Navigating the Internet

using Netscape Communicator 4.05 for Macintosh

Course Description: An in-depth look at the Internet using Netscape for information retrieval. Participants will have a chance to view the different types of information servers available and discuss organizational differences. Topics covered include WWW terminology, using menus, creating bookmarks, searching the Internet, and configuring the Netscape browser. Netscape is distributed free-of-charge to the campus community.

Prerequisites: Working knowledge of the Macintosh operating system and a basic familiarity with the Internet. A basic knowledge of the UNIX environment is recommended, but not required.

This document has been prepared for you by the W&MF staff so that you can familiarize yourself with the basics of Netscape Communicator™ (version 4.05) for the Macintosh™. This document is meant to serve as a future reference for you, covering from the very basic to the fairly detailed. Not all the information mentioned in this document will be covered in the *Navigating the Internet* class.

What is the Internet?

The Internet is a world-wide network of computers which communicate with each other using the Transfer Control Protocol (TCP) and Internet Protocol (IP). People usually refer to these together with the acronym 'TCP/IP.' TCP/IP can be thought of as a universal language for data transfer. It allows many different kinds of computers to exchange information smoothly, whether they're Macintoshes, UNIX Workstations, Supercomputers, or Windows PCs. For a long time, these computers could only communicate with their own kind (For example, Macs could communicate only with other Macs through the Appletalk protocol). Adopting TCP/IP allowed these computers to exchange data with any other computer they could connect to.

TCP/IP itself has many sub-protocols which vary in their functionality. For example, the File Transfer Protocol (FTP) is a protocol designed specifically for transferring files. The Post Office Protocol (POP) is a popular format for exchanging electronic mail. The Hypertext Transfer Protocol (HTTP) is used to exchange Hypertext Mark-up Language (HTML) files. Different programs are written to handle each protocol, though many modern programs attempt to handle multiple protocols.

What is the World Wide Web?

The World Wide Web (WWW) is the part of the Internet which uses the HTTP protocol to transfer HTML documents, or 'Web Pages.' Today, 'the Web' is the most used part of the Internet, mainly because of the versatility of HTML. Originally designed to allow academics to write articles whose citations could be linked to their source articles, HTML now allows authors to include a variety of multimedia and interactive content. Through the Common Gateway Interface (CGI) protocol, HTML forms can be created to allow users to submit information to web sites. Web browsers which support JAVA allow users to run JAVA programs on web sites. Browsers such as Netscape Navigator also allow users to install additional software components, known as 'Plug-ins,' which allow the browser to display new kinds of content.

Web Browsers

Web Browsers are the programs designed to download and display HTML files. Early browsers performed this function only, but most browsers today also support the FTP and Gopher protocols. Many browsers also include components to handle electronic mail and newsgroup-reading, often becoming an all-in-one interface to the Internet. Because of this, many people have come to use the terms World Wide Web and Internet interchangeably, which is not entirely accurate.

Netscape Communicator is a popular web browser available on the Macintosh, Windows, and UNIX platforms, among others. It is primarily a web broswer, but can handle FTP and Gopher connections, and has build-in modules for electronic mail, newsgroups, and even a component for creating web pages. If you only need to use Communicator's web browser component, Netscape Navigator, you can run it alone. Running Navigator requires less memory than running Communicator.

Netscape Communicator and Navigator are available free to the public.

IMPORTANT TERMS

We've already used many terms which you may be unfamiliar with. Here we review their meanings and introduce some other terms you'll encounter. We'll elaborate on some of these definitions later in the tutorial.

Bookmark. A Bookmark entry holds the location of a web page. When you save a bookmark for a page, an entry is made in your bookmarks file. In the future, you can access the bookmarked page quickly by looking for it in your list of bookmark entries. Netscape, like many other web browsers, allow you to access your bookmarks directly through the menu bar.

Client. (also client or local machine) The computer operated by the human user, which sends commands or information requests to a remote server machine.

Downloading. The process of transferring a file to from another computer to the computer you are currently using.

