is growing at a rate of 63,000 people per day. The home computer has dropped dramatically in price over the years and more user friendly operating systems have been created.

WHO CONTROLS THE INTERNET?

The short answer to this is "no-one" really, it lacks any central authority to control it. Beyond any governing bodies that work together to establish policies and standards, the Internet is bound by very few rules.

This is why the Internet has such a bad reputation for criminal activity, because there is no guard to protect it from criminal material. Such activities include those of a sexual nature, terrorism and fraud.

WHAT'S THE INTERNET USED FOR?

There are many advantages of using the Internet, but here are just a few of them:

- Organisations and businesses can share data and information .
- Communication with colleagues / friends can be made via email, chat groups, bulletin boards and even using speech over the Internet.
- Resources - Nowadays, you can find information on almost any subject at the touch of a button instead of waiting for things to arrive through the post.
- Support / sales information can be requested from companies.
- Marketing, advertising and publicising.
- Gathering information in the form of surveys or forms.
- Obtaining, clipart, film clips and audio files.
- Several people can work on the same project remotely.

WHAT IS THE WEB?

The World Wide Web (or simply the Web) is a network of information servers that use the Internet to distribute their information. The information provided by these servers come in a variety of formats including: text, graphics, audio and video.

The web is made up of individual web pages which combine to create web “sites”. The web pages are written in HTML (Hypertext Mark-up Language), which tell the Web Browser on your computer (Netscape or Internet Explorer) how to display the page contents, including any image, video and audio files. To get access to a web site, the user must type in that sites URL (Universal Resource Locator), for example <http://www.lib.ed.ac>. The great thing about the web is the ability to go from site to site using Hyperlinks (connecting to other sites by assigning URLs).

ADDRESS AND DOMAIN NAMES

Each computer connected to the Internet must have an IP Address which identifies it to other computers. The IP address is made up of 4 sets of numbers, none of which can exceed a maximum value of 255, these are separated by full stops. An example of an IP address is 129.215.146.82.

To make these Internet addresses easier for people to remember, the numerical form is usually replaced with a host name address. The host name of the Library web server is <http://www.lib.ed.ac.uk>. The **.uk** indicates that the computer is based in the United Kingdom, the **.ac** indicates that the computer belongs to an academic institution, the **.ed** identifies which institution and the **.lib** identifies the computer itself as belonging to the library. There is a standard for host names and it becomes easy to follow, some examples are:

Abbreviation	Type
.ac.uk	British Academic Institution
.edu	American Academic Institution
.co.uk	British Commercial Company
.com	American Commercial Company
.gov	Government Organisation
.org	Other misc. Organisations
.mil	Military Agencies
.net	Network Support Centres
.plc	Public Limited Company

WHY IS THE WEB SLOW?

Every time you download a large file or send an email, you are contributing to the Internet's network traffic and sometimes things go wrong which can cause hold ups. Mostly, these hold ups are temporary and last only a few minutes. Although the speed of the Internet connection has a lot to do with how fast you see a web site Edinburgh University has an extremely fast connection so you shouldn't have many problems.

WHAT IS HTML?

HTML (Hypertext Mark-up Language) is a very easy to use programming language which provides web pages. The language is the main driving force behind the web as it allows people to create their own pages without much time invested in learning.

ERROR MESSAGES

You may come across error pages whilst using the Web and these include:

404 - This is the most common error and means that the host server has responded to your request but cannot find the requested URL. This usually happens when a page has been moved, deleted or renamed, although sometimes the Hyperlink that took you there has the wrong URL assigned to it.

403 - Access to the resource is forbidden. This often happens when your computer is not in a particular domain that is part of the web site you are accessing. For example, people that are not in the domain of a company cannot view the Personnel pages of the company website. Some websites require you to register your computer address with them before letting you use their service. Failure to do this also produces this error message.

503 - This happens when the web server you are trying to access is too busy to handle an additional request. Try again later.

Unable to Locate Server

The host name does not exist or the URL has been mistyped.

Host Unavailable

This is displayed when the server does exist but it cannot respond for some reason. This can happen when the server is under maintenance, faulty or too busy. Try again later.

