

Digital Literacy NOW!

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While attending the National Educational Computing Conference in Seattle during late June 2003, during several sessions I viewed digital photographs of President George Bush reading to elementary age students. One photograph was humorous, showing the President holding a book upside down as he read to children, seemingly oblivious of his error. Upon returning to Texas following the conference, I found this photograph online and not only showed it to others, but also included it in a short video slideshow I set to music, focusing on the challenges of providing authentic and engaging instruction in our era of high stakes testing.

Appalled and even embarrassed the following week, I learned from someone who viewed my video that this photograph of our President was not authentic. In fact, it was a "doctored" photograph, carefully manipulated in PhotoShop or another image editing program. The image manipulator carefully inverted the cover of the book, so only upon close inspection (if you have seen or have an accurate copy of the book's front and back covers) can anomalies in the photograph be identified. This image of President Bush reading and other press photographs from the same day the actual "doctored" photo were taken are available on the Urban Legends Reference Pages, on www.snopes.com/photos/bushbook.asp.

Rarely does a week go by when someone I know does not forward me a dire warning about a virus that has infected my computer and needs to be manually removed (the sulfnbk.exe warning was an example, detailed on www.symantec.com/avcenter/venc/data/sulfnbk.exe.warning.html), a quotation attributed to someone but without an accompanying website to cross-reference it, or an offer for some type of internet deal or get-rich quick scheme. Thankfully, the spam mail filter I have used with satisfaction over the past year (Spamfire, available on www.matterform.com) prevents many of these messages from ever reaching my personal inbox. The proliferation of these messages, however, and my own naive susceptibility to image manipulation like the President Bush reading photograph, point to a clear conclusion.

Digital literacy IS a necessity and NOT an option. It is a skill set needed by many in our society, not merely a select few. It cannot and must not be

reserved only for the young, who apparently "have no fear" when it comes to technology. Both digital immigrants (the older generation) as well as digital natives must learn, practice, and continually strive to improve their digital literacy skills. If the Internet represents a digital frontier, we are its pioneers, and the challenges we will encounter on our "virtual trail drives" are likely to be numerous as well as unpredictable. We need to be prepared.

WHAT IS DIGITAL LITERACY?

A large number of writers have addressed the idea that the very definition of what it means to be "literate" in the early twenty-first century is markedly different from what it was even ten or twenty years ago. Jamie McKenzie (www.fno.org) has accurately observed that literacy is an evolving concept that mirrors the expanding information needs of our society. As our need for and uses of information have grown and changed, so has the very definition of what it means to be a literate individual.

Where do students and adults today turn when they have a question that requires an outside resource? Very often, the first choice is NOT the library. It is the Internet. And how do many of these individuals communicate on a daily basis? More often than ever, it is not with pen and paper. It is with email. Web browsing and email communication are becoming nearly transparent mechanisms for information retrieval and exchange within many segments of our twenty-first century society. Yet, the literacy skills most often addressed and tested within schools are the textbook-based literacies of the previous millennium.

Do not misunderstand: I agree that students need to learn reading, writing, and mathematics skills and concepts much as they have in previous generations. A skill set based on textbook-based literacy is insufficient, however, to meet the realities and challenges of twenty-first century communication. My personal experiences at NECC 2003 and the daily witness of my email inbox are simple testimonies to this fact. As educators, parents, community members and twenty-first century learners, we need digital literacy NOW. This is not an option; it is not a hypothetical situation. It is a real need, and teachers in classrooms across America need to step up to the plate.

BE WARY OF ONLINE CLAIMS

Although the process of creating webpages on the Internet still holds some mystique and represents a formidable challenge in the eyes of some teachers, it is getting easier every day for anyone to become a global publisher. Websites like Schoolnotes (www.schoolnotes.com) allow teachers to update websites with information about their class by simply logging in with a username and a password; no special software skills are required. Websites like Blogger (www.blogger.com) allow anyone to keep detailed online journals about virtually any topic, and receive feedback from readers who could be next door or literally on the other side of the world.

