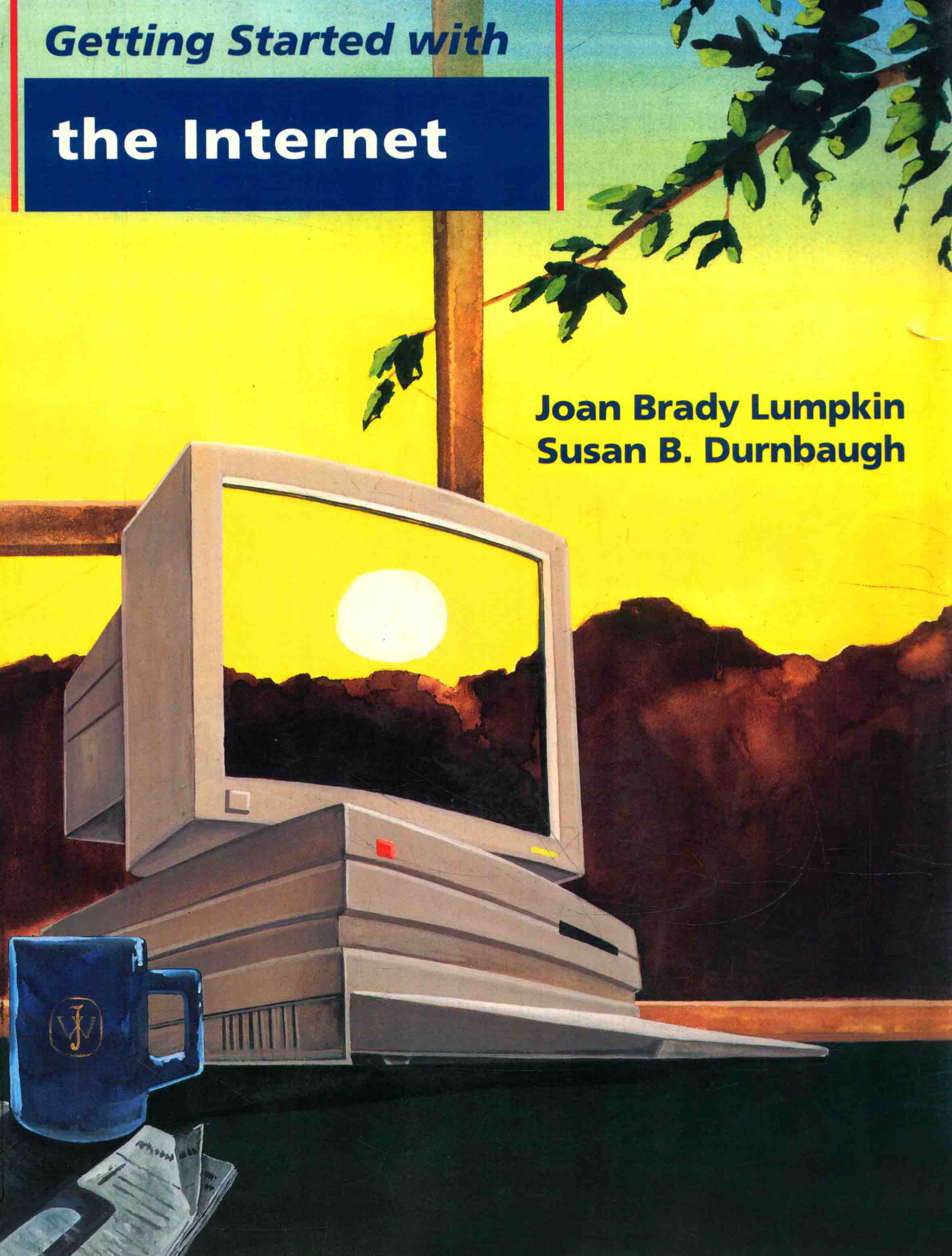


Getting Started with **the Internet**

**Joan Brady Lumpkin
Susan B. Durnbaugh**



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Preface

The Internet and information highway are becoming terms known to most involved in business or education. However, getting an Internet address and being connected to the Net are only the beginning. There are so many resources available and so much information on the Net, that a new user can become overwhelmed and easily frustrated.

Getting Started with the Internet provides a step-by-step, hands-on introduction to the Internet. It is designed for the new Internet user or a user with limited knowledge of Internet capabilities. Basic skills are taught in short, focused activities which build to create actual applications.

