Unit 1: Integrating Technology—Using the Internet

Overview

The word *technology* has been a part of our vocabulary for a very long time. However, the world of inventions this term refers to has undergone drastic changes, especially within the past decade. As the 20th century moved into the 1920s, people were thrilled to have such advances as the radio. The telephone also became a fairly common fixture in their homes. As the century progressed, so did technology, giving us the television and eventually the computer.

As we progress through the 21st century, few of us could even imagine a life without computers. They have become a powerful necessity in helping us manage our lives and communicate with each other. If you look around your classroom, you will see the results of living in the computer age. The lights in your classroom, your classmates' cell phones, and the system that heats and cools the air are all managed by computers.

Computers have become a powerful necessity in helping us manage our lives and communicate with each other.

Computers and online technology have also given us access to a wealth of materials, including news articles and instructional texts. In the past, your research for a school project would have been limited to the contents of local libraries and media centers. You could have gotten documents from distant libraries, but the process would have taken weeks, at least. Today, you can obtain many research articles and books in the time it takes to get on the Internet, locate the document, download, or view it. Often the process can be done in a matter of minutes.

In addition, computers and online technology have helped us create a new mail system. In a matter of seconds, you can send a message on the Internet to any other computer system that is online. You can be anywhere and read the mail, even on vacation or at the beach. Sending a letter from Florida to California over the Internet takes seconds, just a few key strokes and a few clicks of the mouse.

Finally, the word processing programs available through the computer can help you prepare your written work so it is accurate and professional-looking. However, like all technology, computers and online technology can be used for good and productive purposes or can be used to waste time. The knowledge you gain in this unit will help you operate on the information highway.

In this unit, specific areas of focus include the following:

- using a computer to design your writing
- using a computer to correct your writing
- researching information on the Internet
- communicating through the Internet
- publishing your writing on the Internet
- documenting information from electronic sources.

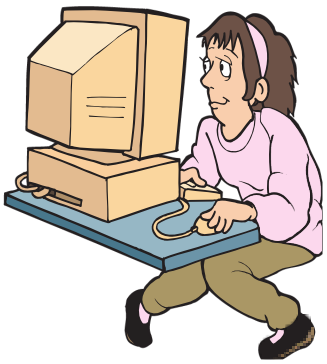
Writing with a Computer

Getting Started

Even if you are a regular computer **user**, these computer tips can be helpful.

- You may prefer creating a draft using pen and paper, using the computer to produce a "finished" copy. However, the more you use the computer **keyboard**, the faster you will work. Soon, you will probably find you prefer to use the computer from start to finish.

- Using a computer gives you many advantages. You can enter information, delete it, and move it around. Most **programs** check your spelling and grammar. However, none are foolproof. In addition, the English language presents several obstacles even the best computers have trouble overcoming. You should still proofread your copy carefully.



