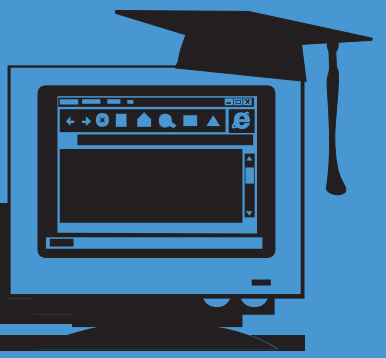
INTERNET POCKET GUIDE FOR TEACHERS



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Introduction

Welcome to the ***Internet Pocket Guide for Teachers***. The Internet is here to stay, and as an educator, you'll want to learn how to use it to do your job better. "How will the Internet impact my job?" you may ask. You can use the Internet to retrieve information that can be used in your lessons. You can also communicate and collaborate with other teachers via the World Wide Web and e-mail in order to gain new skills and knowledge that were previously unavailable to you. Your students will also be using the Internet. By making it a part of the education process, you can emphasize the positive aspects of this new communication medium.

This *Guide* will get you started using the Internet as easily and as quickly as possible by helping you, the average "non-techie" teacher, to get connected to the Internet at home and at school. It will also provide the information you need to find your way around the Internet and help you figure out how to use what you find in your classroom.

I have led numerous workshops where teachers who knew little or nothing about computers, e-mail, or the Web started their journey on the Internet. It would be great if I could lean over your shoulder and answer your questions as you gain new skills, encounter obstacles, or find new sources of information. Well, unfortunately that's just not going to be possible, so I'm replicating that approach in this book. This *Guide* is like a training session. You'll ask the questions and I'll answer them. We'll cover the most common problems and issues teachers face when they start exploring "cyberspace." I'll respond to each question as clearly and as succinctly as I can.

Learning how to use a computer and the Internet from a book is not a very exciting process. While it has its rewards, it can be downright dry with all of its "click here" and "select that" options. I'll make it as lively as I can. Sometimes I'll pass along a few technical tips or personal experiences. Look for them in a section called ***Gem From George***. There you'll find advice ranging from helpful hints to detailed explanations of concepts related to Internet use.

If you come across a word or term you don't understand, turn to the glossary in the back of this *Guide*. If you have a question that is not answered in this *Guide*, I'll try to send you to a resource that can answer it. The resource may even be on the Internet. There is no better way to gain these new technical skills than to just roll up your sleeves and get into it!

The Internet: What It Is and How It Works

What is the Internet?

Put simply, the Internet is a global network of computers connected by some variation of communication or transmission lines. The average user connects to the Internet by way of "plain old telephone service" (called POTS lines in Internet jargon). Business and government computers often link to the Internet through high-speed lines that connect to their own local networks. The Internet had an estimated 150 million individual users worldwide as of December 1998. Eighty-seven million of these users reside in the United States and Canada. There is also a significant number of Internet users in Western Europe. In developing countries, where the communications infrastructure is not as up-to-date, the Internet is not yet commonplace. Still, the Internet is helping to form a new global economy.

The Internet was revolutionized around 1993 when the World Wide Web (WWW) started to become widespread. The Web has a point-and-click interface that makes it much easier to use than the more archaic Unix systems of the pre-Web days. The Web and e-mail are probably the two most popular aspects of the Internet.

The Internet is often perceived as the great democratizer because anyone and everyone can have access to a world of information or publish their own ideas with an instant global audience. In fact, the Internet has long been viewed as an open forum where scholars of varying disciplines are able to exchange views on topics important to their field. And while the government was a major force in the development and funding of the Internet in its early stages, many Internet users bristle at the thought of the Internet being regulated by the federal government. It is within this spirit of freedom and self-expression that the

method of specifying the location of an object on the Internet. For the Web that object is generally a file named index.html. However, the user typically does not enter the file name when entering a Web address.

