

# Problematizing the Role of Information Literacy in Disinformation, Dialogue, and the Healing of Democracy

Sarah Appedu and Merinda Kaye Hensley, University of Illinois, Urbana-Champaign

## Introduction

What happens in classrooms under the banner of information literacy has to include an understanding of information systems ... including the fact that these systems are social, influenced by the biases and assumptions of the humans who create and use them. Otherwise, educators and students will make no progress in healing our current crisis of faith. (Fister, 2021)

The proliferation of technology in the past decade has rapidly changed information behavior. In response, information literacy instruction has expanded to include critical practices to help students examine how biases shape the finding and evaluating of information. However, librarians are now being called to address the ways in which information technology itself is laden with biases and the impact this technology can have on both the search experience and the material world. In particular, the threat of mis/dis/malinformation (Wardle, 2019) and biased search algorithms to democratic principles has become a concern for librarians, students, and the everyday searcher. The conversation around the impact of artificial intelligence, personal data harvesting, and search algorithms has been gaining attention—most recently in response to the mis/dis/malinformation campaign against the U.S. presidential election and the January 6th insurrection—and has created both the potential and the imperative to incorporate these topics into information literacy instruction. We propose integrating dialogic exercises into library instructional practice as one means of accomplishing this goal.

## Information Literacy and Democracy

Several definitions of information literacy assert a relationship between the well-being of democracy and information literacy. The ALA made the following claim in 1989 in the *Presidential Committee on Information Literacy* final report:

How our country deals with the realities of the Information Age will have enormous impact on our democratic way of life and on our nation's ability to compete internationally. Within America's information society, there also exists the potential of addressing many long-standing social and economic inequities. To reap such benefits, people---as individuals and as a nation---must be information literate. (ALA Presidential Committee, 1989)

Other popular definitions assert this relationship as well. The Chartered Institute of Library and Information Professionals defines information literacy as “the ability to *think critically* and *make balanced judgements* about any information we find and use. It *empowers us as citizens* to reach and express informed views and to engage fully with society” (*CILIP Definition of Information Literacy*, 2018). The Alexandria Proclamation says, “Information literacy ... *empowers people* in all walks of life to seek, evaluate, use and create information effectively to achieve their personal, social, occupational and educational goals. It is a basic human right in a digital world

and *promotes social inclusion* of all nations” (*Beacons of the Information Society: The Alexandria Proclamation on Information Literacy and Lifelong Learning*, 2005). The association between information literacy and democracy is also supported by the ALA Core Values of Librarianship, which include “Democracy”, “the Public Good”, and “Social Responsibility” (*B.1 Core Values, Ethics, and Core Competencies*, 2010). [*emphasis added*]

Recently, the ALA exploited this connection in their response to the January 6th insurrection, where they claim that “Libraries in America defend the constitutional rights of all individuals ... *We celebrate and preserve our democratic society* so that all individuals have the opportunity to become lifelong learners and engaged residents” (*ALA Condemns Violence on Capitol Hill, Calls for Advocacy*, 2021). [*emphasis added*] However, the statement did not acknowledge the role librarians have in addressing mis/dis/malinformation, biased technology, and racism in our practices, including information literacy instruction. Additionally, despite the association between information literacy and democracy, the word “democracy” is absent from the *ACRL Framework for Information Literacy* (2016), which many librarians rely on to inform their instructional practice. These omissions beg the question: To what extent are librarians and our teaching practices living up to the expectation that information literacy contributes to “preserving democratic society”? One means through which librarians could achieve this expectation in our instruction is through raising student awareness of how technology can threaten these values.

## Influence of Technology

Since its creation, Google has become both a popular source of information and a multi-billion-dollar data aggregator and advertising company. Recently, scholars have revealed how companies like Google control, manipulate, and profit from the information we see online. In her bestselling book *Algorithms of Oppression: How Search Engines Reinforce Racism* (2018), Safiya Noble demonstrates the impact of algorithmic oppression, defined as “algorithmically driven data failures that are specific to people of color and women” (Noble, 2018). Noble found that Google's search results reflected negative stereotypes of Black women, including some that have persisted since the practice of slavery and still contribute to the structural and physical violence they experience. Her work serves as one example for how search algorithms have the power to further marginalize people that have historically been oppressed within the context of U.S. democracy, undermining the idea that search engines are “neutral.”

