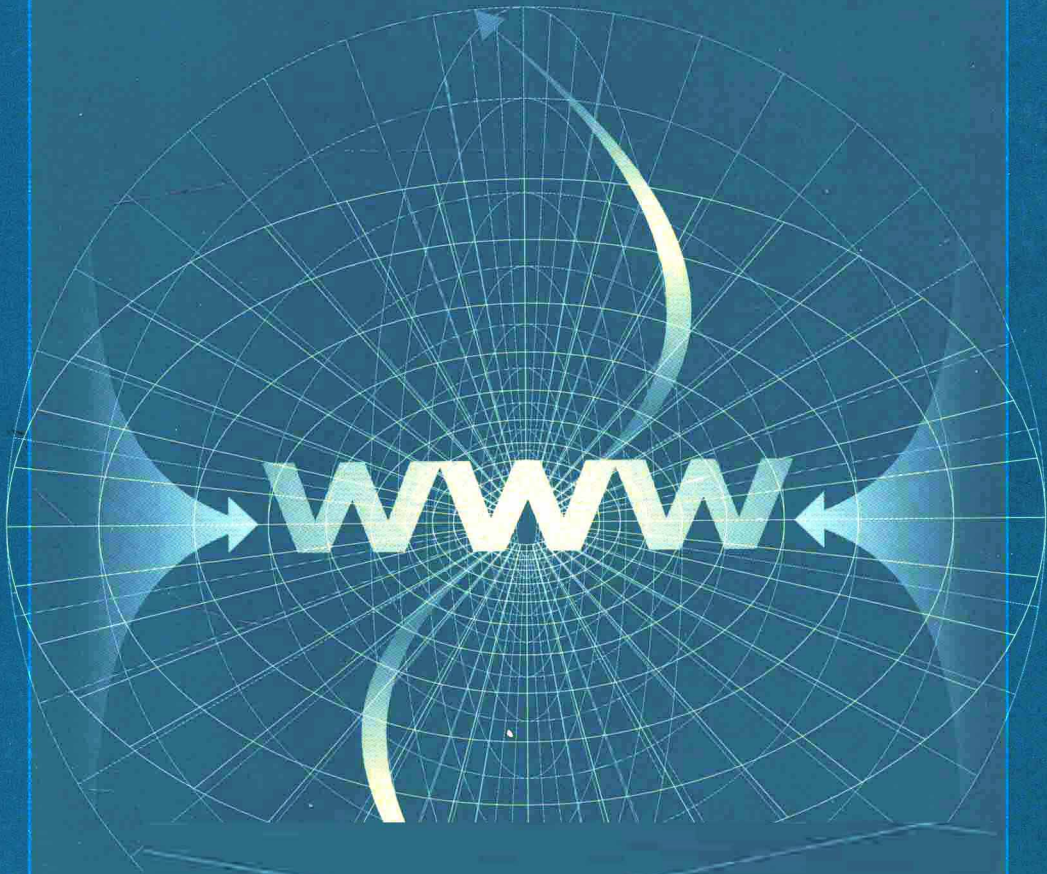


# *The Mayfield Quick Guide to the Internet*

FOR COMMUNICATION STUDENTS

VERSION 2.0



# **The Mayfield Quick Guide to the Internet for Communication Students**

**Version 2.0**

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**Mayfield Publishing Company**  
**Mountain View, California**  
**London • Toronto**

**To the memory of our mothers:  
Virginia L. Courtright  
Virginia P. Moyer**

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International Standard Book Number: 0-7674-2179-5

Manufactured in the United States of America

10 9 8 7 6 5 4

Mayfield Publishing Company  
1280 Villa Street  
Mountain View, California 94041



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# CHAPTER 1

## Introduction to the Internet

This brief book is devoted to two important tasks that confront every student of communication: finding and evaluating information. Whether you are using this book as part of a class in public speaking, oral communication, argumentation, or a more theory-oriented class in interpersonal or mass communication, finding and evaluating relevant information about various topics is one of the keys to your success. Obviously, presenting that information in an organized and coherent fashion—whether orally or in writing—is also crucially important, but we will leave the task of informing you about that skill to the authors of other books.

