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Of course it's true! I found it on the Internet: Fostering Children's Online Critical Literacy

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Critically literate Internet surfers have developed thinking skills that prevent them from being duped by online information and experiences.

Few educators would argue that our students' increased use of Web-based resources demands an increase in the development of their critical thinking skills. But just what do we mean by critical thinking skills, or critical literacy? For this chapter, **critical literacy** is defined as a person's ability to actively reflect upon and question the subjective nature of information and beliefs when making reasoned judgments and (if necessary) taking related actions. Such a definition draws heavily upon the social constructivist literacy theory proposed by P. Freire in *Education for Critical Consciousness*. The theory claims that the fostering of reflective language and thought "challenges the status quo in an effort to discover alternative paths for self and social development" (Shor, 1999). Essentially, critically literate Internet surfers have developed thinking skills that prevent them from being duped by online information and experiences; instead of giving the Internet power and control over their online experiences, they use their reasoning skills (the ability to determine the validity, credibility, and authenticity of information) to inform and control their Web-based explorations, decisions, and actions.

Teacher-librarians are no strangers to developing their student's critical literacy skills. For years they have developed tools and school library learning experiences aimed at helping students grapple with the construction and legitimacy of information in books, videos, television shows, posters, and more. These efforts continue today and have been expanded. They have become the backbone of a school's critical literacy program aimed at challenging the notion that "all information on the Web is true." In this chapter, we present practical instructional resources and examples that promote students' Web-based critical literacy skills.

The Need for Online Critical Literacy

"More than two thirds of school aged children retrieving information from the Internet do not check the information for credibility, reliability or authenticity."

—Media Awareness Network,
2001

The Internet has quickly become a resource that teachers and students turn to first. Studies by Ipsos and the Kaiser Family Foundation, both in 2003, report that 88 percent of Canadian and 96 percent of U.S. secondary students have either accessed the Internet for research or for enjoyment. Also, the number of schools connected to the Internet is now 80 percent in Canada and 99 percent in the United States (see Statistics Canada, 2002; National Center for Educational Statistics, 2002). Contributing factors may be government initiatives to improve school Internet access, the

Information Challenges Facing Children Accessing Internet Information

- stereotyping
- violence
- online hate
- unethical views
- harassment
- unreliable information
- invasion of privacy
- pornography
- online crime
- false arguments

estimated 45 billion Web sites from which to find online information (Zakon, 2004), and the dramatic decrease in computer prices.

Unfortunately, a 2001 study from the Media Awareness Network indicates that more than two-thirds of school-aged children do not check Internet information for credibility, reliability, or authenticity; it also reports that one-third of secondary students believe that all Internet information is true. These assumptions and uncritical Web-surfing practices have serious implications when a student accesses Web sites containing “challenging information,” such as sophisticated advertising, negative or destructive values, and incorrect information (see list at left). The need to develop students’ skills in authenticating Internet content is a great impetus for educators to work with online information experts, like the teacher-librarian.

Authenticating Internet Site Information

North American teacher-librarians have been developing children’s abilities to authenticate resources for decades. **Authenticating**, or the ability to discern fact from fiction, is a theme fully developed across most K–12 curricula. (Unlike resource assessment, which is aimed at determining the overall value or significance of a resource, resource authentication is focused specifically on proving a resource’s genuineness or authority.) Nowhere, though, is the ability to determine the truth more essential than in the “wilds” of the Internet. Educators often ask these two questions about authenticating Internet sites:

- “When should teachers begin developing students’ online critical literacy?”
- “How do we teach students how to authenticate Internet information?”

The time to start is now, and the younger the better. In *Growing Up Wired*, the Kaiser Family Foundation reported that by 2003, 70 percent of children were coming to school familiar with using computers and 91 percent were watching two or more hours of television a day. This high exposure to screen media at such an early age indicates that educators can never start too early in developing children’s ability to discern truth from deception.

Fortunately, there are many resources to aid educators in this endeavor. The following pages present three examples of K–12 classroom activities used by teacher-librarians working with teachers in developing students’ abilities to authenticate online materials.

