



CHAPTER 3:

CRITICAL THINKING

Here's an assignment that seems pretty straightforward: Find some information about "Naugas," specifically their gestation period and their status on the endangered species list. You have never heard of this animal, but no matter—you can find information. You are the researcher. You ask the person giving you the assignment for a few more details, and are told these odd, yet engagingly friendly creatures are native to Sumatra.

So you go to Google or another major search engine and do a search for "Nauga." The first couple of sites in the results send you to www.naugahyde.com/history.html. The site gives you some history and says they are "small chameleon-like animals known as Naugas™ (which) have long been known as the source of beautiful and durable fabrics that look like fine, soft leather." The site includes a cartoon of a Nauga, which resembles a chimpanzee. At quick glance, you have found what you are looking for. Just to make sure, you take a glimpse at another site, The Nauga Case Information Center's "Adopt a Nauga" program, www.naugahyde.com/promoitems_nauga.html.

- The first site you visited gives a colorful history of the Nauga, including the following phrases: One prominent historian believes the first Naugas arrived



"On the Internet, nobody knows you're a dog."

in America in 1778 when they delivered designer clothes from France to George Washington's Continental Army.
Unnamed historian and designer clothes?

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Something doesn't look quite right. But, you say, "It's on a Web site. Doesn't that make it true?" Hardly.

- Cornelius VanderNauga inspired an entire generation of Naugas to excel when he authored *The Horatio Nauga Story*, a quasi-autobiographical account of a young Nauga who found that fame and fortune could be within anyone's grasp. Quasi-autobiography. *If the first President Bush's dog could write a best seller, OK, well, maybe.*
- And of course, there's this statement: In 1905 President Theodore Roosevelt signed legislation that gave Naugas the right to vote. *Wow! They got suffrage even before women did.*

Something doesn't look quite right. But, you say, "It's on a Web site. Doesn't that make it true?" Hardly.

You can't believe everything you see on the Internet. Think of the Web as the messenger, not the message. Saying "I got it from the Internet" is like saying "I got it from the phone," argues *Searcher Magazine's* Barbara Quint, a search expert. The quality of the information depends on who is on the line, she says.

Now let's get the real story on the Naugas. If you think that Naugas are hunted for their skins, as the Web sites might indicate, think again. If you are wondering about the cruel fate of these adorable animals, guess what. This is an urban legend. These "animals" don't exist at all—except perhaps as a stuffed toy. Naugas were conceived as part of a humorous advertising campaign in the 1960s and 1970s to sell Naugahyde, a vinyl-coated, imitation-leather fabric made by Uniroyal.

What you have just encountered in your research is an exercise in critical thinking. To survive and thrive as journalists, student journalists must learn how to research,

publish and communicate on the Internet. But the most important skill a student needs is the ability to assess and evaluate material.

As Anne Mintz points out in her book, *"Web of Deception,"*⁹ many dangers exist, including "deliberate deception, deliberate misinformation, and half-truths that can be used to divert a seeker from the real information being sought." Students who don't have training in evaluation and criticism can easily become targets for organizations or individuals with deception in mind.

Students are not the only ones being duped: The mainstream press has, unfortunately, published stories with unchecked statements that were thought to be facts. When journalists rely on unchecked information for source material and republish it in their own pieces, the erroneous information gets spread as fact.

Anyone can make Web-related mistakes. In the 2004 vice presidential debate, for example, incumbent Vice President Dick Cheney erroneously referred viewers to Web site "factcheck.com" when he meant "factcheck.org," a site run by the Annenberg Public Policy Center of the University of Pennsylvania that checks political rhetoric against the facts. Cheney meant to direct viewers to the Annenberg site in claiming (mistakenly, as it turned out) that it had defended his tenure as CEO of Halliburton.

The Web site Cheney did refer viewers to—factcheck.com—is operated by Name Administration Inc., a domain name administrator and Internet traffic syndicator in the Cayman Islands. Because of the enormous number of hits received after the debate, Name Administration redirected visitors to what they termed "a website relevant to U.S.

politics.”¹⁰ That Web site happened to be owned by philanthropist and political activist George Soros and was entitled “Why We Must Not Re-elect George Bush.”

Web sites are not the only places where people are exposed to scams and need to use critical thinking skills. E-mail is another area where it is critical to understand what you are reading and where the information comes from. In February 2002, Scambusters.org, an advocacy group designed to help protect consumers from scams, notified its subscribers about the Internal Revenue Service (IRS) Audit Scam. Scambusters warned taxpayers about fraudulent e-mail saying that they were under audit. The e-mail used the term *IRS e-audit* in the subject line. Taxpayers were instructed to fill out a questionnaire, which supposedly had to be completed within 48 hours to avoid penalties and interest. They were asked for their Social Security number, bank account numbers, and other confidential information.

