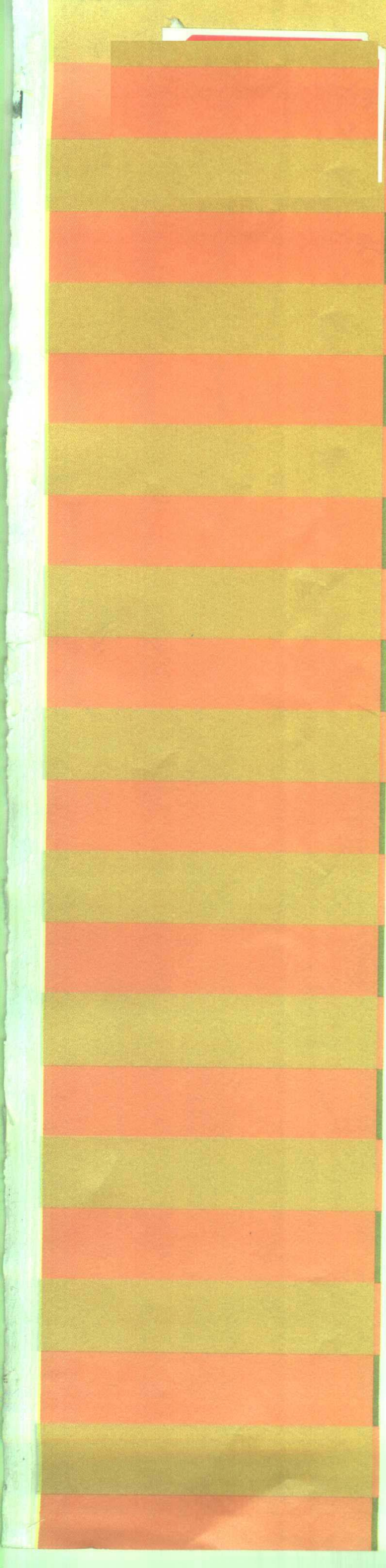


Netscape NavigatorTM and the World Wide Web



ERICKSON • VONK



Netscape NavigatorTM and the World Wide Web

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Preface

We wrote *Netscape Navigator and the World Wide Web* because we wanted a web-based textbook to help us teach. At the time, most Internet texts were written like cookbooks. Do this, do that, follow these steps. There was little or no explanation about why you should carry out specific tasks. Most books simply described a series of elaborate keystrokes or mouse clicks. While these types of textbooks work fine as a personal reference, they did not help us to teach or our students to learn. These types of texts certainly did not help our students master working with Netscape Navigator and the world wide web with a high degree of understanding.

One of the primary reasons so many books of this type fail as instructional tools is that most are not written by people like us, people who teach in the classroom. Unlike our *Netscape Navigator and the World Wide Web*, most texts are written by professional writers—people who have not been in the classroom in recent years or who have never taught. Their books are not guided by teaching experience, experience working with students on a day-to-day basis, or by an ongoing educational pedagogy. Our goal was to take our ongoing classroom experience and use it to guide us in the development of a computer text that would serve as a true instructional and learning tool. The outcome of this effort is a pedagogical model we call Success-Based Learning.

Success-Based Learning

Success breeds success. You may have heard this simple statement before. As simple or as trite as this statement may sound, it is at the basis of our thoughtfully planned instructional pedagogy. We base our Success-Based Learning pedagogy on one primary assumption—the most successful teachers are those who have a strong desire for all students to learn. This desire serves as a threshold in the sense that teachers who want their students to learn, and who hold high expectations for student learning, have students who are successful in the classroom.

Putting high expectations into practice is the foundation for the five principles in our Success-Based Learning model. By combining five separate elements, students learn the material quicker, have a better understanding of how the Internet operates, and retain and recall the material more easily. It also makes it easier to teach. Most of our principles are based on social psychological theories that have been around for a long time. They are not new, nor are they exclusively ours. What is different here is that we have taken principles we use to teach in the classroom and have used them to guide us in writing this series of books.

