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Judging the Credibility of Internet Sources: Developing Critical and Reflexive Readers of Complex Digital Texts

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> More and more, our impressions of the world derive not from the observations we make both as individuals and as members of a wider community but from elaborate systems of communication, which spew out information, much of it unbelievable….[1]

The "elaborate systems of communication" that historian Christopher Lasch observed nearly three decades ago have intensified in complexity and scope. The explosion of the Internet and wireless technologies has resulted in a dizzying proliferation of texts. Teachers and students are but a keystroke or mouse click away from a limitless stream of video clips, blog entries, news articles, social networking messages, and more. Social studies teachers can draw on disciplinary tools, such as strategies for sourcing, contextualizing, and corroborating texts, to help students critically analyze and evaluate sources of information.[2] Yet, we believe many web-based texts pose unique challenges that outpace these strategies. They combine varied text structures and formats, such as non-linear hypertext, multimedia, and interactive texts that typically mix images, music, graphic arts, video, and print. Moreover, ease of distribution and access of web-based texts brings issues of credibility to the fore, and our primary goal in this article is to consider how educators can respond to these credibility challenges. We do this with a close look at two digital texts, a "denial" text about climate change and a "conspiracy theory" text about September 11, 2001. We employ two metaphors, *excavation* and *elevation*, and two sets of key questions teachers and students can use to evaluate these kinds of complicated web-based texts.

"Research & Practice," established early in 2001, features educational research that is directly relevant to the work of classroom teachers. Here, I invited two 'new literacies' scholars to consider the difficulty students face when judging the credibility of sources found on the Internet. They recommend teaching students to use two sets of guiding questions, one focused on the text at hand and the other reflecting back on the reader.

—Walter C. Parker, "Research and Practice" Editor, University of Washington

Challenges

Determining the credibility of Internet sources of information is challenging on at least three fronts: the relative ease of creating and disseminating digital texts on the web, the lack of a vetting process for many of these postings, and the fact that the authorship of Internet texts as well as authors' credentials can be difficult to determine. This makes it more difficult to source and contextualize texts by examining authors' purposes, biases, and perspectives or their social, cultural, and political positions.

Corroborating web-based texts by comparing them to other accounts is also challenging because the Internet is "a self-sustaining reference system," in which readers must rely on other information within the network to determine credibility.[3] This can result in an "echo chamber" effect where particular ideas are reinforced simply through repetition and remain unchallenged by different viewpoints.[4] Moreover, the sheer volume of information sources at

A member of a team of Cambridge scientists trying to find out why Arctic sea ice is melting so fast, walks on some drift ice 500 miles (800 km) from the North Pole, September 3, 2011. Wildlife, including polar bears and walruses, depend on the sea ice that floats on the Arctic Ocean for survival. Despite the overwhelming consensus by scientists that climate change is caused by human activity, skeptics continue to make claims that global warming is a hoax. REUTERS/Stuart McDILL

students' fingertips makes it more likely that they will employ the mechanisms of selective exposure (choosing sources that align with their pre-existing beliefs) and selective perception (interpreting events in line with those beliefs) in an attempt to manage the volume.[5] We are also becoming more aware of the ways Internet browsers and programs, such as Google and Facebook, reinforce and intensify selective exposure and perception by personalizing our Internet experiences.[6]

It is further difficult to judge the credibility of web-based sources because many texts on the Internet combine different modes of communication—linguistic (through print), visual (via images and graphics), aural (through audio), gestural (through video), and numerical (through graphs and tables). The modes in any one multimodal text, taken together or independently, convey particular information that can connect to students' prior knowledge and experiences in different ways and reference other texts. Thus, the multiple modes in any one text might need to be analyzed individually as well as evaluated as a whole to determine the credibility of the source.

With these challenges in mind, let's now turn to two web-based texts, one about climate change and one about September 11, 2001. Then we'll consider how two metaphors, excavation and elevation, and two sets of key questions can guide teachers and students to critically evaluate these texts.