However, as Scambusters pointed out, the IRS does not notify taxpayers about pending audits via e-mail. Nor do they conduct “e-audits.” And, most important, the IRS *does not* ask for this kind of personal confidential information. Translation: The e-mail was not from the Internal Revenue Service. You need to and you can learn to evaluate the quality of information you find on the Internet.

How to Assess Information Found on the Web

There are six traditional evaluation criteria used to assess information: accuracy, credibility, objectivity, currency/timeliness, coverage and verifiability.

ACCURACY

Ask yourself the following questions as you look at a Web site:

- How reliable and free from error is the information?
- Are there editors and fact checkers?
- What can you tell from the Web site about its accuracy and credibility? Are there footnotes and cited references or just bold, unattributed or unverifiable statements?
- Is the site free from spelling errors or grammatical mistakes? If not, this indicates at the very least inattention to detail that might carry over to the information itself.
- Why is this information being provided? Is the motive clear?

TIP: Since many young people question authority, ask students to research who coined the phrase “question authority.” As you will see from the following Web site, www.ithaca.edu/library/Training/hott2.html, you will get answers that attribute that phrase to many different places without any clear answer. The lesson is to question the authority of all Web sources. Another excellent resource, “Teaching Zack to Think,” www.anovember.com/articles/zack.html, by Alan November for the Sept. 1998 High School Principal magazine, points out an example with a revisionist version of the Holocaust, which maintains that the Holocaust never existed (ihr.org). What makes the article so useful is that it poses the questions any adviser should ask student journalists when they seek information for their reports.

Other accuracy issues:

Consider the source of the information. Is it a primary source? If not, see if you can

actually find the original source. If you can't, try to find independent verification. There are no sure-fire indicators of reliability, but the nature of the information sources can provide a good hint. If the information comes from a traditionally reliable news outlet or research center, chances are better that the report is credible than if that same data are cited in a Web site of unknown origin.

Another way to evaluate a site's accuracy is to see if there has been a reaction to the Web site. See if you can find that reaction. Or at least try and find other information

that backs up the claims made in the Web site you are looking at. A good rule of thumb: When in doubt about a site, doubt it, until you can prove otherwise.

Look at the links to the sites. The link search feature of some search engines—including Alltheweb.com, Altavista.com, Lycos.com and Google.com—can serve as a quick credibility check because the links identify other sites that indicate credibility. For example, a site linked to universities and government agencies is probably more credible than a site linked to the Jerry Springer TV show home page. When looking at a site, see what prominent sites

Lesson in Accuracy

"Our motto is to print the best obtainable truth," says Karen Watts, a journalism teacher/adviser from Wheeling, Ill. "We talk about filling the space versus telling the best possible story; how one source is not enough; how seeing something once doesn't mean it's true, and how just because you think you heard it doesn't mean it's true."

While accuracy is all-important in journalism, Watts says students must learn this for themselves. She recounts the story of a hard-learned lesson.

"One of the teachers in school had a nephew who was a soldier in Iraq," she says. "Her class wrote letters to him. One of our reporters wanted to do a story on it and thought it would be pretty easy. He'd talk to the students, the teacher, get a couple of letters and have a story. Well, he was not a very good note-taker and he got some of the facts wrong."

"The nephew's name was Mike and the teacher's was Mrs. Kowall," Watts says. "He (the reporter) just assumed the nephew had the teacher's last name, but he didn't." The reporter also mistakenly thought that the soldier was a Marine. He wrote the story and it was published with the wrong information, Watts says.

"He was supposed to go back and apologize and get the right information so we could print a correction," Watts recalls. "He did, but he still didn't get the soldier's last name so the correction was incomplete."

Watts says it was important for the student reporter to see the logical consequences of his actions, and that same reporter today is much more careful about his interviews. Based on his problems with accuracy, Watts has instituted a new policy of having her reporters share their notes with interviewees to ensure greater accuracy.

While interviewees are not allowed to see a story before publication, Watts says that, to verify quotes and information, "we do have the students read their interview notes back to their sources." Watts says this makes students "much more conscientious about what they write, and gives us more credibility."

that you recognize as legitimate are linked to that site.

Also, be aware of where you are going online and know where you are as you navigate the Web. Pages on the Internet are often rerouted to other addresses. Check each page. Does the domain name make sense? (For example, notice Harvard.edu versus Harvard.com, census.gov versus census.com.)