Protocols:

CGI. Common Gateway Interface, for sending data to programs running on a web server.
FTP. File Transfer Protocol, for transferring file lists and files between computers.
Gopher. An older protocol used to transfer file lists and files. Designed to be more user-friendly than FTP. It allowed you to read text files in it while FTP required you use another program.
HTML. Hypertext Markup Language, for writing documents which include multimedia content and which can link to other documents.
HTTP. Protocol for transferring HTML documents and included content.
Java. A computer language often used to write programs which can be used through web browsers.
NNTP. Network News Transfer Protocol, for sending and posting data to Usenet Newsgroups.
POP. Post Office Protocol, the most popular method of electronic mail retrieval.
TCP/IP. The system of protocols which defines the Internet.

Server. The computer which responds to input from client machines. Though maintained by humans, they typically run by themselves, sending requested files and data to client machines.

Search Engine. Software which searches collections of files for requested information. The files are usually not indexed and categorized, as in a web index.

Web Browser. Software designed to retrieve and display HTML documents. Most modern Web Browsers can also handle data transfers through FTP and Gopher, and even electronic mail and newsgroup reading.

Web Index. A collection of WWW documents organized by subject. Typically sites with web indices also run search engines to help users locate documents or subjects which have been indexed on the server.

Web Site. A server which holds HTML files and other WWW content.

World Wide Web. (also WWW) That portion of the Internet which focuses on the exchange of HTML files and related content through HTTP.

Uploading. The process of transferring a file from the user's machine to another machine.

URL. (Universal Resource Locator) A line of text which specifies a documents location on the Internet. Her are some sample URLs:

PROTOCOL:	URL:
HTTP	`http://www.berkeley.edu/index.html`
FTP	`ftp://cornucopia.berkeley.edu/`

Usenet Newsgroups. Discussion areas on the Internet where users can post and respond to messages.

