

# Critical Thinking and Visiting Websites: It Must Be Elementary!

James M. Shiveley

A tenet of the social studies profession is that critical thinking is fundamental to good citizenship. The skills of critical thinking include collecting information from multiple perspectives, evaluating it carefully, and then applying new insight and understanding to answer a question or make a decision. In today's wired society, students of all ages have access to virtually unlimited and unfiltered information on the Internet. This makes the teaching of critical thinking skills in the elementary social studies classroom important and timely.

There is no better place to teach the basic steps of questioning, reasoning, and analysis that are part of critical thinking than the elementary school social studies classroom. In the elementary grades, students may begin to use these skills on a daily basis outside of the school, on a home computer. While we may be able to shield students from useless, incorrect, or harmful information within our classroom walls, many of our students are spending much of their time at home on the Internet. Critical thinking skills are far too important in today's technological and multimedia society to delay their introduction until middle or high school.

## Beginning Early

I believe that we should begin in the elementary grades to teach elementary students to think critically while they are using the Internet. This conviction derives from three fundamental assumptions.

First, the Internet is a *powerful teaching tool* for social studies at all grade levels. The Internet has great potential to break down the classroom's physical limitations, to provide multiple perspectives from around the world, and to provide access to wonderful resources like primary documents.<sup>1</sup> The Internet *can* be a wonderful source of information for teachers and students—if it is used wisely.

Second, the vast amount of unfiltered information on the World Wide Web poses a *real dilemma* for social studies teachers. The very characteristics that make the Internet so appealing also set up the medium's major drawback—too much information that is “of the widest range of quality, written by authors of the widest range of authority, available on an ‘even playing field.’”<sup>2</sup>

The traditional practice of asking a librarian for information would put a student in touch with a professional who could help guide his or her selection of sources. Today, a fifth grade student searching the Internet for information about wolves, for example, can not only find information from websites such as that of the Natural History Museum, but may also find “true” stories of werewolves, a new punk band named Black Wolf, and statistics of Wolf, South Dakota, and so forth. Of course, to the fifth grade student, “the werewolf information may be the most interesting. And, since

it is on the Internet, ‘Cool! It must be true!’”<sup>3</sup> That assumption poses a challenge for teachers.

Third, the purpose of the social studies is to help create effective citizens for a democratic and pluralistic society. In this regard, the Internet “dilemma” actually *provides a great opportunity* for teachers to help students develop the skills of critical thinking. The citizen in the age of the Internet needs to be able to evaluate the quality of a website quickly before coming to rely on information found there. When discussing this point, one prominent educator asks, “Isn't the ability to evaluate and discriminate among information sources one of the most valuable skills students can learn in social studies? Shouldn't we be preparing students for effective citizenship by helping them to detect bias and evaluate points of view?”<sup>4</sup> I would say, “Absolutely!”

## Criteria for Quality

There is some good news in all of this. In recent years, educators have identified criteria and created rubrics that the teacher and student can use to evaluate the content of a website (Table 1). A set typically includes criteria such as: authorship/authority; bias/objectivity; content accuracy; timeliness/currency; clarity/quality of writing; and, the intended audience. The teacher could provide a list of these criteria, organized in a rubric, to guide students in their evaluation of a website (Table 2), one rubric per site. Each of these six criteria might have an accompanying set of guiding questions that can help and individual establish a “score” for a particular criterion: for example, 0 points are given if the site in question fails to meet that criterion, 1 point if the site partly meets that criterion, and 2 points if it fulfills that criterion. (I would caution, however, against creating any sort of “summary score” where, for example, one adds up the numbers, then accept the use of a website if the total is, say, greater than twelve. If a website scores low on “content accuracy,” it should not be used, even if the other five criteria receive the highest score of 2.)

A sixth grader turned loose with a list of questions to help him check for such things as “authority” and “signs of bias” would probably not learn much. Here is where the teaching comes in: Students will need to observe someone modeling how to use the rubric while evaluating a website. And students will need multiple opportunities to observe this, to practice the skills they learn, and to receive feedback over time on their performance. I have selected three web pages on the topic of Christopher Columbus and provided a quick description and evaluation of each (Table 3) as an example of the kind of dialog a teacher might have with fifth grade students while modeling how to use the rubric in Table 2.