Considering that you are reading this book as part of a college course, you and your classmates have been confronting these twin tasks since elementary school. You may, in fact, be reasonably proficient at using various information sources in the library, such as the card catalogue and references works. What will make this book different and, we hope, useful is its focus on finding and evaluating information using the various tools of the Internet: the World Wide Web (WWW), e-mail, listservs, newsgroups, and file transfer protocol (FTP).

To say that information sources on the Web have exploded in the last few years is a major understatement. One can hardly pick up a newspaper or listen to a news broadcast without learning of some new innovation, usually involving that global communication medium called the Internet. In response to this explosion, this book is dedicated to the proposition that students in communication courses must master the technologies surrounding the Internet if they are to succeed, both in their current courses and later in their professional lives.

Accordingly, this book will provide the guidance, the vocabulary, and a set of skills necessary to launch communication students on their journey toward this technological competency. We must quickly add, however, that no book can hope to achieve more than a preliminary understanding. Students must practice, explore, and experiment with these various communication tools to attain the required level of mastery. From the students' perspective, the goal should be to feel as comfortable with these several Internet technologies as they currently do making a long distance phone call or obtaining cash from their local ATM machine. This book will help, but it cannot serve as a substitute for direct experience.

## WHAT IS THE INTERNET?

Whether used as part of a curse or a compliment, no computer term is bantered around with more remarkable frequency than the label *Internet*. This suggests that the best place to begin our journey is to demystify “the Net” by describing just exactly what is meant when knowledgeable people refer to the Internet.

Perhaps the easiest way to explore this term is to consider its two parts separately. “Net” is an abbreviation for “network,” which refers to any number of computers that are linked or connected and, thus, able to share information. In the early days of networking, there were several, unconnected networks such as BITNET (for universities) or MILNET (for the military). The Internet and thus the prefix “inter” arose when these several, independent networks were joined through high-speed telephone lines into a single, worldwide network of computers.

### The Internet and Your Computer

Although there are numerous features of the Internet that make it useful and attractive, none is more important than the fact that it can be accessed and used through almost any type of computer, including ones that are actually incompatible with each other. Hence, whether a student has access to a Windows-based computer (PC), a Macintosh (Mac), or even a terminal connected to a university’s **mainframe**, electronic communication via the Internet is possible. These different machines and their operating systems are often called **platforms**; they cannot communicate directly with each other. Try putting a Mac disk into a PC and see what happens. You won’t harm the machine or the disk, but neither will you be able to use it.

The Internet, in contrast, is said to be platform independent, thus allowing communication back and forth over the network among any of these computers. Macs still cannot talk directly to PCs or mainframes (or vice versa), but over the Internet they can share information as if they were exactly the same machine.

To remain true to this spirit of independence, the suggestions, directions, and assistance we provide in this book will also be platform independent. Although the authors both personally use PCs and all of our illustrations and graphics are captured from the computers we use daily, we will make every effort to ensure that our advice and directions are equally applicable to all makes and models of computers. More important, where incompatibilities are unavoidable, we will say so explicitly.

## WHAT IS THE INTERNET GOOD FOR?

Although this book is devoted primarily to the WWW, we believe it is important to describe other ways you can obtain and share information on the Internet. These will be very brief overviews. If you find yourself wanting more information, read our detailed treatment of these topics: Courtright and Perse, *Communicating Online* (Mayfield Publishing Company, 1998).

There are no doubt numerous acceptable ways to divide the various tasks one can perform on the Internet, but we have decided to segment these functions into two categories: (1) communicating and (2) accessing information. Each of these categories, of course, will give just a flavor of the various electronic technologies that you can use to make your life as a student (and later, as a professional) somewhat easier.

### Communicating

One of the most obvious uses of the Internet for students of communication is to communicate their thoughts and ideas to others. Such correspondence is both necessary and important. As we shall see, however, the Internet also allows communication with many individuals simultaneously, as well as the sending and receiving of word-processed documents, data files, audio and video files, and even computer programs.

