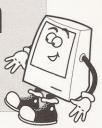
Locating and Evaluating Information on the Internet Art Wolinsky

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# Using Information From a Search



nce you are comfortable searching for information, you will find a wide range of information and sources for each topic you research, but that is only part of the job. How can you be sure the information you find is reliable and accurate? How do you know it is true?

Anyone can publish Web pages. There are people who want your money and make Web pages designed to sell you things. There are people who make pages because they want you to believe what they believe. There are people who make Web pages because they want your personal information to sell information to businesses. There are people who make Web pages because they want to share knowledge. They want you to become informed and educated.

Which pages must you read with caution and a questioning mind? The answer is simple: All of them! You would probably agree that advertising sites, biased or misleading sites, sites designed to promote hate, and information-gathering sites should all be carefully considered, but you might think it strange that a teacher would tell you to also carefully consider educational sites that want you to become informed.

It is often difficult to determine why a site is on the Internet. Propaganda and hate sites are often disguised as educational sites. They will tell you lies and use tricks to get you to think their way.

Advertising is often mixed in with educational material related to the product the Web creator is trying to sell. These sites often tell you only one side of the story to persuade you to buy their product.

Your name and other personal information are also valuable things on the Internet. People who gather information and compile mailing lists can make big money selling that information. These people will often provide information, entertainment, and contests as lures so that they may gather your personal information.

Even people who want to provide only information to you can mislead you. Not all information is true or accurate, and people with the best of intentions sometimes make mistakes. If they publish those mistakes and people believe them, they can do more harm than good.

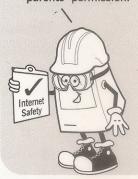
So, the question is how do I find good, true, reliable information and how do I recognize it when I find it? The answer is to develop critical-thinking skills. Let's take a look at how you can begin judging the quality of the information you find.

## Columbus Sailed in 1493?

While preparing a lesson on Columbus Day, I found Professor Hildegard Black's "Oddities of History" Web site. It had some strange and interesting facts. According to the site, "Columbus Day falls

#### Keep it Secret:

Don't give out any personal information on the Internet without your parents' permission.



on October 12. History tells us Columbus landed in America on October 12, 1492, but did you know it was NOT 1492? It was really 1493!"

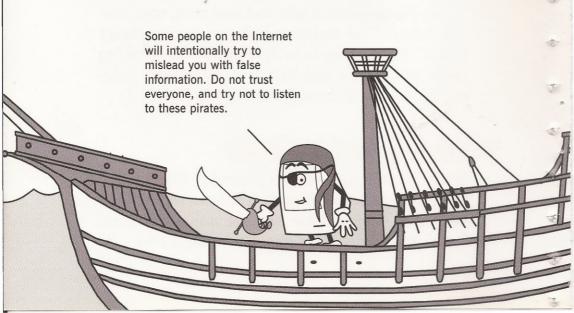
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While Columbus was crossing the ocean, Portuguese scientists recalculated the calendar. They added three months. The king made it law BEFORE Columbus landed. When Columbus landed he thought it was October 12, 1492, but back in Portugal it was really January 12, 1943. He had a real shock when he landed in Portugal to report to Queen Isabella.

Isn't that an interesting set of facts? If you think so, do not go running to tell your history teacher just yet. It may be interesting, but it is also false. The Internet is full of wonderful, interesting, and incorrect information. I gave you wrong information to make a point. You cannot believe everything you read. Finding information is just part of your job.

If you found the errors in the Columbus story or doubted its truth as you read, you may be well on your way to being a critical thinker. If you



believed it simply because it appeared in print, you may need to sharpen your critical-thinking skills.

Let's see what a critical thinker might do with Professor Black's information. A critical thinker might ask some of the following questions:

1. Who printed the information? Nowhere on the site did it tell anything about Professor Black. That does not mean the professor is not real, but without more information it is possible that the professor could be a fifth-grade student having some fun.