## Table 1: A Variety of Criteria for Evaluating Websites

Students might use the criteria provided in this article (Table 2) or they might find particularly helpful a visit to one or more of the following sites:

- QUICK, the Quality Information Checklist ([www.quick.org.uk](http://www.quick.org.uk)) demonstrates eight ways to help students check information on websites and presents a “test” case study for practice.
- Multnomah County Library ([www.multcolib.org/homework/webeval.html](http://www.multcolib.org/homework/webeval.html)) has a homework center “KidsPage” that directs students through an Internet evaluation process with a series of straightforward questions.
- American Library Association’s “Great Web Sites For Kids Selection Criteria” ([www.ala.org/parents/greatsites/criteria.html](http://www.ala.org/parents/greatsites/criteria.html)) asks students, parents, and teachers a set of questions similar to those in Table 2.
- Discovery Channel provides a form titled “Critical Evaluation of a Web Site for the Elementary School Level” ([school.discovery.com/schrockguide/evalelem.html](http://school.discovery.com/schrockguide/evalelem.html)).

Teachers might find helpful these additional sites:

- Lake Forest College Library Website ([www.lib.lfc.edu/internetsearch/evalweb.html](http://www.lib.lfc.edu/internetsearch/evalweb.html)) provides guiding questions for four evaluation categories with good and “questionable” examples for each.
- Berkeley Library ([www.lib.berkeley.edu/TeachingLib/Guides/Internet/Evaluate.html](http://www.lib.berkeley.edu/TeachingLib/Guides/Internet/Evaluate.html)) includes a number of probing questions for each category along with additional links to similar sites.
- Ohio State University Library site ([gateway.lib.ohio-state.edu/tutor/lest/](http://gateway.lib.ohio-state.edu/tutor/lest/)) has a helpful tutorial on the web site evaluation process.
- Cornell University Library ([www.library.cornell.edu/okuref/research/webeval.html](http://www.library.cornell.edu/okuref/research/webeval.html)) provides a “webography” of evaluation criteria web sites from around the country, along with an evaluation rubric.

### Preparation

An important, but often overlooked, step one must consider before evaluating websites involves questions that students should ask even before they begin searching for information on the Internet. Burke refers to these as “pre-reading” questions. Such questions help to focus a student’s search (to help the student get beyond the typical “surf till you drop” technique of the novice Internet user). A typical set of pre-reading questions might include:

- What information do I seek? (e.g., information about the Civil War)
- What type of information do I need most (e.g., facts, personal narratives, news stories)
- What will I use this information for? (e.g., persuasive speech, research paper, creative writing)
- What are the terms (key words) I should use to conduct a successful search? (e.g., “war” or “Civil War” will be too broad; “Gettysburg” or “Emancipation Proclamation” are specific, and would yield more appropriate results).

### The Importance of Practice

Give students a chance to apply their critical thinking skills on a regular basis in a controlled setting. It is important that the teacher walk through the evaluation process with the students—not once, but at several times throughout the year. The teacher may want to consider requiring students to include with his or her report a copy of a completed rubric (Table 2) for every Internet site that the student chose to use in writing a report or doing a project. With each successive class project, the students’ proficiency and comfort in using the pre-reading questions and rubric will increase, and so should their sense of discrimination when searching for reliable information on the Web.

### Conclusion

When many of us who are currently teachers were in grade school, we learned how to locate and analyze relevant information, write in a manner that made our point persuasively, and properly reference the material we used. Although the information in a book or a magazine may not always be entirely accurate or unbiased, at least the information in each has been filtered and evaluated to some extent by a publisher (and maybe also editors and reviewers). With the advent of the Internet, a new dimension has been added to the challenge of evaluating the validity of information. Anybody with a computer and space on an Internet server can now post a website and provide information (true or false) on any topic under the sun.

I increasingly observe that much of the information that upper elementary and middle school students use when preparing a homework assignment comes from the Internet, whether we approve of this “search and surf” research methodology or not. Rather than feeling dread when the phrase “http://” or “www” appears in the citations of a student’s report, we should learn how to master the electronic tide rising under us. We can do this by working to provide our students with the critical thinking skills so they can use this powerful resource wisely.<sup>6</sup> There is no better place to begin than in the upper elementary social studies classroom. 📖

### Notes

1. James M. Shiveley and Philip VanFossen, *Using Internet Primary Sources to Teach Critical Thinking Skills in Government, Economics, and Contemporary World Issues*. (Westport, CT: Greenwood Press, 2001).
2. E. Kirk, “Evaluating information found on the Internet” (Johns Hopkins University, 1997). Retrieved from: [www.library.jhu.edu](http://www.library.jhu.edu).
3. S. Baule, “Easy to Find But Not Necessarily True,” *Book Report* 16, no. 2 (September/October 1997): 26.
4. C. Frederick Risinger, “Teaching Social Issues Using the Internet,” *Social Education* 64, no. 7 (November/December 2000): 455-457.
5. J. Burke, “Caught in the Web: Reading the Internet,” *Voices from the Middle* 7, no. 3 (Mar 2000): 15-23.
6. A. Kelsch, “Embracing the Future to Teach the Past: How the Internet Can Enhance Learning in History Classes,” *OAH Magazine of History* 16, no. 3 (Spring 2002): 62-63.

