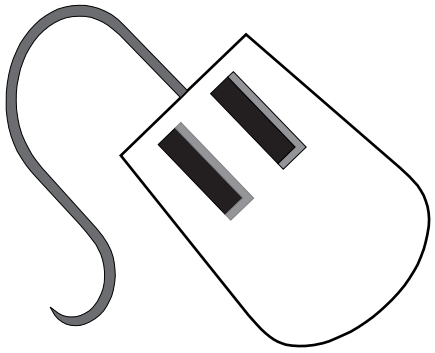
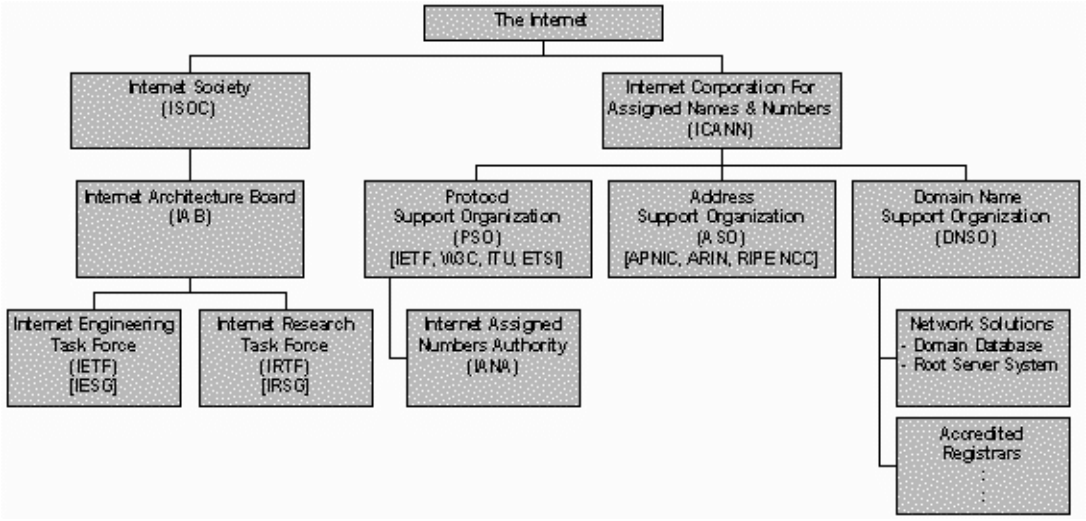


APPENDIX B
Internet Basics

The Internet is a relatively new phenomenon. It evolved from the ARAPNET (developed for defense purposes) in 1969. Then ARAPNET was transferred to the NSFNET in 1990. The Internet grew rapidly in the nineties and management was taken over by independent organizations (see chart) in 1995. *(http://www.livinginternet.com/i/iw_mgmt.htm)*

Managers of the Internet



http://www.livinginternet.com/i/iw_mgmt.htm

While these organizations manage parts of the Internet, no one owns the Internet. No one has control over what is posted on this network of networks. The World Wide Web is a subset of the Internet—most people only use the *www.Whatis.com* says:

A technical definition of the World Wide Web is: all the resources and users on the Internet that are using the Hypertext Transfer Protocol (HTTP). A broader definition comes from the organization that Web inventor Tim Berners-Lee helped found, the World Wide Web Consortium "The World Wide Web is the universe of network-accessible information, an embodiment of human knowledge." (*whatis.com,* 2004)

Using the Internet

Most people use the Internet to find information, for shopping, playing games, financial management (such as checking stock reports), keeping up with news and the weather—in other words, browsing, searching or visiting specific sites. The Internet is also a source of programs, images, photographs, pictures, sounds, videos and more which can enhance your teaching, your personal use and your productivity. There are some basic programs most computer users should have:

Internet Explorer, Netscape and Safari (Apple's browser)—browsers which come with your computer or can be downloaded for free
(Internet Explorer: *http://www.microsoft.com/windows/ie/default.asp,*
Netscape: *http://channels.netscape.com/ns/browsers/default.jsp*
Safari: *http://www.apple.com/safari/download/.*

WinZip—a program for reading and creating compressed files—and

Stuffit Expander—this is the MAC equivalent of WinZip

Adobe Acrobat Reader—needed to read popular PDF files

QuickTime, RealPlayer and other media viewing programs—to watch movies, video clips, listen to music, speeches and more.

You can obtain or download these programs for free on the Internet. The key is to carefully follow the instructions at the site. Some good places to download these and other programs (there are a lot of free games you might enjoy!) are: *tucows.com, download.cnet.com* and *shareware.com.*

While you are at these sites, take a look at plug-ins. Plug-ins are software programs that enable you to view or listen to special files. For example, the Flash plug-in is needed for some interactive classes and sites.

