The
New York Society Library
Presents:
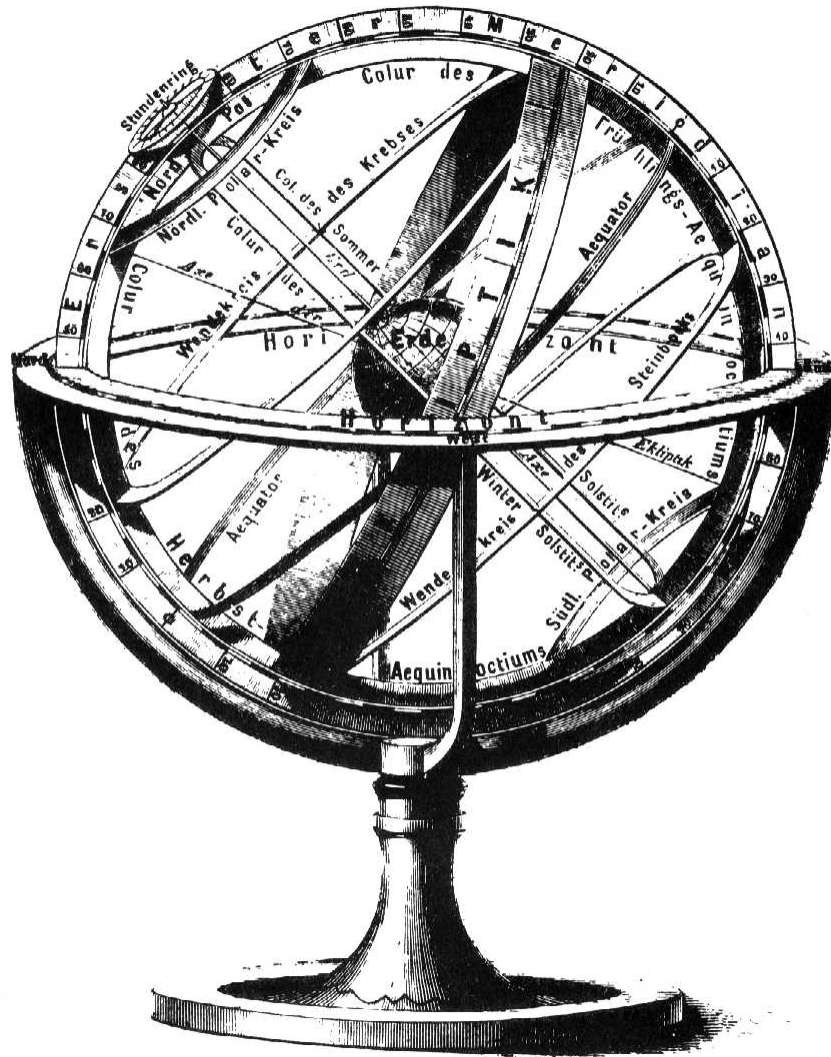
Internet I & II

Ingrid Richter
## Head of Systems

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HISTORY OF THE INTERNET:

<u>1957</u>:   Russians launch Sputnik. President Eisenhower forms ARPA
                (Advanced Research Projects Agency) within Department of Defense.

<u>1969</u>:   ARPANET links four computers for research purposes:
                Stanford Research Institute, UCLA, UC Santa Barbara, & University of Utah.

<u>1977</u>:   Other networks start connecting to ARPANET, using TCP/IP
                (Transmission Control Protocol/ Internet Protocol).

<u>1986</u>:   NSFNET (National Science Foundation Net) formed, connecting computers.
                Created regional network to connect schools and universities.

<u>1988</u>:   Creation of the first internet worm by Robert Morris.
                Resulted in IAB's Security and Ethics Statement in 1989.

<u>1989</u>:   Internet Activities Board Security and Ethics Statement:
                The following are unethical and unacceptable on the Internet:
                unauthorized access, disrupting intended use, wasting resources
                (people, computers, etc), destroying integrity of information and
                compromising privacy.

<u>1990</u>:   ARPANET disappears entirely.

<u>1991</u>:   World Wide Web, developed by Tim Berners-Lee, is released by CERN.

<u>1993</u>:   White House goes online for first time. Mosaic, the first web browser,
                brings in a staggering 341,634% increase in traffic

<u>1994</u>:   Netscape Navigator released, allowing download of text &images.

<u>1995</u>:   Microsoft Internet Explorer 1.0 is released, allowing different fonts and color.
                The Communications Decency Act was proposed by Senator Jim Exxon,
                attempting to outlaw the transmission of lewd material on the Internet.
                Prompted development of web filtering tools for parents wishing to restrict
                websites for their children.

<u>1997</u>:   The Supreme Court ruled that the Communications Decency Act
                violated the First Amendment.