The more you use the computer keyboard, *the faster you will work.*

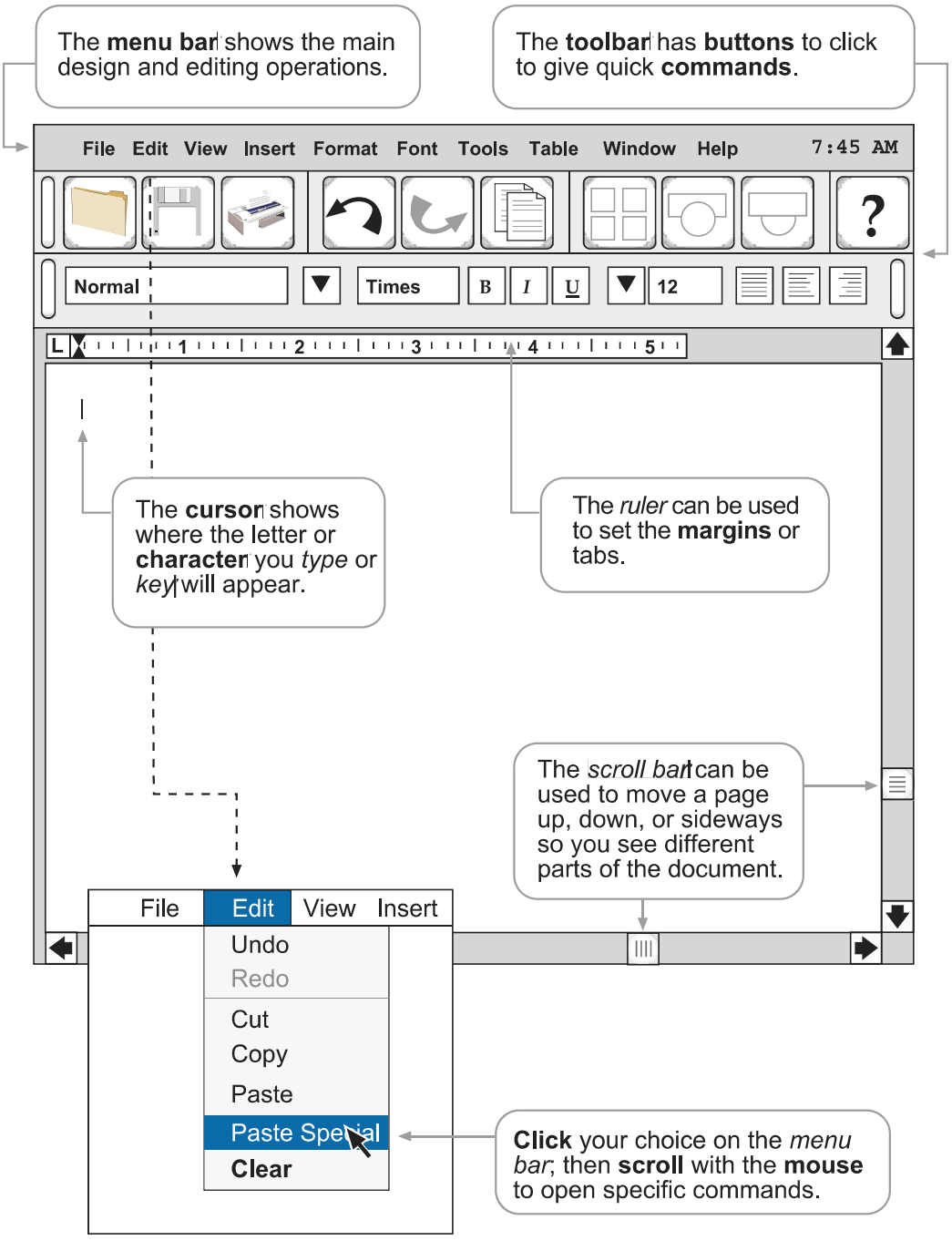
- Stop frequently to **save** your work! Don't make the mistake of waiting until you have finished a **document** to do this. All kinds of things can happen that will cause you to lose your work: hitting the wrong key, a power outage. Frequent stops to *save* your *document* will save much time and frustration in the long run.

- **Backup** your work on a separate **disk** or CD in case originals are lost or stolen or there is hardware failure, **software** issues, or a computer virus. *Backup* at least once a week or as often as it is right for you. Make it a regular habit.

- Knowing all about a computer takes time. Your teacher is there to help you learn. Ask questions as you work.

Previewing the Word Processing Program

Before continuing, look at the example below. This is the first page of a **word processing** *program*. Yours will look similar. Use this illustration while you work.



A *word processing program* can be a writer's best friend. However, it cannot replace the writer and good proofreading skills. A beautiful design and clean copy will not hide poor writing.

You must be careful in using the tools available to you not to rely solely on their accuracy. Spell check can be deceptive in that it will not tell you if you are using the correct homophone. *Homophones* are words that sound alike, but that are spelled differently and have different meanings. These words are often confused. Using the wrong word can make your writing hard to understand.

Below is a list of homophones. Review them with your classmates and teacher to make sure you know the difference in how each word is used.

homophones

ad.....add	haul.....hall	prey.....pray
arc.....ark	hear .....here	quarts.....quartz
ax.....acts	heard .....herd	rain.....reign
ball.....bawl	hi.....high	rap .....wrap
bare .....bear	him.....hymn	read .....red
bazaar.....bizarre	illusion.....allusion	road .....rode
berry .....bury	inn.....in	ruff .....rough
boulder.....bolder	isle .....aisle	scene .....seen
brake.....break	jell .....gel	sea .....see
build .....billed	Jim .....gym	serf.....surf
cell .....sell	jean .....gene	shown .....shone
cent.....sent	kernel .....colonel	sore.....soar
cereal.....serial	knead.....need	sword .....soared
cruise .....crews	know .....no	tail .....tale
days .....daze	lapse .....laps	their.....there
dear .....deer	lead.....led	threw.....through
desert.....dessert	lie .....lye	to.....too, two
doe.....dough	lynx .....links	tow .....toe
effect.....affect	made.....maid	undo.....undue
eight.....ate	mail .....male	urn .....earn
facts .....fax	maul.....mall	vain .....vein
fill .....Phil	naval.....navel	vary.....very
flew .....flu	night.....knight	vile .....vial
four .....for	not.....knot	waist .....waste
gate.....gait	oar .....ore	wait .....weight
great .....grate	our .....hour	waive .....wave
grizzly .....grisly	pain.....pane	weak .....week
groan .....grown	pause.....paws	you.....ewe
hair.....hare	peace.....piece	you'll .....yule

Effective Text Design

Choosing a Font

It is easy to get excited about all the options you have. You can use different **fonts**. You can make your type *font* different sizes. You can add **graphics**. As you work with all these options, remember your purpose.

