

# Chapter 5.1: Understanding Credibility

*Ellen Carillo and Alice Horning*

## OVERVIEW

Because reading and writing are related interpretive practices, attending to critical reading is an important part of teaching writing.\* This chapter defines critical reading and offers students strategies for undertaking a specific kind of critical reading, namely reading for credibility, particularly of online sources. The chapter gives examples of the importance of reading for credibility in a variety of situations, including one's day-to-day life and while engaged in academic projects. Specifically, students are introduced to what is called "lateral reading," an approach that helps students determine a source's credibility by leaving the source and seeing what is said about it elsewhere on the Web. To support this approach, the chapter provides definitions of misinformation and disinformation, addresses the difference between primary and secondary sources, and teaches students the importance of recognizing bias in sources and in themselves.

Both of us writing this chapter are scholars who teach our own students that good reading skills are essential to developing effective writing abilities. We have both published books and articles in this area and over the years have claimed to know a lot about the best ways to teach critical reading. With this background, you would think that we'd both be really effective critical readers, but Alice recently had her come-uppance at the hands of the Internet. Here's what happened: At the height of the COVID-19 pandemic, when information about ways to stay safe was

---

\* This work is licensed under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License (CC BY-NC-ND 4.0) and is subject to the Writing Spaces Terms of Use. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc-nd/4.0/>, email [info@creativecommons.org](mailto:info@creativecommons.org), or send a letter to Creative Commons, PO Box 1866, Mountain View, CA 94042, USA. To view the Writing Spaces Terms of Use, visit <http://writingspaces.org/terms-of-use>.

being circulated, Alice received an e-mail from a colleague she considers a highly reliable source. The message had been forwarded to her colleague from someone purporting to be a physician whose daughter works in infectious diseases at Johns Hopkins, one of the nation's leading hospitals. It seemed like a good source: it contained a number of pieces of familiar, general advice about handwashing, social distancing, and masks, all information we have heard dozens of times. But it also contained what Alice later realized was some suspicious advice for killing the virus. For instance: "Any mix with 1 part bleach and 5 parts water directly dissolves the pro-teiin, breaks it down from the inside," and "UV LIGHT on any object that may contain it breaks down the virus protein." The email also described how alcohol could be used to kill the virus, but warned in all caps, "NO SPIRITS, NOR VODKA" but "Listerine will work—65% alcohol" ("Covid Precautions").

Looking back now, Alice realizes that various other wacky points appeared in the message. Still, she sent it along to friends and family including her daughters, one of whom is a public health nurse. Her daughter fired back quite soon to point out an assortment of errors and misleading claims, noting that she and her professional colleagues were very concerned about the amount of misinformation and disinformation being passed around in just this way. As a reading scholar who has taught others about the importance of credible sources, Alice was appalled and embarrassed. She had to send follow-up messages telling one and all to disregard what she had just sent. Where, oh where, were *her* critical reading skills?

Alice's daughter's response also points to two words that sound a lot alike, but actually mean two different things. In the *MLA Guide to Digital Literacy*, Ellen has defined these terms carefully and we want you to have these definitions in mind as you read this chapter because they will help you understand the two different ways you can be misled by information on the Web: "Both [misinformation and disinformation] describe factually incorrect information. The difference between the two is intent. Disinformation involves maliciously spreading wrong information. Mis-information is incorrect information, but it is not spread with malicious intent" (Carillo 13). Among all of the credible information on the Web there is also misinformation and disinformation, and critical reading skills are crucial to identifying the differences. We will come back to these terms a bit later, but we hope you will keep them, as well as Alice's cautionary tale, in mind.

## WHAT DO WE MEAN BY CRITICAL READING?

You may be thinking to yourself, “I already know how to read.” We realize that if you are reading this chapter you are likely in college and have been reading—as in decoding language—for more than a decade, maybe more than two or three decades. Critical reading is different from just reading or decoding language, though. Critical reading is really an umbrella term—an expansive and encompassing term—for focused, purposeful, and deep reading practices. In other words, critical reading is more than simply passing your eyes over words. This chapter will teach you about reading for credibility, one kind of critical reading. Specifically, we will describe how “reading laterally”—or across many sources—can help you judge the credibility of a single source and find quality information online.