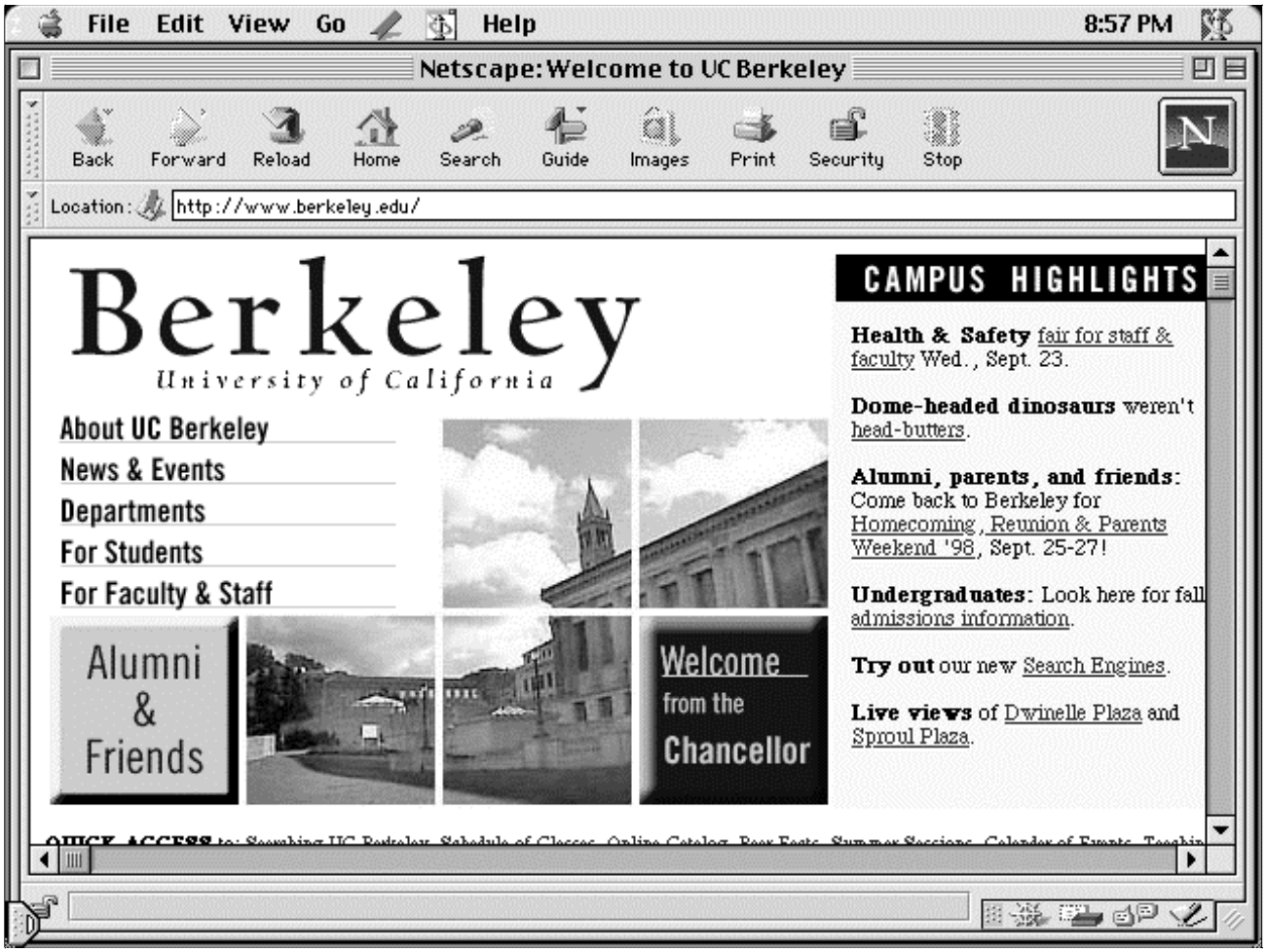
GETTING STARTED

Opening Netscape

People typically open Netscape simply by double-clicking on its icon. In the Workstation & Microcomputer Facilities, you can find Netscape in the following location:

PROGRAMS : Networking : Netscape Communicator 4.05: Netscape Communicator 4.05 §

After starting up, the first thing Netscape will display is the default home page. In the Workstation and Microcomputer Facilities, this has been set to the main page on UC Berkeley's web site. This page will contain useful information about UC Berkeley and allow you to explore UC Berkeley's on-line resources.



To go to another web page, you can just type in its URL in the Location field:

However, you should have some idea of what everything on-screen is and does before moving on...

USING NETSCAPE NAVIGATOR: ITEMS ON SCREEN

By default, Netscape will launch with its web browser (Navigator) component open. (This can be modified in the settings.)

Menu Bar

You can control most of the Netscape's functions through the menu bar. (Most are self explanatory, though the menu items represented by icons may require some explanation...

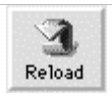
Bookmarks Menu: All bookmarks are listed here.

Communicator Menu: From here you may switch between Communicator's components and windows.

The menu bar will change depending upon which component you are using.

Navigation Toolbar (a.k.a. Button Bar)

The Navigation Toolbar provides easy access to frequently-used commands. Most of these control movement between web pages.

	Goes back to the last web page viewed. Continue to press this to move further back through the web pages viewed.		Loads Netscape's 'Guide' site, which compiles information of interest to people in particular regions.
	If you have moved back, this will move you forward by one page until you are at the more recent page viewed.		If Navigator did not load a web page's images, this button will load them.
	This will reload the current web page from the web server.		Prints the current web page.
	Goes to the home page, as specified in Netscape Navigator's preferences.		Brings up security information for the current page, and the current security settings in Navigator.
	Loads Netscape's search engine page, where you can connect to popular search engines.		Halts Navigator if it is downloading a page. Whatever content that has already been downloaded will be displayed.

If you hold the mouse button down while clicking on certain toolbar buttons, a pop up menu will appear.

By holding down the **Back** or **Forward** buttons, you can skip backwards or forwards to any web page you have viewed.

Holding down the **Guide** button will show other sites Netscape has available to assist you.

Location Field

As described above, you may type in a URL for a page you are interested in into the location field. For sites that have names of the form “www.something.com” you can simply type in “something” and Navigator will fill in the rest for you.

Double clicking on the small icon to the left of the location field will make a bookmark entry for the current page. If you click on the button and drag it to the Macintosh desktop, Navigator will create a bookmark file on the desktop for the current page.

Basic Elements of Web Pages

Web pages can contain a wide variety of content, but most web pages mainly contain text, graphics, and links. Many pages will use animation and scrolling text as well. Others use more obscure tricks through Java code.

Links:

Links are the defining feature of web pages. To use a link, simply click ONCE on it. The color and appearance of links will vary greatly according to the design of the web page's author. On well-designed web pages, it will be very obvious what is a link and what is just a plain piece of text or graphic. Links can be displayed as hypertext, or as graphical 'buttons.'