Learning is most likely to occur when students make a decision that they want to learn. If a student makes a

conscious decision to learn something, and the teacher also wants that student to learn, the teaching-learning process becomes very easy. Unfortunately, in many instances this is not the case. One of the benefits of Success-Based Learning is that it provides a motivation, and a stimulus, to help students develop a desire to learn. The elements of Success-Based Learning are:

- **Identifiable outcomes.** Students learn with confidence when they can anticipate the results of their work. In other words, students must know when they have learned something correctly. The important component here is not that students must know when they have learned something, but that they have learned it correctly. The example we like to use here involves the activity of making an omelet. Before you start to make an omelet you should know what an omelet looks like. This way, you will know if you have been successful in your attempt. Otherwise, when you try to make an omelet you might end up with some concoction of eggs and other ingredients that looks vaguely like scrambled eggs and not realize that you have made a mistake.

Each of our lessons begin with a set of objectives, followed by an extensive overview of what students can expect as they proceed through the lesson. We include several screen shots to show students exactly what to expect from their actions. Further, each major section within the lesson begins with a conceptual discussion of the reasons why an activity is important, what outcome should be gained from the activity, and how this is related to the overall goal of the lesson. From this students know what to expect throughout the lesson and what they should understand at the end of the lesson. They know when they have been successful. Knowing when you have been successful is key in learning any behavior.

- **Structured success.** Generally, when attempting any new behavior, if people experience immediate success they become more willing to try additional behaviors in that activity. On the other hand, if they experience failure, they become reluctant to attempt any further activity. Students need the opportunity to experience their own victories in order to reinforce what they learn and instill confidence in their abilities. So, we provide highly structured activities and tightly correlated exercises early in every lesson. These activities and exercises are designed to provide opportunities for immediate success. When students experience this early success they are more likely to make a decision that they want to learn more.

- **Guided exploration.** Most of us agree that the best way to learn how to use the Internet is to solve a problem on the World Wide Web. But, this “hands on” approach should not be left to trial and error learning. It is important to provide a step-by-step road map through each new topic. This is the explanatory aspect of lecturing or working through class activities. It may also be referred to as the “how to” component of instruction. The goal here is to explain how to use this new idea, or new information, in their own experience.

We include exercises in each lesson that are directly tied to an activity that is carried out throughout the lesson. Not only are these exercises tied to an activity, we provide several applications at the end of each lesson that are linked directly to lesson objectives. In this manner, students are provided with a map. That is, they are guided very closely toward achieving the objectives of each lesson.

Exercises embedded throughout each lesson and application projects at the end of each lesson provide personally meaningful experiences throughout the learning process. We also provide a comprehensive problem at the end of the lesson which is designed to link concepts in previous lessons to the current lesson. This helps students understand the connection between concepts and processes throughout the entire learning experience.

- **Deductive reasoning.** We think it is best to provide students with broad general principles and then to reduce these global conceptions to more specific, existential ideas or components. Most scientific reasoning is deductive rather than inductive, so it makes sense to follow this model when teaching scientific subjects. The second lesson introduces students to the broad, general, or global aspect of the Internet. By moving from a global procedure to more specific activities in subsequent lessons, retention and recall is facilitated. Tips, Tricks and Ideas boxes are used to suggest alternative strategies for a task or to provide very brief instruction on a limited topic. The combination of Tips, Tricks, and Ideas and the organization of the book helps facilitate retention and recall.
- **Critical mass.** This is an aspect of teaching that comes with experience and ongoing contact with students. Those of us who teach must carefully determine how much material we can safely introduce in one lesson. Too much and the student is overwhelmed. Too little and the student is not challenged. Identifying the critical mass for a classroom

lecture, chapter topic, or even an entire course becomes a crucial variable for successful instruction. With an introductory course on Netscape Navigator and the World Wide Web, not everyone needs to know every command, procedure, or nuance. What is important, however, is that students learn enough to feel comfortable with what they have learned, and feel comfortable enough to experiment. In several of the projects at the end of each lesson, we pro-

vide activities designed to encourage students to experiment.