## WHAT IS CREDIBILITY?

If a source is credible, that means it is trustworthy. While you can trust the nonfiction and informational texts (e.g., textbooks and scholarly articles) that your instructors assign because these have likely already been vetted—or approved—by experts in that field, you will often find yourself in the position of needing to locate additional sources as you conduct research in a first-year writing course or as you move into your chosen major. The Web has plenty of credible information on it, but the sheer volume of information can make the process of finding this information more challenging. What we say in this chapter to help you judge a source’s credibility is applicable across disciplines and even in your personal life, too, as evidenced by the example that opened this chapter.

## MOVING BEYOND YOUR SOURCE TO EVALUATE ITS CREDIBILITY

There are many ways of evaluating sources, some of which you are likely familiar with. You may have experience applying different kinds of checklists—such as the CRAAP (Credibility, Relevance, Authority, Accuracy, and Purpose) Checklist, which allows you to determine whether the source you are reading is “CRAAP.” This approach, wherein you ask a series of questions about the source and answer these questions by looking more closely at the source itself, has been used for decades, but as Stanford University researcher Sarah McGrew and her colleagues explain:

the checklist approach falls short because it underestimates just how sophisticated the web has become. Worse, the approach trains students' attention on the website itself, thus cutting them off from the most efficient route to learning more about a site: finding out what the rest of the web has to say (after all, that's why we call it a web). (7)

To replace this outdated approach, these educators offer what they call "lateral reading," which, instead, involves leaving the source and moving to other sources across (i.e., laterally) the Web to assess the source's credibility.

McGrew and her colleague Sam Wineburg at Stanford introduced the concept of "lateral reading" after they conducted a study of how three different groups of people assessed the credibility of sources, among other tasks. Wineburg and McGrew gave professional fact checkers, Stanford undergraduate students, and historians with PhDs various digital sources that addressed social and political issues and asked them to evaluate them in various ways, including for credibility. Wineburg and McGrew observed how these three groups did so. They found that the undergraduates and historians took the traditional "vertical" approach to assessment, remaining tethered to the single source/site and looked closely—up and down it in a vertical fashion—to consider the different elements of the source itself, including site design; whether there were any errors or typos; and if the source included references. The professional fact checkers, however, immediately left the source to assess its credibility. They opened tab after tab to search for information about the source, including about the site's sponsor-ing organization and the author (Wineburg and McGrew 19). They also reviewed references to the source, site, organization, or author they found elsewhere (Wineburg and McGrew 19).

Professional fact-checkers capitalize on what the Web has to offer—a seemingly limitless number of other sources to use for the purpose of cross-referencing and corroboration. This practice holds promise for students as well (Rodrigue; Wineburg and McGrew; McGrew et al.; Caulfield). In the following sections, we share some steps for taking this approach to reading the credibility of online sources.

## **STEPS FOR READING LATERALLY TO ASSESS**

### **THE CREDIBILITY OF ONLINE SOURCES**

1. Leave the site to do a quick check as to whether it appears on other fact-checking or hoax-busting sites. This step can save you a lot of time, especially if someone has already reported the site. You

may already be familiar with Snopes, perhaps the most well-known fact-checking site, but there are other nonpartisan sites such as PolitiFact and FactCheck.org that can be helpful, too.

2. Leave the site in question to explore more about the author of the piece. What can you find out about the author elsewhere on the Web? Does the author seem like an expert on the subject? What else has the author written? Is the author affiliated with any organizations or groups? How might this information allow you to recognize any biases the author may have?
3. Leave the site in question to explore more about the site itself. If you did not locate the site on one of the fact-checking sites listed above, then do a simple Google search. What can you find out about the site? Who or what (i.e., a company or organization) sponsors or owns the site? Does that ownership suggest any biases? What seems to be the intended purpose of the site? Is the site selling anything? Who is the audience for the site? Are visitors to the site looking to purchase something? Does a commercial aspect the site may have potentially conflict with the information it provides?

