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The Internet has become an indispensable tool. . .

Accessing Health Information Through the Internet

The Internet has become an indispensable tool for population and health professionals. For example, electronic mail (e-mail) and the World Wide Web have made it easier to share information and have made a larger amount of information available to a wider audience. E-mail allows people to communicate with each other more efficiently, breaking down barriers of time and distance. The World Wide Web provides population and health professionals with the opportunity to explore findings made by others in the field and the ability to communicate their own research to a large network of people.

The Internet is a tool for increasing knowledge on a broad range of topics: adolescent health, fertility, HIV/AIDS, women's education. . . Greater, faster, and less expensive communication helps to facilitate the exchange of new ideas, the discovery of new possibilities, and the solutions to old problems.

What can you use the Internet for?

E-mail

- ◆ Send a message to a colleague in Thailand to share recent success stories from up-country clinics
- ◆ Request 5 print copies of *Improving the Quality of Reproductive Health Care for Young People* from the Population Reference Bureau [prborders@prb.org]
- ◆ Send a question to the Center for Communication Programs about a nutrition program in Asia [webadmin@jhuccp.org]
- ◆ Join an electronic discussion group, DemoNetAsia, a network of population research institutes that promotes effective use of new information technologies [<http://demonetasia.multiphania.com>]

World Wide Web

- ◆ Search the Asian Studies WWW Virtual Library website to access regional and country-specific information resources on the Internet [<http://coombs.anu.edu.au/WWWVL-AsianStudies.html>]
- ◆ Look for key Websites and organizations in Asia using PopNet [www.popnet.org]
- ◆ Find the most recent statistics on HIV/AIDS in China from UNAIDS [www.unaids.org]
- ◆ Read about *Integrating Essential Newborn Care into Countries' Policies and Programs* from the Population Reference Bureau website [www.prb.org]

Communication Tools

The **Internet** is a complex system of computers and networks that are connected through a common electronic language and work together to share information. The Internet provides a variety of services including electronic mail, the World Wide Web, file transfers, conferences and discussion forums, and database searching.

Electronic mail (e-mail) is a message sent from one computer to another via a network of computers. These messages can be quick and easy formats for person-to-person communication or used by one person sending information to many people. E-mail is probably the most widely used Internet service.

A **listserv** is a list of e-mail addresses for a group of people interested in the same subject. The lists can be active forums for discussions or can simply serve as a distribution list for announcing information on a particular topic. With a discussion-type listserv, a list subscriber sends a message to the list and everyone on the list receives the message. Listservs are an inexpensive mechanism for communicating with a large group of people.

The **World Wide Web (WWW or the Web)** is a graphical Internet service used to distribute information through text, images, and sounds. Viewing documents on the Web requires a connection to the Internet and a software program Web browser. Web documents or Web pages use hypertext markup language (HTML) to link documents together. Having access to the Web provides users with the opportunity to transfer and download files and programs.

FTP (File Transfer Protocol) is a computer application and the most common process for sharing files.

Portable document file (PDF)-readers (like Adobe Acrobat) are free software programs that allow a user to read a PDF after it is downloaded onto a computer. These unique files give people the ability to distribute information in a format that retains the layout of the original document.

Uniform Resource Locator (URL) is the Internet address of a particular Website that is used in a Web browser. For example: <http://www.popnet.org>

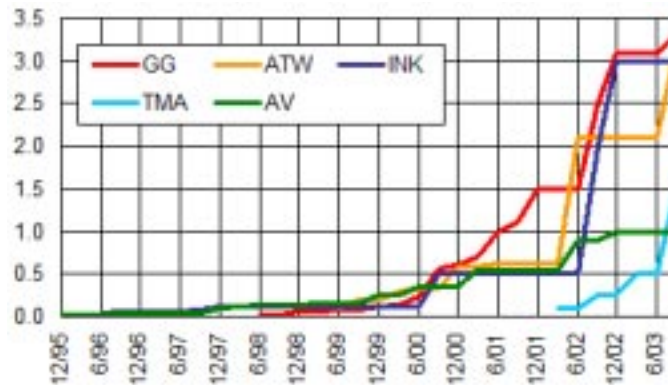
Hypertext Markup Language (HTML) is the computer language used to create Web pages by indicating the appearance of text on a Web browser and links to other pages.

Frustration with the vast amount of information that is part of the World Wide Web is common because it can be difficult to identify, locate, and view the information that one needs. **Search directories and search engines** have been established to help users find targeted information by offering directories of Websites on general information or indexes that analyze Web pages and match them to certain search criteria.

Growth of the Internet

The chart below shows how the size of search engines has greatly increased in the last eight years. The figures represented below are unaudited and self-reported by the individual search engines. The textual documents indicated include PDF files, HTML files, text documents, Microsoft Office documents, and other similar files, excluding image and multimedia files.