Recalling the nature of former students who were classroom "pranksters," in this environment of prolific publishing it should not come as a surprise that hoaxes and jokes abound. For some, however, it can be surprising to learn how naive many adults and young people are about believing things they read in email or online. Many of these messages that deserve critical examination are not at all funny. Some include clear bias and distortion or misrepresentation of the facts to further a particular aim. Others seek to rewrite history or confuse the minds of less-critical or informed readers.

Some cases in point are the inaccurate or misleading "biography sites" about Rev. Martin Luther King, Jr. which abound on the Internet. Although the results of search engine queries vary day by day, the result of a basic Google search in September 2003 for the words "truth about martin luther king jr." brought up at least 4 revisionist / false websites about Dr King in the first 10 results. Many of these sites initially appear to be viable academic sources, but closer scrutiny can invite surprise as well as a clearer picture of the site author's motives.

BACKTRACK: CHECK THE SOURCE

One of the better known examples of a disinformation website is www.martinlutherking.org, titled "Martin Luther King, Jr. -- A True Historical Examination." On initial glance, the website appears legitimate, but once visitors begin to read it, the allegations of Dr. King as a womanizer, communist, and avid plagiarizer stand out quickly. David Warlick, in Raw Materials for the Mind: Information, Technology, and Teaching & Learning in the 21st Century, includes a superb section about helping students evaluate websites and their content for reliability, credibility, and perspective. Warlick suggests using a technique he calls "backtracking" to find the original source of Internet content. In the case of

the aforementioned Martin Luther King Jr. website, this can involve entering the full URL (website address) author and/or webmaster's email address "domain."

On the "Civil Rights Library" page, a link to "A Letter from the Webmaster" (www.martinlutherking.org/letter.html) includes an email address at the bottom. Email addresses have a specified syntax, like a sentence, which is: username@domain.domain-type. When individuals use a yahoo or hotmail account, this method does not reveal a lot about the individual, because anyone can sign up for one of these free email accounts. When an email address is from another registered domain, however, it can be enlightening. In this case, the domain of the webmaster's email address is stormfront.org (www.stormfront.org), a "White Nationalist Resource Page" espousing beliefs and values of white supremacists.

"Backtracking" is also referred to as "truncating a website." This means deleting a webpage name or directory name in the address/location bar of a web browser, and then pressing the "enter" or "return" key to view a parent page of the webserver hosting the webpage being scrutinized. The second Google search result for the previously mentioned "truth about martin luther king jr" query was www.everystudent.com/features/truth.html for me. Backtracking or truncating this website can include deleting the "features/truth.html" portion of the address and viewing only the root domain name: www.everystudent.com. At the bottom of the page, after following a link titled "about this site," viewers can learn the website is sponsored by the Campus Crusade for Christ organization. Students need to understand the importance of identifying the source of Internet information, so the relative value of the information can be determined based on several factors.

Internet users likely come across multiple emails each week containing questionable claims or information. It is important to be wary as well as savvy when it comes to believing and forwarding information obtained online. Backtracking is a skill every Internet user needs to use.

USE INTERNET TOOLS TO VERIFY HOAXES

Many Internet sources exist for testing the validity or falsehood of an email message about a supposed virus or get-rich-quick scheme. Two favorites are the Symantec Virus Encyclopedia and Snopes.com.

Symantec is the company authoring and selling one of the most widely-used Internet virus protection software programs: Norton Antivirus

(www.symantec.com). Symantec also maintains an extensive online encyclopedia of known virus threats as well as hoaxes. By linking to the main Symantec website, visitors can find the virus encyclopedia by clicking SECURITY RESPONSE and then clicking VIRUS ENCYCLOPEDIA at the bottom of the page under REFERENCE AREA. The direct link is <http://securityresponse.symantec.com/avcenter/vinfodb.html>. By typing in the subject line text of a suspicious email message or part of the message body text, authentic virus warnings and hoaxes can be identified.