As you move through these steps you want to do so deliberately and “take your bearings” as you do so. The successful fact checkers in Wineburg and McGrew’s study regularly took their bearings, which amounted to making a plan for moving forward (12). Applying the steps above, the following plan emerges: Beginning with #1, keep track of any fact-checking sites that suggest the source/site in question is not credible. As you move onto #2 and #3 to other sites where you read about the author and the site in question, track the credibility of those sites, too. Move outward from them to read about those sites on at least three other sites or until you feel confident and have not found any conflicting information about their credibility. Make notes as you go. Finally, review your notes in order to make an informed determination about the credibility of the source in question.

### **RECOGNIZING THE DIFFERENCE BETWEEN PRIMARY SOURCES AND SECONDARY SOURCES WHILE READING LATERALLY**

As you are reading laterally you will likely encounter both primary and secondary sources. Primary sources provide first-hand or direct information and include photographs, video and audio recordings, letters, diaries, government documents, speeches, historical documents, pieces of literature,

art, research studies, and interviews. Secondary sources offer secondary accounts of the information or evidence in a primary source. Secondary sources are *about* primary sources. Secondary sources include book and movie reviews, scholarly articles about novels, and news stories about scientific studies. Secondary sources summarize, interpret, or draw on primary sources in some way.

Going to a primary source can be an important part of reading laterally because it will allow you to recognize bias in the secondary sources you locate, which is important to judging the credibility of a source (more on that below). While finding different perspectives on a subject in the form of secondary sources is useful—and your instructor may require you to locate secondary sources—going to the primary source allows you to first form your own judgments, interpretations, and conclusions without being swayed by what others think. For example, an article that draws on a scientific study may contain a hyperlink to that study, the primary source. By reading the study before you read the article *about* the study (the secondary source) you can form your own ideas without allowing the article to influence you. Even if a secondary source does not contain a hyperlink to the primary source you can usually locate the primary source by consulting the reference information included either in the secondary source or on a reference page at its end. The Web is filled with secondary sources, which sometimes makes it difficult to find primary sources, but locating primary sources while reading laterally will give you the freedom to form your own judgments about the information rather than relying on a secondary source to do so for you.

## **USING LATERAL READING TO DETERMINE THE CREDIBILITY OF ONLINE IMAGES**

Lateral reading is a useful practice when it comes to determining the credibility of online images, too. The saying goes, “seeing is believing,” but with so many ways to manipulate images, seeing is no longer believing. Unfortunately, some primary sources, such as photographs, may be manipulated by Photoshop and other software that has become widely available. Photoshop and similar software have been used in many ways and to a range of ends. For example, Fox News cropped President Donald Trump from a picture in which he appears alongside convicted sex traffickers Jeffrey Epstein and Ghislane Maxwell (Davidoff Studios/Getty Images). You can see the original picture contains four people, including Trump, and the cropped picture, which appeared during a Fox News program, contains all but Trump (Fox News). Fox News later apologized for what was described

as an error. In other instances, two or more photographs have been merged to do the exact opposite— to put someone alongside another person or people in order to discredit them. For example, as Senator John Kerry was campaigning for the Democratic Presidential nomination in 2004, a picture of him from 1971 was merged with a picture of Jane Fonda from 1972 (Mikkelson). The composite was intended to discredit Kerry, a Vietnam War veteran, by placing him alongside Fonda who was an anti-Vietnam war activist and thought to be unpatriotic by many Americans.

You can conduct a reverse image search on the Web to validate the authenticity of images, which, when paired with lateral reading, can give you insight into a photograph's credibility. Google's support pages offer specific instructions. Conducting a reverse image search will render a list of other places on the Web where the image appears. You can then read laterally to locate the original image, as well as other versions of that image, which will help you establish the credibility of the image in question.