Denial Text about Global Warming: 20/20 Segment Entitled "Give Me a Break"

"Give Me a Break" is an eight-minute video clip from the television news program, *20/20*. The main claim in this video is that the debate about whether climate change is being caused by human beings is "not over." The reporter, John Stossel, argues that climate change is not occurring at such a rapid pace, nor is it mainly the result of human intervention. Stossel impugns a key claim in the movie, *An Inconvenient Truth*, which asserts that

increased amounts of carbon dioxide levels cause higher temperatures. Stossel posits a counterclaim, contending the inverse is true (higher temperatures cause increased carbon dioxide levels). Stossel then convenes a small group of scientists who oppose the consensus in the scientific community that climate change is primarily being caused by humans. This group of scientists levels a critique of the Intergovernmental Panel on Climate Change (IPCC), the leading authority of climate scientists across the globe. Stossel calls the group "so-called scientists." Stossel concludes the clip with his main claim: "So when the Nobel Prize winner (Gore) says, "The debate is over," I say, "Give me a break!"

Loose Change, a "Conspiracy Theory" Internet Video

Loose Change was written, directed, and narrated by three men in their early 20's. They produced the video for $6,000 using a laptop computer.[7] Between 2005-2009, several versions of *Loose Change* were released. The 2nd edition (2007), our focus here, runs approximately 90 minutes in length. The movie employs narration over still photographs, news footage, video, computer-generated simulations, diagrams, and models. There is an underscore of hip-hop audio tracks. The film includes considerable video content from CNN, NBC, and FOX News along with interviews with eyewitnesses and so-called experts. The creators stitch together a range of claims and evidence to create a narrative that challenges viewers to question government and media accounts of 9/11. Historical, scientific, mathematical, and documentary evidence is marshaled to support these claims: (1) Individuals within the U.S. government or with strong links to government officials knew about the impending attacks and did nothing to stop them since they would serve as a catalyst for military and imperial expansion; (2) The collapse of the World Trade Center buildings was the result not of the airplane crashes but of explosives planted in the building; (3) A commercial airliner did not crash into the Pentagon; (4) The public has been misled about what really happened to the plane that crashed in rural Pennsylvania; (5) The U. S. government misled and misinformed the American public about 9/11.

Excavation and Elevation

Two metaphors are particularly useful in responding to the challenges of reading and understanding texts like the *20/20* segment and *Loose Change*: excavation and elevation.[8] Excavation involves careful inspection and analysis of individual texts while elevation entails the evaluation of individual texts on the broader terrain of a text's production, dissemination, and consumption.

Excavation is close and careful analysis of, or "digging into," a text. This involves strategies like predicting, visualizing, asking questions, determining main ideas, making inferences, summarizing, evaluating claims and evidence, distinguishing fact from opinion and specific details from generalizations, identifying inconsistencies in a text, detecting errors in reasoning or logic, and discerning the credibility of a source. The latter involves asking: Who is the author? What are her/his credentials and allegiances? Who sponsors the text or website? Excavation practices also involve critical investigations of a text, such as identifying included and omitted perspectives and identifying techniques authors, illustrators, and web designers employ to influence readers (e.g., loaded words, use of images, etc.).

Elevation situates a text in broader contexts. These include the disciplinary, cultural, historical, ideological, social, and economic contexts that shape the ways a text or collection of texts is produced, distributed, and consumed by readers. Carmen Luke helps capture elevation practices, describing how this kind of reading entails developing "connection codes" that help us see or understand a particular text in relationship to one's own beliefs, values, and knowledge, to other texts and ideas, to different contexts, and to different disciplines and genres.[9] Thus, elevation practices can be critical investigations of how and why texts are created, legitimated, and disseminated.[10] Elevation also has readers consider how and why different people might be affected by the text (e.g., who benefits, who is marginalized, etc.) or find the text compelling for particular reasons.