Would you prefer a textbook written by professional writers who have not stepped into a classroom in years, or who may have never been in the classroom? Or, would you rather use a textbook written by people who teach, who care about their students, and who want their students to learn? We know this pedagogy works.

3

FTP and Telnet

OUTCOMES

Identifiable Outcomes

When you complete this chapter you will be able to

identify and use various types of ftp software.

download files directly from web links.

download graphic files using the right mouse button.

activate ftp sites from within Navigator.

identify the function of telnet.

WHAT IS FTP?

Would you like to have a new computer game, have access to updated software, obtain research articles in the form of text files, or acquire graphic files? Would you like to send your resume to a prospective employer, send a word processing document to a colleague who is working several hundred miles away, or send a graphic file that you have created to other computer users? You can do all of these things, and more, by sending and receiving these files on the World Wide Web.

One of the most powerful applications of the World Wide Web is the capability to **upload** (send) or **download** (receive) files. On the World Wide Web you upload or download files through a procedure called **ftp** (file transfer protocol). **File transfer protocol** allows you to examine, send, and receive files to and from other computers over the web.

Deductive Reasoning

Tips, Tricks, and Ideas 3-5**Learning Online Software Links**

Learning Online provides a large number of links you may use to access and download software. As you become familiar with the process, you may want to explore the *Learning Online* links to find software you might find useful.

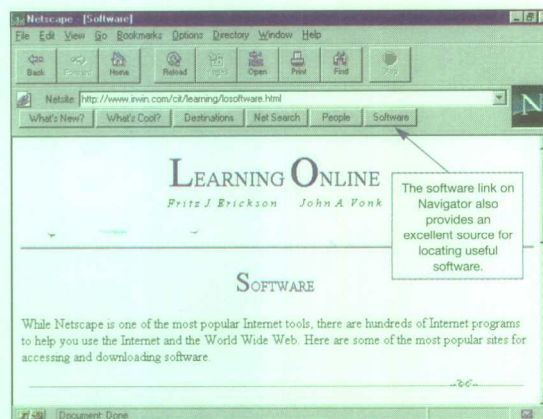
Software available for downloading on the web falls into one of three categories—Shareware, Freeware, and Commercial software. Shareware is software that is provided in either a full or limited version for you to “try before you buy.” In many cases, the software developers ask you to send a relatively small amount of money if you want to continue to use the software. Freeware, as its name implies, means you can use it for free. Commercial software is software that is commercially available for purchase before you use it. Many commercial

software companies offer demonstration versions over the web, but you will need to buy the software if you want to use the full version.

Structured Success

ACTIVITY

1. Launch Navigator and activate the *Learning Online* web site.
2. Select the Internet Software link. Notice there are several sites for locating and accessing Internet software (Image 3-1).

Image 3-1

Guided Exploration

EXERCISE 3-5

Since there is no single standard for telnet software, the activity above may have to be modified to fit your telnet software. Write down the steps necessary for using your telnet software to connect to a remote computer. In addition, if you plan to use that computer, be sure to obtain a username and password. On many systems this may be the same as the username and password that allows you access to your e-mail.

KEY POINTS

- An ftp link is identified by a URL that begins with `ftp://`.
- When you click on a link that directly refers to a file that is not supported by Navigator, a message appears that lets you have the option of saving the file.
- One of the most powerful applications of the World Wide Web is the capability to upload (send) or download (receive) files.
- On the World Wide Web, the process of uploading and downloading files is accomplished through a procedure called ftp (file transfer protocol).
- File transfer protocol allows you to examine, send, and receive files to and from other computers over the web.
- There are a variety of approaches available for downloading files using ftp on the World Wide Web. One of the easiest methods is through direct ftp links.
- *Learning Online* features a large number of links to data files and software that you can download and use. Two of the most popular sites for downloading Internet software are The Ultimate Collection Of Winsock Software and The Consummate Winsock Apps List.
- Software available for downloading on the web often falls into one of three categories—Shareware, Freeware, and Commercial software.
- Shareware is software that is provided in either a full or limited version for you to “try before you buy.”
- Freeware, as its name implies, means you can use it for free.
- Commercial software is software that is commercially available for purchase before you use it.