Snopes.com is the "Urban Legends Reference Pages," and permits both keyword searches and category searches on a wide variety of topics. The "top searches" link on the homepage displays the top twelve searches for everyone currently using the snopes website (www.snopes.com/info/topsearches.asp). With the Symantec virus encyclopedia, Snopes.com can be a powerful ally in a digital literacy toolkit for differentiating fact from fiction.

SEEK DIFFERENT VOICES AND PERSPECTIVES

The proliferation of websites on the Internet can seem like both a blessing and a curse. The sheer volume of information is overwhelming, yet the choices it provides can be empowering as well. Fortunately or unfortunately, as humans we are often creatures of habit. Many students and adults can form habits about Internet use as well as anything else, and not all habits are productive.

One habit many students may need help changing is the tendency to turn to a single source (website) for answers to their questions. I have met several librarians who want to ban the use of "Ask Jeeves for Kids" (www.ajkids.com) in their library because it seems to be the only place students will go to perform Internet queries. Many other search engines are available designed specifically for student use, which can yield more relevant as well as diverse results than Ask Jeeves for Kids. A good collection of suggested student search sites, homework assistance, reference, and online game sites for students is available on www.educ.ttu.edu/links/.

Students and adults need to understand the inherent subjectivity of all writers and the tendency to write with bias. However, they no longer have to be confined to the authors and opinions contained within the four walls of their school library. Studies of international current events provide a case in point. Local and regional newspapers may or may not be available

online, but USA Today (www.usatoday.com), CNN (www.cnn.com), and Fox News (www.foxnews.com) are and are free. Some online papers like the Los Angeles Times (www.latimes.com) and the New York Times (www.nytimes.com) have opted for a membership / login required format, which is less conducive to free-flowing student research. United States news agencies do not have a monopoly on Internet news publication. The BBC (www.bbc.co.uk) and the Sydney Morning Herald (www.smh.com.au) are examples of online English newspapers with often alternate views and coverage of world events compared to US news sources.

EMPOWER STUDENTS TO FIND POSITIVE WAYS TO CHANNEL CREATIVE DIGITAL INTERESTS

Many students have a great deal of interest in the digital landscape offered by the Internet and email, because the landscape is inherently interactive and participatory rather than passive. There is a strong need for media literacy when it comes to television viewing as well, but as Don Tapscott observed in his book *Growing Up Digital* (www.growingupdigital.com), students in the "Net Generation" who have a high degree of digital literacy can naturally learn to be critical consumers and wary netizens.

Classroom teachers and administrators should strive to find ways to help students constructively channel their natural interests and aptitudes with digital tools. After-school web teams which design and create webpages for the school site or publish a regular online newsletter, classroom assignments that encourage webblogging, and after-school or evening technology training sessions involving both adults as well as students working together to learn new skills are all examples of promising possibilities.

We all need digital literacy NOW. Our need for this literacy and the need for the students we teach to possess it and refine it will only continue to grow in the months and years ahead. We live in an exciting age, full of opportunity but also fraught with pitfalls. We need a compass as well as human guides, because the experiences of our journey will certainly include danger as well as excitement. The prospect of leading this trek may seem fearsome to some educators, but the path we must follow is not for lone rangers. We ride on this cattle drive together, and the students are not the cows—they are our fellow cowboys, cowgirls, wranglers and explorers who make up our classrooms and our communities. We are digital pioneers in a vast landscape of opportunity, and while a cattle prod may

seem like the most useful tool to some veterans, the savvy will recognize their own willingness to learn new ideas and techniques is the most precious commodity in their saddlebag.

Wesley Fryer cannot definitively say whether he is a digital native or a digital immigrant, but he is very enthused to live in our twenty-first century society where so many have been enabled to publish their thoughts and ideas for a global audience. His weblog is online at www.wesfryer.com/blog.

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