> A piece of writing must be easy to read.

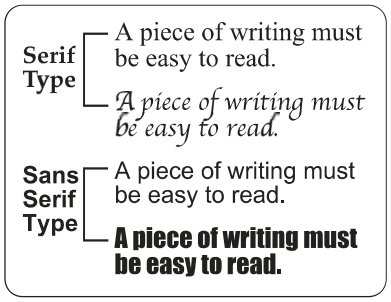
Don't overuse the available options.

Ask your instructor how to choose type font and size with your word processing program. Each instructor may have different rules and text design to follow for your papers.

- Use a 10- or 12-point type, easy-to-read font, for the main text.

  Serif type has tails at the tops and bottoms of the letters. The more elaborate serif types have fancier tails and can be hard to read.

  Sans serif type is *without* serifs.



- Make title and headings easy to read.

  Use larger type—use 16- or 18-point.

  Use **bold** face.

Remember: Avoid hard-to-read fonts.

Varying your type size appropriately makes your work easy to read. Your readers will not get lost on the page. This will also help them understand your organization better.

Spacing Your Work

Again, ask your instructor how to do this with your word processing program.

- Use a one-inch *margin* around each page: top, bottom, left, and right.
- Use the *tab key* to indent the first line of each paragraph. A tab key is used to move the cursor to a *tab stop*.

Remember: Avoid placing headings or hyphenated words at the bottom of a page.

- Avoid beginning a paragraph at the bottom of a page.
- Avoid single words at the bottom or top of a page.

Reviewing Effective Text Design

The following is a sample from a student's research paper following the teacher's specific rules. (Cited references are in parentheses.)

Sunjae Chae

Biology

May 7, 2005

The title is 16-point sans serif type.

Why Study Economics?

The main text is 12-point sans serif type.

Soon you will be out of school and become a full-fledged participant in the economic system of the United States. The State of Florida made economics a required course for high school graduation in order to increase your economic understanding and help you become a more informed citizen. If the course helps you understand articles in the newspaper on economics and use the information to make informed decisions, then the course will have succeeded in one of its aims.

The subheading is 14-point sans serif type.

The Basic Economic Problem: Scarcity and Meeting People's Needs

Countries attempt to find solutions to the most human of problems: how to feed, clothe, house, and in general provide for the common good of their populations. For a nation's economy to survive, it must meet its people's basic needs. But economies are used not only to meet its people's basic needs but also to meet its people's wants. **Wants** are things that people would like to have but do not **need** in order to survive. Wants are **unlimited**—people always want more goods and services to make their lives better.

A graphic adds visual appeal.

The basic economic problem of all societies is known as **scarcity**. All economic resources have one characteristic in common: they are scarce. Only a certain amount of resources are available to produce things that people want or need: There is only so much of everything to go around. Thus, the basic economic problem is **how to meet** the unlimited **demands** of the people with **limited resources**. (Chamliss and Fresen 10)

The in-text citation is in parentheses.

Bold type is used for emphasis.

As you can see, the basic terms of economics are **wants**, **needs**, and **demands**. In addition, you must continue your studies to include history, geography, and government to fully understand the role played by economics in creating a human drama of the rich and the poor, the elite and the masses, the **haves** and the **have nots**.

Four Questions: What to Produce? How to Produce? For Whom to Produce? Are We Efficient?

Since scarcity exists everywhere, all economic systems must answer these four questions.

A bulleted list is used.

- What goods and services will be produced?
- What methods will be used to produce those goods and services?
- For whom will those goods and services be produced?
- Are we efficient?

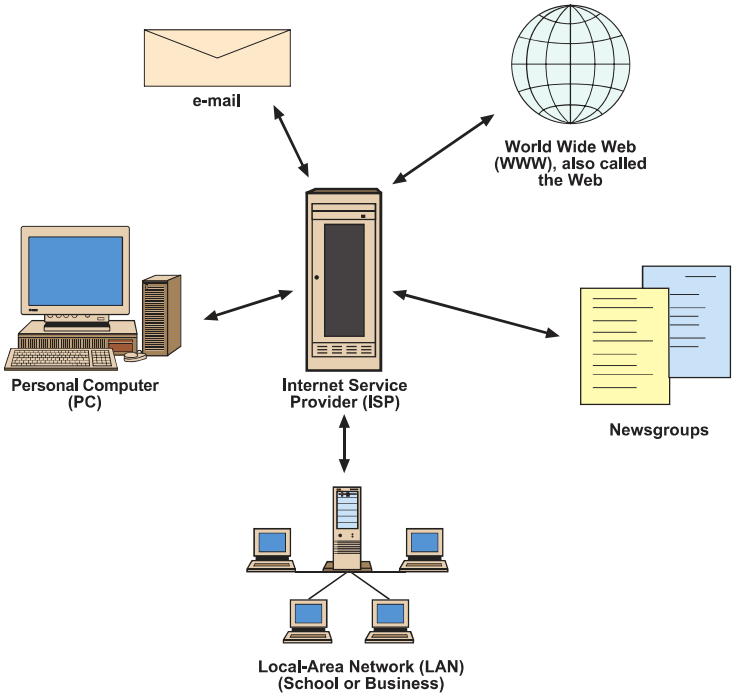
Using the Internet

The **Internet** (also known as *the Net*) is a collection of computer networks. A good way to think of this is to think of your telephone system. From your phone, you can contact any other phone in the world. The *Internet* permits you to use computers in a similar way. The Internet allows computer *users* to view, retrieve, or share information with other users around the world.