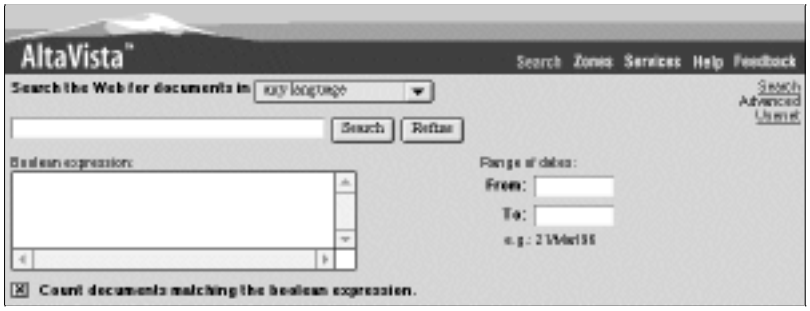
Usually, a link will cause the mouse's pointer arrow to change to a hand pointing upwards.

Hypertext Links: Hypertext links are typically colored differently from the rest of the text and are underlined.

Graphical Links: There is very little to distinguish a graphical link from a regular image. Usually, a graphic link will look like a button of some sort, and will contain text suggesting what information the link leads to.

Forms:

Many web pages also incorporate forms, which can be used to send information to web servers. This is a very important feature of the web, allowing users to send queries to search engines and submit purchase information to buy items on-line. The appearance of form elements will generally remain constant across web pages because they are based on similar elements from your computer's operating system.

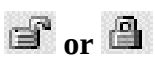


This is a form for AltaVista's Advanced search engine. You can see most of the basic form elements here such as fill-in text fields, check boxes, pop-up menus, and buttons.

Frames:

Authors can split up your browser's window into distinct regions called 'frames.' Depending on the author's design, links on frames pages will update only one of the frames, or update/replace the entire page. Frames have become rather uncommon on major web sites because they tend to look 'cluttered' and complicate the interface. You can tell a page uses frames if only parts of it scroll while others do not.

Bottom of the Navigator Window



or

This padlock icon will appear locked or unlocked to indicate whether data exchanged with the current site is encrypted. Most pages aren't, but most reputable retailers and financial services will encrypt their pages, causing the icon to appear locked.

The status of a download will usually be displayed here. If your pointer is over a link, its URL will usually show here. Some web pages will use Java to have scrolling ticker tape-like text here.

USING NETSCAPE NAVIGATOR: FEATURES

Moving around between pages in Netscape Navigator is rather easy. You can click on links, as described above, or you can type a page's URL into the Location bar, also described above. Netscape also gives you many options for using what you have found on the Internet.

Saving Content From the Internet: Web Pages

You can save the text content of a web page by using the Save As... command from the File menu.

The standard Macintosh Save dialog should appear. Before saving you should be sure that you are saving the page in the right format...

Text will save the plain text from the document, with no formatting information. You will be able to open the document in Netscape or any text editor or word processor and view the contents. Occasionally the layout of a page will garble the appearance of the text.

Source will save the actual HTML source code of the document, allowing you to preserve the formatting and most of the layout. Though the file saved will be readable by any text editor or word processor, much of the document will contain the HTML code, making it hard to read the content. To view the document properly, you can open the file using Netscape or any other web browser.

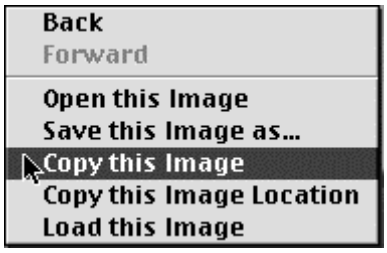
The resulting file will have this icon. It is important to understand that only the TEXT of web page will be saved in this manner. Images must be saved separately.

Saving Content From the Internet: Images (continued)

To save an image, move the pointer over it. Hold down the mouse button until a pop-up menu appears...


Back
Forward
Open this Image
Save this Image as...
Copy this Image
Copy this Image Location
Load this Image

Saving Content From the Internet: Images (continued)



(The Back and Forward commands correspond to the navigation commands discussed earlier.)

Open this Image will open the image in the Navigator Window.

Save this Image as... will bring up the save dialog for the image. The image's format cannot be changed and will be whatever format it is on the web page. The image's file name should reveal what image format it uses. ".jpg" or ".jpeg" means JPEG format, ".gif" means GIF format, ".png" means PNG format. You can then open the file in Netscape or any other graphics program capable of viewing the format.