You can use the same lateral reading approach to assess the credibility of videos. You may have heard of deepfake videos, which are videos that have been manipulated to show people saying and doing things that they did not actually do. Deepfake technology is advancing very quickly, making it difficult to discern a video that has been manipulated. As of writing this chapter, the best way to recognize a deepfake video is to look for inconsistencies between what people are saying in the video and what they have said in other contexts; depending on when you're reading this, you may need to search for more ways to recognize deepfakes based on rapidly changing technology. Reading laterally to locate those other contexts—whether videos, articles, or interviews—will help you recognize these inconsistencies. Additionally, recognizing inconsistencies in the video itself can also suggest that it has been manipulated, whether the lighting seems to change throughout, or the way the person's face or eyes are illuminated changes over the course of the video (Sample). There may also be more glaring issues, including bad lip-syncing. The point is that we are seeing disinformation circulate at a faster pace than ever before and the technologies to manipulate images and videos are moving at a similarly fast pace. Be cautious with primary sources, particularly if the source is a photograph or video, and be sure to use available resources, including the lateral reading approach, to assess credibility.

## ADDRESSING BIAS WHILE READING Laterally

Reading laterally can help you assess the credibility of everything from news articles to videos, but as you read laterally, you need to recognize how bias informs both what you read and how you read. You are likely familiar with the term “bias,” usually thought of as a personal opinion or preference that makes it impossible to see an idea objectively. Keep in mind the difference between biased information and incorrect information. While biased information is skewed in some way, incorrect information is just plain wrong. Although some media outlets have been criticized because of their dissemination of incorrect information, bias is the more common culprit. For example, a few minutes on Fox News, MSNBC and the PBS News-hour will give you a sense of bias, particularly if you are careful to watch the reporting on the same event. One helpful resource for considering the potential bias in news sources is the free, basic version of the Interactive Media Bias chart, which gives an overview of many news outlets and their relative political positions, which provide insight into their biases.

Beyond recognizing the role bias plays across media outlets, you will also need to be able to negotiate bias when completing source-driven writing assignments in your classes. Suppose your class has been discussing the regulation of the Internet, and you are assigned to investigate the controversial subject of Internet privacy protection. You know personal information, financial status, and health issues should be stored securely. However, businesses might want access to this information in order to offer you products and services related to your needs as revealed by your searches. Each side would be biased in its own favor, and your job as a critical reader is to provide a fair discussion of these differing views of appropriate regulation. Remember that you cannot somehow remove bias from these sources. Instead, your role is to recognize the bias in each perspective, consider its effect on the source’s credibility, and negotiate it as you develop your own point of view or argument.

If you are writing about the regulation of the Internet, for example, you would want to begin by searching for sources on the subject. An article by the American Civil Liberties Union (ACLU) will give you an overview of Internet privacy legislation, including by state, while an article from a different source, ProPublica, will give you a more targeted and detailed look at how Facebook seeks to protect its users’ privacy through policies that prohibit advertisers from misusing the platform (“Status of Internet Privacy Legislation By State”; Angwin and Parris). Reading vertically on each site’s “About” link will give you a sense of who is behind each site, but as



we have pointed out, reading vertically is problematic. For example, while the ACLU claims to be a non-partisan, nonprofit organization engaged in defense of civil liberties, a lateral search of critics of the ACLU produces a 2020 article by the overtly conservative Heritage Foundation that makes clear that the ACLU has its own biases (Canaparo). In other words, moving beyond the ACLU's own site provides relevant information about its biases that its own "About" section doesn't reveal.