The Internet opens many doors to new educational opportunities. Users can communicate with peers and with mentors around the world. They can interview authors or witnesses to actual events. Internet users can also get up-to-date current events and contemporary literary works before they are printed. The Internet also provides the opportunity to publish and share personal work with people on the other side of the world.

Let's take a few minutes to look at how the Internet works.

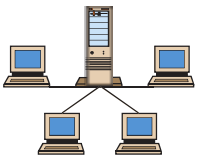
The Internet has its own special organization. Just like a machine, each part of the Internet has its own job to do. The following diagram shows how you use only a part of the Internet.



using the Internet through an Internet Service Provider (ISP)

Use the following terms and descriptions as a reference for this section.

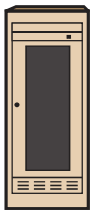
Local-Area Network (LAN)—a system that allows a business to share **files**. Many schools also use a LAN. This lets all the computers in one company share *files*. This also allows users to send **electronic mail (e-mail)** throughout an office.


Local-Area Network (LAN)
(School or Business)

Newsgroup—a system on the Web that lets you leave messages and receive replies to your messages. You can read other users' messages, too. You can also reply to them. A newsgroup is similar to a bulletin board. People who share interests enjoy newsgroups. You can exchange ideas about sports, books, or hobbies.

Server—a machine on a network that many users **access**. A server is used to store information. Information can also be retrieved from the server. A web server houses Internet sites. It also shares **web pages** and files.

Internet Service Provider (ISP)—a company that provides Internet access or Internet accounts to individuals, businesses, and other groups. Examples include *Earthlink* and *AOL*.

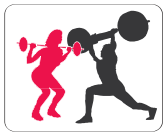

Internet Service
Provider (ISP)

As you can see, the Internet has its own language. Review the list of terms and phrases below. You will use them as you explore the Internet.

Browser—a *software* program used to explore the **World Wide Web (WWW)**. Examples of **browsers** include *Firefox* and *Internet Explorer*.

File Transfer Protocol (FTP)—a system for moving files across parts of the Internet. Certain university and military sites are FTP sites.

Hypertext—a system that **links** to different pages on the Internet. You often see one word, image, or phrase colored or underlined. By clicking on this link, you can **open** another page. This is called a *hot link*. Pictures can also be used. These are called *hot symbols*.


WEIGHTLIFTING

HyperText Markup Language (HTML)—codes used to create hypertext. These codes tell your browser how messages and *graphics* (pictures) should look on a *web page*.

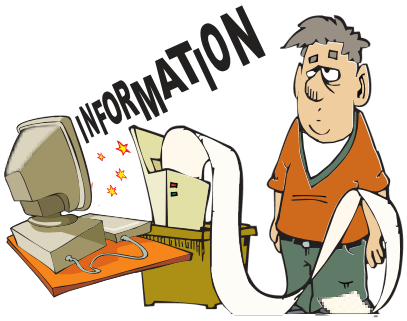
HyperText Transport Protocol (HTTP)—the beginning of a web address. You see it written as: http://

Network—two or more computers that are connected. This includes the **hardware** and *software* of the computers. The *hardware* is the physical part of a computer such as the **monitor**, *mouse*, or **hard drive**. Software consists of **computer programs** such as word processing or graphic programs. A *network* allows the computers to be connected and to share information and programs.

Universal Resource Locator (URL)—letters that make up an **Internet address** to access a specific site. A URL looks like this: http://www.yahoo.com or http://www.earthlink.net

Completing Research

The Internet has changed how we conduct research. Your grandparents and even your parents will verify this. They can remember taking hours to look through card catalogues and rows upon rows of library shelves. Now, thanks to the Internet, you can have thousands of usable articles at your fingertips in minutes. Your problem will be deciding which information to use. In fact, you might be overwhelmed by the amount of data you find.



Your problem will be deciding which information to use.

Sometimes you will be lucky. You will have the address of a particular site you know is useful. Perhaps you found this in a magazine. Perhaps a friend shared it with you. You can begin your search by simply keying in the address. Often, this site will provide valuable *links* to other useful sites as well.