Concluding
Hands-on
Projects

PROJECTS

1. Anonymous telnet locations provide a valuable information resource on the Internet. The *Learning Online* web site has a list of telnet sites. You can use these site addresses to telnet to various computers. If you are using Navigator and have defined supporting telnet software, you can use these links. Otherwise you will need to keep a list of these sites and use your telnet software directly. Use a sheet of paper to record all the steps you used to create each telnet session.
2. Libraries are useful locations for telnet and one of the best is the Colorado Association of Research Libraries (CARL). Go to the Telnet link on the *Learning Online* web site and telnet to CARL. Perform a library search of your choice, then print the results.
3. Expand your telnet capabilities by performing a web search for telnet. Notice all the available telnet sites.

Take some time to explore several of these sites. Create a log of various telnet sites you would like to visit. Include any login information that is required.

4. The *Learning Online* web site provides the ftp link that contains a variety of ftp sites for you to examine. Use ftp to visit a few of these anonymous ftp sites and explore what files are available. Select and download any one file of your choice.

5. Are you using the best Internet software? There is a variety of choices for most Internet applications. *Learning Online* has an Internet Software link. This link can take you to some locations that specialize in reviewing Internet software. These sites also allow you to download software of your choice. Visit one or more of the Internet Software links then decide if the software you are using is the best for you.

INTERNET AT WORK

Even though Edith looks very businesslike, she is actually a computer gaming geek. On the web are various gaming sites that enable you to download either free-ware, shareware, or demonstration versions of various software. Your task is to find a computer game that you think Edith might like, download the game, play the

game, then remove the game. Once you have identified the game, write Edith a brief memo about the game including where it can be located, how the game is played, and any other pertinent information. You can then share this with your coworkers (classmates).

Key Points, Key Terms, and Commands

At the end of each chapter we conclude the lesson with a summary of the key points and key terms. The key points are important topics covered in each lesson while the list of key terms calls attention to a series of important concepts, commands, and procedures highlighted throughout the text.

Study Questions, Practice Tests, and Fill-ins

In addition to the key points and key terms, we have included numerous questions that help the reader review important concepts in the lesson. The study questions tend to be open-ended, discussion-type questions. The practice tests are multiple choice questions. These multiple choice questions are followed by a series of fill-in-the-blank questions. As students review and try to answer these numerous questions, they are reinforcing important topics covered throughout the lesson.

Projects

Anyone teaching the Internet knows there is no substitute for hands-on activities. Each lesson concludes with a

group of projects. Throughout these projects the students carry out a number of activities learned in the lesson, and they are encouraged to experiment on their own.

Online Learning Web Site

One frustration of teaching the Internet is compiling web site addresses and keeping them up to date. So, we have done this for you. Students will learn to maneuver and use Netscape Navigator and the World Wide Web through the Online Learning Site. This site (<http://www.irwin.com/cit/learning>) contains several links to interesting and useful sites dealing with such topics as FTP, Gophers, Veronica, and Cool Games along with a variety of other topics. This site's address will not change, but it will be kept current so teaching and learning will occur more seamlessly. We do the work of finding educational and interesting sites for you.

Accuracy

Class time is important. You shouldn't have to use your class time trying to deal with an inaccurate activity. All of the books in this series are developed as carefully as possible to ensure their quality and accuracy.