The same series of steps with ProPublica show that it, too, claims to be a nonprofit, non-partisan reporting site, but moving away from the source reveals that it leans left, according to AllSides, another valuable site that evaluates bias ("About Us"; "ProPublica Media Bias Ranking"). At this point, you would want to take your bearings and move forward by locating sources that balance those liberal perspectives that are likely to value an individual's privacy over the freedoms of large companies and corporations. Further lateral reading of the sources cited in each article (by following embedded links or opening new tabs), as well as the citations in the other sources you locate will help you to see bias more clearly. Thus, taking bearings and using lateral reading strategies can reveal bias in all kinds of material, which is crucial to negotiating the credibility of sources and rep-representing controversial issues in fair and balanced ways.

## **RECOGNIZING YOUR OWN BIASES**

It's not just sources that are biased. All of us are biased, and this can get in the way of effective reading and research habits. Some of our biases come from our backgrounds and experiences, plus what you learn at home and school. Each day we are exposed to large amounts of information that attempt to sway our views. When people get stuck in their own beliefs, and only seek out and believe evidence to support their views, the process is known as confirmation bias. Confirmation bias can be especially problematic when you are conducting research because it can get in the way of your valuing sources that offer different perspectives from your own. As dangerous as this practice is, it's fairly common, according to Stanford University psychologist Jennifer Eberhardt: "People tend to seek out and attend to information that already confirms their beliefs. We find such information more trustworthy and are less critical of it, even when we are presented with credible, seemingly unassailable facts that suggest otherwise" (33). Confirmation bias can result in choosing sources that confirm ideas or information you already know or believe, which can be counterproductive

whether you are writing a research essay, seeking information for health and safety reasons, or making a decision about which candidate to vote for.

Recognizing confirmation bias, though, is a first step toward mitigating it, as psychologist Raymond S. Nickerson of Tufts University points out: “Perhaps simply being aware of the confirmation bias—of its pervasiveness and of the many guises in which it appears—might help one both to be a little cautious about making up one’s mind quickly on important issues and to be somewhat more open to opinions that differ from one’s own than one might otherwise be” (211). In terms of critical reading this means that you should regularly monitor the perspectives in the sources you choose to ensure that you are not only relying on sources that always already confirm your ideas. Additionally, you should deliberately seek out sources that oppose your ideas so you have a more well-rounded understanding of the subject and offer a fair appraisal of a topic or issue.

### **ADDITIONAL TIPS THAT DRAW ON LATERAL READING**

Reading laterally can help you assess the credibility of the information, including photographs and videos, you find online and help you read more deeply. To further support your lateral reading, we offer the following tips that draw on the lateral reading approach

#### **TIP 1: CLICK ON HYPERLINKS**

Research has shown that in many cases students don’t take full advantage of what the Web has to offer (Rodrigue; Wineburg and McGrew; McGrew et al.; Purdy). Even though studies suggest that students prefer texts with hyperlinks, particularly when they are conducting research, they don’t always click on them (Purdy; Vassileva and Chankova; Rodrigue). Does this characterize your way of reading online? Instead of clicking on hyperlinks embedded in news stories and other online texts students often simply read online texts as if they were print texts. Keep in mind that online texts are connected to other texts, and those texts are connected to others. Actively following hyperlinks can deepen your reading experience by directing you to primary sources, related sources, and texts that can provide additional context for what you are reading.

#### **TIP 2: OPEN NEW TABS**

Just as you can deepen your reading experience by following hyperlinks you can do the same by opening new tabs to further explore your subject.

Not all online texts have hyperlinks embedded in them. As such, it may be up to you to take the initiative to seek out additional information. Like hyperlinks, opening new tabs can help you learn more about a subject, create some context for it, explore what others have said about it, and read up on relevant definitions or related ideas. The possibilities really are endless but only if you allow your curiosity to guide you.