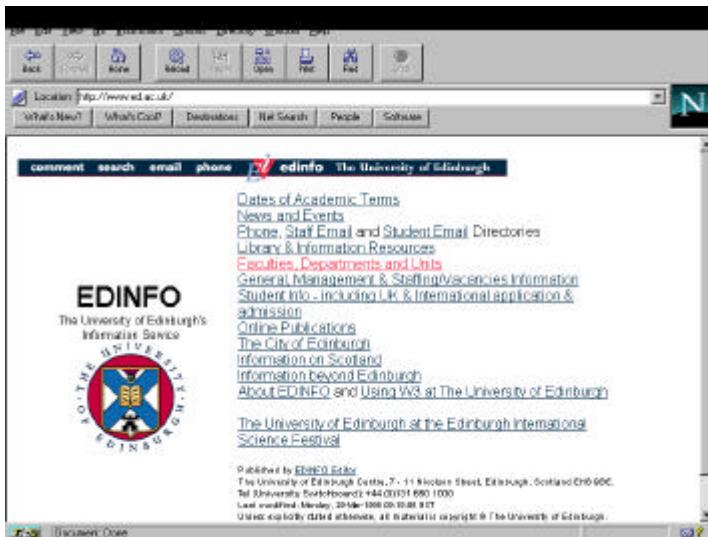
Using Netscape

Netscape is a browser that is used by the library to view Internet pages and their associated files. The library is currently running two versions of Netscape, Ver 3.01 and Ver 4.0. Below we explain the different components of Netscape 3.01.

Opening Netscape

- Double-Click on the Netscape icon on your desktop. 
- You should now see a display as follows:

Reload
This allows you to
get a fresh
(latest) version of
the screen you
are viewing.



Going to a new Website

- When you open Netscape at first, you should see the Library Online Web pages. This is because your browser home page is set to view this site on Startup. You should see in your location box: **http://www.lib.ed.ac.uk**
- Click on the <OPEN> button and enter the new URL **OR** overtype the existing contents of the “Location:” box. For example, to access BIDs you would type: **http://www.bids.ac.uk**.

Clicking Links

- You will see on most pages that there are “Links”. A link is usually identified by being underlined, but you can tell if the cursor changes to a hand when you place it over the text, see below:

Faculties, Departments and Units

- Some Links are not shown as text but instead they might be displayed as an appropriate picture. For example, clicking on the PC below on Hewlett Packard's Web Site would take you to another page giving information on that models specification.



- Once you have clicked on links and moved between pages on a web site or even moved from site to site, you can use the <BACK> button to go back through the history of your navigation. Once you have moved back through pages, you can return using the <FORWARD> button.
- At any time in the process of searching, no matter what site you are accessing, you can click the  <HOME> button  which will return you to the "home page" that is allocated in your browser. In this case it's usually the Library Online page.

View the History

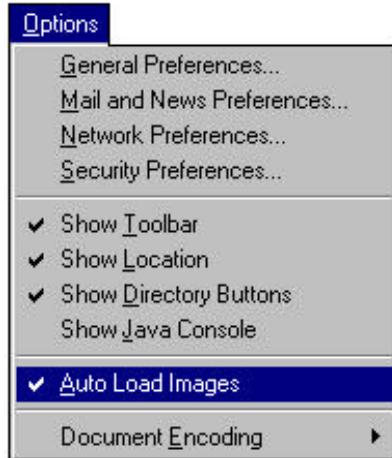
- Netscape keeps a history of the most recent sites you have visited and their URLs, you can view this by clicking once on the downward arrow located to right of the "Location:" box, see below:

Netsite:	<input type="text" value="http://www.lycos.co.uk/"/>	<div style="border: 1px solid black; padding: 5px; height: 100px; overflow-y: scroll;"> http://www.lycos.co.uk/ http://www.lycos.co.uk/ http://www.bids.ac.uk/ http://www.gla.ac.uk/ http://www.stir.ac.uk/ http://www.ed.ac.uk/ </div>
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Note: The history only shows actual URLs typed in.

Images

- Sometimes images do not appear properly when accessing a web page. Try clicking the Reload  button which will reload the data from the Web Server.
- If you have a slow PC / Connection, you can speed up the downloading of a web page by preventing automatic image loading. This means that only text will be displayed. To do this, click on the *Options* menu and remove the tick from *Auto Load Images*.