Billions Of Textual Documents Indexed
December 1995— September 2003

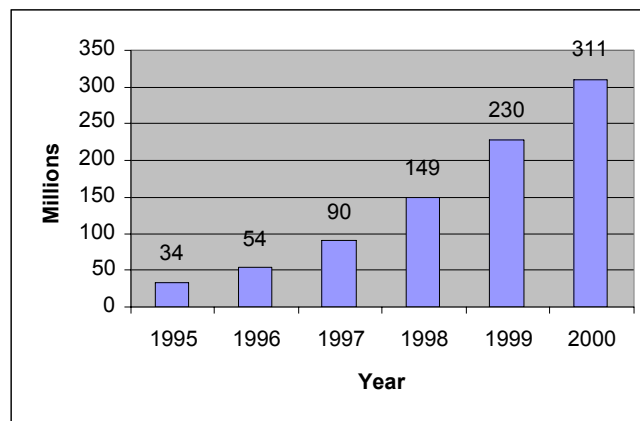


KEY: GG=Google, ATW=AllTheWeb, INK=Inktomi, TMA=Teoma, AV=AltaVista

Source: <http://searchenginewatch.com/reports/article.php/2156481>

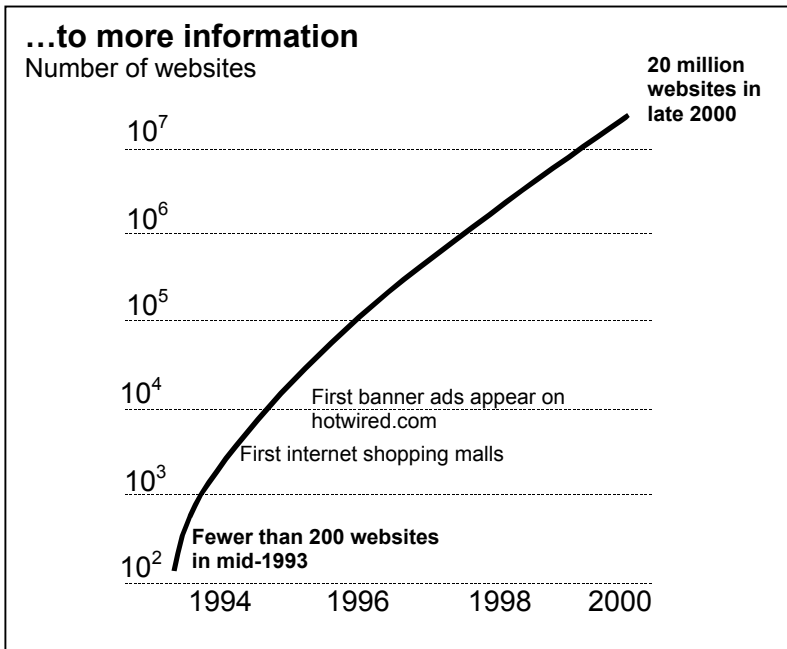
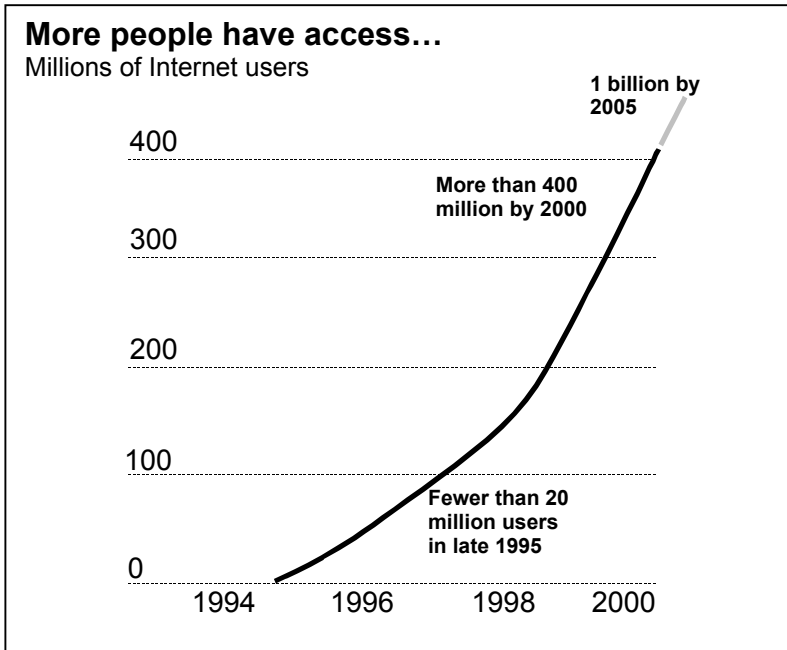
Just as the size of search engines has increased over the years, the availability of information and communication technology (ICT) has also increased. The graph below shows how global Internet connectivity has increased almost 10-fold from 1995 to 2000.

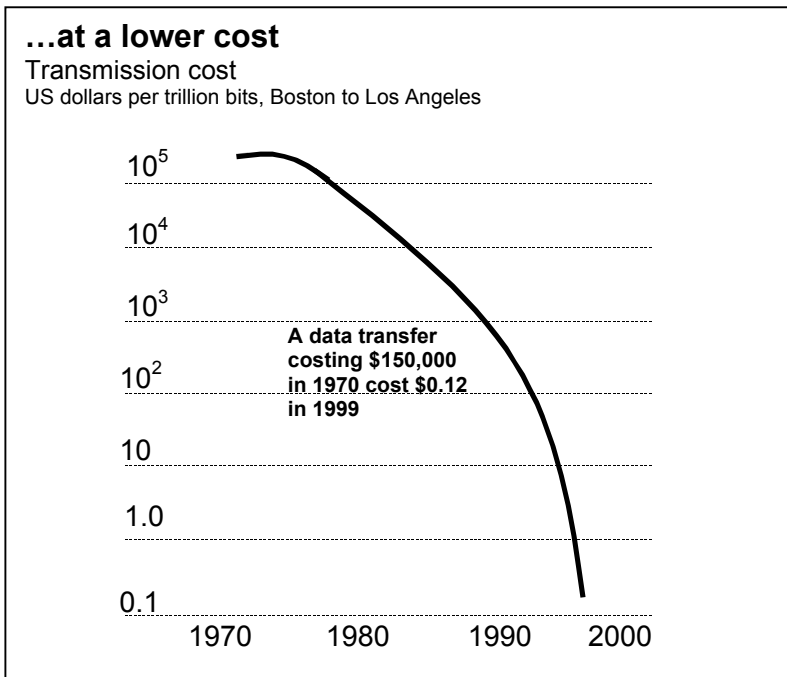
Global Internet Connectivity, 1995 -2000 (millions)



Source: Phillippe Capitaine, Chief External Affairs, ITU, November 2001, as cited in Knowledge Management Overview, WHO

The following three graphs show that as the number of Internet users and the number of websites have increased, the actual transmission cost of Internet use has decreased.





World Wide Web Pages Via E-mail

In some areas, Internet services are primarily and sometimes exclusively accessible to individuals only through e-mail. In these cases, an individual's ability to browse the World Wide Web may be limited, time consuming, costly, or impossible. But by sending an e-mail message to one of the following servers and including the URL (Internet address) in the subject of the message, an e-mail message will be returned to you with the information on that website in text or html.

Some services will send an e-mail with the text information found on the page of the website. The document will be part of the body of an e-mail message. All links from the requested page will appear in the e-mail message with numbered references: such as [12] next to some specific words. This means there is more information on this topic available on another page. If you are then interested in seeing this new document, you will find the same number listed at the end of the e-mail with a list of URLs. Just copy this new URL into a new e-mail and send it to one of the retrieval services.

Example

Send an email message to: **page@grabpage.com**

For e-mail programs that can read html, like Outlook or hotmail, type in the subject line of an e-mail message:

HTML: <http://www.prb.org>

For older e-mail programs that can only read plain text, type in the subject line of an e-mail message:

URL: <http://www.prb.org>

This service will send the page requested as part of an e-mail message. The page is viewable just as if the site was opened using a Web browser. The service can be also be requested from older e-mail programs that cannot read html.

Free E-mail Accounts Using the Web

Anyone with access to a computer that is connected to the Internet, also has access to a free e-mail account. Web-based e-mail is e-mail made available through a Website instead of through a mail server. One can receive, send, and view most attachments with these accounts. Some of the more popular and reliable web-based e-mail services are:

- ◆ www.hotmail.com
- ◆ www.mail.com
- ◆ <http://mail.yahoo.com>

Information about Hotmail

By registering for a Hotmail account, you will have a permanent e-mail address accessible from any Web browser by navigating to **www.hotmail.com**. The e-mail is private and secure, protected by your personal ID and password. You can also send and receive e-mail attachments, with files up to 1MB (1024K).

To sign up for an account:

1. Go to: www.hotmail.com and select the tab for <New Account Sign Up>
2. Follow the instructions and fill out the information on the screen, see example below.
3. You will need to choose a sign-in name and a password that is needed every time you check your messages.
4. The "secret question" is used in case you forget your password but is not related to your password; i.e. What is your mother's maiden name? Where were you born? Etc.