### **TIP 3: MOVE AROUND THE WEB DELIBERATELY**

We have all had the experience of starting somewhere on the Web and then two hours later having no idea how we got to where we ended up. There's nothing inherently wrong with this, and you can stumble upon useful material inadvertently. But, when you are conducting research for an assignment or out of a personal interest, it's important to practice two behaviors that Wineburg and McGrew noticed the professional fact checkers engaging in: "taking bearings" and "click restraint." As noted above, taking bearings involves "charting a plan for moving forward," as do sailors, so that you are moving purposefully in a productive direction (Wineburg and McGrew 30). When you practice click restraint, you don't trust that the first results that a search engine like Google Scholar generates are necessarily the most relevant, but instead you spend time "scanning the search engine results page and reading the snippets before clicking on any link" to make an informed decision about where to go (Wineburg and McGrew 28). Both of these practices slow you down, which is the first step toward a deeper reading experience.

### **FINAL THOUGHTS**

Some of the strategies presented in this chapter may be new to you while you may already be familiar with others. Enriching your online reading practices involves paying closer attention to how you already read online sources and how you currently judge their credibility. Once you reflect on your current practices you can then fill in any gaps with the strategies laid out in this chapter. New reading practices may seem cumbersome at first, but they will soon enough become second nature. Just remember not to let your guard down like Alice did!

## WORKS CITED

- "About Us." *ProPublica*, <https://www.propublica.org/about>. Accessed 29 Mar. 2021.
- ACT. *The Condition of College and Career Readiness, 2019*. <http://www.act.org/content/act/en/research/reports/act-publications/condition-of-college-and-career-readiness-2019.html>. Accessed 25 Aug. 2020.
- Angwin, Julia, and Terry Parris Jr. "Facebook Lets Advertisers Exclude Users by Race." *ProPublica*, 28 Oct. 2016, <https://www.propublica.org/article/facebook-lets-advertisers-exclude-users-by-race>. Accessed 29 Mar. 2021.
- BBC News*. <https://www.bbc.co.uk/news>. Accessed 29 Mar. 2021.
- Buy Dehydrated Water*. <https://buydehydratedwatercom.weebly.com/>. Accessed 29 Mar. 2021.
- Canaparo, Giancarlo. "The ACLU Loses Its Way." *The Heritage Foundation*, 19 May 2020, <https://www.heritage.org/the-constitution/commentary/the-aclu-loses-its-way>. Accessed 29 Mar. 2021.
- Carillo, Ellen C. *MLA Guide to Digital Literacy*. MLA, 2019.
- Caulfield, Mike. "How 'News Literacy' Gets the Web Wrong." *Hapgood*, 4 March 2017, [www.hapgood.us/2017/03/04/how-news-literacy-gets-the-web-wrong](http://www.hapgood.us/2017/03/04/how-news-literacy-gets-the-web-wrong).
- CBC News*. <https://www.cbc.ca/news>. Accessed 29 Mar. 2021.
- The Citation Project: Reframing the Conversation Around Plagiarism, <http://www.citationproject.net/>. Accessed 6 April 2021.
- "Covid Precautions." Received by Alice Horning, 30 March 2020.
- Davidoff Studios Photography/Getty Images. Trump, Knauss, Epstein and Maxwell at Mar-a-Lago. Palm Beach, Florida. 12 February 2000. <https://www.gettyimages.com/detail/news-photo/from-left-american-real-estate-developer-donald-trump-and-news-photo/700334384?adppopup=true>
- "Dihydrogen Monoxide - DHMO Homepage." *Dihydrogen Monoxide Research Division*, <http://www.dhmo.org/>. Accessed 29 Mar. 2021.
- Eberhardt, Jennifer L. *Biased: Uncovering the Hidden Prejudice that Shapes What We See, Think, and Do*. Viking, 2019.
- FactCheck.org*. <https://www.factcheck.org/>. Accessed 29 Mar. 2021.
- Food Babe*. <https://foodbabe.com/>. Accessed 29 Mar. 2021.
- Fox News. "Ghislane Maxwell Charged in Connection to Jeffrey Epstein Case," <https://www.wishtv.com/wp-content/uploads/2020/07/Fox-crop.jpg>. Accessed 15 April 2021.
- "Homepage." *ProPublica.org*, <https://www.propublica.org/>. Accessed 29 Mar. 2021.
- "Interactive Media Bias Chart." *Ad Fontes Media*, <https://www.adfontesmedia.com/interactive-media-bias-chart/>. Accessed 29 Mar. 2021.
- McGrew, Sarah, et al. "Improving University Students' Web Savvy: An Intervention Study." *British Journal of Educational Psychology*, vol. 89, 2019, pp. 485-500.
- Mercola*. <https://www.mercola.com/>. Accessed 29 Mar. 2021.