Copy this Image will copy the image into memory, allowing you to paste it in other programs.

Copy this Image Location will copy the image's URL, allowing you to paste the URL in other programs.

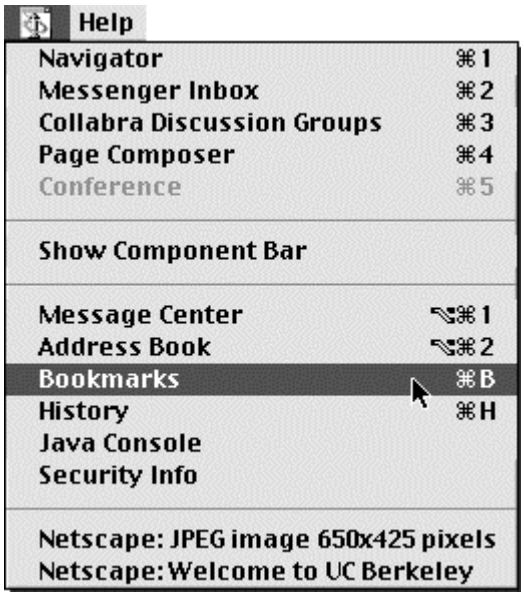
Load this Image will load the image into the current page if it wasn't loaded completely before.

It's important to understand that saving an image will not save the original page it was located on, nor its placement on the page's layout. There is no practical way in Netscape Communicator to save a web page 'whole,' in one simple document that will display all text, layout, and images exactly like the original. Other programs do exist to 'suck' a web page off of a site, complete with layout, formatting, and images intact.

Bookmarks

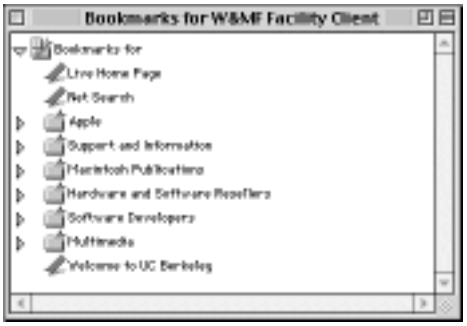
Another way of keeping a web page available to you is to save its location so that you can return to it quickly. There are several ways to save bookmarks in Netscape. One of them was described earlier in the "Using Netscape Navigator: Items On Screen" section. However, the most common way to add bookmarks is to use the Add Bookmark command under the Bookmarks menu:

After doing this, an entry for the current page will appear under the Bookmark menu.



When you accumulate a large number of bookmarks, you can organize your bookmarks in the Bookmark window. To go to the Bookmark window, select the Bookmarks item from the Communicator menu.

A window much like this one should appear. You can see that there are icons for bookmarks and folders.



The order of the listings in the Bookmarks *menu* will correspond to the order of the items in the Bookmarks *window*, so you should re-order the items here to suit your preferences.

You can insert three kinds of items into the Bookmarks window. They are available under the File menu:

New Bookmark... will allow you to insert a URL for a page you haven't visited in this browser yet.

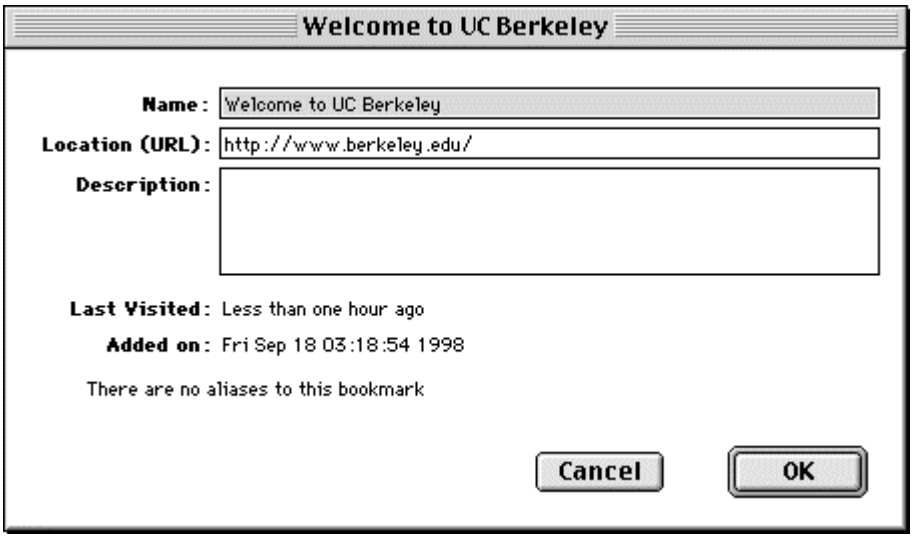
New Folder... will allow you to create a new folder in the Bookmarks window. This will create a corresponding sub-menu in the Bookmarks menu for any items you put in the folder. You can place folders within folders to create further sub-menus.