Account Information Section for Hotmail Registration

The screenshot shows the Hotmail registration page. At the top, there are links for "Sign In", "New Account Sign Up", and "All About Hotmail". The "Registration" section contains instructions and a "Sign In" link. Below this is the "Profile Information" section with fields for First Name, Last Name, Language (English), Country/Region (United States), State (Choose One), ZIP code, Time zone (Universal Time - GMT), Gender (Male/Female), Birth date (Month, Day, Year), and Occupation. The "Account Information" section includes fields for E-mail Address, Password (60-character minimum), and Retype Password.

Navigation Hints

Going to a Specific Website

If you know the address of the site you would like to visit, you can go directly to that page. The **URL**, the Internet address of a particular Website that is used in a Web browser, for example: <http://www.prb.org>, must be typed into the Address bar of the toolbar. Hit Enter and Internet Explorer will take you there.

1. Press Alt-D or click the **Address** bar's text box to highlight the text currently in the box.
2. Type the address for the page you want to access.
3. Press Enter or click the Go button at the right side of the Address bar.



Using Links to Go to Other Pages

Most Internet Websites have a series of links to other pages on the World Wide Web. These links (or hyperlinks) are identified most often by underlined words. Your mouse arrow changes to a pointing hand when a link is available from that word or graphic. To use this link, click on the word or graphic and Internet Explorer will open a new page.

You can also use the following keys to scroll through the links on a page:

Tab: Selects the next link on the page.

Shift+Tab: Select the previous link.

Enter: Takes you to the linked page.

Alt+Left Arrow or **Backspace:** Returns to earlier page.

Alt+Right Arrow: Moves to next page.

The screenshot shows the Population Reference Bureau website. The main content area is titled "Asia/Pacific" and contains several articles, including "China's Population: New Trends and Challenges (PDF: 713KB)", "Anti-AIDS Effort in Central China Focuses on Former Plasma Donors", "China Faces Challenges in Effort to Contain HIV/AIDS Crisis", and "Philippine Business Leaders Spearhead Drive for Family Planning". A callout box labeled "Hyperlink" points to the underlined text "China's Population: New Trends and Challenges (PDF: 713KB)".

SEARCH | [ENGLISH] | FRANCOIS | ORDER | VIEW ORDER | SUPPORT PRR | CONTACT

POPULATION REFERENCE BUREAU

Home | Educators | Journalists | Students | Training | PRR Library | About PRR

Focus Areas
Environment
HIV/AIDS
Population Trends
Reproductive Health

Topics
Education
Employment
Family Planning
Gender
Health
Immigration
Migration/Factors
Mortality
Morbidity
Other Population
Policy
Sexual Health
Urbanization
Youth
2000 Census

Regions
Asia/Pacific
Europe
Latin America
Middle East
North America
Sub-Saharan Africa

PRR Websites
PRR ->
PRR/WHO ->
PRR ->
PRR ->

Asia/Pacific

Articles, Datasheets, Reports

China's Population: New Trends and Challenges (PDF: 713KB)
China has been the world's most populous country for centuries, and today makes up one-fifth of the world's population. This Population Bulletin draws from a growing body of statistical data and research to look at some of the demographic changes that have occurred in China's recent past. (June 2004)

Anti-AIDS Effort in Central China Focuses on Former Plasma Donors
China has focused much of its fight against HIV/AIDS on former plasma donors: villagers in roughly seven central provinces who contracted the virus at blood collection centers that operated prior to a government crackdown in the late 1990s. (May 2004)

China Faces Challenges in Effort to Contain HIV/AIDS Crisis
With official estimates of Chinese people living with HIV/AIDS rising from 500,000 in 1999 to 1 million by 2002, China continues to face a number of challenges as it strives to contain a crisis that experts fear could affect more than 10 million people by 2010. (May 2004)

Philippine Business Leaders Spearhead Drive for Family Planning
Repeated reversals at the national level on the merits, the morals, and the means of family planning have prompted business executives in the Philippines to call for a national campaign on family planning. (March 2004)

Highlights
• Asia and the Pacific Country Profile (PDF: 455KB)
• Alcohol Use
• Tobacco
• The State of Population Trends (PDF: 520KB)
• Population Handbook (PDF: 463KB)

Using Bookmarks and Favorites

Take advantage of the tools provided by the software that you are using to browse the Internet. Useful Web pages can be *Bookmark*-ed in Netscape or added to your *Favorites* in Explorer so they can be found and accessed later.

Add a new site to the Favorites bar:

1. Navigate to the page you want to add to the Favorite list.
2. Open the **Favorites** menu and choose **Add to Favorites**.
3. In the **Name** text box, type in the name of the page.
4. Place the Website in a folder. Click the **Create In** button and select an appropriate folder or create a **New Folder**.
5. Click **OK**.

To open a site from your Favorites list, simply select it from the Favorites menu.

1. Open the **Favorites** menu in the top part of the toolbar, select the Favorites Icon, or hit Ctrl-I for the Favorites directory structure to appear on the left.
2. Click on the name of the site and the page will open.

Organize your Favorites:

It may help to organize your Favorites into folders much like you would files in Windows Explorer. Select **Favorites | Organize Favorites**. . . And a new window will appear so sites can be organized into categories.



Saving and Printing Web Pages

Websites can be saved to view when you are off-line. Internet Explorer provides three options for saving a Web page: Save as (1) Web Page, complete or Web Archive: saves the page and all graphic images on your computer; (2) Web Page, HTML only: saves all the code needed to view the page with a browser, but does not save images; and (3) Text File: saves the page's text so that it can be viewed in a word processing document.

1. Navigate to the page you want to save.
2. Choose **File | Save As**.
3. Enter a name for the file in **File Name** and select type of file format.

Printing a page from a Website works much like printing in most word processing programs. Choose **File | Print**. It may be necessary to check the number of pages, and print only specific pages because website pages can be long.

Web Pages Can Be Viewed Offline

Because connections to the Internet can be costly and unreliable, it may make more sense for some pages to be read when you are no longer connected to the Internet. After accessing the website that you want to make available, select the Add to Favorite command from the toolbar: **Favorites | Add to Favorites**. A dialog box will appear, check the **Make Available Offline** box. This will save this website so you can view the page later.

To open up the saved page, pull down the **File** menu and select **Work Offline: File | Work Offline**. Then go to the **Favorites** menu and select the site you set up to view offline.

Legitimacy of Online Information

The Internet is growing so rapidly with information from reputable as well as non-reputable sources, and it is necessary for users to properly evaluate the legitimacy and quality of that information. Principles to consider include:

Source

Author: Who is the author? Is the author well regarded in the field of study? Is their position and institutional affiliation provided? Can one request additional information from the author?

Organization: Is there any background information available on the organization that published the information? Does the document have distinctive headers or footers to indicate association with an official website? Does the web page reside in a personal Internet account as opposed to being part of an official website? Is the organization recognized in the field of study?

Message

Timeliness: Is the information current? Is there a date that indicates when the information was collected and then published? Is there a copyright date?