Authenticating Online Information in the Early Elementary Classroom

Most early elementary students are more likely to be learning to read and write printed text at school than learning to critically evaluate Internet sites. Nevertheless, as experienced teacher-librarians know, their Internet critical thinking skills can be developed early through a variety of

Experienced teacher-librarians know that very young children's Internet critical thinking skills can be developed early through a variety of activities and materials.

Picture book narratives with stark contrasts between make-believe and reality:

- Clever Cat* by Peter Collington
- Where the Wild Things Are* by Maurice Sendack
- How I Became a Pirate* by Melinda Long
- Sector 7* by David Weisner
- A Bad Case of Stripes* by David Shannon

non-Internet activities and materials. The development of young children's ability to discern fact from fiction can be accomplished by

- comparing and contrasting fiction and information books
- developing concepts of real and make-believe in narratives
- using drama to explore the difference between imagination and reality
- comparing real and make-believe objects, animals, and so on
- sorting what is real and not real on a video, DVD, television program, or piece of clip art

Developing Concepts of Real and Make-Believe

The following activity is an example of how teacher-librarians use picture books to further develop children's concept of reality and make-believe. I recommend using narratives to begin this exploration because most early elementary children (and probably more important, educators) are familiar and comfortable with print resources.

Clever Cat, by Peter Collington, is an illustrated narrative well suited to helping young children begin sorting concepts of reality and make-believe (more examples are listed in the margin). The story recounts the hilarious adventures of a cat, named Mr. Tibs, who decides to quit being a "dumb" cat and live more like a human being. Children will easily see when Mr. Tibs stops acting like any real cat they have ever witnessed.

First, the teacher reads *Clever Cat* to the whole group. Using chart paper with a "T-chart" drawn on it, the teacher initiates a whole-group brainstorming and sorting of Mr. Tibs's actions into categories that remind them of a real cat or a make-believe cat.

Real Cat	Make-believe Cat
<ul style="list-style-type: none"> • sleeps • waits for mice • catches mice • catches birds • eats 	<ul style="list-style-type: none"> • uses credit card • shops • uses can opener • goes to movies • plays tennis

Children are encouraged to reflect upon what they have seen, heard, and felt a real cat do when determining the reality of Mr. Tibs's actions. The teacher might create a third column titled "not sure" if the children are unsure if his actions fit in either category. Early primary students can sort illustrations of Mr. Tibs's activities; later primary groups can sort text. In small groups or individually, students draw their own "T charts" on paper and finish sorting Mr. Tibs's actions. At this stage, the teacher can easily observe and assist students struggling to sort Mr. Tibs's actions into real or make-believe categories.

To reinforce concepts of reality and make-believe, it is wise to repeat this sorting activity for a variety of narratives where the character or plot shifts through obvious states of reality and make-believe. Some children have difficulties determining if a narrative context or character is real—for example, the Tooth Fairy and Santa—so the concepts of reality and make-believe should be revisited frequently throughout the year. Ways to successfully reinforce these concepts at the early elementary level are listed below.

Tips for Separating Reality and Make-Believe in Picture Books

Do not rush students through sorting process.

Encourage student talk when negotiating reality and make-believe.

Link the reality of characters' actions with students' sensory experiences.

Repeat this activity using several illustrated narratives.

Always provide a space on the page for "not sure" or "both" items.

Reinforce concepts of reality and make-believe throughout the year.

Have K–1 students sort images of reality and make-believe.

Once primary students are comfortable in determining reality and make-believe in narratives, teachers and teacher-librarians can encourage them to determine the reality (truths) or make-believe (deceptions) in resources, such as drama and videos. At the same time, these students can view and sort digital Internet images and animations into real, make-believe, and not sure categories. Examples of Web sites containing primary-level images of real and make-believe subjects are

- *Sesame Street*: www.sesamestreet.com
- *Blue's Clues*: www.nickjr.com/home/shows/blue/index.html