There are three main pieces to a URL. The first piece is the type. Common URL types are http, ftp, and gopher. After the URL type comes a colon (:) and two slashes (//). The second piece is the name of the computer that contains the information you are seeking. After the name of the computer is a slash (/). The last piece of the URL is the path to the object you want to access. The path is the series of directory (folder) names, separated by a slash (/). The URL must be entered correctly, or you will not get what you want. For example, in http://www.genium.com/ipgt/ "http" is the type, "www.genium.com" is the host computer's domain name, and "ipgt/" is the path to the file location. The default file is named index.html, but it should not be entered in the Web address. Since the Internet is a global network, a URL (or Web address) may include an indication that the page resides on a computer in a country other than the United States. You may see a country code such as .ca for Canada, .nl for the Netherlands, or .mx for Mexico. These letters tell you that you are connecting to a computer in that nation. To learn more about how Internet addresses work and how they are assigned, you can visit the Library of Congress Brief Guides to the Internet at http://lcweb.loc.gov/loc/guides/address.html. There you'll find a link that leads to a complete list of country codes (http://www.ics.uci.edu/pub/websoft/wwwstat/country-codes.txt).

Internet Service Options

What choices do I have regarding Internet service?

There are two forms of Internet access you are likely to use. The first comes from an *Internet Service Provider (ISP).* The second comes from a *commercial on-line service (COS).* The ISP provides access to the Internet when you connect to it. If you are using a modem, your modem dials a number

not just one other person. Buddy chat won't work between services. That means you can buddy chat with others who are running Internet Messenger, but you won't be able to buddy chat with someone who is using AOL. You can, fortunately, send your AOL friends instant messages using the software.

Cable TV Service

What about connecting to the Internet through my cable TV service?

Many cable companies are now offering Internet access. The cable company provides a cable modem that connects to a network card in your computer. This kind of access is extremely fast, is always available, and does not occupy your phone line. If you want to know more about this technology, call your local cable company. The cost for this service is about $40 per month.

Getting Connected At Home

How do I get connected to the Internet at my home?

If you don't have a computer at home, you can go to your public library, which is most likely connected to the Internet, but sooner or later you will probably want to consider having a computer connected to the Internet at home. What are the benefits of having the Internet at home? The most obvious benefit is that you control the use of the computer (unless you have children!). This means that you can do what you want, when you want. You can exchange e-mail with family and friends; have an endless supply of information, software, and programs available at any hour; try out new things; etc.

Choosing the Right Computer

What kind of computer do I need?

Computer technology changes so fast that any answer will be obsolete by the time you read it. Since the Web has made the Internet a multi-media experience, your computer should be able to handle the different types of information formats that you may encounter while surfing

Getting Connected At School

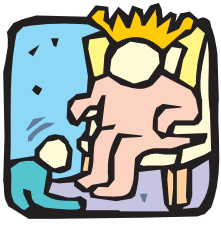
How do I get connected to the Internet in my classroom?

Internet access from the classroom is something that many of us want, but to get it, we need to ask the right people. Your school district is most likely working to get its classrooms connected, if they are not already connected. The first place to start is with your principal. The principal knows what is happening on the building level, where teachers are trying to use Internet technology in their lessons. He or she also knows the situation at the district level, where funding and connections are being arranged to bring the Internet to the building and classroom levels. So, ask your principal what it would take to arrange for an Internet connection in your classroom.

It may not be easy. Funding could be tight, and if the wires and computers are not already in place, it sometimes takes a long time (and a miracle) to get the players together so that a computer with Internet access is made available for teacher and student use.

If your school does not have a building-wide network, you may want to suggest to your principal to have a regular telephone line installed in your classroom until a network is installed. Then you could access the Internet using a standard modem.

If your school has a networked computer lab, you may need to begin your journey there to become familiar with the Internet's resources. In many districts, administrators hope to place computers in individual classrooms before they spend technology money on the hardware for a computer lab. The idea is that individual computers on teachers' desks will provide the training they need to make a lab of networked computers useful.



Once you get a computer in your room that can handle Internet access, you'll need to become friendly with your district's or building's network administrator. This is the person who will install software, network interface cards, and manage the server that will make your on-line experience possible. Having this

person as a resource will help minimize your setup/connection time and maximize your time on-line.

Internet Services

What information and communication services are on the Internet?