HARDWARE
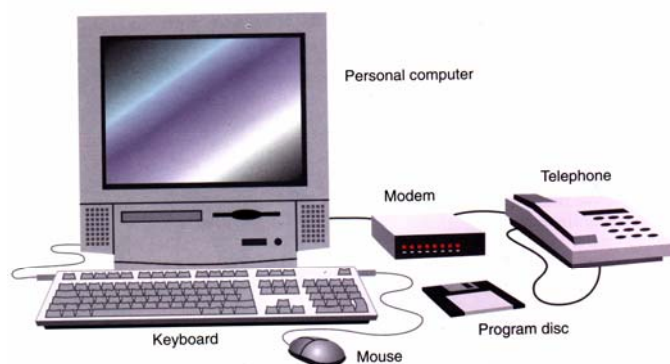
The most common way to connect to the Internet is through a computer with a modem (either internal or external) and regular telephone line. The modem (short for modulator/demodulator - the sound it makes) translates information from your computer to the Internet. Modem speeds are generally 56Kbps (kilobytes per second) - the fastest available. To connect to the Internet at a faster speed, you will need to use either a DSL line (a stronger phone line) or a T1 line (through a special cable connected to your computer).

DATA CONNECTIONS:

DIAL-UP: A dial-up account uses your phone line and computer modem to dial up a local (or long-distance) access number. The modem translates data to and from your computer and the Internet through a series of sounds (modulating/demodulating). The fastest modem speed is 56K (or 56 kilobytes of data transferred per second).

CABLE MODEM: A cable modem modifies your cable TV connection to handle two-way data traffic. The speed is faster than a dial-up connection, but you share the Internet connection with your neighbors (the more people online at the same time, the slower the connection).

DSL (Digital Subscriber Line):   A DSL connection uses a thicker phone cable for accessing the Internet. Your computer uses an Ethernet card, instead of a modem, to connect to the DSL line. The speed of your connection depends on which DSL service you buy (192K to 1.5M per second).   The New York Society Library has a DSL connection to the Internet.

WIRELESS: A wireless connection uses radio waves instead of cables to connect to the Internet. The most common use of wireless technology is to remotely connect to the Internet from your laptop, but you can also use wireless networks to send print jobs to remote printers or connect your wireless devices (cell phones, PDA's, etc) together.

SOFTWARE

Once you have the computer and modem, there are two ways to get online: through an Online Service or through an Internet Service Provider. Both types of services will give you full access to the Internet and e-mail. Online services provide access through their own controlled interface (i.e. "virtual theme park");   when AOL first started, it let users wander around it's own sites, but didn't connect to the Internet.   Internet Service Providers (ISP's) connect you directly to the Internet with no in-between interface. Online Services charge around $20 month; ISP's are somewhat cheaper (due to competition) and usually break down their costs by hours online (and can range from $5-20 a month). Both services will give you the necessary installation software and account information when you join.

ONLINE SERVICES

America Online	http://www.aol.com	1-800 427-6218
AT&T Worldnet	http://www.att.net	1-800-WORLDNET
CompuServe	http://www.compuserve.com	1-800-848-8199
Microsoft Network	http://www.msn.com	1-800-FREE MSN
Prodigy	http://www.prodigy.com	1-800 776-3449

INTERNET SERVICE PROVIDERS:

Visit http://www.thelist.com/ for a complete list of Internet Service Providers.
The New York Society Library uses http://www.bway.net for its DSL connection.
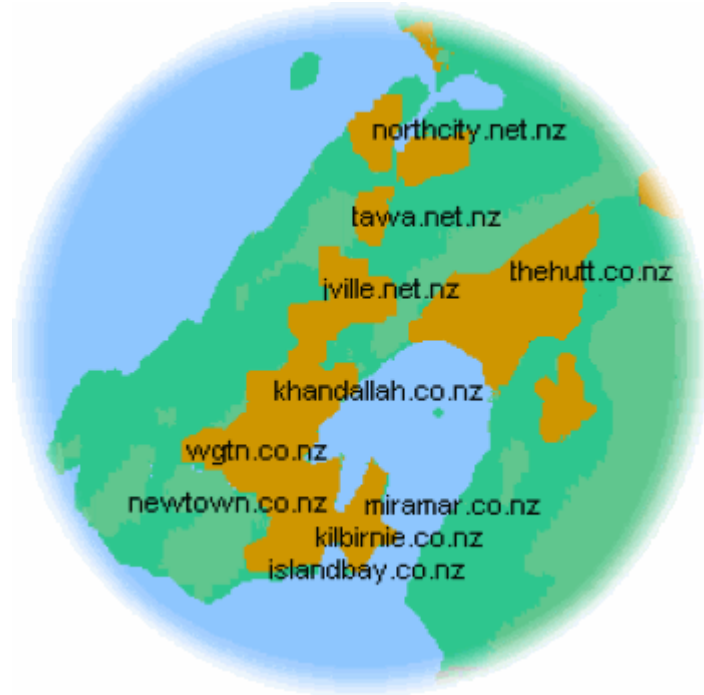
DOMAINS:

TRADITIONAL DOMAINS:

.com Commercial
.edu Educational
.gov US Government
.int International
.mil US Military
.net Network systems
.org Non-profit org
.tv New Commercial Site

MAJOR COUNTRIES:

.at	Austria	**.es**	Spain	**.kr**	South Korea
.au	Australia	**.fi**	Finland	**.mx**	Mexico
.be	Belgium	**.fr**	France	**.nl**	Netherlands
.br	Brazil	**.gr**	Greece	**.nz**	New Zealand
.ca	Canada	**.id**	Indonesia	**.pl**	Poland
.ch	Switzerland	**.in**	India	**.ru**	Russia
.cn	China	**.ie**	Ireland	**.se**	Sweden
.de	Germany	**.it**	Italy	**.tw**	Taiwan
.dk	Denmark	**.jp**	Japan	**.uk**	United Kingdom

ADDRESS TRANSLATION:

E-MAIL ADDRESS:
webmaster@nysoclib.org

webmaster   ⇒   The name or title of a specific person
@   ⇒   Stands for "at"
nysoclib.   ⇒   This is the New York Society Library domain name
org   ⇒   Stands for "Organization"

Translation: This is the e-mail address for the webmaster (person in charge of the website) at the New York Society Library, a non-profit organization. In this case, it's the work e-mail address for Ingrid Richter.

WEB URL: (Uniform Resource Locator):
http://www.nysoclib.org/newbooks/newbooks0404.html
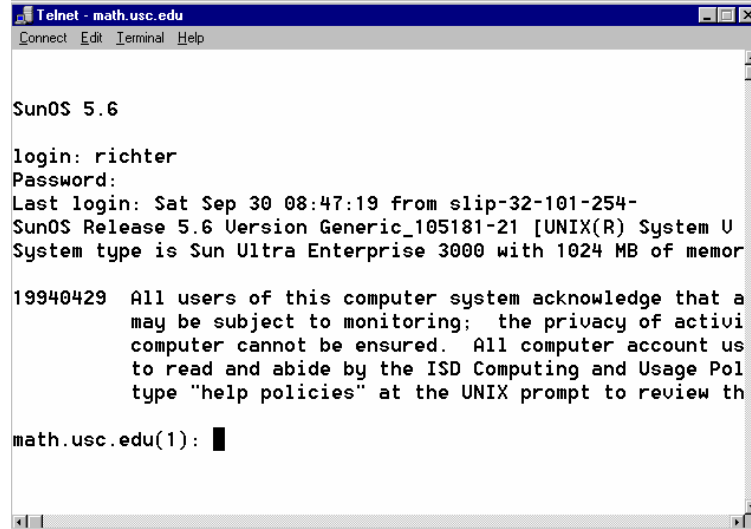
http://   ⇒   Stands for "HyperText Transfer Protocol";
     Hypertext is a "mark-up" language that allows links
     within text files to external information.
www.   ⇒   Stands for World Wide Web
nysoclib.   ⇒   The New York Society Library domain name
org   ⇒   Stands for non-profit "Organization"
/newbooks/   ⇒   Signifies a folder called "newbooks"
newbooks0404   ⇒   The name of a file found in the folder /newbooks/
.html   ⇒   Stands for "HyperText Mark-up Language"
     Can also be .htm (older computers)

Translation: This is a New York Society Library web page called newbooks0404, found in the folder /newbooks/ (and is the New Books List for April 2004).

Tip: Web addresses ignore anything before the "@" sign. Therefore, http://www.google.com@www.nysoclib.org would take you to the New York Society Library web page, not the Google search engine.

OLDER PROGRAMS:

```
Telnet - math.usc.edu                                    _ □ X
Connect  Edit  Terminal  Help

SunOS 5.6

login: richter
Password:
Last login: Sat Sep 30 08:47:19 from slip-32-101-254-
SunOS Release 5.6 Version Generic_105181-21 [UNIX(R) System V
System type is Sun Ultra Enterprise 3000 with 1024 MB of memor

19940429   All users of this computer system acknowledge that a
           may be subject to monitoring;  the privacy of activi
           computer cannot be ensured.  All computer account us
           to read and abide by the ISD Computing and Usage Pol
           type "help policies" at the UNIX prompt to review th

math.usc.edu(1): █
```
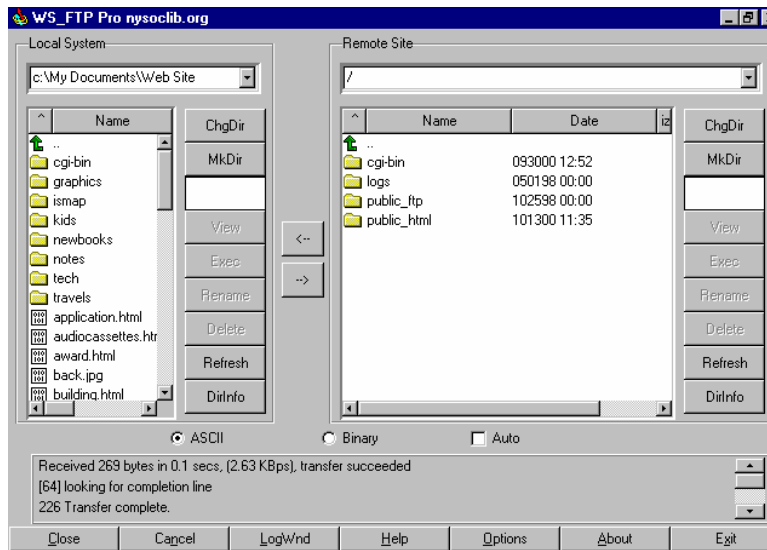
TELNET
telnet://216.220.102.86
Windows Users: Click Start → Programs → Communications → Telnet