Key Elements

Each lesson in *Getting Started with the Internet* uses the following key elements to help students master specific concepts and skills and develop the ability to apply them in the future.

- **Purpose, Objectives, and Methods**, located at the beginning of each lesson, focus students on the skills to be learned, and how and why they are to be learned.
- **Background information on specific topics** gives students general information about each topic before they move on to the exercises.
- **Project orientation** allows the students to meet the objectives while creating a real-world application. Skills are developed as they are needed to complete exercises, not to follow menus or other artificial organization.
- **Motivation** for each activity is supplied so that students learn why and when to perform an activity, rather than how to follow a series of instructions by rote.
- **Exercises with step-by-step instructions** guide students as they apply the general procedures to accomplish specified tasks.
- **Screen displays** provide visual aids for learning and illustrate major steps.
- **Lesson Review Questions** help the students review the major concepts presented in each lesson.

Flexible Use

Getting Started with the Internet is designed for use in an introductory computer course. As a "getting started" book, it covers many, but not all, of the Internet's capabilities. While designed to be used in conjunction with lectures or other instructor supervision, basic concepts are explained so that students can use the book in independent learning settings. It can be used in Information Systems, Computer Science, Education or other curricula where the student is expected to know how to use the Internet. It could also be used in business, industry, or educational seminars on the Internet where a hands-on lab is available.

About the Authors

Joan Brady Lumpkin holds a Bachelor of Science degree in Mathematics from Purdue University and a Master of Business Administration from the University of Dayton. She has over 15 years of experience with NCR (now AT&T) both in software development and in training. Ms. Lumpkin is currently a lecturer at Wright State University, conducting classes in Information Systems. Previously she has taught at the University of Dayton in the Computer Science and Decision Science departments. Ms. Lumpkin has developed numerous courses for industry and has written training manuals on topics including UNIX, Project Management, Systems Design and Implementation, and Communication. She has conducted seminars on the use of the Internet for business and educational groups.

Susan Durnbaugh earned a Bachelor of Science degree in Education from Bowling Green State University and a Master of Education degree from Xavier University in Cincinnati, Ohio. She has over 25 years teaching experience at both the secondary and post-secondary level. Currently Mrs. Durnbaugh is employed by Beavercreek Local Schools teaching application software and is an adjunct instructor in Business and Vocational Education at Wright State University. She has also taught at Miami University, the University of Dayton, and Sinclair Community College. Mrs. Durnbaugh has drafted the curriculum proposals for the Word/Information Processing and Records Management courses and Using the Internet workshop at Wright State University. She presently is conducting workshops on the use of the Internet for professional groups.

Acknowledgements

We dedicate this book to our students at Wright State University for whom it was written and to Maria Scott for her assistance in the labs.

We would like to thank our families for the support they have given us so that we were able to achieve our goal and for carrying on without us during our long hours of work.

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Joan Brady Lumpkin
Susan B. Durnbaugh

April 1995
Dayton, Ohio

Students and Instructors

Before Getting Started Please Note

In Lesson 3, Internet News, the UNIX exercises are written using the tin newsreader. Not all UNIX systems use this newsreader; therefore, the commands given may not be accurate for other UNIX newsreaders.

In Lesson 5, Internet Tools, telnet approaches are given wherever possible.

At the time this book was written, all exercises were executable. However, due to the ever-changing climate of the Internet and the software features available on your host computer, completion of some exercises may not be accomplished. Check with your instructor for alternate methods.

Contents

1	INTRODUCTION TO THE INTERNET	1
	Purpose	1
	Objectives	1
	Method	1
	WHAT IS THE INTERNET?	1
	GETTING STARTED	2
	COMMERCIAL PROVIDERS	3
	FREE-NETS	3
	INTERNET ETIQUETTE	4
	LESSON REVIEW QUESTIONS	5
2	ELECTRONIC MAIL (E-MAIL)	7
	Purpose	7
	Objectives	7
	Methods	7
	INTERNET ADDRESS	8
	PASSWORD	9
	STORE AND FORWARD	9
	MAIL READERS	10
	E-MAIL HEADER	10
	MAILING LISTS	11
	TALK	11
	INTERNET RELAY CHAT (IRC)	12
	LESSON EXERCISES	12
	Exercise 1: Logging On	12
	Exercise 2: E-mail Using Pine (UNIX and VMS)	13
	Exercise 3: E-mail Using UNIX Mail	15
	Exercise 4: E-mail Using VMS Mail	17
	Exercise 5: The Talk Command	19
	Exercise 6: The Finger Command	20
	LESSON REVIEW QUESTIONS	20
3	INTERNET NEWS	23
	Purpose	23
	Objectives	23
	Method	23
	WHAT IS NEWS?	24
	NEWSREADERS	24
	NEWSGROUP ARTICLES	25
	HELP	26
	NEWS HELP DISPLAY	27
	NEWS COMMANDS	27

