

# The Art of Critical Ignoring

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## ABSTRACT

Fact-or-Faux addresses issues of misinformation and science media literacy. Here, the experience of fact-checkers can inform students in learning the skills of lateral reading and critical ignoring.

**Keywords:** Media literacy; credibility; lateral reading; critical ignoring

In a unit on nutrition, your students go online to investigate the effects of sugar on obesity. They land on *ilsa.org*, the site of the International Life Sciences Institute (ILSI). The organization adheres to a “strict code of ethics” and believes that “good science can have a positive impact on public health.” Students examine the site’s URL, consult its About page, check for the recency of updates, and locate the organization’s physical address—preliminary

steps recommended by ubiquitous “web credibility” checklists such as the “CRAAP Test” and its many spinoffs (Caulfield and Wineburg 2023). The site aces these questions—as well as others found on checklists.

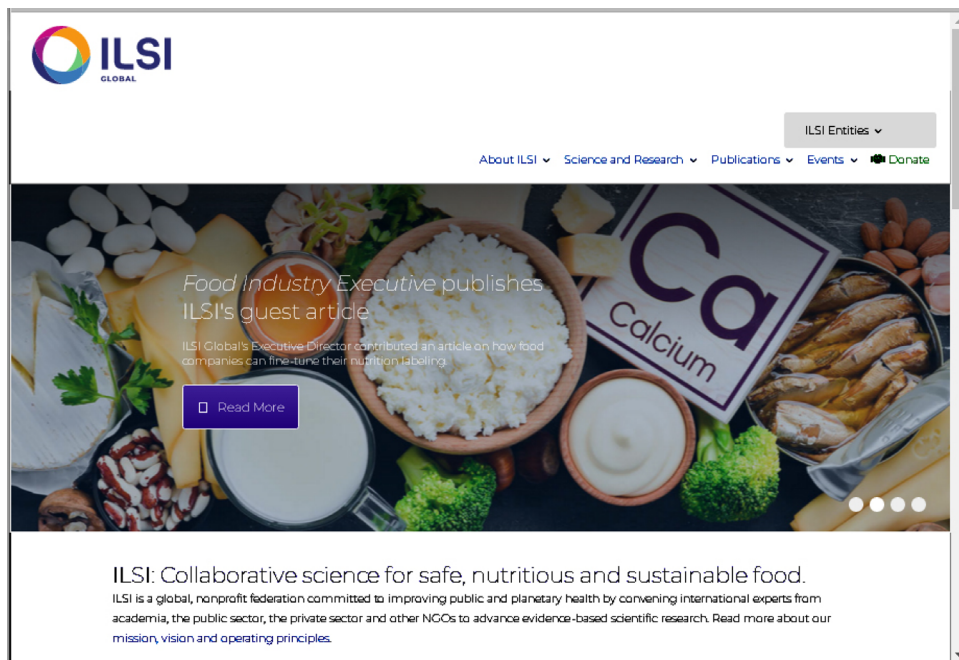
- *Are the links functional and up to date?* All of them.
- *Does the information relate to your topic or answer the question?* There are

sixty-one sugar-related entries: articles, webinars, and scholarly papers—and not just from the United States.

- *Who is the author/publisher/sponsor?* The International Life Sciences Institute is a “non-profit, charitable organization organized under Section 501(c)(3) of the U.S. Internal Revenue Code.” It also publishes a scientific journal, *Nutrition Reviews*,

FIGURE 1

**How should one respond when encountering a new unfamiliar website? The intuition may be to ask, “Is this a trustworthy site?” But a better first question is, “Do I even know what I’m looking at?” Here, the professional appearance of the website for the International Life Sciences Institute belies its identity as a group sponsored by the food industry.**



and organizes scientific conferences around the world.

- *Are there spelling, grammatical, or typographical errors?* The site is impeccably prepared.
- *What is the purpose of the information? Is it to inform, teach, sell, entertain, or persuade?* The organization is a nonprofit whose purpose is to conduct work that “improves human health and well-being and safeguards the environment.” It does not “lobby, conduct lobbying activities, or make policy recommendations.”

Bottom Line? The site seems trustworthy.

Except ... it isn't.