The text-based Telnet program offers a direct login to another computer and was one of the original programs used to connect computers to the Internet. The old New York Society Library electronic catalog used telnet to retrieve information.

```
WS_FTP Pro nysoclib.org                                    _ 🗗 X
┌─Local System──────────────┐        ┌─Remote Site───────────────┐
│c:\My Documents\Web Site  ▼│        │/                        ▼ │
│  ^   Name     │ ChgDir    │        │  ^   Name      Date    iz│ ChgDir    │
│  ↑ ..         │ MkDir     │        │  ↑ ..                    │ MkDir     │
│  📁 cgi-bin   │           │        │  📁 cgi-bin   093000 12:52│          │
│  📁 graphics  │           │        │  📁 logs      050198 00:00│          │
│  📁 ismap     │           │        │  📁 public_ftp 102598 00:00│         │
│  📁 kids      │ View      │        │  📁 public_html 101300 11:35│ View    │
│  📁 newbooks  │           │  <--   │                          │ Exec      │
│  📁 notes     │ Exec      │        │                          │           │
│  📁 tech      │           │  -->   │                          │ Rename    │
│  📁 travels   │ Rename    │        │                          │           │
│  📄 application.html │     │        │                          │ Delete    │
│  📄 audiocassettes.htr│Delete│     │                          │           │
│  📄 award.html │          │        │                          │ Refresh   │
│  📄 back.jpg   │ Refresh  │        │                          │           │
│  📄 building.html │DirInfo │        │                          │ DirInfo   │
└───────────────────────────┘        └───────────────────────────┘
       ● ASCII      ○ Binary      □ Auto
Received 269 bytes in 0.1 secs, (2.63 KBps), transfer succeeded
[64] looking for completion line
226 Transfer complete.
Close | Cancel | LogWnd | Help | Options | About | Exit
```

FILE TRANSFER PROTOCOL
ftp://www.nysoclib.org/incoming/
Windows Users: Click Start → Run → ftp

A more sophisticated program than telnet, FTP allows for the quick transfer of files between computers on the Internet. This is the protocol that most web sites use to upload (transfer) files from their local computer to the web site and what most people use to download software from the Internet.
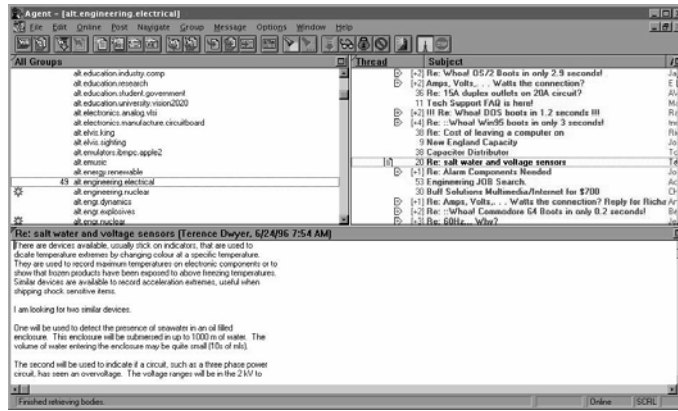
USENET / NEWSGROUPS:
groups.google.com

These are current online discussion forums, easily accessible through your web browser at Google Groups (http://groups.google.com). The topic breakdown is:

alt.	Discussion on any conceivable topic.
biz.	Business products, services, reviews…
comp.	Hardware, software, consumer info…
humanities.	Fine art, literature, philosophy…
misc.	Employment, health, and much more…
news.	Info about Usenet news…
rec.	Games, hobbies, sports…
sci.	Applied science, social science…
soc.	Social issues, culture…
talk.	Current issues and debates…
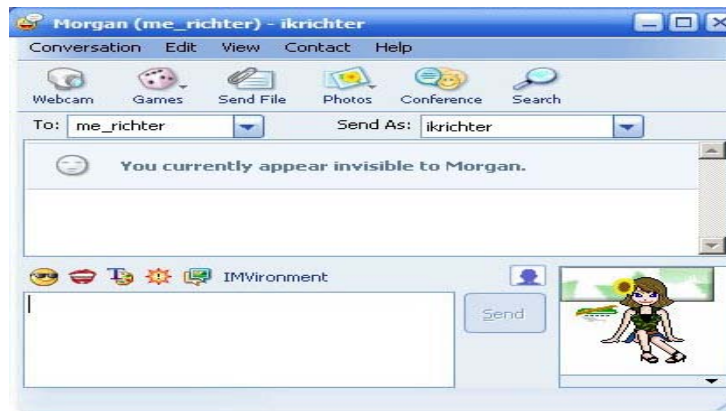
IRC (Internet Relay Chat):

A text-based program that allows two or more people to type messages to each other in real time.   Documents can also be sent through as attachments.   Two common (and free) programs for chatting online are: AOL Instant Messenger (http://www.aim.com) and Yahoo! Messenger (http://messenger.yahoo.com).