- If you decide that you want to see all the images on a page, click on the <IMAGES> button. This will reveal all hidden images.
- When viewing pages, you may see one of the following image indicators:



Broken Image - This image is in the wrong format and cannot be displayed.



Missing Image - The image file cannot be found at the specified location.



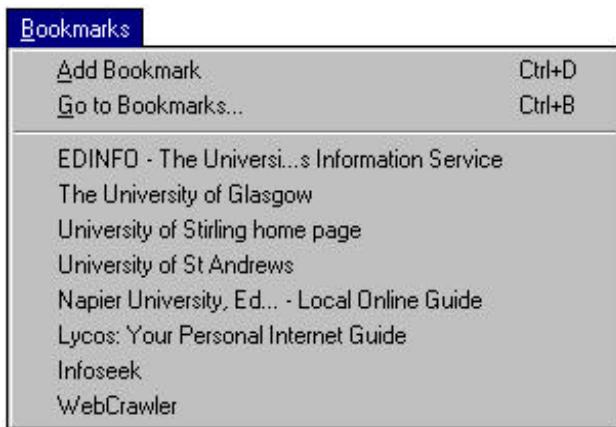
Unloaded Image - This indicates that the image is not loaded. Click to reveal.

Finding Information on a Web Page

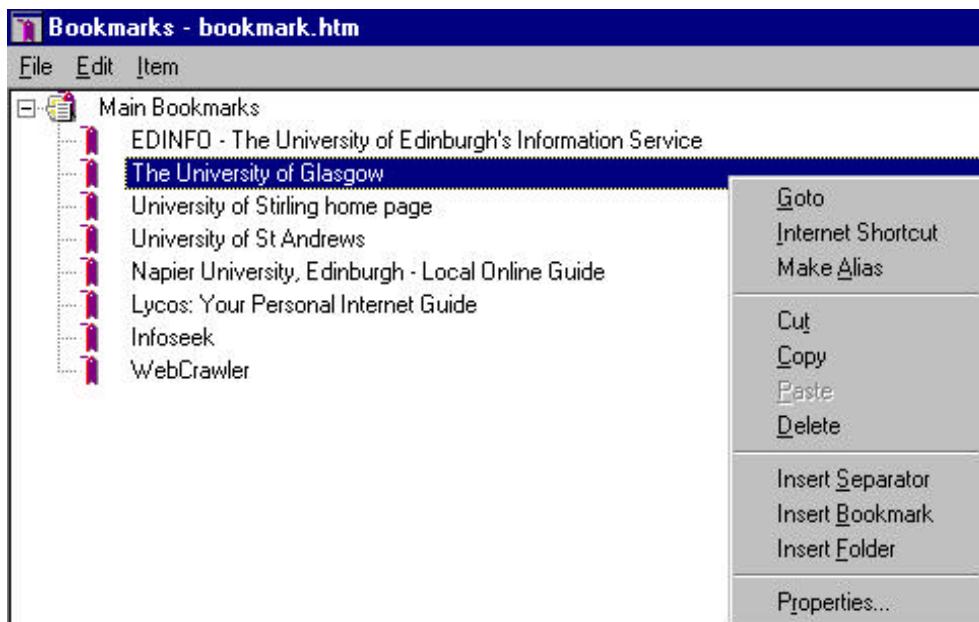
- You can find a word or phrase on the current web page being display, simply by clicking the <FIND> button . This allows you to enter a word or phrase, the find function will then search the current web page to see if the entered string exists. This is particularly useful on web sites which have long pages.