Perspective: Is it objective? Who is providing the information, and what might be their point of view or bias?

Related literature: Is the information supported by references? Does the author display knowledge of related theories or schools of thought?

Accuracy: Are the data and methodology included? Are the research methods appropriate?

Usability

Access: Is the information accessible?

Source: www.library.jhu.edu/elp/useit/evaluate/index.html

Exercise I



Using a Web Browser and Navigation Hints

1. **Accessing a Website:** Visit the Website for the Population Reference Bureau www.prb.org
 - Type in the address bar: **www.prb.org**
 - Hit enter

The Website will appear in the browser window. You can track the loading progress in the display bar at the bottom of the screen. If necessary, you can hit the Refresh icon or View | Refresh, to reload the Website.

NOTES:

2. **Following Hyperlinks:** From www.prb.org, navigate to a new page. Go to a page about the Asia/Pacific region.
 - Locate the hyperlink: **Asia/Pacific**
 - Move cursor over the word until the cursor changes into a pointing finger icon.
 - Click on this word.

A new Web page should appear in the window displaying information on Asia and the Pacific.

- Use the **Back Button** on the Web browser to return to www.prb.org home page and try other links.

NOTES:

3. **Choosing a Website from Favorites:** Open up a Website that was saved in your Favorites on the browser.
 - Open the **Favorites** menu in the top part of the toolbar, select the Favorite Icon, or hit Ctrl-I for the Favorites directory structure to appear on the left.
 - Click on **PopNet—www.popnet.org** to open the page.

NOTES:

Sites in your Favorites

Search Sites:
www.altavista.com
www.google.com
www.yahoo.com

PopNet:
www.popnet.org

4. **Adding a page to Favorites:** Navigate to POPLINE from PopNet and add the Website to your Favorites list.
 - Click on **Databases** from the PopNet Website.
 - Locate **POPLINE** from the list and click on this link.
 - Open the Favorites Menu and choose **Add to Favorites**.

NOTES:

5. **Organize your Favorites:** Create a new folder for Pop and Health Sites and organize favorites.
 - Open the Favorites Menu and choose **Organize Favorites**.
 - Select **Create Folder** and type **Pop and Health Sites**.
 - From this window, highlight *PopNet* and select **Move to Folder**, choose Pop and Health Sites.
 - Repeat for *POPLINE* Website.

NOTES:

Searching the Internet

The Internet is a valuable resource for gathering and sharing information, but discovering where that information is located can be difficult and time consuming. Being able to discover and focus on the most valuable and reliable Websites is challenging. Search directories and search engines can help to locate relevant information and narrow the large number of sites.

Search directories break down the World Wide Web into general categories in a manner similar to the cataloging of a library. Websites are grouped according to related fields and then broken down into further sub-directories. Utilizing a directory requires a minimal understanding of the topic, in order to understand how the directory might be structured and where the information you are looking for might be found.

Search engines use technology programs to browse and analyze all Websites in order to make it easier to find very specific information. Specific search criteria entered by a user are matched to information on the Web pages within the index. Using a search engine does not require any knowledge of a topic because it uses key words and phrases. Problems arise because the index can also locate irrelevant information. The key is to learn to do very specific searches using a few valuable search techniques.

Search Directories and Search Engines

www.altavista.com

AltaVista provides both a directory of websites and a search engine. The directory contains more than 2 million websites that are organized into categories while the search engine covers over 350 million Web pages. In addition to searching, AltaVista provides many other services such as language translation and website hosting.

www.yahoo.com

Yahoo! provides both a directory of websites that are categorized, and a search engine that looks for matches within category names, website titles and comments as they appear in the Yahoo! Directory, content from individual Web pages found by Google, and in Yahoo! News stories and Net Events.

www.google.com

Google is a fast search engine that has indexed more than 1 billion pages. User's search terms are highlighted in the results page to help determine the usefulness of the found item. Google also has a directory. **Google is a PRB favorite.** The main search screen is efficient. Good results can be found without using any operators, though the site does support "OR" and the minus sign ("-").

Copernic Agent Basic

www.copernic.com/en/products/agent/basic.html

Copernic Agent Basic is a search engine that can be downloaded onto your computer at no charge. It queries leading search engines to return relevant, high quality results from more than 90 search engines grouped into categories. It consults multiple search engines, combines their results, removes duplicates, and keeps the best of the information gathered from queried search engines. You can also remove broken links, search within results, save pages for offline browsing, sort results, e-mail results to colleagues, and generate extensive search reports. Copernic Agent Basic also saves your searches for later use so that you can click

on a previous search to instantly see the results, to modify the search, or to update the results. You can also categorize your search history.

Effective Searches

Searching for information on the Internet is only as effective as the process in which you query and use search engines and directories. A research study by Georgia Tech University found that while over two-thirds of all Internet users cite finding information as their primary use of the Internet, over two-thirds of all users also cite the inability to find information as their primary frustration.

Plan a Search Strategy

Before using a search engine or directory, plan a search strategy. A strategy will clarify your thinking and help to ensure that you are looking for appropriate and relevant information.

1. Define your topic or your information problem in one sentence.

Funding for best practices to control multidrug-resistant tuberculosis in East Asia

2. Ask questions to clarify your topic and to develop a concise search. Identify the missing information by clarifying what you do know, with such questions as who, what, why, where, and how.

Who: Bill and Melinda Gates Foundation, Harvard Medical School, World Health Organization

What: tuberculosis, model DOTS, drug-susceptible TB, grant

Where: China, Vietnam

How: DOTS– Plus

3. Identify similar search terms or synonyms for these main keywords.

tuberculosis
TB

funding
best practices
grant

Bill and Melinda Gates Foundation
Harvard Medical School
World Health Organization

China
Vietnam

model DOTS
DOTS– Plus

multidrug-resistant TB
drug-susceptible TB

4. Determine if your information problem would be best answered with a search directory, search engine, or a specific database.

Remember that a search directory uses general categories and sub-categories appropriate for a structured search and with some knowledge of the topic. A search engine uses key words and phrases requiring a narrow search strategy. A specific database might be a better choice for collecting data and statistics.

Search Techniques

Search engines are intended to make finding information easier. Administering the proper search techniques can help to ensure that search engines are used most appropriately and efficiently.

1. **Wildcard matching:**

Attaching an asterisk (*) to the stem of a word conducts a search on different variations of that term.

Words with any matching characters where the asterisk is placed will be included in your search results. This is useful for including both singular and plural cases of an object or accounting for alternative spellings. Using a wildcard works best if the stem is longer, when a plural is formed with an added '-s', or the stem is not a root for many other common words.

SEARCH: program* (for program, programs, programme, programmes, etc.)

SEARCH: concept* (for contraception, contraceptives, etc.)

Recommended sites: AltaVista or Yahoo!

2. **Phrase matching:**

Developing natural phrases from your query concepts narrows your search. Including quotation marks (" ") around words means that the search must match the words in the exact sequence.

Phrases combine words that must be found by the search engine in the exact order requested. The phrase is designated with quotes. Quotes around phrases should only be used when two or more words must be in a specific order.