It's easy to be taken in by cunning sites claiming to dispense objective scientific

information. Students are particularly susceptible because they trust their eyes, believing that they can look at something and know what it is.

But ask yourself: how many of your students have what it takes to thoroughly evaluate this site: extensive background knowledge in nutrition and food science, familiarity with the field's major schools of thought and controversies, and the ability to decipher sentences like “Full-text screening was calculated using the  $k$  statistic and its 95% CI .... the AGREE II score for each domain [was] as a percentage of the maximum possible score and standardized range,” drawn from an organization-sponsored literature review that casts doubt on the negative effects of sugar consumption?

With its fat \$17M annual budget, the International Life Sciences Institute has more than enough resources to design a site that masterfully pulls the wool over people's eyes. Asked to evaluate the site, a group of high school students in Superior, Wisconsin were taken in by its impressive looking research reports, its international reach (“13 entities across the globe”), and its dot-org URL, a feature they believed conferred legitimacy. Kids aren't the only ones misinformed. A 2012 international study found that nearly half of Americans, and larger percentages in France, Brazil and India, believed that an organization must meet “some criteria” before it could register a dot-org. They were unaware that dot-org is an open domain and has been since the

FIGURE 2

**(a) Vertical reading.** Following the norms of close reading of printed texts from credible sources, the reader uses only information provided by the target source. **(b) Lateral reading.** Fact-checkers, by contrast, open new tabs and investigate the credibility and context of who has published the information.



internet’s inception. For \$15 and about 15 minutes, students, along with anyone else (including hate groups, like stormfront.org), can register their own dot-org site, no questions asked (Wineburg and Ziv 2019).

No matter how long students dwell on *ilsi.org*, clicking on internal links and engaging in “close reading,” they would never learn that the group:

- is funded almost exclusively by the corporate behemoths of agribusiness, food industry, and chemical and pharmaceutical interests.
- had the repellent track record in the 1980s of minimizing the dangers of tobacco.
- has increasingly lost high-profile corporate sponsors including Coca-Cola and Mars, makers of

Skittles and M&Ms, who in cutting ties stated that they no longer want “to be involved in advocacy studies that, so often, and mostly for the right reasons, have been criticized” (Terry 2018).

This information isn’t hard to find. It takes seconds, in fact. But you need to know what to do. The problem is most students don’t. Even the most talented.

In a study with the winners of the college admissions lottery, we asked accomplished Stanford University undergraduates to examine a series of websites (Wineburg and McGrew 2019). Students set about the task by reading *vertically*, approaching websites as if they were printed texts, starting from the top and moving to the bottom, relying on their razor-sharp critical thinking skills and towering SAT scores to suss out a site’s

reliability. The opposite happened. Students were seemingly oblivious to the fact that the listed author of a digital text may not be its author; that an organization claiming to provide nonpartisan data might be backed by a political lobby; that scientific references appended to the bottom of an article may have little bearing on the article’s claims; and that links to authoritative sources may actually make the opposite point of what the linking site claims.

We asked a group of professional fact checkers at the nation’s most prestigious news outlets to examine the same websites. These professionals, however, knew that the internet plays by different rules from the world of vetted texts given to students in school. Checkers’ first move was seemingly paradoxical: to learn about an unfamiliar site, they barely spent any time on it. They *left* it.



FIGURE 3

**Nobel Prize-winner Herbert Simon. Simon's prescient analysis of the information age underscored the overabundance of available information and the challenge of finding relevant facts—the inspiration for the concept of critical ignoring.**



Putting the name of the organization into their browser, they opened a series of new tabs along the horizontal axis of their screen, drawing on the powers of the internet to check the internet. We dubbed this process *lateral reading* (in contrast to vertical reading). Compared to other skilled readers, including academics from five different universities (Steinmetz 2018), fact checkers arrived at more warranted conclusions in a fraction of the time.

At the first light of the digital age, the Nobel laureate, Herbert Simon, discerned the consequences of an information deluge. Simon (1971) posited that

the overabundance of one resource leads to the scarcity of another. And what does the overabundance of information lead to, he asked. His response: A “poverty of attention” in which concentration fractures into so many pieces. More than a half-century later, Simon’s prescience encapsulates our digital dilemma, in which scammers, rage merchants, lobbyists and front groups hijack attention and sap our ability to concentrate. Simon, once again, framed what has become the educational challenge of the 21<sup>st</sup> century: How do we teach students to “allocate attention efficiently among the overabundance of sources that might consume it” (p. 41)?