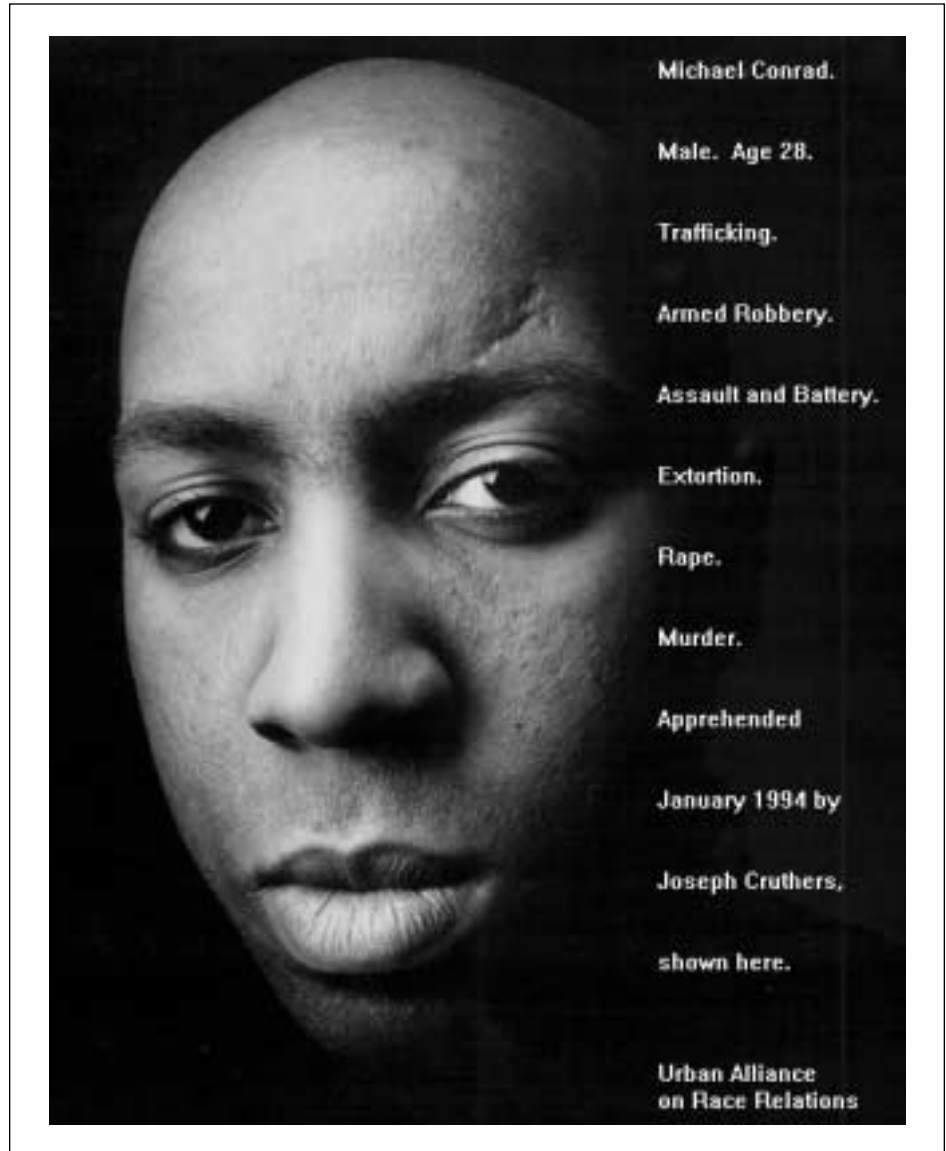
The thrust of these activities is twofold. First, they serve to begin developing young children's awareness that they cannot always assume that information is true or real—an understanding essential to their current and future online explorations. Second, they demonstrate the mentoring role of the teacher-librarian in introducing and reinforcing concepts of authenticity to and with both students and classroom teachers.

Authenticating Online Information in the Upper Elementary Classroom

This activity could be used in a Grades 6 to 8 Social Studies unit aimed at assisting students in identifying racial stereotypes in online information. It explores the degrees in which online and print newspapers can use racial stereotypes to distort a crime report's truth. It is adapted from a lesson plan titled "Perceptions of Race and Crime" by J. Talim, for the Media Awareness Network.

Begin by displaying the Urban Alliance of Race Relations photo. Talim suggests asking students, "What is the message of this public service campaign? What stereotypes and assumptions does this ad rely on? From where do we get these beliefs? How does this ad counteract them? Is this an effective ad? Why or why not?" The intent of these questions is to initiate discussions on the use of racial stereotypes to substantiate one's argument.