CREDIBILITY

Consider the source:

- Who is presenting the information?
- Who is the author?
- What are that person's qualifications for writing about this subject?
- Is the publisher reputable? How do you know?
- If there sufficient identifying biographical information to show the credentials of the person or people behind the Web site?
- Do you know enough information to evaluate these questions?

Before you use material from a Web site, try to verify its authorship. If there is no contact person listed, and no credit taken for the Web site, do not trust it. If someone will not stand behind his or her work enough to provide a name and contact information, be wary. Even when the author is identified, consider the source of the information. If you were looking for *official* reaction from a hospital to some information you planned to use in your story, and found a statement from former hospital employee Penelope Jones and one from the hospital itself, which



would you use? Obviously, the official hospital statement. Skepticism should be a journalist's natural instinct.

A Web site's main page, also called the home page, should identify its author. You can find a main page quickly by

deleting parts of the URL, starting from the right and working your way toward the left. A tilde sign (~) embedded in an address usually signifies a personal home page. In this case, try to verify the information elsewhere before assuming its accuracy.

Often it's very difficult to determine who has authored a Web page. Sometimes there is identifying information like an e-mail address or a biography of the person posting the information, but more often than not, there is not enough information to make a judgment.

Use the domain tracking tools to determine who is behind a Web site. If the Web site you are scrutinizing is supposed to be from the U.S. government, it should have a .gov domain. If it is authored by a university, it should have an .edu domain. If it's a Japanese Web site, it should have a .jp on the end of the domain name.

Use trustworthy organizations to point you to other credible Web sites. For example, government agencies, trade groups and professional associations and major universities all tend to have Web sites with credible links and references. Reference sites like www.Britannica.com (the online version of the Encyclopedia Britannica) or www.infoplease.com (the online version of

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Remember,
many Web
sites present
information
with a
particular
point of view.

the Information Please almanac) also are good guides to other credible sites.

There also are several tools you can use to trace who owns a Web site. Every time someone obtains a Web page, in order to secure a domain name, he or she must pay a fee to one of several government contractors who register all Web sites. Many of these companies have compiled those registration names into searchable lists. Called “Whois” pages, they show who owns the page—provided people submitted real information. While not foolproof, Whois often provides the real address, phone number, e-mail information and contact person for each Web site. This at least gives you a way to get in touch. For more information on using Whois, refer to IP Addresses and Domain Names in Chapter 2.

TIP: Before you accept something at face value, question it and see if you can work your way directly to the original source of the material. Find out if what the person says is true.

OBJECTIVITY

Remember, many Web sites present information with a particular point of view. Ask yourself if the information is presented with a minimum of bias. Can you assess the bias at all? To what extent is the author trying to persuade you or trying to sway the opinion of the audience?

If a stranger told you something while you were getting a cup of coffee, would you give it any more credence than if a friend had told you the same thing? Ask yourself if the goals or intentions of the person sharing the information were clearly stated.

Some telltale clues should raise doubts as to a site’s fairness:

- sweeping statements like “most important” and “unquestionably the best”
- grandiose claims like “millions are being killed every minute”
- harsh language like “the shrill cries of my extremist opponents.”

Trust your instincts. Is there something on the site that just doesn’t look right?

Try the following exercise. Look at each of these sites and ask yourself the questions posed by Virtual Chase (see below) as you are examining the claims made on the sites.

Look at the Anti-Defamation League’s Hate On Display Database
www.adl.org/hate_symbols/default.asp.

Or look at the following pages for a purpose statement with a clear bias [The Cigarette Papers]
ark.cdlib.org/ark:/13030/ft8489p25j
 and [Cigarette Papers (Preface page)]
texts.cdlib.org/dynaxml/servlet/dynaXML?docId=ft8489p25j&chunk.id=d0e67.

Here’s an example of a site that intends to promote and sell its product [Growth Hormone Information Center]
hgh.vespro.com.

As Genie Tyburski, who runs Virtual Chase.com, asks at www.virtualchase.com/quality/assess_objectivity.html, does the source provide a balanced viewpoint?

- Examine the writing style. Is it trying to influence your opinion?
- Examine the advertising. Does it influence the content?

- A lack of objectivity does not necessarily mean the source provides substandard information. Persuasive writers intend to win your favor. They might use good facts and analysis to do so.

Look for a mission or purpose statement on the Web site. Learn to distinguish serious intent from humor.