SEARCH: "Asia-Pacific Population Journal" (name of a journal)

SEARCH: "Institute of Public Health" (name of institution)

SEARCH: "The Potential Role of Contraception in Reducing Abortion"
(article)

SEARCH: "family planning"

Recommended sites: AltaVista Advanced, Google, or Yahoo!

3. **Boolean searches: AND, OR, NEAR, AND NOT**

Using Boolean expressions can help form more specific queries and can narrow or widen the number of probable results. Such operators are AND, OR, AND NOT, NEAR.

AND: joins two words that must *both* be present in the search. AND will narrow a search or qualify a word that may refer to other concepts so the word more appropriately fits your search.

OR: joins two words where *either* one may be present in the search. OR actually broadens a search.

Use AND to join different concepts. Use OR for synonyms or words that are different ways of saying the same thing.

NEAR: joins two words where they both must appear within 10 words of each other. NEAR helps narrow the search and ensures that the results have both terms either in the same sentence or same paragraph. This eliminates sites with too much information, where both concepts might be present but the site might not necessarily have information specific to them together.

AND NOT: specifies the terms that should and should not be included. Two words are joined together. The first must be present and the second should not. This operator should be used in successive searches to eliminate sites that keep appearing but are not relevant to the search.

SEARCH: infant mortality

results AltaVista Advanced: 129,584 pages

Google: 407,000 pages

SEARCH: child mortality

results AltaVista Advanced: 134,088 pages

Google: 482,000 pages

AND: joins two words that must both be present in the search

SEARCH: infant mortality AND child mortality

OR: joins two words where either one may be present in the search

SEARCH: infant mortality OR child mortality

NEAR: joins two words where they both must appear within 10 words of other

SEARCH: infant mortality NEAR child mortality

AND NOT: joins two words; the first must be present and the second should not

SEARCH: infant mortality AND NOT child mortality

Recommended site: AltaVista Advanced

NOTE: When searching for two words without using Boolean logic or quotation marks, *Google* and *Yahoo!* treat the request as if the two words were joined with an AND. *AltaVista main search* treats the request as if they were joined by OR and *AltaVista advanced search* treats them as a phrase.

4. **Inclusive/Exclusive operators:**

Including a plus sign (+) in front of a word requires that certain words be included in the search; functions like AND. A minus sign (-) will prohibit the words that follow from the search; functions like AND NOT.

SEARCH: +maternal +health +programs +asia

SEARCH: +maternal +health +programs +asia -africa -europe

Recommended sites: AltaVista Main only, Google, or Yahoo!

5. Parentheses and complex queries:

Nested expressions with the use of parentheses creates great search control and should be included when using multiple Boolean operators. A search is made first on the inner-most level of the expressions in parenthesis. The most important subject should be placed in a position to be evaluated first.

When using multiple operators, the AND operator is always evaluated before OR. The OR operator should be used within nested expressions to capture synonyms and avoid errors in building complex queries.

Use no more than three concepts on average when developing a complex search. The first should be the main subject of the inquiry with appropriate synonyms, and the other two concepts can be more descriptive concepts about the topic.

SEARCH: ("sexually transmitted infections") NEAR (contracept*) AND (prevention OR education) AND Asia

Recommended sites: AltaVista Advanced, Google, or Yahoo!

6. Filters

Independent of the query expression, filters limit the type of sites a query will search.

By **date**: With certain search engines, you can restrict the search to include only websites updated since a certain date or within a specified range.

By using **host**:- all websites from a particular host are found.

By using **link**:- all websites linked to a particular site are found.

SEARCH: host:www.jhu.edu

SEARCH: link:www.jhu.edu

Recommended sites: AltaVista

Site Specific Searches

Some of the search techniques highlighted in this manual can also be used when looking for information on a particular website if you are using their website specific search engine. For example, the search function on the World Health Organization website: www.who.int accepts inclusive and exclusive operators in all searches.

What if a website does not have a site specific search engine?

Use Google Advanced. From the Google Advanced search engine you have an option of restricting your search to include only a specific website. In the field Domains: choose **only return results from the site or domain** _____ and type in the URL for the website you would like to search. Results will be restricted to information on that website's domain and information that matches your search criteria.

General Search Tips

1. Beware of misspellings.
2. Avoid redundant terms that don't add depth.
3. Include alternative spellings.
4. Limit the number of concepts in a single search to three or four with a limit of no more than six to eight terms.
5. Keep construction of searches simple and beware of misuse of Boolean operators. Combining AND and OR operators in complicated queries can lead to unintended searches, if not followed in the correct order.

AltaVista

www.altavista.com



Searching AltaVista

Main Search Box

Type words related to your topic or information problem. Type your inquiry in the form of a question, a statement, or a phrase. Or you can just list a few words (keywords) related to what you are trying to find. You can include quotation marks to delineate a phrase, and plus or minus signs to require or exclude words. Examples Search automatically lists the most relevant results first.

1. Type keywords (and optionally, quotation marks and the symbols +/-) related to what you are looking for (or a question or phrase) in the search box.
2. (Optional) Click a button to indicate whether you want to search the Web, news, or shopping. The default is the Web.
3. (Optional) To restrict your search to a specific language, choose from the language menu.
4. Click the Search button.
5. At the Search results page, change your search query and check the box next to Search These Results to search just the pages returned by your initial search.

Use Advanced Search for Greater Control

To limit the documents that Advanced Search finds in the AltaVista index of the Web, you can:

- include logical expressions
- include commands that limit the search to specific elements of the Web, such as the HTML title or a specific server
- specify a language
- specify a range for date of modification.

To sort Advanced Search results, enter keywords or phrases in the Sort by field; if you leave the Sort by field empty, the results will be random.

Type the operators (AND, OR, AND NOT, or NEAR or equivalent symbols) and words to define your search. Use parentheses to group complex phrases. All but the first word must be preceded by an operator or AltaVista interprets the words as a phrase. (It's not necessary to use quotation marks to indicate a phrase.)

Expression	Equivalent Symbol
AND	&
OR	
AND NOT	!
NEAR	~

Note: The symbols plus (+) and minus (-) do not work in Advanced Search.