James M. Shiveley is an Associate Professor and Chair in the Department of Teacher Education at Miami University in Oxford, Ohio, where he teaches social studies methods and works in the development of school/university partnerships.

**Table 2: A Rubric for Evaluating a Website**

Evaluation Criteria	Guiding Questions
<b>(1) Authorship/Authority</b>	<ul style="list-style-type: none"> <li>• Who is providing the information and what are the author's credentials or expertise?</li> <li>• Is the author's training and background appropriate and related to the topic?</li> <li>• Does the author provide detailed background information that supports his/her authority and does the author provide means of contacting him/her for verification or follow-up by e-mail, phone, etc.?</li> <li>• Is the site supported or funded by an institution or organization?</li> </ul>
<b>(2) Bias/Objectivity</b>	<ul style="list-style-type: none"> <li>• Does the site reflect a bias (explicit or hidden)? What evidence of this can you provide?</li> <li>• If the site deals with a controversial issue, is more than one side/argument presented? Are link pages with alternative views provided?</li> <li>• Does the site reside on the server of an organization that has a vested interest in the issue (e.g., a political party)?</li> <li>• Are there advertisements located on the web page? How might these influence the author or indicate a bias?</li> </ul>
<b>(3) Content Accuracy</b>	<ul style="list-style-type: none"> <li>• Is the source of the information provided? Are there links to sites to verify the information? Does the author cite references?</li> <li>• Is the content subject to some sort of review?</li> <li>• Does the author provide verifiable statistics or data?</li> <li>• Is the information given as fact or opinion?</li> </ul>
<b>(4) Timeliness/Currency</b>	<ul style="list-style-type: none"> <li>• Is this a topic that is critical to correct information?</li> <li>• When was this information written?</li> <li>• Is the document updated regularly?</li> <li>• When was the last update?</li> </ul>
<b>(5) Intended Audience</b>	<ul style="list-style-type: none"> <li>• For whom is this site intended?</li> <li>• Does the author identify the intended audience?</li> <li>• Is the information appropriate for your classroom or your assignment?</li> </ul>
<b>(6) Clarity/Quality of Writing</b>	<ul style="list-style-type: none"> <li>• Is the text well written? Concise? Is the main point clear? Is the information provided complete?</li> <li>• Does the site contain spelling errors or poor grammar? Are data clearly presented (tables, etc.) and easily interpreted?</li> <li>• Is the text free from jargon, or do terms go undefined?</li> </ul>

### Table 3: Evaluating Websites with a Fifth Grade Class

Three websites about Christopher Columbus are reviewed below. The “Teacher’s Evaluation” entries suggest the kind of verbal critique a teacher might offer to a fifth grade class after projecting a web page up on the wall and working through the Evaluation Rubric (see Table 2), which is applied to each website in six steps, (1) through (6) below.

**Title of Website:** PlanetPapers

**URL:** [www.planetpapers.com/Assets/4317.php](http://www.planetpapers.com/Assets/4317.php)

**Sample of content:** Perhaps the most famous explorer was Christopher Columbus. Born in Genoa, Italy, in 1451 to a weaver, young Columbus first went to sea at the age of fourteen. . .

- (1) **Authorship/Author:** The sponsor is PlanetPapers.com, which is a for-profit company. “Kaileen,” the author, provides her e-mail address, and writes that she is located in “Washington” and likes “sports.” No academic credentials are listed.
- (2) **Bias/Objectivity:** Unknown.
- (3) **Content Accuracy:** Unknown. No notes or references are apparent. Indeed, one of the disclaimers of the site states that, “Because the essays on this site are submitted by other students, they may contain mistakes. However, content mistakes cannot be fixed, because I do not necessarily have in depth knowledge of the subject.”
- (4) **Timeliness/Currency:** A link from this document provides today’s date within a “citation in correct MLA or AP format,” which is not the date that the piece was originally written.
- (5) **Intended Audience:** Students looking for already written essays on a chosen topic.
- (6) **Clarity/Quality of Writing:** Not bad, but uneven depending on which paper is selected.