Urban Alliance on Race Relations anti-racism poster located at http://www.media-awareness.ca/english/resources/educational/overheads/crime/policeman_psa.cfm



Next, write the following crime news headlines and reports on the chalkboard:

- Detectives describe man fleeing crime site as a 30-year-old Latino male.
- Black woman questioned in red light district murder.
- Police mourn loss of fellow officer slain by Asian street racers.

Discuss with the students what is similar about all three reports. Ask, "Is it necessary to mention a criminal's race? What are reporters trying to

Major Online North American Newspapers

USA Today
www.usatoday.com/

New York Times
www.nytimes.com/

Globe and Mail
www.globeandmail.com/

Los Angeles Times
www.latimes.com/

Boston Globe
<http://www.boston.com/news/globe/>

National Post
www.nationalpost.com

CNN
edition.cnn.com/US/

do by mentioning a criminal’s race? Does changing the criminal’s culture or skin color affect the report? Why or why not? One sure way to identify if racism is in a news report is to replace the culture or skin color of the criminal with that of the mainstream culture in our community. Does this change the intention of the message?”

Note: If your class requires more activities to heighten their awareness of stereotypes in crime reports, see “Perceptions of Race and Crime,” by J. Talim, Media Awareness Network (2004). It can be accessed at http://www.media-awareness.ca/english/resources/educational/lessons/secondary/crime/race_and_crime.cfm.

Have students work in groups of two or three to search and print off a variety of crime reports from both online and offline (printed newspaper) news sources (see the list of online newspaper resources in the margin). The searching and analysis of reports should be spread over a week or two, research should go back in time one month, and each group should collect at least 20 unique online and 20 unique offline crime reports. Using the compare/contrast chart below, students then analyze and sort the online reports according to racial identification: (1) None, (2) Relevant, and (3) Unnecessary.

None	Relevant	Unnecessary

The numbers of articles for each column can be graphed for each online newspaper as well. Next, have the students use the T-chart to sort, compare, and contrast the types of racial identification in printed newspaper crime reports. Prompt the class to discuss the types of racial identification noted in crime reports in general and how online newspapers can be encouraged to report crime ethically. Are there differences between online and offline newspaper reporting?

Letters to the editor or posters could develop from students’ findings; alternatively, the class could be encouraged to compare trends in racial identification in news reports with clips or transcripts of TV news reports.

Authenticating Online Information in the High School Classroom

Most 14- to 18-year-old students are learning to be independent and proficient when searching Web resources for school projects; however, if not taught some key critical thinking tools and procedures, students may

report fraudulent Internet information as the truth. This activity introduces Grades 8 to 12 students to the concept of Web page duplicity and presents a tool for revealing Web site spoofs and impostors.

Display the Web site addresses listed below, and ask students to predict which of the URL extensions—.org, .biz, .edu, .gov, .info, .net—would most likely link to the “real” United States of America White House Web page. Ask students to rank the sites from (1) the most likely to be the page to (6) the least likely. Ask students to explain why they ranked some pages more likely to be the real White House homepage over others. Using a list of common domain extensions, ask students to try to define each extension and discuss how an URL’s extension adds to understanding of a Web site’s content. Have students visit **www.whois.sc**. This is one of several domain name search engines that retrieves Web site content information. Students then key in each of the White House URLs and retrieve the site’s vital statistics. Note that the description for **www.whitehouse.net** indicates that the site is a “Spoof on the formalities of the White House and its inhabitants” and the description for **www.whitehouse.gov** is “the official web site for the White House and President W. Bush, the 43rd President of the United States.” Have students enter each URL into the “Whois Source” search engine to check the description of the remaining White House URLs to determine each site’s agenda.

Common Domain Extensions

- .org** non-commercial organizations
- .biz** business organizations
- .com** commercial organizations
- .edu** educational organizations
- .gov** government
- .info** information organizations
- .net** network-related companies

Which one of these URLs points to the official White House page of the United States of America?

www.whitehouse.org	www.whitehouse.gov
www.whitehouse.biz	www.whitehouse.info
www.whitehouse.edu	www.whitehouse.net

The many U.S. White House–like Web sites offer educators one of the most fertile grounds for developing their students’ ability to use domain name search engines; however, several Canadian and international examples can also provide practice.