Applying Excavation and Elevation

Excavation reveals the ways Stossel attempts to support his claim that human activity might not be the cause of climate change. He interviews children to suggest how they have been brainwashed into fright and despair, mainly by Al Gore, to believe the world is ending because of climate change. Excavation also reveals how Stossel relies on a small group of scientists to impugn the rigor, relevance, and ethics of the IPCC. And it reveals that Stossel does not deal with calls for recalibrating our energy needs and consumption patterns with a consideration of alternative, renewable energy sources.

Elevation helps the reader see how Stossel uses the group of scientists in ways that tap into popular misconceptions about how science and scientists work. Consider the misconception that deals with doubt and uncertainty. While doubt, coupled with healthy skepticism, is fundamental to scientific inquiry and knowledge building, it makes science "vulnerable to misrepresentation, because it is easy to take uncertainties out of context and create the impression that everything is unresolved."[11] In other words, "normal scientific uncertainty" is used to sabotage "the status of actual scientific knowledge."[12] This is the tack Stossel takes. He employs the small group of scientists he has assembled to suggest that any opposing views about human contributions to climate change means

that we cannot accept the consensus about the human influences to climate change.

Moreover, an elevated perspective helps us understand how the news media, such as *20/20*, is susceptible to "doubt mongering" and suppression of scientific evidence. One reason is that their goal is often "balance" in their accounts, which they often aim to attain by presenting two sides of an issue, as in a debate.[13] The problem is that this striving for balance in a news report leads to "informational bias" because minority views, including extreme minority views, can receive undeserved legitimacy, which, in turn, can impede action called for by the established scientific evidence. There is a long history of this in the United States with a number of key issues (e.g., tobacco smoke, acid rain, DDT, the ozone hole, and global warming) in which timely, decisive action was thwarted because minority views were awarded undeserved levels of legitimacy.[14]

With *Loose Change*, excavation would involve a systematic analysis of the video's main claims and use of evidence to substantiate these claims. For example, excavation would require analyzing and evaluating specific eyewitness, scientific, and mathematical claims and evidence used to support the video's overarching claim that an airliner did not crash into the Pentagon. And again, this work requires identifying what is omitted in the text, including counter arguments and contradictory evidence. Excavation also entails a critique of the qualifications of the creators of the video.

Elevation helps the reader classify *Loose Change* as a "conspiracy theory." Although conspiracy theories are largely discredited by historians and scholars, they have become commonplace in popular culture and mass media.[15] Historian Richard Hofstadter concluded that conspiracy theories produce "heroic strivings for evidence to prove that the unbelievable is the only thing that can be believed."[16] Similarly, political scientist Michael Barkun observes that conspiracy theories are often based on "elaborate presentations of evidence," and they use evidence and source citations similar to those found in conventional scholarship.[17]

Teaching Key Questions

Responding to credibility challenges requires focused instruction. There is a growing body of research suggesting that students can be taught to use processes of critical analysis through explicit teaching, modeling, and the use of key questions.[18] Based on this research, we recommend the use of key or guiding questions to critically evaluate complicated multimodal texts on the Internet. We think of them as lenses because they guide students' viewing of texts, particularly video. We developed two lenses for multimodal video texts. One focuses on *textual critique*, or the critical analysis of the video, including analysis of the techniques authors use to influence readers/viewers; the other focuses on *reader reflexivity*, which centers on a self-evaluation of what readers/viewers bring to the video—their beliefs, biases, values, and emotions.

Lens 1: Textual critique

- When, where, and why was the video produced?
- What does the creator of the video want me to think, believe, or do?
- What techniques does the creator use to influence me? Are they convincing? In what ways? Look for the use of loaded terms, emotive images, combinations of different modes and texts, etc.
- How might immediate and broader contexts have shaped the video's production? Consider local, national, global, historical, social, cultural, and economic forces.

Lens 2: Reader reflexivity

- What prior knowledge, personal experiences, and other texts help me make sense of the video?
- What additional thoughts or questions do I have about the video? What additional information is necessary to understand the video?
- What affects the way I read this video (e.g., prior experiences and learning; my values, opinions, emotions; my background and culture)?
- How might people from different backgrounds and with different experiences read this video (e.g., from different ethnic, cultural, national, age, gender, political perspectives)?