	LESSON EXERCISES.....	27
	Exercise 1: Exploring VMS USENET	28
	Exercise 2: VMS Posting	28
	Exercise 3: VMS Register/Unregister	30
	Exercise 4: Exploring UNIX USENET	30
	Exercise 5: UNIX Posting	31
	LESSON REVIEW QUESTIONS	32
4	TELNETTING	35
	Purpose	35
	Objectives	35
	Method	35
	WHAT IS TELNET?	36
	HOW IS TELNET USED?	36
	HYTELNET	37
	LESSON EXERCISES	38
	Exercise 1: Using Library Resources	38
	Exercise 2: Using Hytelnet	38
	Exercise 3: Purdue University and the Ohio State University Databases	39
	Exercise 4: Exploring NASA SpaceLink	40
	Exercise 5: Free-net Excursion	41
	LESSON REVIEW QUESTIONS	42
5	INTERNET TOOLS	43
	Purpose	43
	Objectives	43
	Method	43
	ARCHIE	43
	GOPHER	44
	VERONICA	45
	WAIS	45
	WWW	46
	LESSON EXERCISES	47
	Exercise 1: Doing an Archie Search	48
	Exercise 2: Doing a Gopher Search	50
	Exercise 3: Doing a Gopher Search Using Veronica	53
	Exercise 4: Using WAIS	54
	Exercise 5: Access WWW via Lynx	56
	Exercise 6: Summary	59
	LESSON REVIEW QUESTIONS	59
6	FILE TRANSFERS (FTP)	61
	Purpose	61
	Objectives	61
	Method	61
	SOFTWARE TYPES	62
	COMPRESS FILES	62
	FILE TYPES	62
	FTP MAIL	62
	COMMANDS	63
	DIRECTORIES AND LIST OF FILES	64

LESSON EXERCISES.....	65
Exercise 1: Download Antivirus Software.....	65
Exercise 2: Download Decompression Software.....	65
Exercise 3: Download a File of Interest.....	66
Exercise 4: Transfer File from Host to PC.....	66
Exercise 5: Downloading Mosaic.....	67
LESSON REVIEW QUESTIONS.....	67

7 USING MOSAIC 69

Purpose.....	69
Objectives.....	69
Method.....	69
HYPERTEXT AND HTML.....	70
UNIFORM RESOURCE LOCATORS (URLS).....	70
PULL-DOWN MENUS AND TOOLBAR.....	71
THE FILE MENU.....	72
THE EDIT MENU.....	72
THE OPTIONS MENU.....	72
THE NAVIGATE MENU.....	73
THE ANNOTATE MENU.....	74
THE STARTING POINTS MENU.....	74
THE HELP MENU.....	75
LESSON EXERCISES.....	75
Exercise 1: Using Starting Points.....	75
Exercise 2: Entering URLs.....	76
Exercise 3: Research Project.....	77
LESSON REVIEW QUESTIONS.....	77

BIBLIOGRAPHY 79

GLOSSARY 81

INDEX 85

Lesson

1 Introduction to the Internet

Purpose

In this lesson we will discuss what the Internet is, how it began, its many uses, and general content.

Objectives

In this lesson, you will:

- Define the Internet.
- Discuss its origin.
- Discuss what it contains.
- Get an overview of some of its resources.
- Discuss getting started (connected).
- Discuss getting a user account.
- Discuss Internet etiquette.

Method

Lecture and discussion will be used to introduce the material.

WHAT IS THE INTERNET?

The Internet is a collection of interrelated and connected computer networks. They form the largest and most widely used network in the world, which is a source of volumes of information and services.

It was first established through the Department of Defense in the late 1960s as a means of electronic communication for the military and government agencies. The network was designed to be easily available and, for national security, to survive any nuclear attack. One of the main uses of the network was for scientists and researchers to share information and resources. Researchers could log in from remote locations to use government or academic computer resources to complete their work. The results of the research was often shared with others via the network also.