Additionally, Eli Pariser popularized the concept of “filter bubbles” in his book, *The Filter Bubble: How the New Personalized Web Is Changing What We Read and How We Think* (2011). His work documents the ways in which platforms leverage their power to collect and analyze behavioral data to personalize online experiences and warns against the consequences of this system. He writes, “Democracy requires citizens to see things from one another's point of view . . . a reliance on

shared facts; instead we're being offered parallel but separate universes" (Pariser, 2011). While the actual, demonstrated impact of filter bubbles has been found to be less significant than previously imagined (Dubois & Blank, 2018), the epistemological and cultural challenges that create the perception of alternate realities persist.

Overcoming oppression is necessary to working toward a democracy that allows the equal participation of all people; understanding the capacity of technology to contribute to oppression can reveal the potential for incorporating critical pedagogical practices around this topic into library instruction. Dialogue as a pedagogical tool can serve to both alleviate the impacts of algorithmic oppression and reinforce librarians' commitment to democratic principles.

## Dialogue and Critical Pedagogical Practice

At the core of critical pedagogy, students are taught to question existing social, political and cultural institutions. One method through which librarians incorporate these principles into their instruction is through critical self-reflection, including critical questioning, thinking, and evaluating. The development of the ACRL Framework from the original Standards reflects this commitment, encouraging the use of critical self-reflection throughout the document. For example, each ACRL frame includes dispositions, which "describe ways in which to address the affective, attitudinal, or valuing dimension of learning" (ACRL, 2016). Several of the dispositions require students to engage in some form of critical self-reflection; the frame "Authority is Constructed and Contextual" includes the disposition, "develop awareness of the importance of assessing content with a skeptical stance and with a self-awareness of their own biases and worldview" (ACRL, 2016). While self-reflection is a crucial component of critical information literacy, many of the dispositions are focused on the individual searcher and do not encourage critical engagement with the search infrastructure itself. Dialogue offers a useful schema for demystifying the seemingly passive, neutral search engine and for helping students recognize the potentially anti-democratic nature of information technology.

Radical educators such as Paulo Freire have argued that dialogue raises students' "critical consciousness" so they can participate in co-creating the conditions of liberation needed to overcome their oppression. He also claimed that if students do not become aware of their own exploitation, they will have no choice but to accept their conditions. Even in 1968, Freire was concerned about technology's potential to further reinforce social inequality. He writes, "More and more, oppressors are using science and technology as unquestionably powerful instruments for their purpose: the maintenance of the oppressive order through manipulation and repression" (Freire, 2017, p.34). In an attempt to distinguish between discussion and dialogue, for our purposes, we turn to Nicholas Burbules (1993), who defines dialogue as a more structured activity than discussion. He elaborates that "Dialogue is guided by a spirit of discovery, so that the typical tone of a dialogue is exploratory and interrogative" (Burbules, 1993, p. ?). Engaging students in dialogue requires the instructor to set a tone of reflexive discovery—rather than discussing issues of algorithmic oppression. The latter may be overly complex and difficult to fully cover in a one-shot session, and using exercises that involve dialogue can help students think critically about the search experience within a larger social and technological context.

In his book, *Discussion as a Way of Teaching*, Stephen Brookfield (2012) argues that critical dialogue "remains an indispensable part of democratic education" while alluding to the idea that it "helps people see how their choices can either perpetuate injustice and continue silence or contribute to growth or even emancipation" (Brookfield & Preskill, 2012, p. 8). To address this tension within information literacy instruction, we propose that students should be in active dialogue with the search engine, the results, and the resources with which they interact. Since technology has continued to be used as a means of control, applying the practice of dialogue to our instructional praxis can raise students' awareness of the oppressive forces behind search algorithms and how to navigate them.