**E-mail** Using electronic mail to communicate person-to-person is not only the oldest use of the Internet but is also the most common use. In fact, one of the first reasons people establish Internet accounts is so they will have access to e-mail. If you haven't e-mailed, you're missing its speed, convenience, and efficiency.

One additional feature of e-mail is the ability to include attachments. Simply stated, attachments are files that are included with or "attached" to the body of an e-mail message. Attachments can consist of additional text for consideration by the reader. More important, however, users of e-mail may also attach binary files (or files translated into digital code), for example, files created with a word processor and thus containing directions for sophisticated formatting—bold face, italics, special margins, and so on. If you have ever wanted to share your writing with someone else (say, your professor for some preliminary feedback), then you will find attachments such as these to be an invaluable tool.

There are many programs to use for e-mail. Which program you use will depend on your Internet account. Most students use the software provided by their school's

computer system. Programs like Pine, Mail, and Elm are perfectly serviceable e-mail systems. If you have access to a computer connected directly to the Internet, either through your university system, a commercial provider, or an Internet service, then you have several other options. Web browsers, such as Netscape and Internet Explorer, have mail programs that enable you to create, send, and read messages easily. The mail programs that are the easiest to use are those designed to operate directly on a personal computer. Both authors of this book use Eudora, a program that logs onto the university's mail system, retrieves our mail regularly, alerts us with a short song when we receive new mail, and stores it in various mailboxes or folders on our PCs. Eudora has many useful features, including a spelling checker, filters to send junk mail directly to the trash, "drag and drop" (using the mouse to move messages), and a link that launches the Internet browser program when you click on URLs included in messages. There are several other programs like Eudora available as shareware that you can download using FTP.

No matter which of the many available programs you use for e-mail, the steps you take will be the same. Specific commands to read, send, forward, and reply to mail differ, but the processes are essentially the same. Once you have practiced, you will find e-mail quite simple. If you become confused, look for "Help." On mainframe computers, the commands are summarized at the bottom of the e-mail screen. On Windows and Mac systems, click on the Help menu to get assistance.

Because the specifics of each e-mail program differ, we won't attempt to summarize them in this short guide. Contact your school's User Services staff for information about mainframe mail systems. They will have handouts to show you how simple the steps are. Ask your friends or the staff in computer labs for help; e-mail is easy.

We do have a few tips and recommendations to make your e-mail more efficient and courteous.

- Computers are unforgiving. Make sure that you type every part of the address correctly when sending mail. Even an unwanted space will keep your message from reaching its destination.
- Use the address book feature of your e-mail program (even mainframe computers' e-mail programs have that feature). This will reduce the chances of sending undeliverable mail to people that you regularly contact.

- You may want to reply to a message that has been sent to a mailing list or to many other people at the same time. If you want to respond to only the message source, make sure that you don't send your reply to everyone on the list. Sending a "mass reply" not only confuses the unintended recipients and wastes their time, but also makes you look foolish or incompetent.
- Don't use your in-box as a "things to do" list. Instead, make a "to-do" folder and transfer messages that you need to act on into that folder. Keep your in-box uncluttered so that you don't lose new or important messages.

Below are some additional recommendations about e-mail etiquette, sometimes called "netiquette."

- Remember that the purpose of e-mail is to communicate. Make your messages short, to the point, and easy to read. Always include information that makes it easy for the recipient to get in touch with you.
- Don't use special characters (such as italics and underlining) because they may appear as gibberish on some computer systems. If you *must* use emphasis, you can either type important words in capital letters or type a single underline character before and after the word (emphasis).
- Don't SHOUT! Using nothing but capital letters makes your messages difficult to read, and your reader may take offense.
- Check and respond to your e-mail regularly. Be courteous and treat e-mail as you would treat your answering machine messages.
- E-mail is not as private or secure as regular mail. Not only can your messages be read by others, but they can also be forwarded to other users. Be discrete. Ask yourself: Would I be embarrassed or ashamed if I read my words in tomorrow's newspaper? If you answer "yes," then don't send that message.
- You should never communicate just to intentionally harass someone. Also be careful to avoid unintentional harassment with e-mail. Remember that your name and e-mail address are included in the header, so if you're nasty, you're likely to get some nastiness in return.