In television and newspapers there's a fairly clear distinction between what is news content and what is advertising. This area is very blurred on the Web. The Federal Trade Commission has successfully persuaded search engine companies to clearly identify "sponsored ads" and other paid advertising by distinguishing them with different colors and highlighting them in different parts of a Web page. (See banner ad on The Washington Post site on this page.) But what distinguishes advertising from news is still confusing on many Web sites.

Try to determine whether the advertising and information/news are supplied by the same person or the same organization.

CURRENCY/TIMELINESS

One of the Internet's greatest strengths is its capacity for being current and up to the moment. It is also one of its great weaknesses. A Web page is a snapshot in time. Current information is useful, but sometimes gets out of date quickly. Take, for example, weather and a hurricane or tropical storm. The fact that you can track a storm with maps, graphics and projections of where it will hit landfall as it moves along the Florida coast is incredibly useful information. But speculation on where it will land is out of date as soon as the storm comes ashore and hits a specific area. So one of the most

important questions to ask yourself in assessing Web sites is:

- Is the information you find up to date? Is there any way to tell when it was developed?
- Is there a publication date? Is the date clearly indicated? Assessing the timeliness of the information on a particular Web site is a big problem on the Internet. Many search engines offer "date-searching" among their advanced search capabilities, which allow you to set limits and focus your search by different parameters. While it may seem helpful, these tools raise more questions than they answer because dates on Web sites may not be related to when the information was written.

A date may have absolutely nothing to do with when the Web site was created or published. If knowing the date of the information is important to your research, look for indications within the article itself.

Dates on Web sites can refer to

- When the Web site was created
- When the material was published
- When the Web site was first indexed by a search engine crawler
- When the Web site was re-indexed by the search engine
- When material on the Web page was revised
- When a page is set to expire and disappear from a Web site
- When something on the Web site was changed (including photos and graphics).

When a search engine lists the date it found something on a Web site, you have absolutely no idea which of the "dates" listed above it refers to.

Although many news sites do routinely establish the date a story is published, the



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and
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there's a clear
distinction
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content and
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Web.**

Make sure to print out or save the entire Web page to your hard drive to ensure you can locate it again if it disappears or changes online.

date of an article on the Web can lag a few days behind a print publication date.

E-mails tend to include date and time stamps, as do mailing list discussions; however, you should verify them if timeliness is important to your research.

COVERAGE

How comprehensive is the work? How deeply are the topics explored? How many sites are linked to the page, and are they credible sources of information?

Search engines can retrieve pages out of context. Return to the home page to determine the source of information. For more information, see the section on URLs in Chapter 2.

In determining how comprehensive and deep the coverage of a site is, you also should take into account some page limits caused by computers. Is it a password-locked system? For example, The Wall Street Journal newspaper site is loaded with information, but you must subscribe to get access to everything except that day's newspaper stories. So it is difficult to gauge how comprehensive a site it is if you can't get behind the password to find out.

VERIFIABILITY

Keep in mind that, unlike books or magazines, material on the Internet is often in flux. Entire Web sites may appear and disappear without warning. Consider the reliability of your information source and try to verify it with another source, if possible. Also, Web sites or specific Web pages may disappear without notice and you may not be able to refer back to a specific page; this

means you should try to find a stable source of the information you are looking for and then document the information as thoroughly as you can. Make sure to print out or save the entire Web page to your hard drive to ensure you can locate it again if it disappears or changes online.

For more information on evaluating Web site accuracy, see the following sites.

- Virtual Chase Accuracy Page www.virtualchase.com/howto/assess_quality.html. Genie Tyburski, a law librarian and the organizer of this site, has a great checklist to help you assess the quality of the information you find. The checklist can be found at www.virtualchase.com/quality/checklist.html. A printable version with specific examples on all kinds of accuracy and information quality issues can be found at www.virtualchase.com/quality/checklist_print.html.
- The Good, The Bad and The Ugly—Evaluating Criteria lib.nmsu.edu/instruction/evalcrit.html. This page, by a librarian at the New Mexico State University Library, is an excellent starting point for criteria to evaluate pages; it has many interactive examples.
- Evaluating Web Resources www2.widener.edu/Wolfgram-Memorial-Library/webevaluation/webeval.htm. This site is a practical tutorial from reference librarians at Widener University.
- Web Site Evaluation dmoz.org/Reference/Education/Instructional_Technology/Evaluation/Web_Site_Evaluation. The Open Directory also has a good collection of sites that

can help you assess the credibility and accuracy of Web sites. Most are working tutorials that provide examples and useful tools for students and teachers.