For example, students may visit **http://paulmartintime.ca/** and **http://pm.gc.ca** to determine which site presents the official views of Canadian Prime Minister Paul Martin. Note that, in this case, the Whois search results in domain information that does not clearly state which site is official and which satirical. Students can enter the owner’s contact information to conduct a Google search and begin determining whose perspectives are behind each of the Web sites.

Another example is to have students use the **www.whois.sc** domain search engine to determine which of the following URL extensions—.va, .ca, .it, .us, .com, .net, .org, .info, .biz, and .us—is the authentic Vatican Web site.

Web Site Resources Focused on Developing Students' Online Critical Literacy

A quick visit to any of the following Web site spoofs will help illustrate the enormous efforts Web page designers will go to when developing perceived authenticity into their sites.

- www.thehammer.ca (Satire of print and online Canadian and international news)
- www.golfcross.com (New Zealand site promoting elliptical golf balls)
- www.theonion.com (Political satire of print and online U.S. and international news)
- <http://www.improb.com/airchives/classical/cat/cat.html> (Research that suggests felines have an aversion to bearded men)
- <http://www.dhmo.org/> (Research-based site selling the benefits of the chemical H₂O).
- <http://www.lakelandschools.org/EDTECH/webdetechtor/SaveThePacificNorthwestTreeOctopus.htm> (A site dedicated to saving the Pacific Northwest Coast tree octopus—complete with clear photographs).

A visit to one or more of these sites also helps illustrate the wide variety of techniques and tools that Web page designers employ in an effort to build authenticity.

The activities presented in this chapter are only three examples of many that teacher-librarians employ in an effort to help K–12 students become aware of these techniques, as well as giving students their own tools for determining whether a Web site is authentic or not. The following list of online resources and instructional tools is aimed at helping teachers and teacher-librarians in nurturing a set of diverse online critical literacy skills that complement and go well beyond those presented in this chapter.

Web Sites for Developing Children's Online Critical Literacy

Early Elementary

Surfing safely on the Internet:

<http://www.siec.k12.in.us/~west/proj/surf/surfless.htm>

Teaching TV:

http://www.media-awareness.ca/english/resources/educational/lessons/elementary/television_radio/teaching_tv_storytelling.cfm

Elementary

The Internet Detective:

<http://sosig.ac.uk/desire/internet-detective.html>

Quality Information Checklist:

<http://www.quick.org.uk/menu.htm>

Jim Kaoun's Five Criteria for Evaluating Web Pages:

<http://www.library.cornell.edu/olinuris/ref/webcrit.html>

For Educators

Evaluating Web Pages (Widner University):

<http://www2.widener.edu/Wolfgram-Memorial-Library/webevaluation/examples.htm>

Kathy Schrock's Online Evaluation:

<http://school.discovery.com/schrockguide/eval.html>

Trinity College, Evaluating Websites:

<http://library.trinity.wa.edu.au/library/study/evaluating.htm>

Media Awareness Network:

<http://www.media-awareness.ca/english/teachers/index.cfm>

The suggested practical activities and Web sites given in this chapter illustrate how authenticating online information can be taught as early as Kindergarten and honed into a keen skill by graduation in Grade 12. Authenticating information, though, is only one critical thinking skill needed. Examples of other online critical thinking skills include

- *making ethical uses of information*. In this case, students are encouraged to reflect upon their online understandings and make decisions and take actions that seek to make the world a better place to live. For example, writing letters to national/local representatives with suggestions for sharing wealth and resources.
- *determining false arguments*. An exploration of the site *Truth, Honesty, and Justice* (<http://www.truth-and-justice.info/spinwar.html>) will help students become more aware of politicians' ability to weave false arguments in an effort to persuade their electorates.
- *"reading" advertising*. A review of spoofs on common advertisements (see <http://www.adbusters.org/spoofads/>) helps students understand social stereotypes and the promotion of negative social values.
- *recognizing bias*. Comparing and contrasting Jon Scieszka's *The True Story of the Three Little Pigs* with the original "Three Little Pigs" provides students with experiences in recognizing perspective, stereotypes, and bias in newspaper and political reports.

Fortunately, most schools have an expert in their midst—the teacher-librarian—who is trained to work with classroom teachers and students in developing these, and many other, critical literacies.