In some ways, using the Internet is similar to traveling the globe. You can visit faraway places and establish ties with strangers or with family near and far. The Internet can help you gain insights and perspectives that would not otherwise be available if you stayed in your hometown. When you travel, you must decide what vehicle would be most effective in reaching your destination. On the Internet, there are a number of "vehicles" at your disposal. The methods discussed in this *Guide* are:

- The World Wide Web
- E-mail
- Mailing Lists (e-mail discussion lists)
- Usenet Newsgroups (public discussion groups)
- FTP

World Wide Web

What is the World Wide Web?

The Web is the fastest growing part of the Internet. The Web consists of millions of computers that contain electronic files called *Web pages*. These files contain code that a program called a *Web browser* can interpret. The code is called *HTML (Hypertext Mark-up Language)*. HTML tells a Web browser how to display a page. Many types of media can be displayed as part of a Web page. Text, pictures, audio, and video are all possible on the World Wide Web.

The World Wide Web has a mouse-based point-and-click interface that makes it much easier to access information compared with earlier systems on the Internet. Just about anyone (who has just enough hand-eye coordination to operate a mouse) can locate information, catch up on the news, play games, and communicate with others.

Using the Internet for Research

How can the Internet be used to conduct research?

Both teachers and students can benefit from using the Internet as a research tool. However, the Internet is so vast that it takes some practice to find the information you are looking for. Sometimes, the information you are seeking may not even be on the Internet. It's possible that no one has placed that specific idea on an Internet server. Sometimes it is easier to find what you need in a textbook, encyclopedia, or other print resource. Consider using the Internet when:

- there is a reasonable chance that what you seek is on the Internet.
- looking for public information dealing with federal, state, or local governments, or when conducting research on most large corporations.
- you have a need for electronic or digitized information. While it is possible to download information from the Internet, remember to follow the rules of scholarly research. Be careful not to plagiarize or violate copyright laws.
- looking for items that need to be up-to-date. The Internet contains hundreds of sites with news items that are updated frequently, such as news media Web sites.

The Best Approach

Where do I search for information on the Internet?

The Internet abounds with information, but the part of the Internet that you are most likely to want to search is the World Wide Web. The Web allows you to jump quickly to numerous documents on literally thousands of topics. Educators are flocking to the Web to share their knowledge and skills with the world. We are posting lesson plans and lists of Web sites that can be used to make teaching more exciting and, hopefully, easier.

search engine "find me pages that have the words North AND Hagerstown" together.

NOT

You can also exclude certain words from the search by using the NOT operator. This is useful when terms are ambiguous. This approach can reduce, but not eliminate, the chances of the undesired term appearing in the search results. However, it is not a reliable way to try to filter out inappropriate results.

Being able to limit search results is very important. Otherwise you may be overwhelmed with unwanted information.

For example, you may wish to search for information about the history of England. Entering "England and history" might find some useful information; however, you'd have to skip the many pages discussing the history of *New* England. By excluding the word "New" you'd probably retrieve a more useful set of results. So, a better search term might be "England AND history NOT new".

AND, NOT, and OR operators can be used by most search engines, but different search engines have different ways to specify the search operators. For example, Alta Vista uses the + symbol for AND and the - symbol for NOT. In some search engines, putting quotation marks around the words tells the search engine to find pages with the exact phrase on them and to exclude pages that lack that specific phrase. (It acts as if the AND operator were placed between each word.) Look at the on-line instructions to see how a specific Web site's search engine limits its search.

Using the Internet in the Classroom

Issues Related to Student Internet Use

What issues do I need to consider before exposing my students to the Internet?

Many of your students will probably know more about the Internet than you do! This can be a tough situation because you want to have control of what takes place in your classroom. If your students know more than you do, it may put you at a disadvantage. However, the more you practice your newly acquired Internet skills, the more knowledgeable you will become. Soon your

Getting Started on Your Own Internet Project

How can I develop lessons in which students present information they have found on the Internet?