Something else you may want to do is to download pictures, animated gifs, photographs, jpegs and similar images. These are all types of graphics available on the web. You can find many of these for free. To save a picture just right click, choose Save Picture As, and choose your disk or hard drive or network space as the destination in the Save In box. You can also try copying and pasting an image. Some audio and video files need to be saved to your computer before you can open or run them. Make sure you adhere to copyright restrictions when downloading anything from the Internet.

Troubleshooting

The WWW is fussy about some things. If you type in the site address incorrectly, you will get a error message: "The page cannot be displayed" or something similar. Solution: carefully retype the address. If you click on a hyperlink that is dead (no longer exists) you will get this message also. You can try truncating the URL—deleting all the part back to the domain. For example, if the URL is: *http://www.google.com/search?sourceid=navclient&ie* try just this part: *http://www.google.com/* If you are successful in getting to the site, then search for the specific information you originally requested. Keep in mind the site may be defunct or may be having technical problems and temporarily is not in operation.

Other common errors include the message that a plug-in is needed—simply download what is called for. Sometime you may see a JavaScript error message—you may need to update your browser to fix this.

The most common complaint people seem to have with the Internet is that it is too slow. While cable modem and faster computers are helping with this complaint all the time, you should also be aware that there are peak usage times. Generally the Internet is especially busy in the evening hours—between 7–10pm. Depending on your time zone, and the servers you connect through, 4pm may also be a very congested time. Experiment with access at different times and whenever possible, avoid the busiest times. Be aware that even during faster times you can experience a slowdown based on congestion at any of the connections between you and your destination.

Definitions

Much of becoming comfortable with the Internet is understanding the language. The following definitions from *whatis.com* (a wonderful site which explains in clear language anything you could want to know related to information technology/computers) will begin to help you learn this Internet language:

Browser
A browser is an application program that provides a way to look at and interact with all the information on the World Wide Web. Netscape Navigator and Microsoft Internet Explorer browsers are the only two browsers that the vast majority of Internet users are aware of. Although the online services, such as America Online, originally had their own browsers, virtually all now offer the Netscape or Microsoft browser. Lynx is a text-only browser for UNIX shell and VMS users. Another recently offered and well-regarded browser is Opera.

Cookie
A cookie is information that a Web site puts on your hard disk so that it can remember something about you at a later time. Typically, a cookie records your preferences when using a particular site. A cookie is a mechanism that allows the server to store its own information about a user on the user's own computer. You can view the cookies that have been stored on your hard disk (although the content stored in each cookie may not make much sense to you). The location of the cookies depends on the browser. Internet Explorer stores each cookie as a separate file under a Windows subdirectory. Netscape stores all cookies in a single cookies.txt file. Opera stores them in a single cookies.dat file.

Domain Name
A domain name locates an organization or other entity on the Internet. For example, the domain name *www.totalbaseball.com* locates an Internet address for "*totalbaseball.com*" at Internet point 199.0.0.2 and a particular host server named "www". The "com" part of the domain name reflects the purpose of the organization or entity (in this example, "commercial") and is called the top-level domain name. The "totalbaseball" part of the domain name defines the organization or entity and together with the top-level is called the second-level domain name. The second-level domain name maps to and can be thought of as the "readable" version of the Internet address. Second-level domain names must be unique on the Internet and registered with one of the ICANN-accredited registrars for the COM, NET, and ORG top-level domains. On the Web, the domain name is that part of the Uniform Resource Locator (URL) that tells a domain name server using the domain name system whether and where to forward a request for a Web page. The domain name is mapped to an IP address (which represents a physical point on the Internet).

Dot.com

A dotcom is any website intended for business use and, in some usages, it's a term for any kind of website. The term is based on the com that forms the last part of the address for most commercial websites. The term is popular in news stories about how the business world is transforming itself to meet the opportunities and competitive challenges posed by the Internet and the World Wide Web. Beginning in mid-2000, as the stock market began to devalue many Internet stocks, the term became associated with a number of Web businesses that failed or suffered cutbacks.

Home Page
For a Web user, the home page is the first Web page that is displayed after starting a Web browser like Netscape's Navigator or Microsoft's Internet Explorer. The browser is usually preset so that the home page is the first page of the browser manufacturer.

Host
For companies or individuals with a website, a host is a computer with a Web server that serves the pages for one or more websites. A host can also be the company that provides that service, which is known as hosting.

http
HTTP (Hypertext Transfer Protocol) is the set of rules for transferring files (text, graphic images, sound, video, and other multimedia files) on the World Wide Web.