I searched both HotBot and Fourl1 for Hildegard Black but could not find anything useful. A critical thinker would begin to doubt the information, but I still cannot say there is no professor or that the information is wrong.

- 2. Is the person an expert? How do you know? I found nothing to convince me that the professor is an expert or even a real professor.
- 3. Is there a way to check on the author? Do they have a phone number or an address? (An e-mail address is often not enough.) There was an e-mail address. Anyone can set up an e-mail account, using any user name he or she chooses. There was no other contact information. I did not have much faith in the professor at this point.
- 4. Is the author trying to convince you of something? Are you getting all the facts or are some being withheld? It seems as if the professor is expecting me to believe her odd facts, but she did not give me many details.
- 5. Does the author state the source of the information or is it just his or her opinion? There was no source of information mentioned. By

this point, neither the professor nor her information seems very credible.

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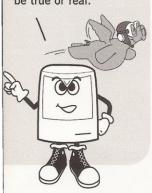
- 6. Can you find other sites with the same information? I could not find any information about a calendar change in 1492 or 1493.
- 7. Are there any obvious errors or things that do not add up? Here is the point where good research and critical-thinking skills could have settled the question immediately. Since the object of research is to become well informed, the researcher should be learning about Columbus.

If you know about Columbus, you would know that he was born in Portugal but sailed for Spain. When he returned, he did not land in Portugal. He landed in Spain, and Queen Isabella was the queen of Spain, not Portugal. Simply comparing the facts as presented in the article to ones you already know should have given you a clue.

Even if everything else was true, one misleading fact can throw doubt on all the accurate ones. There is a lesson here for those of you who are going to post information on the Internet. Make sure your facts are accurate.

Besides these obvious errors, there are other things that do not add up. For instance, if Portugal had recalculated the calendar, wouldn't everyone else in Europe also change their calendar? In that case, it would have been a major event in history, and we would be able to find information easily. If the rest of Europe did not change, today Portugal would

Truth? Or Lies?
Don't believe
everything you read
or see on the
Internet, because
some of it might not
be true or real.



Internet Addresses

Information Facts

On Your Screen

Critical thinking is not just something to be used on the Internet or for information gathering. It is a tool for life and a tool for all subjects. Here are some Web sites that you can visit to have fun and sharpen your critical-thinking skills.

The Just4Kicks Puzzle Page

<a href="http://www.winn.com/j4k/">http://www.winn.com/j4k/>

Puzzlemania

<a href="http://www.marint.com/index1.html">http://www.marint.com/index1.html</a>

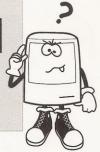
If you think your critical-thinking skills are really sharp, you can visit Critical Thinking in Math From the Absurd Math Odyssey.

<a href="http://www.absurdmath.inter.net/abmath/">http://www.absurdmath.inter.net/abmath/>

have a calendar different from the rest of Europe. I think it is safe to conclude that Professor Black's site is not a good one to use for research.

Are you starting to get the idea about critical thinking? Not all misleading information will be as easy to identify as this, but you have a basis to start the critical-thinking process.

# Misinformation and Misinterpretations



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id you try to find Professor Hildegard Black's "Oddities of History" Web site? If so, did you have any luck? If you were not able to find any information, did you think you were using poor search technique or did you begin to use critical thinking to question my example? If you did find the page, it may be because someone read this book and created it just to try to fool you. The fact is the Web site is pure fiction. It did not exist when I wrote this book. I made it up to illustrate my point. If you questioned it, good for you.

# Some Real Stories

The more research you do on the Internet, the more misleading information you are likely to find. Professor Black was not real, but all the Web sites and incidents that follow are. You can check them out if you like.