- We all enjoy an occasional joke, but don't make a habit of forwarding everything you receive. Don't fill up your friends' and colleagues' in-boxes.
- Delete any chain letters that you receive immediately, and don't pass them along. They use up valuable system resources (including disk space), and can even clog networks.
- You cannot "unsend" an e-mail message once it's been opened by the receiver. Avoid sending flames or messages that contain strong language and are meant to criticize or provoke. Look over your mail carefully before you send it. Just like any other form of communication, don't e-mail in anger. Give yourself a chance to cool down before you send your message. Writing angry thoughts is a great way to get rid of them, but only foolish people press Send instead of Delete!

**Newsgroups** Every student beyond the grade of kindergarten is familiar with the concept of a bulletin board for posting words and pictures. This long familiarity should be comforting, because newsgroups are the equivalent of electronic bulletin boards.

Newsgroups are similar to e-mail: Individuals who subscribe to the newsgroup can send or post messages, or reply to messages from others. Newsgroups are also similar to e-mail in that one can include attachments to one's postings, thus allowing subscribers to share all types of binary files.

The primary difference between newsgroups and e-mail is the audience. Newsgroups, like bulletin boards, have an audience that is much more public and, in some cases, largely anonymous. There certainly are exceptions (a newsgroup dedicated solely to a communication class would be restricted to registered students), but posting messages to a newsgroup is more often the electronic equivalent of posting an open note on a public bulletin board. Anyone who ventures by can read it.

**Listservs** Listserv groups are like newsgroups in almost every respect, except that the postings are delivered to a subscriber's e-mail account. Similarly, to post a message to a listserv, a subscriber composes a regular e-mail message, but mails it to a central, listserv address rather than to an individual. This makes listserv a type of electronic mass mailing.

Of course, the reverse is also true: A subscriber receives automatically each and every message that is sent to the central listserv address. Although the comparison to "junk mail" is not quite fitting, being a member of an active listserv and receiving

several dozen messages per day—only a few of which are of interest—will quickly bring that term to mind. For this reason, many people prefer newsgroups over the more passive listserv. They may have to exert some effort to retrieve their messages, but they can do so at their own convenience, and they can ignore uninteresting postings.

## Accessing Information

No feature of the Internet will be more helpful to students than the massive amounts of information that can be found on an almost unlimited number of topics. In fact, some of the suggestions we will offer later in this guide will actually focus on how to obtain less (but better) information from the Internet. Whether you need the smallest of details (What time was *I Love Lucy* broadcast in 1955?), background information about notable historical events (the bombing of Pearl Harbor), or current updates on topics in the news, access to and knowledge of the Internet will give you a distinct advantage.

Communication students, more particularly, can use the Internet to assist them in almost every course they take. Public speaking topics, FCC documents, history of television programs, or basic reference materials can make preparation for classes much more efficient. Although the Internet is hardly prepared to replace a university's research-oriented library, students can frequently obtain the basic information they require or at least some focus and direction that will make their library searches more successful.

**The World Wide Web** When the average person thinks of the Internet, chances are they are thinking of the **World Wide Web**, sometimes referred to by the initials WWW, but most often simply called the **Web**. When describing the Web, two terms immediately come to mind: **multimedia** and **hypertext**. The Web is certainly able to provide information in multiple forms or media, including text, pictures, audio, and (although still less than perfect) even video. The potentially rich combination of these various media is, without doubt, what makes browsing the Web interesting and so worthwhile as a source of information.

Equally important to the success of the Web is its use of hypertext or "linking." Creators of Web pages can make any word or phrase, or even parts of a picture, a direct link to any type or medium of information, whether it is located in another part of the same page or on a totally different page created by another individual or organization. By simply clicking the mouse on one of these links, the user is immediately taken to that new source of information.