- 10 C's for Evaluating Internet Sources www.uwec.edu/library/Guides/tencs.html. Another excellent guide, which gives you 10 criteria to evaluate Web sites: content, credibility, critical thinking, copyright, citation, continuity, censorship, connectivity, comparability and context.
- ICYOUSSEE www.ithaca.edu/library/Training/hott.html. This easy-to-understand critical thinking guide to what you see online is a great first step to understanding and evaluating information on Web sites. It is loaded with good examples and includes interactive quiz material.
- Web evaluation checklist, by Tammy Payton, Loogootee (Indiana) Community School www.siec.k12.in.us/~west/edu/rubric3.htm.

Avoiding Ethnic and Racial Stereotypes

Stories about any issue or event should be free of ethnic and racial stereotypes. That may be obvious, but sometimes that's easier said than done. Journalists, like everyone else in society, can fall into stereotyping traps. But as journalists, we have the responsibility not to perpetuate stereotypes.

According to the Radio-Television News Directors Association's code of ethics, professional electronic journalists should seek to understand the diversity of their community and inform the public without

bias or stereotype. Indeed, the organization has devoted a project, the Newsroom Diversity Campaign, to help journalists and the journalism industry increase diversity both in the newsroom and in their coverage. More information is available at www.rtnda.org/diversity/index.shtml.



Specifically, it is essential to be careful when identifying or characterizing ethnicity or race, which are defined by the Asian American Journalists Association as:

- Ethnicity—the character of a group sharing a racial, religious, linguistic or cultural heritage.
- Race—a group distinguished by genetically transmitted physical characteristics.

Race and ethnicity should be reported only when they are relevant to the story and their relevance is explained in the story. The Poynter Institute, a training organization for journalists, offers the following questions to ask before using a racial or ethnic identifier:

- Is it relevant?
- Is the relevance explained?
- Is it free of codes (i.e., clichés or euphemisms)?
- Are racial identifiers used evenly?
- Should someone of another race/ethnicity be consulted?

The key to avoiding stereotypes is to be precise in your writing. When language is precise and avoids euphemisms and clichés, it tells a story clearly and does not perpetuate stereotypes. Incidentally, the same guidelines apply to photographs, images, graphics and video that accompany the story.

The organizations for journalists of color can provide guidelines that further explain the importance of, and ways to avoid, stereotypes.

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- Asian American Journalists Association handbook, All-American: How to Cover Asian America
www.aaja.org/resources/apa_handbook
- Contacts and Resources for Media Covering Race—from UNITY
www.unityjournalists.org/News/Presskit/contacts.pdf
- National Association of Black Journalists—NABJ Style
www.nabj.org/newsroom/publications/index.html
- The Native American Journalists Association offers two publications: 100 Questions, 500 Nations: A Reporter's Guide to Native America, and Native America: Reporter's Sourcebook. Call (612) 729-9244 for information.
- The National Association of Hispanic Journalists. Call (202) 662-7145 or (888) 346-NAHJ for information.



The Poynter Institute also has many of its guidelines online:

- Racial Identification Guidelines
<http://legacy.poynter.org/diversity/index.htm>
- Reporting on Race Relations-Guidelines & Tips
<http://legacy.poynter.org/dj/060600.htm>
- The 5 W's of Journalism From a Diverse Perspective; Making Connections: A Strategy for Connecting with Diverse Communities
<http://legacy.poynter.org/dj/tips/diversity/aly.htm>
- Transmitting Values: A Guide to Fairer Journalism
<http://legacy.poynter.org/dj/tips/diversity/values.htm>
- The Language of Race
<http://legacy.poynter.org/research/div/diversity.htm> ■

Teacher's Sidebar: Test Your Students' Ability to Determine Web Sites' Credibility

See if these sites seem credible and unbiased. Read the information presented and figure out who's behind the Web site and if the author has a bias.

Example 1. www.notmilk.com

Example 2. web.archive.org/web/20010203132900/bonsaikitten.com/bkintro.html and its gallery site web.archive.org/web/20010405015434/bonsaikitten.com/gray.html

Example 3. HIV/AIDS (This is a different example, and more likely to be believed by kids.)
www.rethinking.org/aids/NYRethinkingAIDSSociety.html
147.129.226.1/library/research/AIDSAFACTS.htm

And for a strange story and the facts on it, go to the following Web site.

www.snopes.com/horrors/madmen/pinprick.htm

Example 4. Advocacy page. 207.188.212.158/ImmigrationIssueCenters/ImmigrationIssueCenters.cfm?ID=1182&c=13