AltaVista: Advanced Search vs. Main Search

Advanced Search Only	Main Search Only
<p>It is not necessary to use any punctuation or symbol to indicate a phrase. Advanced Search assumes words are a phrase unless you precede each word (except the first) with a syntax operator (AND, OR, AND NOT, NEAR). Advanced Search treats spaces between words the same way it treats punctuation-as a way of linking words into a phrase.</p>	<p>Indicate a phrase by enclosing it within quotation marks. You can enter text as a question, phrase, or just any number of individual keywords. When you enter words without enclosing them within quotation marks, they are interpreted as separate words and AltaVista finds all documents that contain any one of the words.</p>
<p>The operators (AND, OR, AND NOT, NEAR) enable you to control exactly what AltaVista finds. Note that AND NOT excludes pages with the word or phrase in the text of the page. If the word or phrase is contained in HTML code but does not appear on the page itself, the page may be included. The plus sign (+) and the minus sign (-) are ignored (and therefore ineffective) in Advanced Search.</p>	<p>Do not use the words AND, OR, AND NOT, or NEAR as operators. In Main Search, these words are ignored unless you include them in a phrase within quotation marks. Use + and - to require that documents include or exclude a word. AltaVista automatically lists documents closer to the top of the list if the document contains your words in close proximity.</p>
<p>Advanced Search does not sort the results automatically. You control sorting by entering words or phrases in the sort box.</p>	<p>AltaVista automatically sorts the results using algorithms to determine the most relevant pages for your search query.</p>
<p>Use parentheses to group expressions; for example, (jobs OR careers) AND engineering</p>	<p>Do not use parentheses in Main Search.</p>

From AltaVista: http://doc.altavista.com/help/search/search_help.html;
http://doc.altavista.com/help/search/adv_help.html

AltaVista: Advanced Search Cheat Sheet

AND	Finds documents containing all of the specified words or phrases. Peanut AND butter finds documents with both the word peanut and the word butter.
OR	Finds documents containing at least one of the specified words or phrases. Peanut OR butter finds documents containing either peanut or butter. The found documents could contain both items, but not necessarily.
AND NOT	Excludes documents containing the specified word or phrase. Peanut AND NOT butter finds documents with peanut but not containing butter. NOT must be used with another operator, like AND. AltaVista does not accept ' peanut NOT butter '; instead, specify peanut AND NOT butter .
NEAR	Finds documents containing both specified words or phrases within 10 words of each other. Peanut NEAR butter would find documents with peanut butter, but probably not any other kind of butter.
()	Use parentheses to group complex Boolean phrases. For example, (peanut AND butter) AND (jelly OR jam) finds documents with the words 'peanut butter and jelly' or 'peanut butter and jam' or both.
anchor:text	Finds pages that contain the specified word or phrase in the text of a hyperlink. anchor:job +programming would find pages with job in a link and with the word programming in the content of the page. Do not put a space before or after the colon. You must repeat the keyword to search for more than one word or phrase; for example, anchor:job OR anchor:career to find pages with anchors containing either the word job or the word career.
applet:class	Finds pages that contain a specified Java applet. Use applet:morph to find pages using applets called morph.
domain:domainname	Finds pages within the specified domain. Use domain:uk to find pages from the United Kingdom, or use domain:com to find pages from commercial sites.
host:hostname	Finds pages on a specific computer. The search host:www.shopping.com would find pages on the Shopping.com computer, and host:dilbert.unitedmedia.com would find pages on the computer called dilbert at unitedmedia.com.
image:filename	Finds pages with images having a specific filename. Use image:beaches to find pages with images called beaches.
like:URLtext	Finds pages similar to or related to the specified URL. For example, like:www.abebooks.com finds Web sites that sell used and rare books, similar to the www.abebooks site. like:sfpl.lib.ca.us finds public and university library sites. like:http://www.indiaks.com finds sites about culture on the Indian subcontinent.
link:URLtext	Finds pages with a link to a page with the specified URL text. Use link:www.myway.com to find all pages linking to myway.com.
text:text	Finds pages that contain the specified text in any part of the page other than an image tag, link, or URL. The search text:graduation would find all pages with the term graduation in them.
title:text	Finds pages that contain the specified word or phrase in the page title (which appears in the title bar of most browsers). The search title:sunset would find pages with sunset in the title.
url:text	Finds pages with a specific word or phrase in the URL. Use url:garden to find all pages on all servers that have the word <i>garden</i> anywhere in the host name, path, or filename.

AltaVista: Prisma

When you search

AltaVista Prisma lists the main topics within your search results on the results page. These are the most common terms from the pages that best match your query. Each term is a link you can use to refine your search.

When you click on a word

When you click on a word, AltaVista Prisma automatically adds that word to your query and gives you more specific results.

For example, if you search for "**wedding gifts**" then click on **Groomsmen Gifts** in the AltaVista Prisma area, AltaVista will perform a search for "**wedding gifts**" and "**groomsmen gifts**". The results for this search are much more focused than the results for "**wedding gifts**" alone.

Note: If the term you click on has two words, place them in quotes so they are treated as a phrase.

Each time you do a search, AltaVista Prisma displays the most common words from your new results. Clicking these words adds them to your query and gives you even more focused results.

You can click words in AltaVista Prisma for up to two searches in a row, then the feature goes away. AltaVista Prisma is most helpful for general searches; when you use the feature twice in a row you get very specific results, and you can usually find what you're looking for.

If you still haven't found what you're looking for, you can try a new search.

Performing a new search

If you want to try a new search for a word instead of adding the word to your query, simply click the >> link next to the word you want. AltaVista Prisma will display results for that word alone.

If you type different words into the search box, you get an all-new search, and AltaVista Prisma gives you new terms for that search.

When AltaVista Prisma disappears

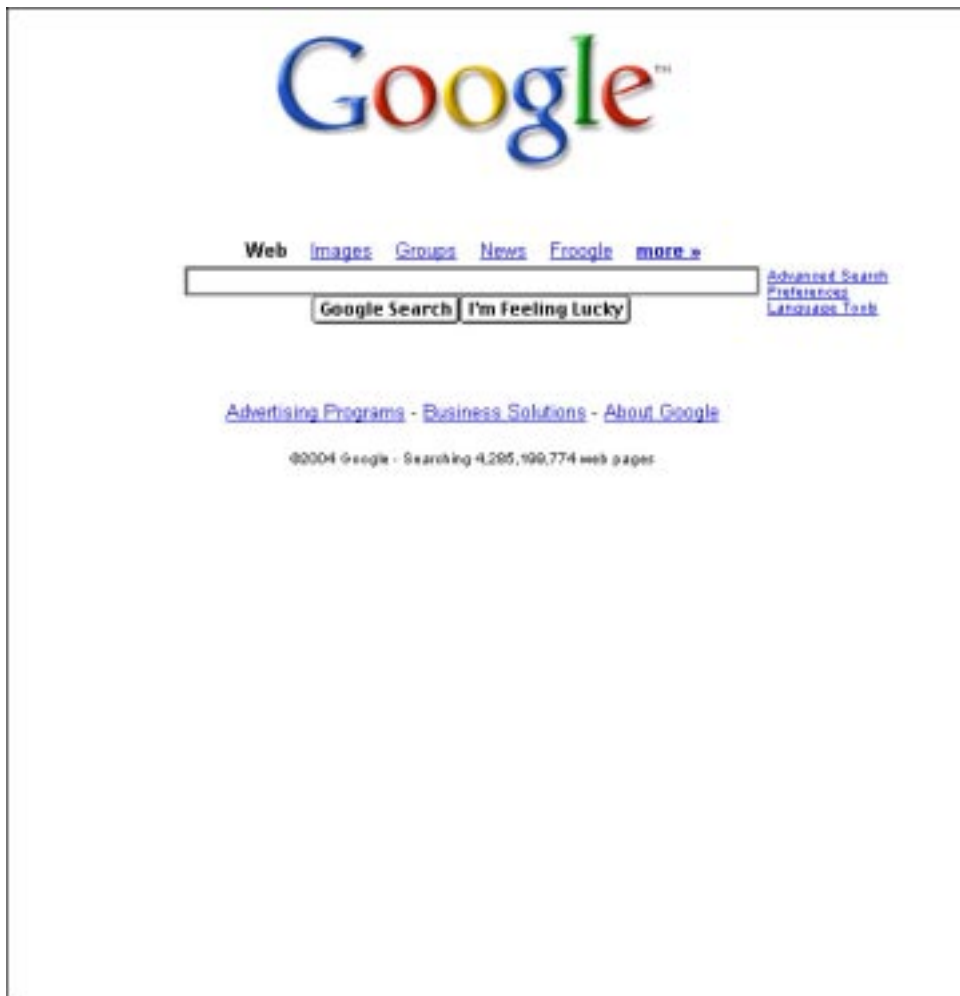
When AltaVista Prisma does not appear, a "Back" link replaces it. Clicking the link will return you to your previous search.