Creating Bookmarks

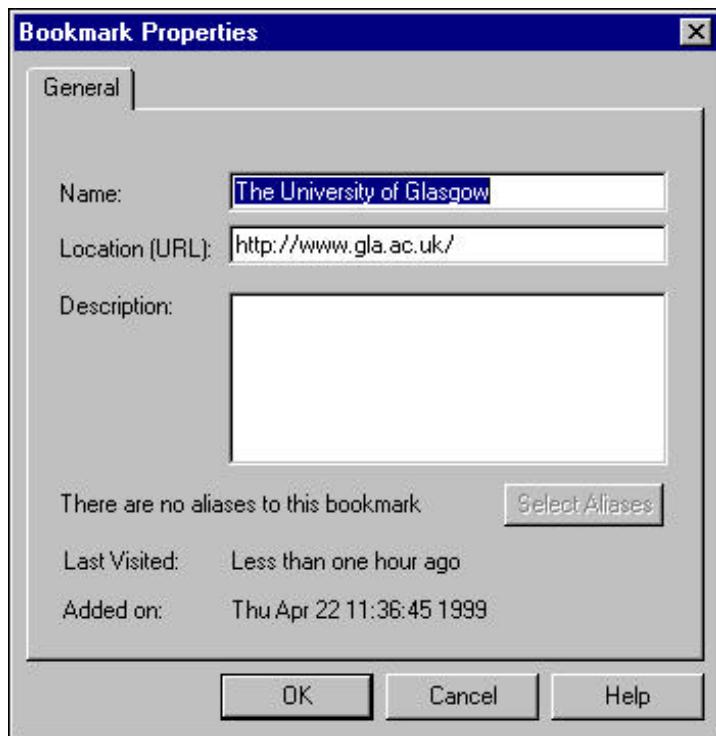
- A bookmark is a record of the exact address (URL) of a site that you have visited. You can create your own bookmark file easily.
- When you find a site you like, simply go to the *Bookmark* menu and select *Add Bookmark* **or** you can press <CTRL> and <D> keys together. This will add the appropriate URL to the bookmark file. Here is an example of some bookmarks:



- To access any bookmark, go to the *Bookmarks* menu and select desired bookmark
- To view the contents of your bookmark file, choose *Bookmarks* and then select *Go to Bookmarks....* or press <CTRL> and keys together. You will see a list of bookmarks, similar to that shown below.



- To modify a bookmark's properties, highlight the appropriate bookmark, and press the **right** mouse button. Select *Properties* from the resulting menu. You will see the following dialogue box:



- Using the Bookmark Properties, you can change the name of the bookmark and provide a description of the site, if you wish.
- You can also insert New Bookmarks, Folders and Separators by selecting the appropriate option from the *Item* menu, whilst in bookmark mode.



Finding Information on the Web

The internet has many “Search Engines” available to search for information. A search engine is designed to search the World Wide Web for keywords and phrases entered by the user and then produce a list of results from its findings.

The library web pages provide a list of links to different UK and global search engines. To access the list, type in the following URL:

<http://www.lib.ed.ac.uk/lib/resources/netsearch/srchtool.shtml#Search tools>

Netscape Email

The Library Systems Department do not recommend or support the use of Netscape's mail facility and therefore strongly advise staff members not to try configuring the browser to use it.

TROUBLESHOOTING

Below is a trouble shooting guide for Netscape.

Symptom	Solution	If this fails
Netscape will not start up.	Try re-booting the machine.	Contact helpdesk.
A message comes up stating that Netscape is unable to connect.	There is a problem with your PC. Contact Helpdesk.	N/A
My connection to the Internet seems to be really slow at the moment.	After 12 noon, the Internet is much slower due to American users connecting. Try again in the morning.	If you are getting to a web-site, your PC is usually OK. However, if problem persists, contact Helpdesk.
I can access some sites but not others.	If you can't access http://www.bids.ac.uk , your PC is probably not DNS registered. Ask Helpdesk to register your PC.	Your Proxy Facility may be set up wrongly. Contact Helpdesk to get it fixed.
Netscape hangs as soon as I go in.	Contact Helpdesk.	N/A
When I go to a site, I get an HTTP 404 File Not Found Error.	This indicates that the file that is in the URL, has been moved, deleted or renamed. Try checking you've typed the URL correctly.	Contact the Web Sites "Web Master"....Email address is usually available from the site.
When I go to a site, I get an HTTP 403 Forbidden Error.	You probably do not have access to this area of the website. Check.	If you know that you should have access, contact the necessary support people.
When I go to a site, I get an HTTP 503 Server Busy	The web server that you are accessing is too busy to handle the request. Try again later.	N/A
When I go to a site, I get an Unable to Locate Server Error.	This only happens when the URL has been mistyped.	Server no longer exists.
When I go to a site, I get an Host Unavailable Error.	This is the same as a 503 error. The server is too busy to handle the request.	N/A