Hypertext
Hypertext is the organization of information units into connected associations that a user can choose to make. An instance of such an association is called a link or hypertext link. (And the highlighted word "link" in the previous sentence is an example of a hypertext link.) Hypertext was the main concept that led to the invention of the World Wide Web, which is, after all, nothing more (or less) than an enormous amount of information content connected by an enormous number of hypertext links.

HTML

HTML (Hypertext Markup Language) is the set of markup symbols or codes inserted in a file intended for display on a World Wide Web browser page. The markup tells the Web browser how to display a Web page's words and images for the user. Each individual markup code is referred to as an element (but many people also refer to it as a tag). Some elements come in pairs that indicate when some display effect is to begin and when it is to end.

IM

Instant messaging (sometimes called IM or IMing) is the ability to easily see whether a chosen friend or co-worker is connected to the Internet and, if they are, to exchange messages with them. Instant messaging differs from ordinary e-mail in the immediacy of the message exchange and also makes a continued exchange simpler than sending e-mail back and forth.

Internet

The Internet, sometimes called simply "the Net," is a worldwide system of computer networks—a network of networks in which users at any one computer can, if they have permission, get information from any other computer (and sometimes talk directly to users at other computers).

World Wide Web (WWW)

The most widely used part of the Internet is the World Wide Web (often abbreviated "WWW" or called "the Web"). Its outstanding feature is hypertext, a method of instant cross-referencing. In most websites, certain words or phrases appear in text of a different color than the rest; often this text is also underlined. When you select one of these words or phrases, you will be transferred to the site or page that is relevant to this word or phrase. Sometimes there are buttons, images, or portions of images that are "clickable." If you move the pointer over a spot on a website and the pointer changes into a hand, this indicates that you can click and be transferred to another site.

ISP

An ISP (Internet service provider) is a company that provides individuals and other companies access to the Internet and other related services such as website building and virtual hosting. The larger ISPs have their own high-speed leased lines so that they are less dependent on the telecommunication providers and can provide better service to their customers. Among the largest national and regional ISPs are AT&T WorldNet, IBM Global Network, MCI, Netcom, UUNet, and PSINet.

ISPs also include regional providers such as New England's NEARNet and the San Francisco Bay area BARNet. They also include thousands of local providers. In addition, Internet users can also get access through online service providers (OSP) such as America Online and Compuserve.

Link

Using hypertext, a link is a selectable connection from one word, picture, or information object to another. In a multimedia environment such as the World Wide Web, such objects can include sound and motion video sequences. The most common form of link is the highlighted word or picture that can be selected by the user (with a mouse or in some other fashion), resulting in the immediate delivery and view of another file.

Searching
On the Internet, searching is just trying to find the information you need. There are three basic approaches:

- The subject directory. These can be general and cover all subjects (as Yahoo does) or specialized (like the information technology sites at *searchWindowsManageability.com* and other *TechTarget.com* sites).
- The *search engine*. These can be general and attempt to index all or most of the Web's pages (like Google or FAST), or specialized and search within a narrow range of subjects.
- The so-called *deep Web*—that is, the websites that have information that can't be indexed by the search engines but can in many cases by searched directly at the individual website.

Server
Specific to the Web, a Web server is the computer program (housed in a computer) that serves requested HTML pages or files. A Web client is the requesting program associated with the user. The Web browser in your computer is a client that requests HTML files from Web servers.

Website
A website is a collection of Web files on a particular subject that includes a beginning file called a home page. For example, most companies, organizations, or individuals that have websites have a single address that they give you. This is their home page address. From the home page, you can get to all the other pages on their site. For example, the Web site for IBM has the home page address of *http://www.ibm.com*.

Search Engine
On the Internet, a search engine is a coordinated set of programs that includes:

- A spider (also called a "crawler" or a "bot") that goes to every page or representative pages on every Web site that wants to be searchable and reads it, using hypertext links on each page to discover and read a site's other pages
- A program that creates a huge index (sometimes called a "catalog") from the pages that have been read
- A program that receives your search request, compares it to the entries in the index, and returns results to you

URL
A URL (Uniform Resource Locator, previously Universal Resource Locator)—usually pronounced by sounding out each letter but, in some quarters, pronounced "Earl"—is the unique address for a file that is accessible on the Internet. A common way to get to a Web site is to enter the URL of its home page file in your Web browser's address line.

On the Web an example of a URL is: *http://www.ietf.org/rfc/rfc2396.txt* which specifies the use of a HTTP (Web browser) application, a unique computer named *www.ietf.org*, and the location of a text file or page to be accessed on that computer whose pathname is */rfc/rfc2396.txt*.

Whatis.com
A valuable resource for all questions related to technology, this site gives clear explanations and links to more information on the topic. It is kept updated, and is very easy to use.