- Mikkelson, David. "John Kerry." *Snopes*, <https://www.snopes.com/fact-check/john-kerry-3/>. Accessed 15 April 2021.
- The New York Times*, <https://www.nytimes.com>. Accessed 29 Mar. 2021.
- Nickerson, Raymond S. "Confirmation Bias: A Ubiquitous Phenomenon in Many Guises." *Review of General Psychology*, vol. 2, no. 2, 1998, pp. 175-220. *PolitiFact*. <https://www.politifact.com/>. Accessed 29 Mar. 2021.
- "ProPublica Media Bias Rating." *All Sides*, <https://www.allsides.com/news-source/propublica>. Accessed 29 Mar. 2021.
- Purdy, James P. "Why First-year College Students Select Online Research Resources as Their Favorite." *First Monday*, vol. 17, no. 9-3, 2012, <http://firstmonday.org/article/view/4088/3289>
- Rodrigue, Tanya K. "The Digital Reader, The Alphabetic Writer, and The Space Between: A Study in Digital Reading and Source-Based Writing" *Computers and Composition*, vol. 46, 2017, pp. 4-20 .
- Sample, Ian. "What Are Deepfakes and How You Can Spot Them." *The Guardian*, 13 Jan. 2020, <https://www.theguardian.com/technology/2020/jan/13/what-are-deepfakes-and-how-can-you-spot-them>.
- Snopes.com*. <https://www.snopes.com/>. Accessed 29 Mar. 2021.
- Stanford History Education Group. *Evaluating Information: The Cornerstone of Civic Online Reasoning*. <https://sheg.stanford.edu/upload/V3LessonPlans/Executive%20Summary%2011.21.16.pdf>. Accessed 25 Aug. 2020.
- "Status of Internet Privacy Legislation By State." *American Civil Liberties Union*, <https://www.aclu.org/issues/privacy-technology/internet-privacy/status-internet-privacy-legislation-state>. Accessed 29 Mar. 2021.
- "The Taxonomy of Barney." *The Annals of Improbable Research (AIR)*, 1995, <https://www.improbable.com/airchives/paperair/volume1/v1i1/barney.htm>. Accessed 29 Mar. 2021.
- "US & Canada News." *Al Jazeera*, <https://www.aljazeera.com/us-canada>. Accessed 29 Mar. 2021.
- Vassileva, Irena and Mariya Chankova. "Scholars' Information Exploitation Habits in Multimedia Environment." *The Digital Scholar: Academic Communication in Multimedia Environment*, edited by Irena Vassileva, Mariya Chankova, Esther Breuer, and Klaus P. Schneider, Frank and Timme, 2020, pp. 61-91. *The Washington Post*. <https://www.washingtonpost.com/>. Accessed 29 Mar. 2021.
- Wineburg, Sam and Sarah McGrew. "Lateral Reading and the Nature of Expertise: Reading Less and Learning More When Evaluating Digital Information." *Teachers College Record*, vol. 121, no. 11, 2019, pp. 1-40.
- "World News." *The Jerusalem Post*, <https://www.jpost.com/international>. Accessed 29 Mar. 2021.

## TEACHER RESOURCES FOR EFFECTIVELY AND EFFICIENTLY READING THE CREDIBILITY OF ONLINE SOURCES

We suggest that you use this chapter early in your term, or as soon as you have students doing any kind of research project. The sooner you can help students improve their critical reading skills, the better their overall work will be. There is ample research of several different kinds that indicates students' difficulties with reading and assessing the credibility of online material. This research includes careful studies of students' inability to evaluate online materials (Stanford History Education Group); qualitative evaluations of students' own writing that includes the use of sources (from the Citation Project); and standardized test data (from ACT and others). This chapter can help you support students as they develop their abilities in this area.