Electronic mail or E-mail soon became one of the most used features of the Internet and continues so today. Using E-mail, colleagues in remote locations can easily converse and share information with others.

Usenet was developed in the late 1970s as a means of communication among various universities. In the 1980s, Usenet was used as a means of electronic discussion. It became a part of the evolving Internet.

As the volume of information and resources grew on the Internet, it became very tedious if not impossible to find what was needed. Tools such as Archie, Gopher, WAIS, and WWW aided the user in the search. The original tools were fine for the technical researcher, but as commercial and educational use increased, there was a demand for easy-to-use tools. We see many of these tools becoming available with new ones under development.

The Internet continues to grow and evolve. Currently there are over 25 million users with an expectation of the number of users doubling yearly. The commercial sector is becoming more involved. As usage increases, there will be a need for larger capacity and higher speed lines to carry the many requests from user to user. Someday every student and adult may have access to the Internet for a ride on the information highway.

GETTING STARTED

To become an Internet user, you must have an account with a valid Username and Password. To have a valid Username, you need to secure an account from your business, university, or a commercial provider. Many communities also have Free-nets available.

There are two standard types of Internet connections:

- Direct or dedicated often using Ethernet
- Dial-up via a modem

The Direct connection means you have a dedicated cable between you and the host. A Dial-up connection is over telephone lines using a modem. The connection with the greatest transfer rate is the direct connection which may provide over 10 million bits/sec. With a modem, your transfer rate depends on the speed of your modem. Most connections allow from 2,400 bits/sec to 14,400 bits/sec. However, modem speed is continually increasing.

You may also have a SLIP (Serial Line Internet Protocol) or PPP (Point-to-Point Protocol) connection. With SLIP/PPP your desktop computer is directly connected to the Internet versus going through a host. This type of connection is often more expensive and not always available at all sites. However, many of the newer graphic tools like Mosaic require a SLIP or PPP connection.

For a Slip alternative, a program called The Internet Adapter (TIA) can be used to convert an account to a psuedo-slip account. The TIA software is copied to your directory on your host account. After log-in, enter *tia* and you can use Mosaic. TIA is available from InterMind via

ftp marketplace.com

The license fee is currently \$25. TIA's current version is for UNIX hosts only, but VAX/VMS versions are being developed by InterMind. Some hosts prohibit the use of TIA, so before you install it, find out the policy of your provider.

SlipKnot from MacroMind is another graphic interface to the WWW, which runs under Windows. It allows access via a standard host account where your provider has lynx installed. It is available via:

ftp oakland.edu/SimTel/win3/internet

The type of connection you have may dictate what Internet tools you can use.

COMMERCIAL PROVIDERS

Most commercial providers charge a monthly rate for access to their network. Also, depending on your amount of use, you may have so many “free” hours included with the monthly rate and any usage over that is an additional charge.

Some commercial services you may wish to contact are listed below. The Internet services provided may vary, as may the monthly fee for these services.

Providers	Voice Phone Contact
America On-line	1-800-827-6364
CompuServe	1-800-848-8199
Delphi	1-800-695-4008
	1-800-365-4636 (by modem)
	Username <i>JOINDELPHI</i>
	Password <i>NTWV94</i>
Prodigy	1-800-776-3449

In addition to these national commercial providers, you may have network services in your local community that provide Internet access. Check your local paper for advertisements or contact local computer stores, which may be familiar with the services available and companies to contact. Many times local providers have a lower fee but may not have as many services available. Be sure to ask what services are included.

FREE-NETS

Many communities have established a Free-net as an open-access community computer system. A Free-net is a special purpose *Bulletin Board System* intended for people in the city and surrounding vicinity it serves. It usually offers some degree of Internet access.

One of the first Free-nets was the Cleveland Free-net pioneered by Tom Grunder. However, many Free-nets now exist and more are to be added to make local information available on-line and provide users some Internet functions.

These networks are available to citizens, public and private schools, community organizations and institutions, government, and small to medium-size businesses. Included on the Free-net are access to community service information, educational programs, electronic mail, local health care information, and other computer-based services.