These two lenses involve both excavation and elevation. The textual critique lens calls for closer analysis of claims and author techniques. It also asks questions about contexts. The reflexivity lens calls for careful analysis of what a reader brings to a text as well as a strategic stepping back from the texts to consider how others with different backgrounds and experiences might engage with the text.

Engaging these two sets of questions can help students determine the credibility of complicated multimodal texts. The two lenses highlight how excavation and elevation work in tandem to help readers assess the credibility of texts. The questions in each lens focus students' analysis on particular techniques used in each video, such as eyewitness testimony or a diagram of the plane crash. Responding to pointed questions like these help manage straying attention spans or sheer overwhelm from absorbing videos in their entirety. The lenses also target background knowledge in terms of readers' previous engagement with the topic, and they place a premium on personal experiences (values, cultural background, etc.) and how these shape the reading of a video. One of the questions has students identify gaps in their knowledge that will limit their understanding of a text. With the textual critique lens, students

are encouraged to examine issues of authorship (e.g., when, where, and why was the video produced?) and techniques of persuasion used by the creators. Many images, especially depictions of traumatic events, are highly provocative, which can leave viewers stunned and not ready for the analytical work necessary to more deeply understand them. The reader reflexivity lens keeps these issues in the foreground, inviting readers to consider how their own experiences, beliefs, values, and emotions might lead them to embrace or reject certain images.

Conclusion

Our goal in this article has been to examine the challenges readers face when they try to make sense of a complicated Internet text, whether in or out of class, and to propose guiding questions to help manage these challenges skillfully. We conclude that what is most important is for teachers to create opportunities for students to engage complicated texts. These are opportunities for them to surface what they know and don't know about the contexts and content of a text and investigate the range of beliefs, experiences, values, and emotions they bring to the interpretive process.

Notes

1. Christopher Lasch, *The Minimal Self: Psychic Survival in Troubled Times* (New York: Norton, 1984), 133.
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8. Mark Baildon and James Damico, *Social Studies as New Literacies in a Global Society: Relational Cosmopolitanism in the Classroom* (New York: Routledge, 2011).
9. Carmen Luke, "Pedagogy, Connectivity, Multimodality, and Interdisciplinarity," *Reading Research Quarterly* 38, no. 3 (2003): 397–403.
10. Avner Segall, "What's the Purpose of Teaching a Discipline, Anyway?," in *Social Studies—The Next Generation: Re-searching in the Postmodern*, eds. Avner Segall, Elizabeth E. Heilman, and Cleo H. Cherryholmes (New York: Peter Lang, 2006), 125-139.
11. Naomi Oreskes and Erik M. Conway, *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming* (New York: Bloomsbury Press, 2010), 34.
12. Ibid.
13. Oreskes and Conway.
14. Ibid., 243.
15. Michael Barkun, *A Culture of Conspiracy: Apocalyptic Visions in Contemporary America* (Los Angeles: University of California Press, 2003).
16. Richard Hofstadter, "The Paranoid Style in American Politics," *Harper's Magazine* (November 1964), Retrieved March 27, 2005, from Centre for Research on Globalisation: http://karws.gso.uri.edu/JFK/conspiracy_theory/the_paranoid_mentality/The_paranoid_style.html
17. Barkun, 7.
18. VanSledright, *In Search of America's Past: Learning to Read History in Elementary School* (New York: Teachers College Press, 2002) demonstrates that 5th grade students can learn these processes. Steven A. Stahl and Cynthia Shanahan, offer sets of questions to help students source, contextualize, and corroborate historical documents in "Learning to Think Like a Historian: Disciplinary Knowledge through Critical Analysis of Multiple Documents," in *Adolescent Literacy Research and Practice*, eds. Tamara L. Jetton and Janice A. Dole (New York: The Guilford Press, 2004: 94-118)

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