Pundits offer a simple—but wrong-headed—solution: Double down on teaching students critical thinking. But critical thinking, by definition, is the greedy power user of attention. The real challenge is to conserve attention in the face of forces trying to squander it. When online attention careens like a pinball crashing against the bumpers, the first act of critical thinking must be to make sure that the object of critical thinking is worth critically thinking *about*. Here is where critical thinking’s necessary complement, *critical ignoring*, comes in.

Critical ignoring isn’t an all-or-nothing act, such as when we turn our back in the supermarket to avoid the temptation of the potato chip aisle. Online, it actually begins by paying attention, but only briefly. Clicking on an unfamiliar site, one registers a first impression; landing on *ilsa.org*, one notices that there’s nothing overtly wacky (no coupons for 20% off health supplements) and that the site displays features one would expect: a board of scientific advisors, nonprofit status, a refereed scientific journal, etc. But rather than asking “is this site credible?”, redirecting attention back to the site, the savvy searcher returns attention to their first impression. The gaze, in other words, moves from the site back to the self. The question changes from, “Is this a trustworthy site?” to “Do I even know what I’m looking at?”

Critical ignoring is an expression of *intellectual humility* leavened by a dose of self-doubt. When we search online, it is impossible to know everything we need to know to make informed decisions about everything we’re called upon to decide. The element of self-doubt, counterintuitively, restores our locus of control by seizing it from a site’s designers and putting it back in our own hands.

Even when students are told they can leave a website to evaluate an organization or claim, they rarely do so. The idea that one should judge a text by departing after a brief scan and turning to the open internet is a message that strikes some students as an affront to common sense. In a college nutrition course, only 3 students in 87 spontaneously left a site about the safety of caffeine to evaluate the organization behind it (Breakstone et al. 2021). At the high school level, 3,446 students were given direct access to the internet and asked to evaluate a series of websites. One was *co2science.org*, from an organization that claims to “disseminate factual reports and sound commentary” on climate change but which receives major funding from the fossil fuel industry. Most students stayed glued to the original site; only 2% ventured beyond it to learn of its agenda. One who did concluded, “*co2science.org* is not a reliable source because it has ties to large companies that want to purposefully mislead people when it comes to climate change. According to *USA Today*, Exxon has sponsored this nonprofit to pump out misleading information on climate change” (Breakstone et al. 2021, 510).

How can such responses become the rule rather than the exception? Step one is to stop blaming kids and start teaching them. Why expect them to know how to do things they’ve never been taught?

No student wants to be an easy mark. Shown their susceptibility to being duped, students reveal an uncanny readiness to learning how to be more discerning consumers of digital information. Even modest interventions can have outsized effects. After completing four, one-hour

modules, which included short videos showing how to quickly verify the source of information, the percentage of college nutrition students leaving the site to read laterally soared from 3% to 77%. An experiment across six Lincoln, Nebraska high schools showed that students nearly doubled in their ability to discern reliable information compared to peers in regular classrooms after a mere 6 hours of instruction delivered by their regular teachers—less time than the average American teenager spends online in *one* day (Wineburg et al. 2022). In a Canadian study, 2,343 students showed a six-fold increase in the use of fact checking techniques like lateral reading and a five-fold increase in citations of appropriate context after seven hours of instruction. Similar encouraging results have been found by researchers in Sweden, Germany, and Italy.

Today's students grow up in a world where vetting information—once the province of professional journalists, subject matter experts, editors and librarians—falls on every one of their shoulders. Writing in the *New York Times*, the philosopher Michael Lynch noted that the internet, like a scalpel, can be used for ill or good: “The world’s best fact-checker and the world’s best bias confirmer—often at the same time.”

There’s no going back. No matter how many internet filters your district imposes,

the digital genie can’t be stuffed back in the bottle. Telling ourselves that it’s someone else’s job to prepare students for this digital world—the librarian? the social studies teacher?—may still our conscience. But when scientific misinformation runs amok, it’s impossible to avoid the obvious. If we don’t prepare students to be thoughtful scientific citizens in a treacherous digital world, who will?

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