E-MAIL

✉	Anna Donnelly	Hi! What's new.with you?	10/6 10:32 am
✉	Thomas Sollenberg	Re: Dinner saturday...	10/7 7:49 pm
✉	Samual Carter	See you in San Francisco	10/8 4:03 pm
✉	Carol Willhome	soccer schedule	10/9 3:43pm
✉	Bob Smith	re: soccer schedule	10/9 6:54pm
✉	Susanne Greene	re: soccer schedule	10/9 8:52pm
✉	Mickey Shoemaker	For the kids	10/9 11:08pm

Email ▽ Inbox   8 new unread messages

Main   New Find Print Prefs   Back

One of the most popular uses of the Internet, e-mail is short for "electronic mail", a means of sending messages from one Internet user to another. If you are using an online service (i.e. AOL, Microsoft Networks), your e-mail account is built into the service. If you are using an Internet Service Provider, you will need to use a separate e-mail program to read and send messages. When you sign up with your ISP, they will give you the following information: a POP (Post Office Protocol) account, where your mail is stored, and an SMTP (Simple Mail Transfer Protocol) account, which allows you to send e-mail

To: Enter e-mail address here
From: Your e-mail address (automatically filled in)
Subject: The subject of the e-mail.

Cc: "Carbon Copy"
Bcc: "Blind Carbon Copy".
Attached: Place to attach electronic documents

Under the Line: This is the substance of your e-mail. It's generally 80 characters across and the text wraps to fit. Once you are done typing a message, click "Send" to mail.

A NOTE ABOUT SECURITY:

Always assume that other people may see what you type into an e-mail message. Don't send sensitive information (i.e. credit card numbers, social security numbers or passwords) through e-mail.

VIRUSES

Viruses are commonly sent through e-mail attachments.   To prevent viruses from infecting your computer, install a virus-protection program on your computer and keep the virus definitions up to date.

The two most common programs are Norton Antivirus from Symantec (http://www.symantec.com) and VirusScan from McAfee (http://www.mcafee.com). New computers generally come with one of these two programs preinstalled.

Norton keeps a list of current virus threats at:
http://securityresponse.symantec.com/avcenter/vinfodb.html
McAfee keeps a similar list at: http://vil.mcafee.com/newVirus.asp

VIRUS PREVENTION:
1. Back up all of your information on your computer at least once a week. Store this information somewhere other than on your computer (i.e. on a floppy disk, CD-ROM or online). This will give you a second line of defense in case your computer data is corrupted by a virus.
2. If you are using a Windows operating system (95/98/2000/ME/XP), visit Windows Update at: http:// windowsupdate.microsoft.com and download the Critical Updates for your operating system. This will patch up most of the security holes that the viruses exploit.
3. Install an Antivirus Program and keep the virus definitions up-to-date to prevent your computer from accepting any recently-created virus.
4. Run a periodic virus scan of your computer, especially if you've been downloading a lot of files / e-mail recently.
5. Do not open an e-mail attachment from anyone unless you are expecting one from them. Be wary of Microsoft Word and Excel documents - the virus could be hidden in the Macro feature.   Also be wary of disguised links: the virus in the picture above is a Visual Basic Script (VBS) disguised as a picture of Anna Kournikova.
6. If you suspect someone sent you a virus, delete the attachment unread and empty your recycle bin.   If your computer is infected with a virus, check either Symantec's or McAfee's website for removal instructions.

