EDUCATING FOR
AMERICAN
DEMOCRACY

Digital Information Literacy Research Brief

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The EAD Research and Evaluation Task Force is pleased to share these research briefs which summarize findings from research on various practices and priorities associated with EAD. The authors of each brief were asked to highlight the main findings from research on the given subject.

What is digital information literacy?

Digital information literacy encompasses the knowledge, skills, and dispositions necessary to navigate and evaluate digital information—including navigating search engine results and evaluating websites and social media posts. Digital information literacy requires: 1) knowledge, such as knowing how digital algorithms function and what various Internet-based clues like verification check marks or top-level domains do and do not communicate about credibility; 2) skills to effectively search for and evaluate information in the constantly changing and increasingly complex online environment; and 3) dispositions such as openness to new ideas and commitment to accuracy.

The development of students' digital information literacy is central to the mission of sustaining democracy. Educating For American Democracy's (EAD) Theme 1, *Civic Participation,* recommends that K-5 students "develop media literacy skills to evaluate evidence and weigh claims" and that 6-12 students "analyze the past and present role of the media in shaping civic participation, including the importance of using credible sources." Additionally, Theme 7, *A People with Contemporary Debates and Possibilities,* recommends that secondary students "Build strategies for learning about current events, issues, and debates" and "Explore the role of bias, truth, and the media in becoming informed civic participants." Finally, the research, investigation, and analyses recommended by the EAD's Pedagogy Companion Principle 4, *Inquiry as a Primary Mode of Learning,* relates directly to how teachers support students to conduct effective research in digital spaces by incorporating digital information literacy.

The Importance of Teaching Digital Information Literacy

In the U.S., 89% of 0- to 8-year-olds have access to the Internet at home[1] and 8- to 12-year-olds report more than five hours a day of screen time devoted to playing games or watching videos, a statistic that has risen steadily in recent years.[2] Teenagers spend a great deal of time online[3] and report that they rely on the Internet—especially social media—for news.[4] Despite their reliance on digital devices, research suggests that young people need substantially more help in building digital information literacy.[5] Children in elementary school widely agreed that "most of the information on the Internet is true,"[6] while middle school students often could not identify stories labeled "sponsored content" as advertising[7] and evaluated YouTube videos without regard for the credibility of the source.[8] Digital information literacy does not necessarily improve as children age: High school students, college students, and even adults still struggle to effectively evaluate online information. They often attempt to evaluate websites based on easy-to-manipulate features such as appearance, top-level domain (.org, .com), or the sheer amount of information present on a page or post.[9] These findings suggest that young people need support building digital information literacy so they can discern credible information and detect misinformation in the online spaces where they spend a great deal of time.

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Teaching Digital Information Literacy

Supporting students' digital information literacy requires, first, helping students build knowledge about online ecosystems and platforms. If students understand how the Internet is structured, including how algorithms shape much of the information they see, they are better positioned to make informed choices about their online behavior.[10] Teachers should also help students understand factors that incentivize what and how online content is produced and spread, including misinformation that is fueled by systemic racism and hyper-partisanship.[11] As they develop this knowledge, students can reflect on their own online behaviors and build motivation for carefully evaluating online information and not sharing misinformation.

Teaching skills for evaluating digital information is the second component of digital information literacy. Some evaluation strategies that were taught in the past, such as judging a website based on its URL or appearance, are no longer effective.[12] Research with professional fact-checkers revealed that they evaluated websites not by carefully examining their appearance or contents, but rather by exiting the sites and searching for information about the source via additional, credible sources. This *lateral reading* helped fact checkers both more efficiently *and* more effectively make decisions about what to trust.[13] Additionally, fact-checkers engaged in *click restraint* on search results pages: Instead of quickly clicking on the first or second result (as research suggests many users do[14]), fact-checkers scanned titles and URLs and made more

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informed decisions about where to click first.[15] Interventions to teach source evaluation strategies like lateral reading have shown evidence of success with elementary school, middle school, high school, and college students as well as adults not in school.[16] Teacher-led lessons often include a teacher modeling evaluation strategies, time for students to practice the strategy, and class discussions about what students learned.[17] In addition, less traditional forms of instruction like video games or asynchronously delivered modules also appear effective in helping students build digital information literacy.[18]

As they teach the knowledge and skills associated with digital information literacy, teachers should also help students develop healthy online dispositions. Particularly when they encounter online content on topics that they care about, students (and the rest of us) may be tempted to forgo effortful evaluation strategies such as lateral reading and instead make snap judgments about content that aligns with prior beliefs.[19] Teachers can help students slow down—particularly

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when content induces a strong reaction—and give themselves time to consider their reactions and whether they need to further evaluate the source or claims.[20] Prompting students to prioritize accuracy or reflect on why it is important to read and share accurate information on a particular topic may also help.[21]

Challenges

Despite the above findings from research on interventions to teach digital information literacy, hurdles remain. First, digital information literacy often lacks a formal place in the elementary and secondary curriculum and, as a result, may be difficult for teachers to prioritize in their classrooms. Recently, more states have passed or are considering legislation that requires instruction related to digital information literacy,[22] but implementing legislation takes time and effort, as does evaluating its eventual impact on instruction and student learning. Second, as with any instructional change, leaders must provide clear curricular support and relevant learning opportunities for teachers. Teachers may be in the process of learning digital information literacy themselves and therefore require time and support to learn and plan for teaching.[23] Third, as more schools and teachers integrate digital information literacy, the field needs to explore how knowledge, skills, and dispositions can be introduced early in students' school careers and gradually increase in sophistication across the K-12 journey. We currently lack a research-informed understanding of how relevant knowledge and skills might be introduced in early grades and what such vertical alignment could look like. Finally, in our increasingly politicized era, teaching digital information literacy, which involves engaging in conversations about who we trust and why, can be contentious. Teachers may bring their own perspectives into

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conversations about sources,[24] and principals report that teaching about misinformation is increasingly challenging for teachers, particularly in politically heterogeneous communities.[25]

In conclusion, a strong evidence base underscores the need to teach young people digital information literacy and suggests ways to do so in the classroom. The themes and pedagogy recommended by EAD present an opportunity for states, districts, and schools to support educators as they teach digital information literacy and to help ensure that students are prepared to exercise informed citizenship in the 21st century.

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