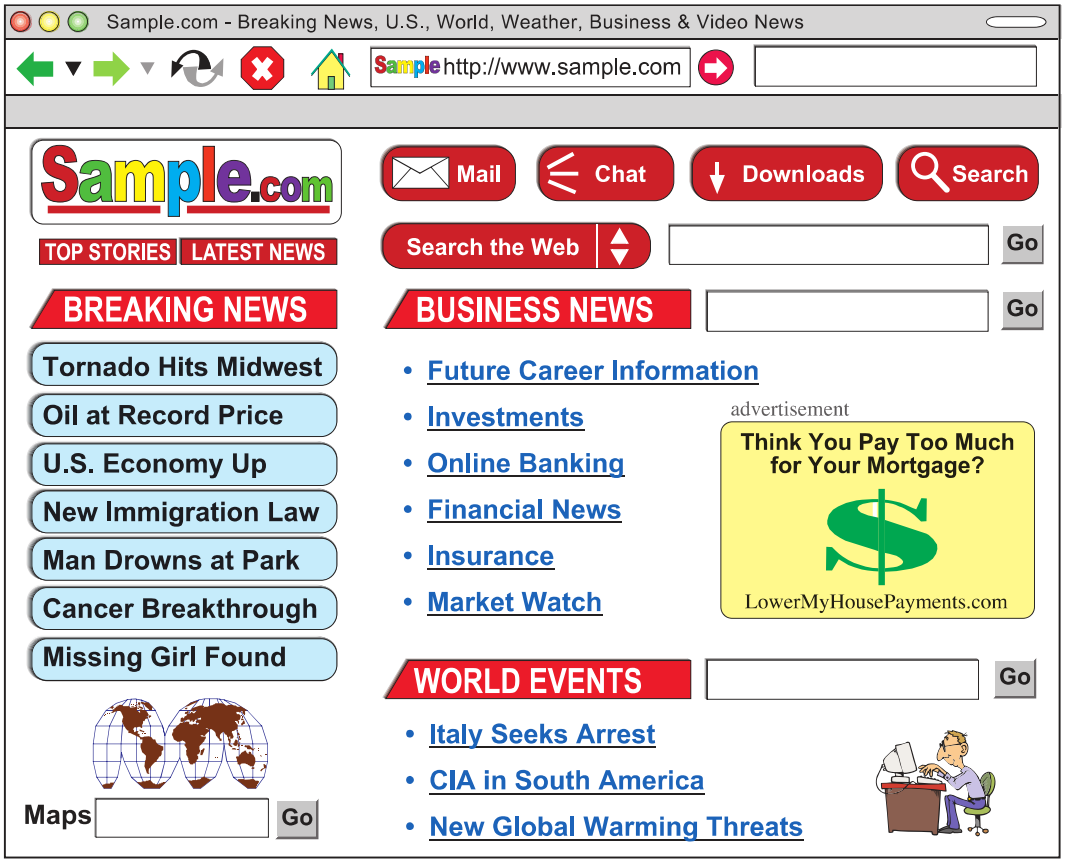
However, you will not always have an address at the beginning of your project. Then, you can begin your search in one of two ways.

First: You may begin each Internet session with a **homepage**. This could be a good place to start your search. Look for your brower's toolbar—it may have a built-in search engine, such as *Google* or *Yahoo*.

Look at the sample *homepage* on the following page. You can access links to many topics. For example, you can find information about a future career. You can also find information about current events. There is even a section that links you to Web Channels. Here, you can further research a number of topics like automobiles to hobbies.

From your provider's homepage, you can move through thousands of links.

Sample Homepage



Then: Choose a **search engine**.

There is an ever-growing amount of information available on the Internet. You will want to be able to search this huge bank of data and select relevant information.

There is really no one complete Internet reference available. However, *search engines* are available to locate specific information. Different search engines provide different results based on their method of searching. Some search for titles of web pages, others for keywords. It is helpful to try one or more different search engines to compare results and find other

relevant locations. Some of the most common search engines are used to browse a *broad topic*, search a *narrow topic*, or search for the *greatest number* of Internet sites. See the list of common search engines below.

Search Engines

To browse a broad topic

Yahoo	Lycos	Google
www.yahoo.com/	www.lycos.com/	www.google.com/

To search for a narrow topic

AltaVista	Excite	Go (Infoseek)
www.altavista.com/	www.excite.com/	www.go.com/

To search the greatest number of Internet sites (meta-search engines)

Metacra	Ask	All the Web (Fast Search)
www.metacrawler.com/	www.ask.com/	www.alltheweb.com/

Next: Conduct a word search.

There are many search engines available on the Internet. None of them give you access to everything on the Net. However, each will allow you to carry out a word search.

Look at the graphic on the previous page. Note where "Search the Web" is written at the top right of the page. It is written in front of a blank text box. The blank text box shows where to begin typing a *keyword* or phrase to begin your search. Type in a keyword or phrase and click "Go." A keyword or phrase should be related to your subject. Look over the following tips for completing your word search.

