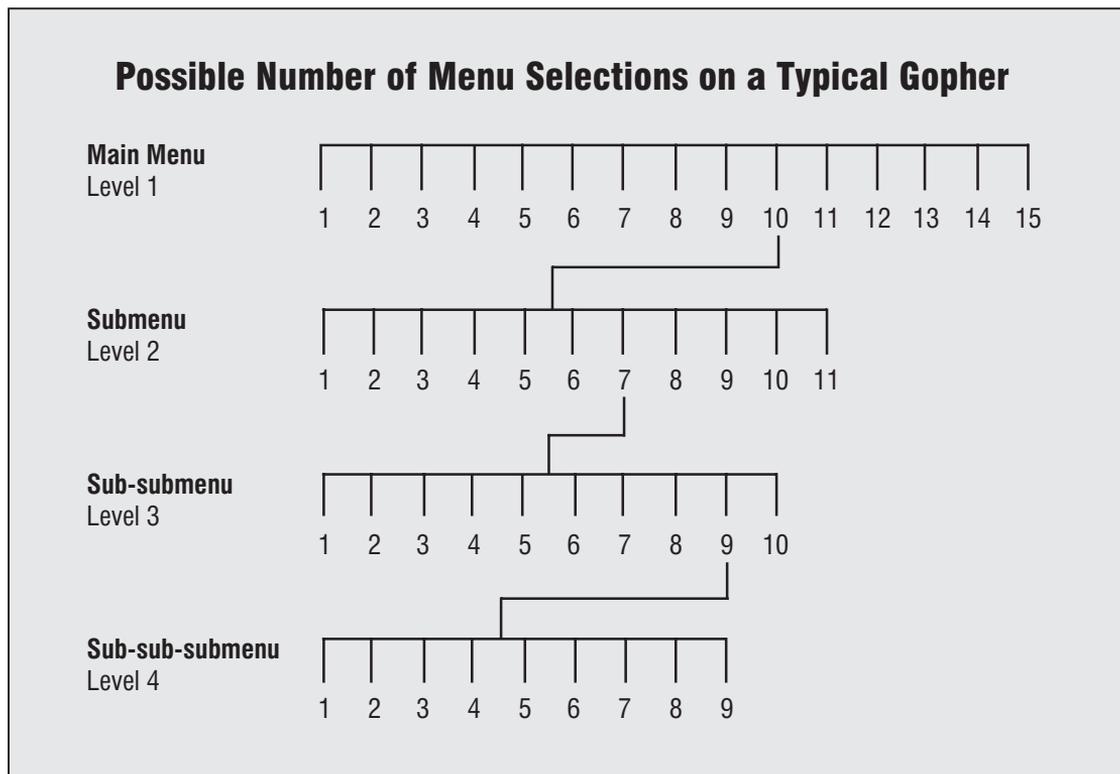# Contents

Introduction

If you are reading this introduction, you have probably bought into the idea that the Internet has the potential to become one of the most significant tools in an educator's "bag of tricks." You probably also have an interest that ranges somewhere between curiosity and excitement. If you are an Internet novice, you may be wondering what all the fuss is about. If you have explored the Internet enough to have become aware of the phenomenal implications of teacher/student access, you are probably as enthusiastic as I am.

When I started teaching back in the early sixties, my colleagues and I hoarded chalk, hoping to have enough to last until the end of the school year; the blackboard was our primary tool. Today's technology has greatly expanded the possibilities for teaching, but it has also greatly complicated the lives of many teachers. Anyone can use a piece of chalk—Internet access . . . now that's another story. At the school where I presently work, teachers are struggling to find the time to master new technologies. Although the computer revolution has spawned a great deal of excitement among educators, the apprehension that teachers have expressed should not be ignored. Many teachers already running on overload are opting out of the computer revolution because they want a life after school and are not willing to give up any more of their rapidly shrinking "free time."

At this point, I have good news and I have bad news. First, the good news. *Internet.edu* is an invaluable guide for any teacher—primary, or secondary—who wants to investigate the many possibilities for implementing Internet resources into the curriculum, *any* curriculum. For example, if you are a middle years English teacher, this book will not only acquaint you with a number of Internet resources that English teachers are already using, it will

Perhaps the most significant problem facing any Internet surfer is the immense volume of available resources. One could spend months investigating a *single* Gopher site. Does that sound incredible? Even if you have already spent time on the Net, you probably have yet to fully grasp the immensity of the entity that you are dealing with.

Consider the numbers involved in exploring the menus and submenus of almost any Gopher. They are staggering. The typical menu structure of most Gophers is illustrated in figure 1.1. You can count on having around fifteen choices at the level of entry. Descending to the second level opens up from eight to fifteen more choices for each individual first-level option. Selecting any one of these second-level options opens up the third-level menu, which contains another five or ten choices. And in submerging to the fourth level, still more items come into view.