# ▶ Recruiting College Athletes

Two of my students were doing research on the recruiting of college athletes. They knew college athletes often get help gaining admissions to college, so they did a search, using the key words athlete college entrance exam. They were surprised

at how many places had an example of a test and called me over to take a look. They asked me whether I had ever seen the test, and I told them I had. As I walked away, I heard one of them say, "I can't believe how easy it is!"

If you have an Internet connection, do a search, using those words. Examine what you find. I think you will find out why I had to fight to keep from laughing. Go ahead. Do the research before reading on. If you do not have an Internet connection, read on and I will explain. First read the initial questions of the test.

Internet Addresses

Information Facts

On Your Screen

Athletes College Entrance Exam SU College of Arts & Sciences ENTRANCE EXAM COLLEGE ATHLETE VERSION

Time Limit: 3 weeks

- 1. What language is spoken in France?
- 2. Give a dissertation on the ancient Babylonian Empire with particular reference to architecture, literature, law, and social conditions.

-OR-

Give the first name of Pierre Trudeau.

- 3. Would you ask William Shakespeare to:
  - a. build a bridge
  - b. sail the ocean
  - c. lead an army
  - d. WRITE A PLAY

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You should also realize that this page is not a real test—it is making fun of athletes. If you are an athlete, you probably do not think it is very funny. It could, however, just as easily be making fun of some other group of people. Pages that make fun of nationalities or groups of people are not in good taste. This is a form of prejudice, and you should recognize it as being inappropriate.

My students' comment about how easy the test was told me that they were not reading critically. The questions were easy because it was not a real test. Likewise, my students did not examine the test's Web site to see who or what group was the host. Apparently they did not even read the test carefully. Do you know of any test that has a three-week time limit?

## ▶ Election 1996

Before the 1996 presidential election, a friend of mine asked me to visit the Web sites created by her class. One student had created a Web site that listed all the major candidates running for president of the United States. As I scrolled down the list of Democratic candidates, I came across the name Patrick Paulsen and the following quote from the site:

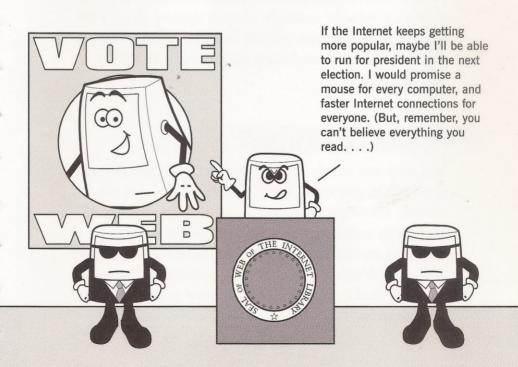
Perennial presidential candidate Pat Paulsen is the first aspirant to the oval office to run his campaign via the Internet. From his hillside home in California, Paulsen will not only keep the public and press advised of his own activities in behalf of the Democratic nod, but will answer "relevant" questions from prospective constituents, fans,

friends and opposing candidates by way of e-mail which he calls "yesterday's on ramp to the information super highway, tomorrow's Post Its."

I had to keep myself from laughing. It was obvious the student had done a good deal of research to find the different candidates. Unfortunately, it was equally obvious he had not evaluated the material at the Web sites he located, at least not at this one.

If you are not rolling on the floor, there is nothing wrong with your sense of humor (or mine). Neither the student nor the teacher was even born when Pat Paulsen ran for president for the first time in the 1968 presidential election.

If the student had taken the time to examine the contents of the site beyond the home page, he might not have recommended it. At the very least, he would have handled it differently.



You can visit what is left of the Pat Paulsen site. Today, there is just the home page with some missing graphics and broken links, but it is enough to give you an idea of what he saw. Here's the site:

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<a href="http://www.archive.org/pres96/demfring/pat.htm">http://www.archive.org/pres96/demfring/pat.htm</a>.

If you have an Internet connection, visit the site. Then do a little searching for information on Pat Paulsen and see if you figured out why I laughed so hard when I saw the name. Do not go on to the next section until you are ready to check whether you are correct.