AMERICA ONLINE:
http://www.aol.com
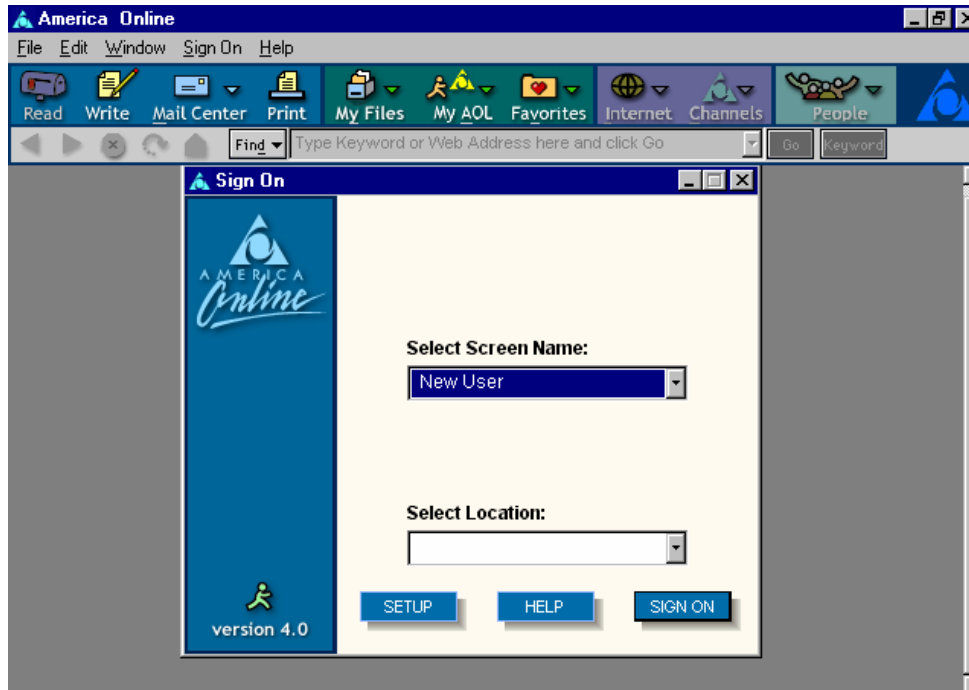
With America Online and other online services, your e-mail program and web browser are built directly into the program (in other words, you will not need to use any other mail or browser program).   Skip the next few pages on e-mail programs and web browsers and start with the Search Engines.

1. **To read e-mail in AOL:**
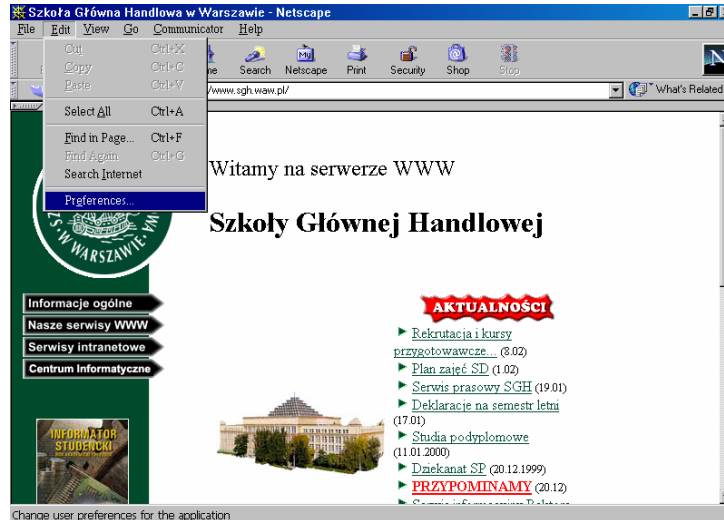   Click the "Read" icon in the upper-left hand corner of your screen.

2. **To surf the web in AOL:**
   Type the web address or keyword where it says "Type Keyword or Web Address Here and click go."

WEB BROWSERS

NETSCAPE
http://www.netscape.com

This web browser was released in 1994 and nicknamed Mozilla (Godzilla trampling NCSA Mosaic, the first Internet browser). Netscape improved the look and appearance of web over Mosaic and, consequently, controlled about 80% of Internet market in 1995.

INTERNET EXPLORER
http://www.microsoft.com
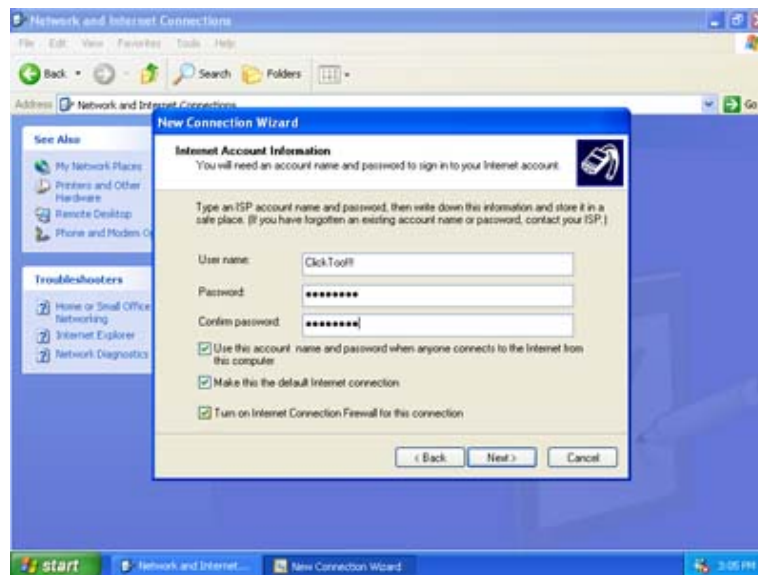
Developed by Microsoft in 1995 to compete with Netscape. Very similar to Netscape, it was installed as the default browser for the Windows operating system. Internet Explorer is used by at least 80% of the Internet users.