Acknowledgments

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Fritz J. Erickson

John A. Vonk

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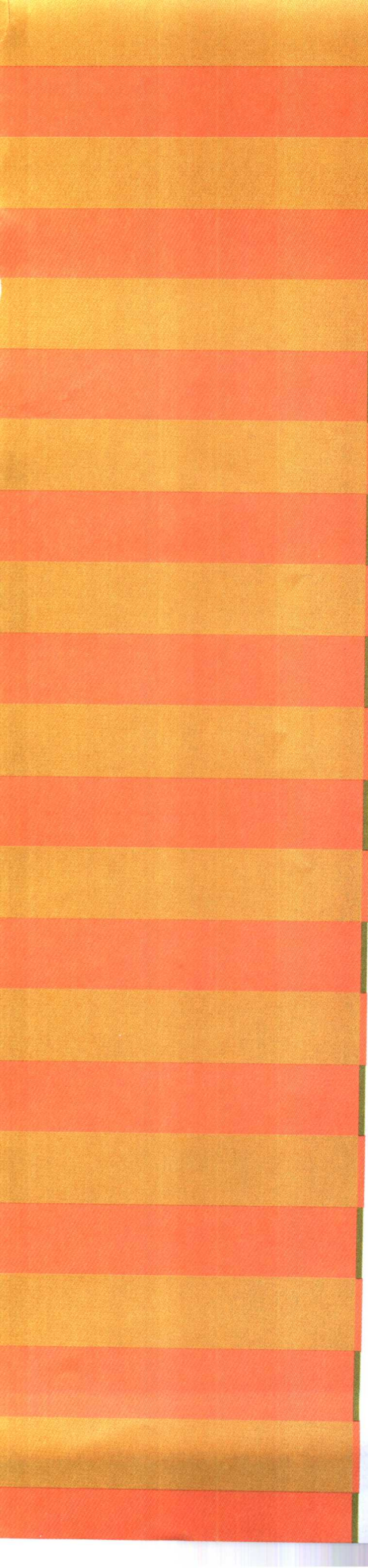
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Netscape NavigatorTM and the World Wide Web



1

Welcome to the Internet

OUTCOMES

When you complete this chapter
you will be able to

define the term Internet.

describe some of the uses of the
Internet.

identify various information
resources.

use the Domain Name System
(DNS).

identify various ways to connect
to the Internet.

list various resources available
on the Internet such as e-mail,
the World Wide Web, and others.

start an Internet session and
access the World Wide Web
through Netscape Navigator.

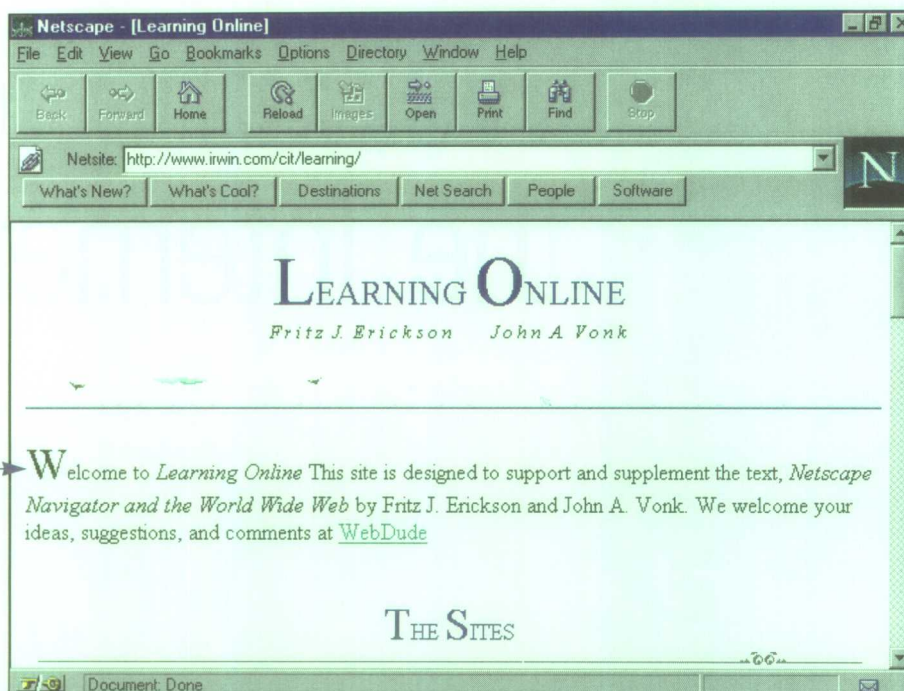
THE ELECTRONIC FRONTIER

For many, the electronic revolution began with the advent of the personal computer. Early enthusiasts praised computers for promising access to a world of information. They assumed this information would be accessible to all and become interwoven into the fabric of our daily lives. It has taken longer than the early futurists proclaimed, but the promise of instant and universal access to vast stores of information has arrived. Its name is the Internet.