Students can present their findings by using traditional methods or by using electronic resources. Students can give oral reports using standard show-and-tell materials such as trifold displays or slide shows. If they found the information on the Internet, then you have achieved curriculum integration with technology. If you have access to computer resources, you may want to teach students about computerized presentations using software such as PowerPoint.

One of the most popular methods for student presentations is to have students create their own Web pages. These can be displayed in the classroom using a projector. But more importantly, they can be placed on the school's Web site so students gain recognition for their work.

Examples of Internet Projects

Can you show me what some Internet projects look like?

Sure! The Web abounds with great student projects and teacher resources to help you get started. In order to become familiar with the procedures related to Web-based projects, you may want to join one or two projects already in progress before developing your own. To locate a project that matches your curricular needs, you can review newsgroup postings, visit educational Web sites, or do a Web search using the term "Internet projects." Classroom Connect http://www.classroom.net and Global Schoolhouse http://www.gsn.org/ are two great starting points for teachers who want to join projects in progress. Another great resource for finding out what is already under way is to join a mailing list where projects are announced. The Discovery Channel School http://discoveryschool.com has its own discussion list, as does NASA http://www.nasa.gov and numerous other Web sites that contain teacher resources. One list that is dedicated to the exchange of on-line e-mail projects is the Intercultural E-Mail Classroom Connections at

Helpful Web Sites for Teachers

Can you give me addresses and quick overviews of Web sites that are excellent resources for teachers?

Here is a list of just a few of the exemplary Web sites I have encountered in my "cyber-travels." A number of these sites are like an on-line classroom teacher. Many of these sites are starting points for locating more extensive lists of resources. Others have been included just for fun.

This list should not be seen as a definitive directory of Web sites. There are so many excellent resources on the Web that many books are now available that have no other purpose than to list and organize Web sites. There is just too much to cover for a listing here. New Web sites are being added every day. Still, I hope this sampling will lead you to find many great Web sites, both on a professional and personal level, so that your time on-line is fruitful and meaningful.

In the on-line version of this *Guide*, you can click on any of the following addresses and go directly to the site. The on-line version can be found at http://www.genium.com/ipgt/.

Fine Arts

Yahoo's Performing Arts Index

http://www.yahoo.com/Arts/Performing_Arts/

A wide-ranging list of links is found at Yahoo's Performing Arts index.

Siskel & Ebert's Movie Reviews

http://www.tvplex.com/BuenaVista/SiskelAndEbert/

The two world-famous movie critics have their comments on-line. If you need a professional's view on the latest films, the Web site of the late Siskel and Ebert can help. Shockwave samples of the films being reviewed can be seen as long as you have the plug-in.

Glossary

The Internet is constantly evolving. New terms are being created all the time, so it's hard to keep up with Internet jargon. It is also hard to find a definitive list of terms on the Web because each list varies greatly with what it emphasizes.

Acceptable use policy (AUP). A document developed by a school that defines appropriate use of the Internet while at the school. ISPs also typically have their own AUPs.

Address book. A place in an e-mail program to store e-mail addresses of people that you frequently communicate with. The e-mail program can easily access the address book so that you don't have to type in the e-mail address every time you use it.

Blocking software. Software that can be configured to prevent users from accessing Internet resources that may contain inappropriate, objectionable material.

Bookmarks. Called "Favorites" in the Internet Explorer browser, and "Bookmarks" by Netscape, they allow you to keep a "hotlist" of Web sites for future reference. Selecting a site for later recall is called "bookmarking" a site.

BRB. *Be Right Back.* Used in text-based chat to let people in your chatroom know that the baby is crying or that you must take a "necessary room break."

Browser. Software that is used to view documents on the World Wide Web.

Call for participation. A message that describes a proposed student project and invites all appropriate classes and age levels to be a part of the project.

Chatroom. A place to talk (or type) live to other network users. To chat on the Internet you need an Internet Relay Chat (IRC) client, such as mIRC or Microsoft Chat.

Client. A program that you, the user, put to work to get information from a computer on the Internet (called a server). Clients include browsers, e-mail programs, newsreaders, and file transfer programs. Eudora is one example of a Post Office Protocol (POP) e-mail client.