Access to the Internet is often available via the Teleport Terminal (Telnet) option. A sample menu is as follows:

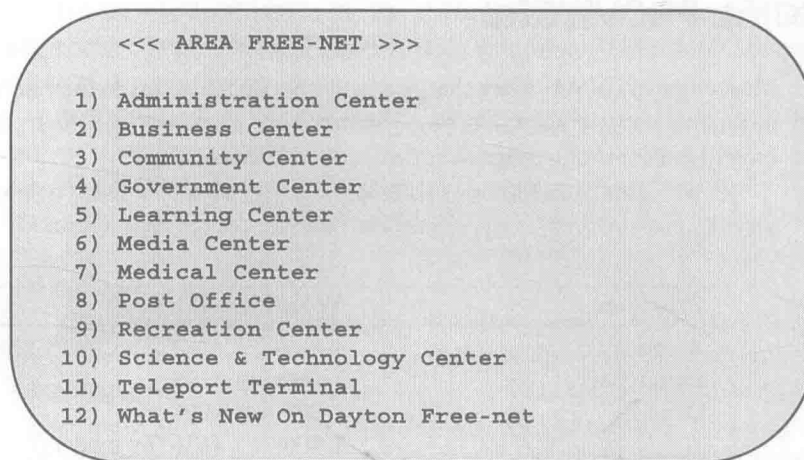


Figure 1-1

A Free-net exercise will be done in Lesson 4.

INTERNET ETIQUETTE

The Internet is about people and the interaction with people. Therefore, it is important to be a courteous and thoughtful user. Remember the Golden Rule, “Do unto others...”

All active users are competing for a spot on the network. If you are not actively working on the Internet, log off to free space for others. At times you will also receive a “no connect” message because all lines are busy, and you will understand then, more than ever, why it is very important to log off when not active. Many hosts have a policy of disconnecting a user who has been inactive for a period of time to free space and lines for others.

When sending E-mail messages, remember that the written word can be as hurtful as the spoken word. Don’t send a message in anger, because you can’t get it back, delete it, nor deny it. Reread your message before you send it and correct errors. Also, for your own protection, remember that the written word can be printed and used against you. Your name and username are printed as part of the header. Think before you press those ctrl + send keys. You can always postpone the message and send it tomorrow. You can also send a carbon copy (CC:) to yourself so you have a record of your message.

Newsgroup articles, once posted, are available for *anyone* to read. Therefore, choose your words wisely. Flames (an angry response on Usenet) are sometimes difficult to put out. The best approach is not to start them. If you have inadvertently posted something that is causing a flame, you can delete it with a cancel command, which will be discussed in Lesson 3.

For FTP or transferring files, remember that the network is a busy place. When downloading a large file, the courteous thing to do is use nonpeak hours. Also, the Internet is worldwide. Be mindful of time zones when connecting to remote sites. Hosts tend to be busiest during their peak (8:00 AM to 5:00 PM) hours.

If you have any further questions about social issues or netiquette (see Lesson 3) on the Internet, connect to the SURAnet Network Information Center in College Park, MD (*ftp ftp.sura.net*). When connected, retrieve the file *netiquette.txt* which is also referred to as the “Miss Manners of the Internet.”

LESSON REVIEW QUESTIONS

1. The Internet is _____

2. The Internet was first established by the _____
_____ in the late 1960s.
3. The most used feature of the Internet is _____
4. Tools used to aid users in their search for information are _____,
_____, _____,
and _____.
5. A _____ is a special purpose Bulletin Board System
with community access.
6. What is a SLIP connection?

7. What are usually the busiest hours on most hosts? _____

Lesson

2

Electronic Mail (E-Mail)

Purpose

In this lesson, you will learn ways to find the address of another person on the Internet and to send them an E-mail message. Commands for reading messages sent to you, replying to those messages, and various utilities to save, delete, or forward a message will be covered .

Objectives

In this lesson, you will:

- Define the address format.
- Change passwords.
- Locate another E-mail user.
- Discuss mailing lists.
- Use the Talk command.
- Use INTERNET Relay Chat.
- Send an E-mail message.
- Read an E-mail message.
- Reply to an E-mail message.
- Forward an E-mail message.
- Save/delete an E-mail message.

Methods

The command formats will be covered, followed by exercises to use the commands on the Internet. Sample E-mail exercises are included for the VMS and UNIX versions.

Electronic mail, often called E-mail, is the exchange of messages from one computer to another. It is the most widely used application on the Internet and is the one with which most new users start. It allows users to correspond without worrying about how the message gets there.