Your wording is very important to a good search.

- Type in one word. The search engine will look for all sites with that word in their descriptions.
- Type in more than one word. The search engine will look for all sites that contain any of those words.

- Type a phrase in quotation marks. The search engine will look for all sites containing that exact phrase.

- Use **Boolean words**—the words AND, OR, and NOT—and capitalize them to narrow your search.

  1. To locate multiple words, use **AND**.
     Example: To find information on Florida panthers, type in the following.

Florida AND panthers

  2. To locate items with more than one name or spelling, use **OR**.
     Example: To find information on e-mail, type in the following.

email OR e-mail

  3. To eliminate unwanted references, use **NOT**.
     Example: To find information on panthers (the animal, not the sports teams), type in the following.

panthers NOT hockey

  4. To narrow your search, use **combinations** of these words.
     Example: Type in the following.

Florida AND panthers NOT hockey

Using Boolean Logic

Computerized search mechanisms are based on Boolean logic. Boolean logic is named after George Boole (1815-1864). Boole was a 19■-century English mathematician who devised a new system for analyzing variables.

Sometimes there are too many choices or you get the wrong results. Some search engines allow you to narrow your search by using Boolean logic. Boolean logic consists of three logical operators: AND, OR, and NOT.

AND requires all terms to appear in a record.

OR retrieves records with either term.

NOT excludes terms.

Evaluating Internet Materials

How Good Is the Information on Any Given Web Site?

Web pages can be written by anyone from students to Nobel Prize winners. You need to evaluate every *document* you wish to use in your research. See the chart below.

How to Evaluate Internet Material

Criterion	Critical questions to ask	What to Beware of on Internet Sites
Authority	Who posted this information? Who wrote the information? What does the author know about this subject? Is the author associated with a known organization	There is no author listed. There is no e-mail contact. There is no reference to a known organization.
Purpose	For what reason has this information been posted? Is there bias or prejudice in how the topic is treated? Is the page simply designed to be a joke?	The site is selling a product or service. Extreme opinions are expressed with no other viewpoints offered.
Currency	When was the document posted? When was it last updated? How often is other information on the site updated?	The document is several years old. The site has never been updated. Everything else on the site is no longer current.
Format	Does the information appear as text, graphics, audio, or video? Can my Web browser handle this type of information? (browser software has certain limitations)	You need text information and this site only offers graphics or audio (or vice-versa). The screen prompts you to download a new "plug-in" module for your browser.
Site	Is the document part of a personal Web page—personal page of an individual has a tilde (~) in the address? Is it a commercial (.com), educational (.edu), government (.gov), organization (.org), military (.mil), network services provider (.net), or other site? Is the document from United Kingdom (.uk), Germany (.de), Australia (.au), Japan (.jp), Canada (.ca), France (.fr), Russia (.ru), South Africa (.za), or other country?	If you are on .com sites frequently, be aware the sites have products or services to sell.
Relevance	Is the treatment of my topic appropriate? Does this document answer my information needs?	You've found your search terms in the document, but the terms are used in a different context.

Source: Tallahassee Community College

The ability to think critically about items from the *World Wide Web* is important. Thinking critically will help you to make smarter selections from among the millions of Internet documents. Your papers will benefit from more accurate research.

Let's practice finding information.

Many of you are avid e-mail users. If so, you know that e-mail is a wonderful way to communicate with friends and family. It also allows you to make new friends all over the world. E-mail, like your search engine, can be a valuable educational resource. It can allow you to share ideas. You may find someone else researching your topic. Through e-mail, you can share information. You might also make contact with experts in your field of study. Often, the contacts you make online can direct you to other links.

E-mail is a wonderful way to communicate with friends and family.

Creating and Sending E-Mail

E-mail procedures will vary. Each e-mail program has its own rules. Each e-mail server has its own rules as well. Your teacher will explain these rules to you as you work. Read the steps below. Look at the diagram on the following page. These instructions show you *one* way to send and receive e-mail.

- **Get started.** Access the Internet using your browser. Go to your e-mail program.

- **Check your messages.** Click the **inbox icon** and a list of your messages will appear in the right-side **window**. **Step 1** on the diagram shows you this step.

- **Read the entire message.** Click on the **envelope** under the heading **From**. The text of the message will appear in the lower *window*. **Step 2** on the diagram shows you this step.

- **Reply to a message.** Click the **Reply** *icon* and a new window appears. This automatically sends your reply to the person who sent the original message. You can send the same message to a list of people by clicking the **Reply to All** icon. Type your message in the *new* window that appeared. **Step 3** and **Step 5** on the diagram shows you this step.

- **Create a new message.** On the main **menu**, click on the *new* mail under **File** on your toolbar *or* **New** *button*. A new message window will appear. See **Step 4** on the diagram.