While the Internet has been around for a number of years, it has only recently captured the imagination of businesses, schools, government agencies, and almost every organization. The widespread acceptance of Internet tools as ways to access information makes learning to use the Internet as much a fundamental skill for the future as using the telephone and operating an automated teller machine are today.

Image 1-1

Netscape Navigator is the most popular tool for connecting to the Internet.



Yet, the Internet is still in its infancy. It changes daily as information is added and removed. These changes to the amount of information occur at such a rapid rate that no one can keep up with all of the available information. The types of information are also changing. Methods of incorporating text, audio, video, and animation have made the Internet a vibrant tool. It is truly an electronic frontier with problems and promises.

If you look in the computer section in almost any bookstore, you will see a large number of expensive books on how to use the Internet. Many of these books are filled with technical jargon and loaded with acronyms such as TCP/IP, SLPP, PPP, http, DNS, VT100, and X.400. The size of the books and the large number of acronyms seem to imply that learning to access the world of electronic information through the Internet is a complicated process. However, this is untrue.

Learning to access information resources through the Internet is fairly easy. All you need is a little guidance, such as this book offers, and practice. When you complete this book you will not be an Internet expert, but you will be capable and competent to use this new electronic frontier.

WHAT IS THE INTERNET?

For much of the last two decades, teachers, scholars, the media, and many others have popularized the term the *information age*. Beginning in the early 1980s, many spoke of personal computers facilitating a societal change from industry to information. Some people even predicted that

Tips, Tricks, and Ideas 1-1

Learn Your Operating System

It makes little difference what operating system you use to gain access to the Internet. An operating system is the set of controlling commands for your computer system. If you are using MS-DOS, Windows, System (Mac), or UNIX on your computer, you can access the Internet. The specific commands may vary, but the concepts remain constant. The examples in this book use Windows 95. However, even if you use another operating system, you should easily be able to use the content of this book to learn about the Internet. Before you proceed you should have at least a rudimentary understanding of your operating system.

information would be the commodity of the future. However, ten years ago few could have predicted the amazing growth and near universal acceptance of an electronic system for sharing and exchanging information.

The Internet has initiated a communications revolution involving millions of users who send messages, listen to music, participate in international discussion groups, read magazines and newspapers from across the world, and watch video news segments as routinely as most of us turn on a television or talk on the telephone. The Internet bridges time, distance, and culture, so you can find information about almost any subject and communicate with almost any other user almost instantly.

The term Internet is one of those terms that you know when you see it, but is hard to define. For some, the Internet is a system of telephone wires, fiber optics, satellite links, and other networks that allow computers to connect to each other. Others define the Internet as a means for sending electronic mail or as a system for accessing information from sources all over the world. Still others view the Internet as an agreed-upon software standard for sending and receiving computer data. All of these definitions are partially correct. However, the Internet is much more than a giant computer network. It is a cultural phenomenon that has made our desire for instant information and communication a reality.

The Physical Internet

A network is a collection of computers linked together to achieve some common goal. In most cases, networks allow users to share information. In many businesses, networks enable one computer to send messages or get information from another computer. For example, a network may allow the sales department to access inventory files and new product announcements or to see demonstrations of services. In schools, networks can allow teachers to access student records, library catalog listings, and class registrations. Conceptually, the Internet is no different from any other network, except it is bigger.

The Internet is a network of networks linked using very precise rules that allow any computer to connect to and exchange information with other networks or computers connected to the Internet. You may use a single computer to connect to the Internet, but you have access to many other computers. In other words, connecting to the Internet means connecting to tens of thousands of other networks, millions of individual computers, and tens of millions of other computer users.

Tips, Tricks, and Ideas 1-2

Just the Beginning

If you really want to become an effective Internet user you need to learn more about the communications processes that make the Internet operate. While beyond the scope of this book, it will be well worth your time to learn more about the history and the technical issues associated with Internet communications. On our web site, we have included access to several documents to provide you with more detail on the technical nature of the Internet. Try us at <http://www.irwin.com/cit/learning>