To illustrate this concept, Figure 1.1 (p. 9) shows the Web page for *The New York Times*, literally for the date we are writing this. All of the sections, the underlined text, and even the picture are either direct links to other sections or relate to specific stories. This example of *The Times* does not use audio or video clips in its Web pages, but if it did, the concept of clicking on a hyperlink to see or hear them would be the same.

Perhaps the easiest way to gain an elementary understanding of the Web is to borrow two terms from the theater, namely, backstage and frontstage. Behind each and every page you view on the Web (the “backstage”) is a sophisticated set of computer instructions referred to as **HyperText Markup Language** or **HTML**. The HTML controls the appearance of the Web page and designates the text or pictures that will serve as hyperlinks. This computer language, however, operates completely behind the scenes and should not concern you. Unless you wish to create your own Web pages, you will neither encounter nor use HTML.

To transfer files across the Internet, the two computers involved must accept a relationship: One must act as a **server** and the other must become a **client**. All parts of a Web page (text, pictures, audio files, etc.), as well as the HTML instructions for formatting them, reside on a host computer that is called a server. The server and the client can both send and receive files from each other, but the server always controls the transfer process.

As the viewer of Web pages, you are the “audience” that sits in front of the stage. Your ability to view, however, comes from the use of a Web **browser** that serves as a client to the server computer. When you click on a hyperlink, the browser issues a request to the server to send the desired information. The server, in response, delivers the information along with the HTML formatting instructions. These instructions are interpreted by the browser and placed on the computer screen in the form of a multimedia Web page.

The browser software, therefore, is what you must master to use the Web effectively. Throughout this book, we will focus our descriptions and explanations on the browser by Netscape, Inc. Although Netscape’s share of the browser market has been eroded by Microsoft’s Internet Explorer, most educational institutions make customized versions of Netscape’s browser available at no cost to their students. In any case, if you become knowledgeable about one browser, the effort required to learn another will be minimal.

With this in mind, we will describe in detail how to use Netscape effectively later in this guide.

**FTP** The acronym **FTP** stands for **file transfer protocol**, which is the standard method of transferring entire files from one computer to another across the



**Figure 1.1** (Copyright © 1999 by the New York Times Co. Reprinted by permission. Netscape Communicator browser frame copyright © 1999 Netscape Communications Corporation. Used with permission.)

Internet. The function of a server is very much the same as we described in our discussion of the WWW; it controls the interaction between itself and your computer.

The reason for this arrangement is, simply stated, security. The server computer can, and frequently does, require an individual to be recognized with an ID and a password before transfers can take place. The client computer, on the other hand, must send that ID and password, or else its attempts at transfer will be rejected. The reason for this relationship is relatively obvious. Would you want everyone and anyone to have access to all of the files on your computer? Of course not. That is why this arrangement has been established. You can exchange files between, say, the computer in your apartment or dorm room and the university's mainframe, but no one else has access to your files without your password.

Assuming your computers are networked, you can provide each person in your workgroup an ID and password for your computer, but yet restrict them to a single directory or folder (e.g., the "Our Project" folder). This gives these people the freedom to read and write to files on your machine but, more important, it gives *you* control over exactly which folders and files are available to them.

In this section, we wish to discuss the transfer of files in an unsecured environment. In this context, the server does not require an ID or password and is open to anyone who wishes to transfer a file or a program to his or her own computer. Because no identification is required, this type of transfer is called **anonymous FTP**.

Anonymous FTP is widely used on the Internet as a way to share information in the form of **FAQ** files, that is, "frequently asked questions." Many hardware and software companies, for example, maintain anonymous FTP sites with FAQ files about their products. If you are having a problem with your word processor or your monitor doesn't seem to be displaying the correct colors, these files will often contain the right setting or a handy tip that will help to solve your problem.

Another use for anonymous FTP is to obtain actual working programs over the Internet. Both individuals and small companies write excellent software but don't have the marketing capability of an IBM or a Microsoft. Instead, they market their programs as **shareware**, or "try and then buy," by placing them on the Internet for downloading via FTP. Similarly, even the largest companies offer upgrades or fixes for existing programs and will make these available exclusively through anonymous FTP.