## Implementing Critical Dialogic Exercises

There are several ways librarians can introduce and model dialogic exercises in their information literacy instruction. First, librarians may frame the search engine not as a passive, neutral resource but as the other participant in a dialogue about negotiating meaning and finding truth. If searching involves being in dialogue with the search engine, we might pose the problem of a situation where the algorithm "misinterprets" their search and does not produce the results the student had expected, as Noble experienced when she began her research on Google. Critical questions we can ask students to reflect on include:

- Whose worldview does the search engine represent?
- How is it similar or different from your own?
- How did the search engine decide which sources to include?
- How would you try to get the search engine to show you what you wanted?

These questions can reveal how search engines do not merely "misinterpret" search terms but are informed by particular worldviews and values. Framing the search process as a dialogue highlights the subjective nature of search results and the power of algorithms to control our understanding of the conversation.

Students may also consider the results themselves as being in dialogue with one another. While the sources are represented as "information," often in the form of text, they are all created by people and exist within a social and economic context. For example, we may ask students to think about why the results are ordered in the way they are, including the impact of sponsored results and page ranking, and how that shapes their perceptions of the broader conversation around their search topic and which participant's voice is most important. Framing the results as in dialogue with one another also allows students to consider the point of view of each source's creator, how they may be similar or different, and what factors may inform each of their perspectives. After addressing the biases within the platform and among the sources' creators, we can then ask students to consider what perspectives they are bringing to the dialogue and how their biases may impact which result they select first, which they trust the most, and to what extent they will allow that source to influence their opinions. Some questions we might ask students throughout this exercise include:

- If you could have a conversation with the author, what would you ask them?
- What do you assume they look or sound like?
- What kind of education and experience do you think they bring to the conversation? How does that impact your understanding of the issue?
- How might your biases and assumptions impact your willingness to trust the author?

Asking students to engage with the platform in this way can both raise student's awareness about the unconscious choices they are making while searching and the ways in which the search engine itself impacts their decision-making.

Finally, students should be invited to engage in dialogic exercises with one another. Building on the work of Paulo Freire, Augusto Boal's *Theatre of the Oppressed* (1993) uses theatre exercises to help people see themselves as agents of social change. While this text was created for those in the theatre, Boal's ideas can be helpful for thinking about creative ways to bring dialogue into the information literacy classroom. For example, students may work in pairs to read a short article about a particular topic, whether that be related to the course content, current events, or whatever is relevant to the lesson. One student would assume the role of the author, trying to understand their argument and thinking about what factors may inform the author's conclusion. The other student in the pair would assume the role of the reader, first forming their own opinion of the article's contents followed by asking questions of the author with the aim of understanding their point of view. By engaging in dialogue with the author about why their points of view are similar or different, both students can reflect on how bias impacts information evaluation. The librarian would end by facilitating a debrief to discuss the experience of each role. Some questions that could be asked of the students include:

- How did the author form their understanding of their argument?
- Was it easy to answer the questions based only on the information they read in the article?
- How was the reader's opinion similar or different to the author?
- Did their opinion of the argument change after the conversation?

Throughout the search process, dialogue and critical reflection are both essential tools to help students become aware of their own biases and assumptions and to begin to understand how technology itself is an active participant in the search process. Raising students' critical consciousness through dialogue can bring our instruction closer to our goals of preserving democratic principles by addressing the power of technology to reinforce oppression and threaten those principles.

## Conclusion

By teaching students about issues related to technology, democracy, and information through critical dialogue and self-reflection, we expose the complexity of searching and demonstrate how students can be empowered to take the search experience into their own hands. The instructional exercises we have

outlined can be adapted and used by teaching librarians to encourage students to reconsider what it means to find and evaluate knowledge within our current social, economic, and political climate. Doing so is not a passive, solitary activity but happens in dialogue with and in relation to technology, society, and their fellow searchers. Embracing a dialogic approach to information literacy instruction is but one way to begin intentionally incorporating the principles of democracy into our instructional practices.

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