New Separator will place a dividing line between bookmark items. This is helpful if you bookmark menu is very long.

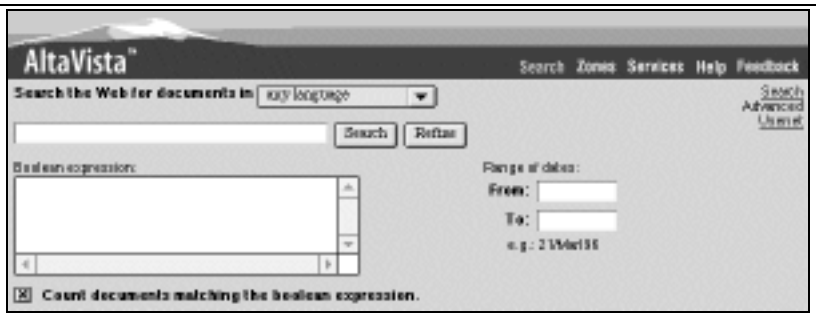
To remove items in the Bookmarks window, select them with the mouse and press delete on the keyboard. You can undelete something you just deleted with the Undo command under the Edit menu.

To move bookmark items around, simply click on their icons and drag them to the desired location. You can make bookmark shortcuts on the Macintosh desktop by dragging a bookmark's icon to the desktop. You can then double-click the icon on the desktop to launch Navigator and load the corresponding page.

To edit the properties of an item, select it. Then go to the Get Info command under the Edit menu. The window much like the one below should appear. You can change the name of the item as it appears on the Bookmarks menu, as well as its description. For bookmarks, you can change the URL.


Welcome to UC Berkeley
Name: Welcome to UC Berkeley
Location (URL): http://www.berkeley.edu/
Description:
Last Visited: Less than one hour ago
Added on: Fri Sep 18 03:18:54 1998
There are no aliases to this bookmark
Cancel
OK

USING NETSCAPE NAVIGATOR: Search Engines & Web Indices



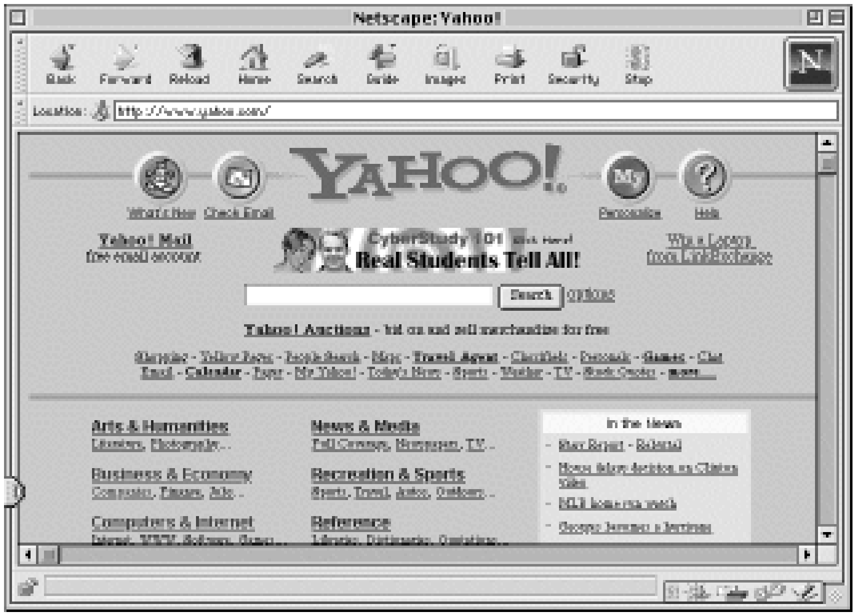
AltaVista's search engine, at http://www.altavista.com

The massive number of sites and documents on the Internet has made it almost impossible to locate relevant information without the aid of a search engine. A search engine runs on a web site which holds text downloaded from all pages known to it. Most sites running search engines allow people to submit URLs which it will then attempt to download. Bad URLs are dropped from its archives. Periodically, the search engine will send a 'spider' or 'crawler' out to check on the status of pages, downloading fresh copies, or checking whether or not the page or server is unavailable. When a user submits a search query, the search engine looks through the archives to for the terms requested, and returns the results to the user.