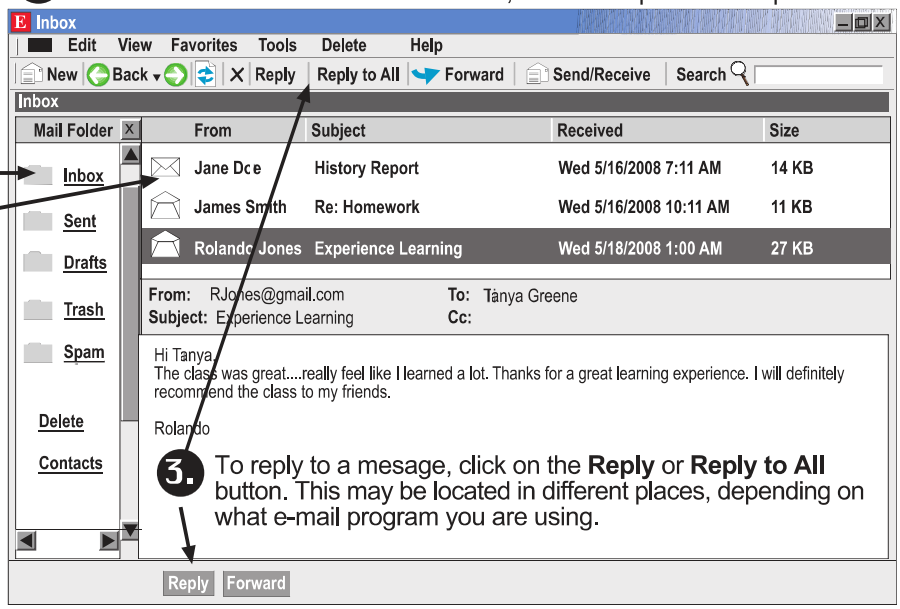
- **Address your message.** In the **To:** box, do the following. First enter the address of the person you want to send the message. Press TAB or click in the empty **Subject:** box and type the subject of your e-mail. Then press TAB or click in the *empty* message window. Type your message in the new window. See **Step 5** and **6** on the diagram.

- **Send your message.** Click the **Send** button on your toolbar. See **Step 7** on the diagram.

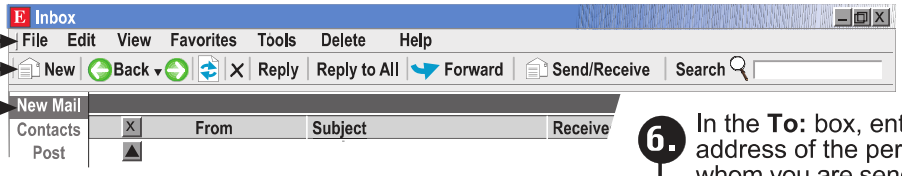
- **Delete a message.** Click on the **Delete** button or the icon with an **X** on your toolbar. See **Step 8** on the diagram.

1. Click on the **Inbox** icon and a list of your messages will appear in the right-side window.

2. Click on the closed envelope to open the e-mail and it will appear in the lower window. After the e-mail is read, the envelop remains open.

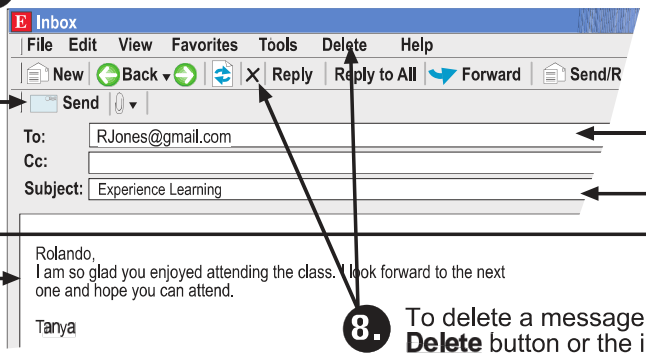


4. To create a new message, click on *new* mail under **File** or under **New** on the main **menu** depending on what e-mail program you are using.



5. Type your message in the *new* window that appears.

6. In the **To:** box, enter the address of the person to whom you are sending your message. Next enter your subject in the **Subject:** box. Then press TAB or click in the *empty* message window and type your message in the new window.



7. To send your message, click the **Send** button on your toolbar.

8. To delete a message after reading it, click on the **Delete** button or the icon with an **X** on your toolbar.

Publishing Your Writing

Once you have finished a piece of writing, why not publish it? One of the best ways to do this is on the Internet. In this way, your work becomes available as a resource to others. There are many places to publish your work on the Net. These include the following:

- online magazines
- online journals
- online blogs
- writing contests
- student publishing sites.

It will be up to you find one of these sources. Begin this search with your teacher. Perhaps your school district has a site that publishes student work. Some individual schools have such sites. Find out the rules for submission, if one exists.