**Teacher’s Evaluation:** This website, PlanetPapers, appears to be an Internet business that gives away short papers on academic topics and sells longer term papers, often to college students who are looking for someone else to do their work for them. The information in these papers may not be accurate. This site scored poorly overall in almost every category of the evaluation rubric.

**Final Recommendation:** Avoid this one altogether and search for a better site.

**Title of Website:** Renaissance Reflections

**URL:** [home.vicnet.net.au/~neils/renaissance/columbus.htm](http://home.vicnet.net.au/~neils/renaissance/columbus.htm)

**Sample of Content:** In 1493 [Columbus] set sail with 17 ships, exploring PUERTO RICO and the Leeward Islands, and founding a colony in Hispaniola. In 1498 he explored VENEZUELA, realizing that he had found a continent. Because of disreputable conditions in Hispaniola, he was replaced as governor in 1500 and returned to Spain in chains. On his last voyage (1502) he reached Central America. Although he is considered a master navigator today, he died in neglect, almost forgotten.

- (1) **Authorship/Author:** This site is maintained by Neil Shedden, who writes, “The idea for ‘Renaissance Reflections’ came from my African Safari site! I became interested in African History and realised many momentous events occurred in the fifteenth century, that changed the course of Western Civilisation. The invention of the printing press allowed the more rapid spread of knowledge. There could be no Internet without there having been the printed word first! . . . I grew up in England and now live in Australia. I have traveled around Europe and am inspired by the wealth of history, art and architecture there. I will develop this site as a way to learn more about it.
- (2) **Bias/Objectivity:** Viewpoint of the casual historian. There are no indicators of bias or connections to commercial or religious organizations.
- (3) **Content Accuracy:** It’s not clear how accurate this might be as a means to verify the information is not provided. Links to related sites are listed.

(4) **Timeliness/Currency:** Apparently created in 1999.

(5) **Intended Audience:** The intended audience is not explicit, but it appears to be for adults or children browsing the Web who have a passing interest in Columbus.

(6) **Clarity/Quality of Writing:** Clear, but informal.

**Teacher’s Evaluation:** Here is a fellow with a hobby. He does not seem to list his sources of information in a consistent way, but the information can be triangulated through other sources. Some good information could be gleaned from this site, but it should not be one of the main sources of information.

**Final Recommendation:** Find a more scholarly site.

**Title of Website:** 1492: An Ongoing Voyage

**URL:** [www.loc.gov/exhibits/1492/columbus.html](http://www.loc.gov/exhibits/1492/columbus.html)

**Sponsor:** The U.S. Library of Congress

**Sample of Content:** Christopher Columbus: Man and Myth: Columbus’ enterprise to find a westward route to Asia grew out of the practical experience of a long and varied maritime career, as well as out of his considerable reading in geographical and theological literature. He settled for a time in Portugal, where he tried unsuccessfully to enlist support for his project, before moving to Spain. After many difficulties, through a combination of good luck and persuasiveness, he gained the support of the Catholic monarchs, Isabel and Fernando. The widely published report of his voyage of 1492 made Columbus famous throughout Europe and secured for him the title of Admiral of the Ocean Sea and further royal patronage. Columbus, who never abandoned the belief that he had reached Asia, led three more expeditions to the Caribbean. But intrigue and his own administrative failings brought disappointment and political obscurity to his final years.

- (1) **Authorship/Author:** Kathryn D. Ellis, Robert Zich, and Marjorie Winslow Kehoe, Johns Hopkins University, Baltimore, Maryland; Nancy De Sa, Library Services; Lynn Ellis Brooks, Information Technology Services; Gene Roberts, Interpretive Programs Office.
- (2) **Bias/Objectivity:** As a major center of public record, the U.S. Library of Congress has an obligation to provide accurate information and describe controversy where it exists. Alternative viewpoints are offered.
- (3) **Content Accuracy:** Scholars at Johns Hopkins appear to have written most of the text. Multiple links to related topics are offered.
- (4) **Timeliness/Currency:** This exhibit was placed online in 1992 at the Library of Congress; it was converted to a World Wide Web version in April, 1996.
- (5) **Intended Audience:** This resource was made for the general public and students.
- (6) **Clarity/Quality of Writing:** Very clear, but sometimes challenging reading for fifth grade students.

**Teacher’s Evaluation:** This site gets a high score in almost every category and should be considered an excellent source of information.

**Recommendation:** You can feel confident about the information provided here. Additional sites such as this should be sought to provide further information and perspectives.