Possible Number of Menu Selections on a Typical Gopher

Main Menu
Level 1

1   2   3   4   5   6   7   8   9   10   11   12   13   14   15

Submenu
Level 2

1   2   3   4   5   6   7   8   9   10   11

Sub-submenu
Level 3

1   2   3   4   5   6   7   8   9   10

Sub-sub-submenu
Level 4

1   2   3   4   5   6   7   8   9

Figure 1.1 Typical Gopher Menu Structure.

The following activity demonstrates the impact of these myriad choices.

Teacher Exploration #1

Study the graphical representation of the Gopher in figure 1.1. Assume that each menu choice at each level has the number of selections as illustrated in the figure.

1. How many menu paths can be investigated on this Gopher?
2. How long would it take to fully investigate this theoretical Gopher? (Assume a conservative estimate of two minutes to investigate each path.) Use a calculator—and try not to be surprised by the results!

Solution

1. 15 x 11 x 10 x 9 = 14,850 possible menu paths
2. 14,850 paths x 2 minutes per path = 29,700 minutes

   OR

   29,700 minutes ÷ 60 minutes = 495 hours

   OR

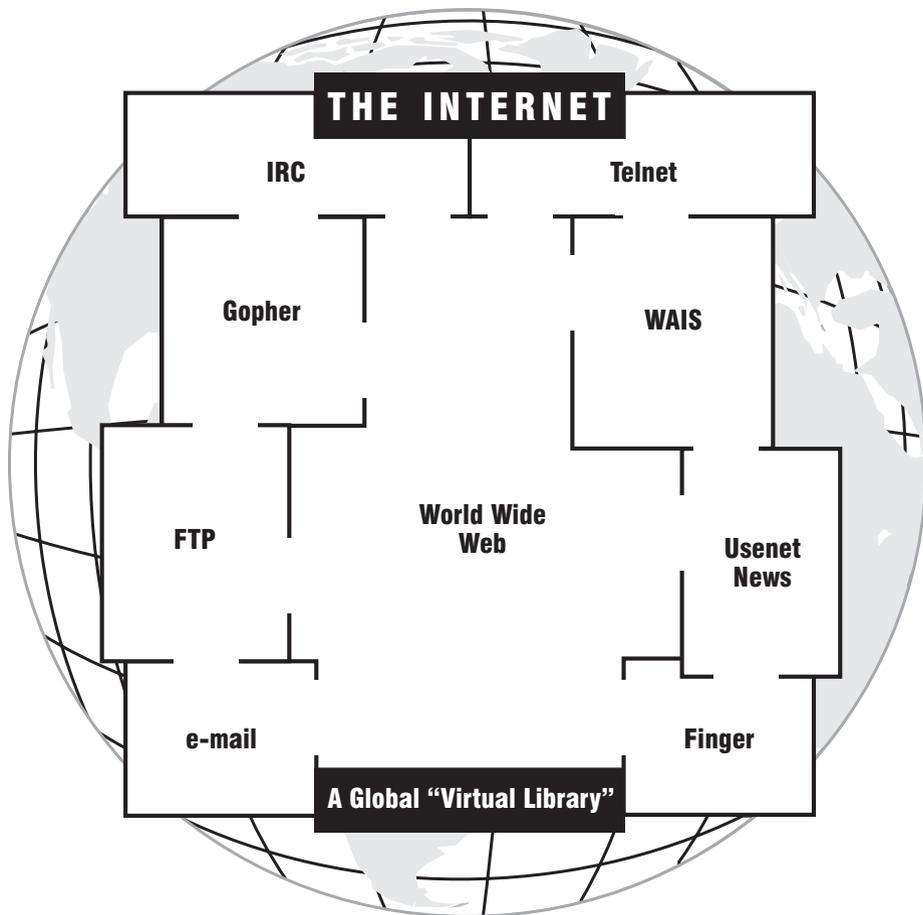   495 hours ÷ 24 hours = *24 hours a day for at least 20 days to explore them all!*

Does the solution to the problem posed by our hypothetical Gopher astound you? Using the same conservative estimate of two minutes to explore each path and exploring at a realistic rate of three hours per day, a full Gopher inquiry in this case would take more than five months!

If the University of Minnesota Gopher is used instead of our hypothetical Gopher at the same rates of time as given above, plan on exploring for at least a year.

Internet virtual library, provides users with a map or a floorplan. Why is there no cybermap posted at the entrance to the Internet? Think of the Internet as an open but unstaffed library—it works well, but no one is on hand to answer your queries and no one has posted clear instructions to help you find your way around. The shelves are full and in order, but the reference desk has an empty chair behind it!

A proposed "floor plan" of the Internet virtual library is provided in figure 1.2. Meanwhile, you can be confident that even though the

Figure 1.2 Internet Floor Plan.