## ▶ The Rebirth of a Candidate

By now you may have learned that Pat Paulsen is a comedian who was a regular on the *Smothers Brothers Comedy Hour*, a hit television show in the 1960s. The first time that Paulsen ran for president was as a weekly comedy sketch during the 1968 season. The Internet offered him an opportunity to get in front of an audience again, and the Web site was his stage.

# ▶ So What's the Big Deal?

You may not think this is a big deal, but the simple fact is that you must always be careful about information you retrieve or you might be misinformed. Similarly, you must be careful of what you post so that you do not misinform others. In this case, all of the student's hard work was questioned because he published an error that suggested a lack of careful research.

# ▶ Getting Serious

All these examples are meant to be humorous, but there is plenty of information on the Internet that is intended to provide false, damaging, and sometimes hateful information. There are hate groups who believe they are superior to others. They promote hate and violence through the use of lies, propaganda, and tricks that appeal to your emotions.

It is one thing to use these types of tricks to get you to make a purchase; it is something entirely different to use these tricks to get you to hate someone, to commit a crime, or to participate in an act of violence.

#### Internet Addresses

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Information Facts

On Your Screen

There are not many sites on the Internet that have information that is easy for young people to understand. Here are three that will teach you about misleading information and hate groups. I suggest having your parents or teachers help you with these sites. They may be somewhat difficult to understand, but media awareness is a serious subject that deserves your effort.

#### The Institute of Propaganda Analysis

<a href="http://weber.u.washington.edu/~scmuweb/propag/contents.htm">http://weber.u.washington.edu/~scmuweb/propag/contents.htm</a>

#### Media Awareness

<a href="http://www.intergate.bc.ca/personal/twist/aware.html">http://www.intergate.bc.ca/personal/twist/aware.html</a>

#### Southern Poverty Law Center

<a href="http://www.splcenter.org">http://www.splcenter.org</a>

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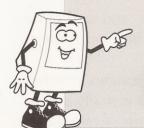
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If you learn about how words can be used to persuade people to do things, you will be arming yourself against these hate sites. You may even save yourself a few dollars when you learn how companies are getting you to spend money on expensive brands and getting you to buy things you do not really need.

# **▶** Evaluating the Quality of Information

When visiting a Web site, the first thing you should do is read the material and ask yourself whether it makes sense. Is there information you question? Does information seem to be missing? Answering yes to any of these questions is an indication the information may not be reliable. Here are some questions to ask and things to look for that will help you decide on the usefulness of the information:

- 1. Who created the page? Was it an unidentified person, or is there an e-mail link to communicate with the author? What makes this person an expert?
- 2. Was the page created by an organization? If so, what is the purpose of the organization?
- 3. What is the purpose of the page, and who is the audience?
- 4. Does the author tell you the source of the information so that you can verify it? Is there a bibliography?
- 5. Is the information current?
- 6. Are there links to other reliable sites that contain information that can verify *their* information?



# Creating a Quality Product

ou will most likely conduct research because you must create a project, report, or presentation for school. Often, adults must go through the same process in their jobs. Finding and evaluating information is a critical process, but it is only half of your job. You must collect pieces of information, understand what they mean, and then put them together to make a presentation of some kind. The presentation could be a written paper, a play, artwork, a Web site, or any other form of presentation that shows what you learned or presents information you want others to understand and value.

After you have judged the quality of information you found, you create a presentation. Now, others will judge the quality of the information you provide. If you want to create projects that people will value, it is important to take the proper steps leading up to the presentation.

There are some basic things to keep in mind if you really want a quality product. Whatever you create must be your work. Copying and pasting information to create a report is not an acceptable way of doing things for three major reasons.

First, it is almost impossible to put together pieces of articles from many different sources in a way that makes sense. A written project must have a logical beginning, middle, and end. The information should flow smoothly from one part to the other.