The central terms you will want to introduce are “critical reading,” “misinformation,” “disinformation,” “primary vs. secondary sources,” “bias,” “confirmation bias,” and “credibility.” You may have discussed some of these already in class, but may want to present or review them in the context of the more general goal of critical reading online. Of these concepts, probably the most difficult to discuss is bias. We've tried to give readers a clear definition; even so, bias is hard to see, most notably when the sites we look at agree with our own ideas. The news sites (see activity #3 below) will provide the most obvious examples of bias, but they are not the only ones you might use. There is bias in science reporting (e.g., FoodBabe.com; mercola.com) and in plenty of other areas. Discussions of bias should focus carefully on the language that is used and on the “facts” that are presented. The lateral reading process we describe should help students apply critical reading strategies to help them recognize the bias in these sites and ultimately find quality information online.

Before you take students to the activities below and then on to their individual projects, it might be useful to look together at a hoax site or two. The following are two examples, but there are many online that are designated as such if you would prefer to choose your own:

1. Buy Dehydrated Water: <https://buydehydratedwatercom.weebly.com/>
2. The Taxonomy of Barney: <https://www.improbable.com/airchives/paperair/volume1/v1i1/barney.htm>

You might have students review these or other hoax sites by contrasting them with their own favorite sites or your school's site. Your goal in class discussion should be to raise students' awareness of ways in which information is presented online, whether true or false. These examples should help students see why it will be useful for them to have critical reading skills for their own work.

With this background, you can move directly to lateral reading as a strongly recommended approach to evaluating Web sources. Using the subject of an upcoming source-driven assignment as the focus, have students practice the steps of lateral reading as a class, in pairs, or in small groups to give them hands-on experience with this process as they explore sources on the assigned subject. Demonstrating the process and incorporating the additional tips we discuss (clicking hyperlinks, opening new tabs, and moving deliberately around the Web) will set students up to follow the lateral reading process. Students might also want to keep a sort of "lab notebook" of their Web searches with notes on the lateral reading steps they follow in their individual projects to be submitted with their final writing assignment.

## ACTIVITIES

The following are four class activities that can help students apply and practice what they learn in this chapter about assessing the credibility of online sources. The first activity asks students to draw on their prior knowledge, which helps lay the foundation for applying what may be new knowledge.

1. Reflect on your current reading practices as you are moving around the Web. Take notes on the following: How do you tend to move from one site to the next? Do you open new tabs? Follow hyperlinks? Do you move deliberately or haphazardly? What are you learning about yourself as a digital reader as you pay attention to your practices?
2. Access your institution's library and peruse its databases, paying attention to the titles of the databases and any additional information offered about each. Make a list of at least three databases that contain primary sources and at least three that contain secondary sources. How can you tell the difference based on the titles and any information offered about the databases?

3. On a day when there is a major story in the world news, look at the following different news sites to see how the story is reported and presented, likely on the front page (or landing page) in order to notice how bias plays out in reporting on major news events:
  - *Al Jazeera* (“US & Canada News”)
  - *New York Times*
  - *The Washington Post*
  - *BBC News*
  - *CBC News*
  - *The Jerusalem Post* (“World News”)

What do you notice about how the story is represented? Where do you see bias? How do you know? Social media sites can also give you a version of the news; evaluate what you see on your favorite site, comparing and contrasting it to what is on the news sites above.

4. Following the steps laid out in this chapter, read laterally about the Dihydrogen Monoxide Research Division in order to evaluate whether it is a credible scientific source about dihydrogen monoxide (“Dihydrogen Monoxide – DHMO Homepage”). Share and compare your notes and your evaluation with those of your classmates. What’s the consensus?