AltaVista Prisma does not appear when you refine your search twice in a row or when your search has fewer than 20 results.

AltaVista Prisma currently returns terms from pages in five languages (English, French, Spanish, German, and Italian). If most of the pages are in other languages, it does not appear. Expanded support for additional languages will be available in the coming months.

Google

www.google.com



Google **Advanced Search** [Advanced Search Tips](#) | [About Google](#)

Find results with all of the words
with the **exact phrase**
with **at least one** of the words
without the words

Language Returns pages written in
File Format returns results of the file format
Date Returns web pages updated in the
Numeric Range Returns web pages containing numbers between and
Occurrences Returns results where my terms occur
Domain returns results from the site or domain
SafeSearch No filtering Filter using [SafeSearch](#)
e.g. google.com, or [lib.ox.ac.uk](#)

Froogle Product Search (BETA)

Products Find products for sale
To browse for products, visit at the [Google home page](#).

Page-Specific Search

Similar Find pages similar to the page
e.g. [www.google.com/web.html](#)

Links Find pages that link to the page

Topic-Specific Searches

[Find Local](#) - Find local businesses and services on the web.
[Catalogs](#) - Search and browse mail-order catalogs online.

Searching Google

Basics of Searching

To enter a query into Google, just type in a few descriptive words and hit the 'enter' key (or click on the Google Search button) for your list of relevant results.

Google uses sophisticated text-matching techniques to find pages that are both important and relevant to your search. For instance, when Google analyzes a page, it looks at what those pages linking to that page have to say about it. Google also finds pages in which your query terms are near each other.

Automatic "AND" Queries

By default, Google only returns those pages that include all of your search terms. There is no need to include "AND" between terms.

"OR" Searches

Google supports the logical "OR" operator. To retrieve pages that include either word A or word B, use an uppercase OR between terms.

Stop Words

Google ignores common words and characters, known as stop words. Google automatically disregards such terms as *"where"* and *"how,"* as well as certain single digits and single letters, because these terms rarely help narrow a search, and can slow down searching significantly. Use the "+" sign to include stop words in your search. Be sure to include a space before the "+" sign, which can also be used in phrase searches.

See your search terms in context

Each Google search result contains one or more excerpts from the web page, which shows how your search terms are used in context on that page. Your search terms are bolded so you can tell at a glance whether the result is a page you want to visit.

Stemming

To provide the most accurate results, Google does not use "stemming" or support "wildcard" searches. In other words, Google searches for exactly the words that you enter in the search box. Searching for "googl" or "googl*" will not yield "googler" or "googlin." If in doubt, try both forms: "airline" and "airlines," for instance.

Does capitalization matter?

Google searches are not case sensitive. All letters, regardless of how you type them, will be understood as lower case. For example, searches for "george washington", "George Washington", and "gEoRgE wAsHiNgToN" will all return the same results.

Google: Refining a Search

General Tips

Since Google only returns web pages that contain all of the words in your query, refining or narrowing your search is as simple as adding more words to the search terms you have already entered. This new query will return a specific subset of the pages returned by your original "too-broad" query.

Excluding Words

You can exclude a word from your search by putting a minus sign ("-") immediately in front of the term you want to avoid. (Be sure to include a space before the minus sign.)

Phrase Searches

With Google, you can search for phrases by adding quotation marks. Words enclosed in double quotes ("like this") will appear together in all returned documents (unless they are stop words, special common words that require a "+" sign). Phrase searches using quotation marks are useful when searching for famous sayings or specific names.

Certain characters serve as phrase connectors. Google recognizes hyphens, slashes, periods, equal signs, and apostrophes as phrase connectors. Phrase connectors work like quotes; for example, mother-in-law is treated as a phrase even if the three words aren't in quotes.

Search By Category

The Google directory (located at <http://directory.google.com>) provides a convenient way to refine your search based on a particular topic. Searching within a category of interest allows you to quickly narrow in on only the most relevant pages.

Domain Restrict

Some words, when followed by a colon, have special meaning to Google. One such word for Google is the "site:" operator. To search a specific domain or site, use the "site:sampldomain.com" syntax in the Google search box.

Advanced Search

Often, simply adding more words to a broad query can help narrow it until you find what you want. However, Google also provides a variety of search features that let you

- restrict your search to pages within a given website
- exclude pages from a particular website
- restrict your search to pages only in a given language
- find all the pages that link to a given web page
- find pages that are related to a given web page.

From Google: www.google.com/help/basics.html;
www.google.com/help/refinesearch.html

Yahoo!

www.yahoo.com

The screenshot shows the Yahoo! homepage with the following elements:

- Navigation Icons:** Finance, Sports, News, Mail, Messenger, HotJobs.
- Yahoo! Sports:** Coverage of Wimbledon, Tour de France, U.S. Women's Open, Popo 400, MLB & more.
- Search Bar:** Search for: [] on the Web [] Yahoo! Search [] Advanced [] Favorites []
- Left Column:**
 - News:** Star in the next Yahoo! Personal ad campaign
 - Shop:** Auctions, Autos, Classifieds, Real Estate, Shopping, Travel
 - Find:** HotJobs, Maps, People Search, Personals, Yahoo! Pages
 - Connect:** Chat, GeoCities, Greetings, Groups, Mail, Messenger, Mobile
 - Organize:** Addresses, Bookcase, Calendar, My Yahoo!, PayDirect, Photos
 - Fun:** Games, Hamsters, Kids, Movies, Music, Radio, TV
 - Info:** Finance, Health, News, Sports, Weather, [More Yahoo!..](#)
- Right Column:**
 - Personal Assistant:** [Sign In](#)
 - Yahoo! Mail:** now with 25 times more free storage. [Sign up here!](#)
 - GET SHOWTIMES NOW:** [Get Showtimes Now](#) - [Ad Feedback](#)
 - In The News:** 1:20pm, Fri Jul 2
 - Screen legend Madon Hound dies at 80
 - Incidents fire sockets at Baghdad hotels
 - Major polio outbreak reported in Nigeria
 - Enron's Lay may be indicted next week
 - Johns Hopkins tops U.S. hospital rankings
 - Korea to march together at Olympics
 - Markets: Dow + 0.4% - Nasdaq + 0.4%
 - More:** Elections - Sports - Stocks - Weather
 - Marketplace:**
 - Fire on the grill:** It's grilling season, so get cooking with these hot ideas and sizzling recipes from Kraft.
 - Dodgers, Giants, NFL, Ryder Cup, Athens 2004, Under tickets and more - [RazerGate](#)
 - Home equity rates for Friday 07/02/04 - Free - Up to 4 offers in 60 seconds
- Bottom Section:**
 - Yahoo! Business Services:** Web Hosting, Get Online, Get a Domain, Market Online
 - Yahoo! Personal Services:** Personal Website, Personal, Ad-Free Radio, PC Games
 - Web Site Directory:** Sites organized by subject. [Submit your site](#)
 - Business & Economy:** [BSE Indices](#), [Agriculture](#), [Info](#)
 - Computers & Internet:** [Internet 2004](#), [Software](#), [Games](#)
 - News & Media:** [Remoticon](#), [TV](#), [Radio](#)
 - Regional:** [Countries](#), [Regions](#), [US States](#)
 - Society & Culture:** [Essays](#), [Entertainment](#), [Religion](#)
 - Education:** [Colleges and Universities](#), [K-12](#)
 - Entertainment:** [Film](#), [TV](#), [Music](#), [Games](#)

Searching Yahoo!

One "big picture" tip is that it is often better to search for Yahoo! categories, than for individual sites. This is especially helpful if you don't know exactly what you're looking for. For example, if you want a good recipe site, search for Yahoo!'s "Recipes" category (or categories). From there, you're bound to find a number of good sites, all on the same subject. Visiting categories is often easier (and more fruitful) than just trolling through Yahoo!'s "search results" pages for individual sites.

If you **do** know exactly what you're looking for, search for the site by title. (And sometimes you need to use the full title. For example, "time" may be too general if you're actually looking for "TIME Magazine".)

Here are some specific tips about using keywords with Yahoo! Search:

- Use quotation marks** around words that are part of a phrase.
- Specify words that **must appear** in the results. Attach a + in front words that must appear in result documents.
- Specify words that **should not appear** in the results. Attach a - in front of words that must not appear in result documents.

How exactly do I search Yahoo!?

Simple answer: Type a word (or several words) into the "query box" on any Yahoo! page, and then hit the "Search" button (or the "Enter" key on your keyboard). Yahoo! Search will then look for any "matches" with your query in the Yahoo! directory.

Slightly more complicated answer: Yahoo! is a subject-based directory that happens to be searchable, so if you're not looking for a specific Web site, **choose search terms based on the general subject** you're interested in. For example, if you want a recipe for blueberry pancakes, type the word "recipes." (This is more general, and you're bound to find a category with a number of sites, many of which probably contain a recipe for blueberry pancakes.) Or, if you're interested in the lyrics to your favorite song, start by typing "lyrics" as a general subject, or the name of the musician who sings your song.

The point: Use Yahoo Search to find Web sites organized by **subject**. Do this by searching for Yahoo! categories and not individual Web sites. You'll tend to get more results in categories.

However, if you **know the site** you're looking for, **type in the exact name** of the site and hit "Search."

Yahoo: Advanced Search Syntax

Required and Prohibited Search Words

Attaching one of the following operators will either require or prohibit words from appearing in the search results.

Attaching a + to a word requires that the word be found in all of the search results.

Attaching a - in front of a word requires that the word not be found in any of the search results.

Document Section Restrictions

Attaching one the following operators to the front of a search word will restrict the search to a certain document section.

t: will restrict searches to document titles only

u: will restrict searches to document URLs only

Phrase Matching (" ")

Putting quotes around a set of words will only find results that match the words in that exact sequence.

Wildcard Matching (*)

Attaching a * to the right-hand side of a word will return left side partial matches.

Combining the Syntax

You may combine any of the query syntax as long as the syntax is combined in the proper order. The proper order for using the syntax is the same order that the operators are listed on this page. That is, +, -, t:, u:, "" and lastly *.

Time Restrictions

You can restrict your search to documents that are more recent than a certain date. There is no search query syntax available for restricting by time. This feature can only be accessed from the search options page.

Displaying Results

You can customize the number of search results displayed on all result pages following the summary page (the layout of the summary page is fixed). There is no search query syntax option available for customizing the number of displayed results. This feature can only be accessed from the search options page.

From Yahoo!: <http://help.yahoo.com/help>

Exercise II



Practicing Search Techniques

Plan a Search Strategy

Before using a search engine or directory, plan a search strategy. A strategy will clarify your thinking and help to ensure that you are looking for appropriate and relevant information.

1. Define your topic or your information problem in one sentence.
2. Ask questions to clarify your topic and to develop a concise search. Identify the missing information by clarifying what you do know, with such questions as who, what, why, where, and how.
3. Develop a list of your main concepts collected from your questions. Focus on nouns and objects as central keywords for your query.
4. Identify similar search terms or synonyms for these main keywords.
5. Determine if your information problem would be best answered with a search directory, search engine, or specific database.

TOPIC: _____

CONCEPTS: _____

1. Wildcard matching: Attaching an asterisk (*) to a word, conducts a search on different variations of the word.

Use Yahoo!: www.yahoo.com to search on variations of certain concepts in your search.

For example: child* health* may expand your search to include child health, children's healthcare, child's health, childbirth, childhood, etc.

SEARCH: child* health*

SEARCH: _____

SEARCH: _____

2. Phrase matching: Including quotation marks (" ") around words means that the search must match the words in the exact sequence.

Use Google: www.google.com

Compare searching first without the quotation marks and then with the quotation marks. Compare the results generated from these different sites.

SEARCH: Demographic and Health Surveys

SEARCH: "Demographic and Health Surveys"

SEARCH: _____

3. Boolean searches: Use AND, OR, AND NOT, NEAR to yield more specific queries.

Use AltaVista Advanced: www.altavista.com/web/adv

AND: _____ AND _____

Results: _____

OR: _____ OR _____

Results: _____

NEAR: _____ NEAR _____

Results: _____

AND NOT: _____ AND NOT _____

Results: _____

4. Inclusive/Exclusive operators: Including a plus sign (+) in front of a word requires that certain words be included in the search. A minus sign (-) will prohibit the words that follow from the search.

Search WHO Website: www.who.int

SEARCH: +reproductive +health Number of Hits: _____

SEARCH: +reproductive +health -adolescents Number of Hits: _____

5. Filters: All websites from a particular host can be found by using "host:". All websites linked to a particular site can be found by using "link:".

Accessing Health Information Through the Internet

Use AltaVista: www.altavista.com

SEARCH: host: _____ SEARCH: link: _____