Second, taking the words and thoughts of other people without giving them credit is actually a form of stealing. Stealing someone's words is called plagiarism. As you advance through school, plagiarism is considered a very scrious offense. It can cause you to fail a paper or even a course. Recently a congressman had his career seriously damaged because he plagiarized parts of a speech.

Finally, doing work by copying and pasting information does not put your mind through the process of learning how all the pieces fit together and have meaning. In other words, you do not really learn much and you waste a great deal of your time.

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## **▶** The Research Process

The process of preparing a paper or Web site is not difficult. The steps leading up to the product are very similar for many types of research. If you practice them, they will become good habits that will serve you well for the rest of your life.

I cannot provide you with the details of creating a full research project, but I can provide you with an overview. Your teachers will provide you with the details. Here are some basic steps in the research process:

1. Form a question or solve a problem. Your question should be one that challenges your mind. There may be no one correct answer. Your job is to convince your readers that your answers are good ones. Let's use the example of cloning. It is tempting and easy to gather a

bunch of facts and create a report titled "Cloning," but this is not going to be a valuable experience for you and may not be an interesting topic for your readers.

It is much more challenging to do research to answer the question "How can cloning help wipe out world hunger?" Even better, you might choose to solve a problem and create a project titled "A Blueprint to Wipe Out World Hunger Through

rather read?

2. Locate sources of information. Use search engines, books, magazines, experts, and any other source of information you can find. The more sources and the greater the variety, the better.

Cloning." Which report would you

3. Read your information and take notes. Note taking is often in the form of copy and paste. As you visit a Web page or do other types of electronic research, you can copy from your source and paste it into a word-processing document. Make sure to include notes detailing where you found your information. You

your bibliography.

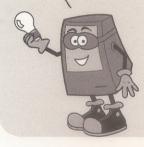
4. Sort, sift, and organize your notes. Once you have taken notes, you must read through them, determine how they relate to each other, and organize them so that they begin to form a picture of your product.

will need that information when you create

5. Draft your project. Once you have a clear picture of how everything fits together, you can

### Stealing is Wrong:

You can get in trouble for stealing someone else's words or ideas and trying to pass them along as your own. Don't do it.



begin drafting your project. A good project will have an introduction that presents the question or problem to be solved. Then the reader must be provided with whatever information they need to understand the problem or question and your arguments. The closing of the project should summarize the material that came before it and offer convincing solutions or answers.

6. The project should include most of the following items:

Citations—If you are going to use someone's exact words, you must give that person credit. This is done through citations that give credit to the authors. Your school might have a special way for you to write Internet citations. Check with your teachers. Here are some other places to look for citation information:

<a href="http://longman.awl.com/englishpages/citation.htm">http://longman.awl.com/englishpages/citation.htm</a>

<a href="http://www.tyler.net/ruskhslib/cited.htm">http://www.columbia.edu/cu/cup/cgos/idx\_basic.html">http://www.tyler.net/ruskhslib/cited.htm</a>

Bibliography—This is a list of all your sources of information.

Glossary—This provides definitions to terms used in the project. This section is optional, but if you are doing a project that contains terms the reader may not be familiar with, it is a good idea to include a glossary.

7. Putting it all together. In this book we started out by learning about the history of searching. Then we learned about how to actually locate information. From there we went on to talk

about the importance of evaluating what you find and provided you with ideas of how to go about determining the quality of information you locate. Finally, we talked about how you can use what you have found to make a quality presentation.

The early gold diggers needed tools and skills to find gold. The same is true of mining the Internet for information. The search engines are your basic tools. Refining searches, using Boolean searches, and knowing which search engines to use for your questions will develop your skills and make information location and retrieval much location and retrieval much location location and retrieval much location location

May all the information you mine on the Internet be as valuable as gold.

# See You Later... Well, it's been fun, and we sure learned a lot about how to find and evaluate information on the Internet. I can't wait

to do some more

Internet surfing! See