BROWSER FEATURES:

BOOKMARKS / FAVORITES:
Bookmarks or favorites keeps track of your favorite web sites, so that you won't have to enter the URL again.
- To bookmark a file in Netscape Navigator, choose "Bookmarks→ Add Bookmark" (choose "Edit Bookmarks" to add, delete or modify your bookmark contents). The bookmarked file will appear at the bottom of the list.
- To add to favorites in Internet Explorer, choose "Favorites → Add to Favorites" (choose "Organize Favorites to add, delete or modify your favorites). The new file will appear at the bottom of the Favorites list (for Windows 98+ users, it will also appear in the Start Menu, under "Start→ Favorites")

CACHE
Browsers cache (or save) online web pages and pictures in a temporary folder on your computer to speed up your Internet time (when you revisit the site, it pulls the images and text from the cache instead of the server). If you have been having a slow time surfing the web, you may wish to increase your cache size. Likewise, if your hard drive is filling up, you may wish to decrease or empty your cache.
- The cache settings in Netscape Navigator are under "Edit→ Preferences → Advanced → Cache"
- The cache settings in Internet Explorer are under "Tools → Internet Options → Temporary Internet files → Settings"

COOKIES
A cookie is a bit of information about you that another computer stores on your computer (it may keep track of passwords or user preferences). Amazon.com uses this to track your book interests; The New York Times online uses this to save your password.
- To change your cookie settings in Internet Explorer, choose "Tools -→ Internet Options → Security → Custom Level" and scroll down to "Cookies" (For Windows 95+ users, cookies are stored on your computer under C:\Windows\Cookies).
- To change your cookie settings in Netscape Navigator, choose "Edit → Preferences → Advanced→ Cookies".

SPYWARE:
Spyware is a program installed on your computer that keeps track of your web surfing and sends the information back to the owner. It isn't illegal, but it will compromise your privacy online (by sending pop-up ads geared towards you) and will bog down your Internet connection (by using it, partially, to send and retrieve information about you from your computer).   To remove spyware: Go to http://www.safer-networking.org and download "Spybot: Search & Destroy" (it's free; donations accepted) .   Install it, update it, and run it on your computer.

SEARCH ENGINES

ALTAVISTA
http://www.altavista.com

Operated by Digital Equipment Corporation (DEC), debuted in December of 1995. First search engine to use natural language queries (i.e. you can type your search in the form of a question) and advanced search techniques (Boolean operators: AND, OR, NOT, etc.).

ASKJEEVES
http://www.askjeeves.com

One of the original "natural language query" search engines. Ask Jeeves is now testing MyJeeves - a site to save, organize and annotate your personal search results.

EXCITE
http://www.excite.com

One of the first search engines on the web. Started in 1993, Excite used statistical analysis of word relations to search through large information on web.

GOOGLE
http://www.google.com

My personal favorite search engine. *Returns*highly relevant results; very easy to use. Offers new features, such as Froogle (comparison shopping) and Google Desktop Search (searches text inside your documents)

HOTBOT
http://www.hotbot.com

Youngest of major search engines, funded by Inktomi Corporation (named after a spider of Plains Indians). Founded in 1996 by Eric Brewer and Paul Gauthier. Licensed to Wired Magazine. Attempts to re-index database on daily basis (no out of date links).

LYCOS
http://www.lycos.com

Developed in 1994 by Michael Mauldin at Carnegie Mellon University in Pittsburgh, PA (named for a wolf spider that catches it's prey by pursuit rather than web).
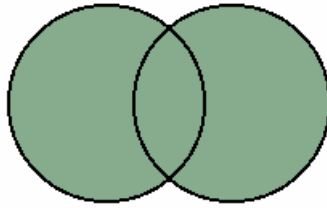
YAHOO!
http://www.yahoo.com

Founded in April 1994, Yahoo was initially a page of favorite links of two Stanford Ph.D. students (David Filo and Jerry Yang). As links grew, Yahoo became searchable directory
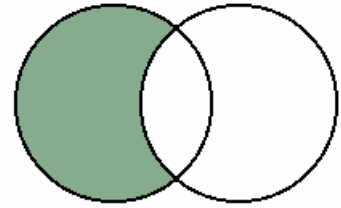
SEARCH STRATEGIES:
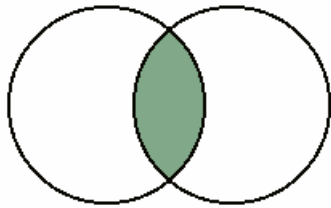
AND   **OR**   **NOT**

BOOLEAN SEARCHES:

1. Inclusion Operator: AND (+) or OR (,) ( )
Searches for all the words in a string or any words in a string, respectively.
Shakespeare and Hamlet or Macbeth will bring up all web pages that mention Shakespeare and either Hamlet or Macbeth.