Teachers frequently receive information about student writing contests. Several textbook publishers also sponsor student sites. Your teacher can help you find these.

Check your search engine's homepage. Often, these sources include student links where you could post your writing. This would be a good opportunity to have your work widely read.

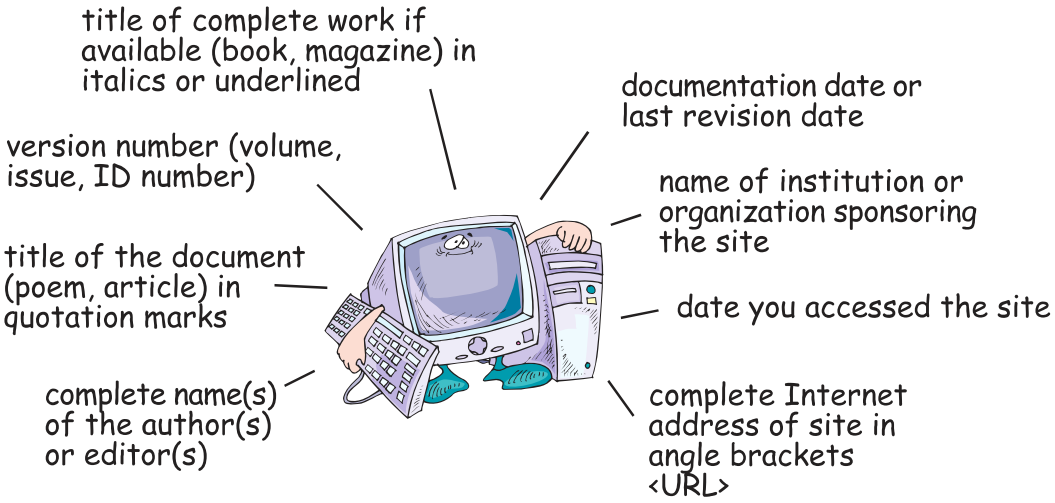
Also check your Internet provider's homepage. If your provider does not sponsor a student site, send them an e-mail. Ask if they know of any sites that do.

Beware: Many of these sites contain "contests" or "awards" that require you to buy a product. Always check out offers and "do's and don'ts" with your teacher.

Citing Electronic References

You must *always* give credit for information you researched. Not doing so is a very serious offense. Internet and **electronic references** or sources are no different from other reference materials. You *cite* or refer to each source so you or your reader can also find it again. When doing your research on the World Wide Web, you should try to obtain as many items from the following list as are relevant and available:

- complete name(s) of the author(s) or editor(s)
- title of the document (poem, article) in quotation marks
- title of complete work (book, magazine), if available, in italics or underlined
- version number (volume, issue, ID number)
- documentation date or last revision date
- name of institution or organization sponsoring the site
- date you accessed the site
- complete *Internet address* of site in angle brackets <URL>.



Rarely will you find *all* of the above information. However, you should obtain all that is given for the article. Your Web browser can be set to print this information on pages you print.

Properly citing electronic sources can be difficult. This is because they are constantly changing. It is suggested that you use an updated format from the *Modern Language Association* (MLA) found in the *MLA Handbook for Writers of Research Papers*. **MLA style** is a written set of procedures used for writing papers and citing resources. However, the *MLA Handbook* is only one guide to citing references. Your teacher may suggest another guide.

Examples of MLA Items in an Online Entry

Although no single entry will have all of the suggested information mentioned on the previous page, all works cited must contain the following basics:

> Author's or editor's name (listed with last name, first name, middle initial). Document title. Date of Internet publication. Date of access <Internet address>.

Review the following examples of citing *online* sources. Information may be in a different order with different styles. Different styles may also require the second line of the entry to be indented. Check the style your teacher requires.

Article:

Bayan-Gagelonia, Ruby. "The Florida Manatee." *EcoFlorida: Your Guide to Exploring Natural Florida*. Fall 2000. 9 Sept. 2002 <http://www.ecofloridamag.com/archived/manatees.htm>.

Book:

Aston, Diane E., and Dowd, Eileen M. *Fragile Legacy: Endangered, Threatened & Rare Animals of South Dakota*. South Dakota Department of Game, Fish & Parks, Report No. 91-04. 8 Dec. 1997. 10 Sept. 2002 <http://www.npwrc.usgs.gov/resource/distr/others/sdrare/sdrare.htm>.

Web site:

Endangered Species Information. U.S. Fish & Wildlife Service. 18 July 2002. 12 Aug. 2002 <http://endangered.fws.gov/wildlife.html#Species>.

E-Mail Message:

E-mail messages need author's name (if you can't determine the author's name, use the author's e-mail address), subject line (in quotation marks), message description, e-mail recipient, and date sent.

Evans, Brock. "Joining the Endangered Species Coalition." E-mail to Brandi Ash. 5 Aug. 2002.