You can load a search engine by typing in the URL for its site into the Location field, or by clicking on the **Search** button on the Navigation toolbar to access Netscape's compilation of Internet search engines. However, you may eventually find that one search engine returns better results for you than the others, and prefer simply to bookmark it and always use it instead.

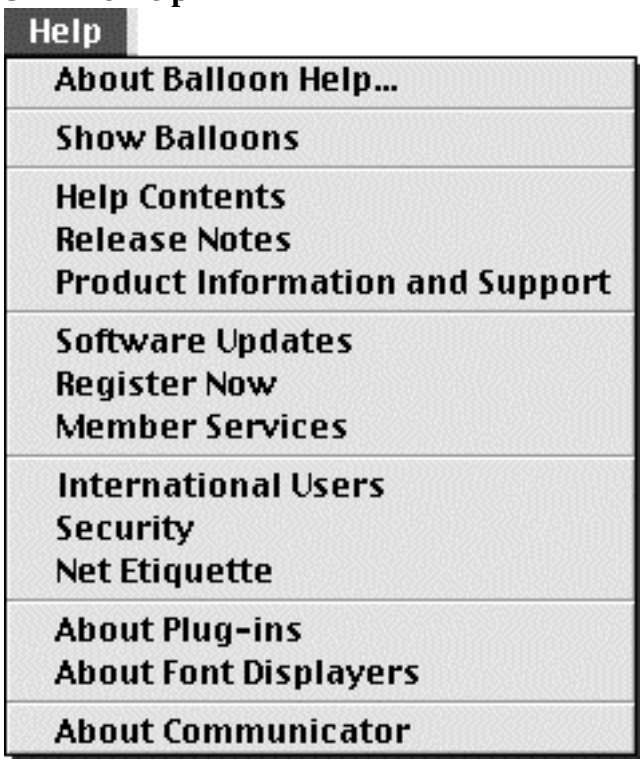
Using a search engine is relatively simple. Type the relevant terms into the appropriate text field, and click a button to submit the search criteria. It's usually a good idea to take advantage of a Search Engine's 'Advanced' search capabilities, so look for that option if you keep getting unsatisfactory results. Just like library catalog searches, use less search terms if you get few results, and more if you get too many results.

A web index is similar to a search engine but goes one step further by storing the pages it archives by topic, so that users can choose to search its pages or categories, or simply browse through the categories to find what they need. Yahoo!, at http://www.yahoo.com, is one search engine which does this.


Netscape: Yahoo!
Back
Forward
Reload
Home
Search
Guide
Images
Print
Security
Stop
Location:
YAHOO!
Yahoo! Mail
Real Students Tell All!
Search
Arts & Humanities
News & Media
Business & Economy
Recreation & Sports
Computers & Internet
Reference
In the News

TIPS & MORE HELP

On-Line Help



A great deal of information about Netscape is available under the Help menu. From Product Release Notes to Net Etiquette, the Help menu should be of much assistance in your experience on the Internet.

Web Sites

http://home.netscape.com/

As mentioned before this is the corporate site for Netscape. It should be a useful source for the latest information on Netscape and its products. You should also check in occasionally to see if new versions have been released that fix bugs or patch security holes.

UC Berkeley Support

http://mac.berkeley.edu/

Berkeley's Macintosh support site. Contains older versions of Netscape Navigator and related documentation files.

http://cab.berkeley.edu/

Berkeley's Networking support site. Contains info and software concerning Internet connections from home. A good place to get started if you would like to set up your home computer to connect to the Berkeley network so that you can use Netscape Communicator and other Internet applications on your home computer.

Manuals

Retail versions of Netscape Communicator are still available in some software stores, which will come with full manuals and documentation. You may consider purchasing these if you need thorough documentation on all of Communicator's components. The Workstation & Microcomputer Facilities generally do not have Netscape manuals available for reference.