2. Exclusion Operator: NOT (–)
Excludes the words to the right of the NOT (or minus sign). **Shakespeare and (Hamlet or not Macbeth)** This search is also evaluated from left to right, although the parentheses will be evaluated first. In other words, all Shakespearean plays except those that mention Macbeth, will come up in this search. (The "Hamlet or not Macbeth" part is a lousy search construction - all it will do is omit Macbeth from the final results).

3. Wildcard Search: *
Completes the pattern of word (e.g. librar* brings up library, libraries, etc). **Shak* and Hamlet** The wildcard will search for all sites that contain variant spellings of Shakespeare (words starting with "Shak") and Hamlet. Good for catching alternate spellings.

4. Adjacent/Phrase Search: ADJ (" ")
Forces the search to look for the exact order instead of individual words. "New York Society Library" or "Ingrid Richter" will bring up results with that exact spelling and order of the words. I find this search (putting the exact text in quotes) the most useful one for the Internet.

INTERNET

WEB FEATURES:

REMOTE RESOURCES:
http://library.nysoclib.org or http://www.nysoclib.org/remote.html

Formerly available only through the Library's Proxy Server, the following paid-subscription databases are now also available through the online catalog. You will need to know your membership name and library barcode to access these databases from home or remotely.

1. American National Biography: http://www.anb.org/articles/index.html
2. OCLC FirstSearch Articles: http://firstsearch.oclc.org/fsip
3. Oxford Dictionary of National Biography: http://www.oxforddnb.com/
4. Oxford English Dictionary: http://dictionary.oed.com/entrance.dtl
5. Oxford Reference Online: http://www.oxfordreference.com
6. Proquest - New York Times Archives: http://proquest.umi.com/login
7. Times Literary Supplement: http://infotrac.galegroup.com/itweb/new89208

Best Fares	Edit ☒
Depart: New York, NY - all	
Geneva, Switzerland	$237.00
Hong Kong, HK	$617.00
Los Angeles, CA	$198.00
London, United Kingdom - all	$165.00
Minneapolis, MN	$158.00
Tokyo, Japan	$620.00
Paris, France - all	$204.00
Zurich, Switzerland	$237.00

TRAVEL BARGAINS:

There are some fantastic travel bargains available for you online, if you're willing to put a bit of time and research into it.   The major travel engines I use are:

- Expedia: http://www.expedia.com
- Lowest Fare: http://www.lowestfare.com
- Orbitz: http://www.orbitz.com
- Travelocity: http://www.travelocity.com

Tips: Enter NYC as the Airport Code - this will include JFK, LGA and EWR in the lowest fares results. If you're flexible about travel dates, Yahoo! Travel (http://travel.yahoo.com)   will show you the absolute lowest fare online for travel - and the dates that it's available for.

FOR FUN:

TRANSLATION TOOLS:
http://babelfish.altavista.com/

Altavista's Babelfish will translate web pages and pure text to and from a variety of languages: Chinese, French, German, Italian, Japanese, Korean, Portuguese & Spanish.

WEBCAMS:

Webcams are live cameras from around the world, projecting images onto the Internet. For more cities, visit: http://www.webcam-index.com/

ACRONYMS & DEFINITIONS

ANSI: American National Standards Institute
ASCII: American Standard Code for Information Exchange (pure text)
AOL: America Online service provider
bookmark: a saved electronic record of a URL, allows fast access to that site again.
browser: client software designed to communicate with web server and translate data.

cache: an area of disk space reserved for holding data, used to speed up web pages.
chat: An IRC program that allows users to exchange information in real time.
DNS: Domain Name System, describes computers and system (i.e. nysoclib.org)
e-mail: Electronic mail messages sent over computers from one user to another.
FAQ: Frequently Asked Questions
FTP: File Transfer Protocol (moves files from one computer to another).

home page: the top page of a web site, provides access to rest of information on the site
HTML: Hypertext Markup Language (language used to create web pages)
HTTP: Hypertext Transfer Protocol (viewing web pages via a browser)

InterNIC: The service that registers domain names for users.
IP address: Internet Protocol address - describes machines on Internet
IRC: Internet Relay Chat (talk facility, equivalent to telephone conference call)
ISP: Internet Service Provider
LAN: Local Area Network (connects all computers by cable)
MSN: Microsoft Network (online service)

network: Any set of connected, inter-operative computers.
newsgroup: Collection of information on Internet about specific topics.
offline: not connected to a computer network
online: connected to a computer network.
POP: Post Office Protocol (e-mail protocol)
protocol: a set of rules for exchanging information over a network

search engine: a program that searches through electronic information
SMTP: Simple Mail Transfer Protocol (sends e-mail over internet)
TCP/IP: Transmission Control Protocol/ Internet Protocol (standardized protocol)
Telnet: Telnet Protocol (allows one machine to run programs on another machine)

URL: Universal Resource Locator (standard method of naming files on web)
WAN: Wide Area Network (or LANs connected to a backbone)
webmaster: a person in charge of managing a web site.
WWW: World Wide Web, makes text and graphics information available