The more time you spend using your computer to explore the Internet, the more you will come to appreciate the power and utility of this method of acquiring information and software.

## Computer Viruses

Any guide to the Internet should include a discussion of viruses, the online “disease.” The biological analogy is a good one. A **virus** is a computer program that sends copies of itself to “infect” other programs. Viruses are parasites. They cannot exist independently, but must instead reside in other programs. Viruses act on their own; once they are attached to computer programs, they replicate and infect independently.

Most viruses are the result of childish technological pranks. Although they can be annoying (by slowing down the host computer’s speed or by flashing messages), most are harmless. A small percentage of viruses, however, are deadly. These may overwrite (and eliminate) files, thus causing you to lose the data on your floppy or hard disks.

Viruses have also been the topic of many hoaxes on the Internet. Most of you have probably heard about (or even received e-mail about) the “Good Times” virus. Rumors about this virus have been circulating since 1994. The best way to protect yourself from being fooled by hoaxes and to protect your files from real viruses is to understand how viruses are spread.

Given their parasitic nature, viruses reside silently in computer programs until those programs are run. As a result, viruses can only be spread in computer programs or macros (codes of instructions to the computer). Viruses are not spread in data files, like word-processing documents, e-mail, or multimedia files. You cannot get a virus by reading e-mail or other documents, reading Web pages, or even simply by downloading files. The only way to get a virus is to run the program in which it resides. Running an infected computer program stimulates the virus to replicate and spread.

Unfortunately, there are several ways that students can encounter infected computer programs, especially when they use computer labs. Although they are becoming less common, it is still possible to become infected with **boot sector viruses**. These viruses reside in the boot, or system start-up, programs. Boot sector viruses can be passed from infected hard drives in computer labs to students’ own floppy disks. Boot sector viruses may be harmless, but some can wipe out important files and prevent computers from being able to boot, or start up.

**Macro viruses** are becoming more common. Macro viruses affect the macro (or template) parts of programs. Macros are transparent for most users, but every time you create a document with your word-processing program, you use a macro or template (usually the “new document” template). A macro virus spreads when the macro is turned on and can either corrupt the file or make it impossible to save.

Students who are facile with the Internet may also **download** programs infected with a virus. Remember that viruses are spread by running programs, not by simply downloading them. However, if a program with a virus is run without checking for viruses, the virus will infect the host computer.

There are some simple steps you can take to protect your computer, disks, and files from viruses. First, get some anti-virus software. This type of software detects and disinfects computer viruses. Some anti-virus software is available as shareware; some schools have site licenses for their staff and students. Perhaps the most important part of this recommendation is that you use the software and update it regularly. If you use computer labs, ask the staff to check your disks for viruses before and after using the lab's computers.

Second, avoid sharing disks with others. If you must use someone else's disks, use anti-virus software to check them out first. If you must put your disks in someone else's computer, flip the "write-protect" tab on your disk, so that no files can be inadvertently copied onto your disk. Practice safe computing.

Third, look (and think!) before you download. Use reputable sites for downloading shareware. Avoid downloading "underground" software that allows you to cheat (e.g., to use a commercial Internet site without paying their charges). Fourth, use your anti-virus software to check out any files you download before you run them.

Finally, back up everything. Back up your work, your programs, your files, and your disks. Back up regularly and often. Store your backups in a safe place. Thus, if a virus should infect your work, you will be able to restore your computer and their files back to good health.

## ESTABLISHING YOUR INTERNET ACCOUNT

There are basically three ways for university students to gain access to the Internet. You must establish an Internet account with (1) your university, (2) a commercial service (e.g., America On-Line or CompuServe), or (3) an Internet service provider. Most students choose to establish an account with their university, because it is provided as part of their registration and, perhaps more important, is paid for by a portion of their tuition.

Every university, of course, will have a slightly different process for establishing an active account. If you do not have a computer account already, you will need to check with the computing folks on your campus. They will ask you to provide some basic information and, in return, will issue you a log-on ID and a preliminary password. *Make certain you quickly change that password!* Use a word, a name, or a series of letters that you can remember but that cannot easily be guessed by others.