

Misinformation in the Information Age: What Teachers Can Do to Support Students

Erica Hodgin and Joe Kahne

I feel like it's my job to help [my students] do a better job of discriminating [between] what is actual news that would be trustworthy or even less biased [and] other sources. So that's what I work on for this first year, and hopefully people will work on for the rest of their lives. Because it's challenging.

(9th grade Humanities Teacher - Dallas, Texas)

The context that motivates this teacher's sentiment is clear. Both youth and adults struggle to judge the credibility of what they find online. A recent Pew Research Center study found that 64 percent of adults believe fake news stories cause a great deal of confusion, and 23 percent said they had shared fabricated political stories themselves—sometimes by mistake and sometimes intentionally.¹ Studies also indicate that youth struggle with this challenge as well. A 2016 study including middle school, high school, and college students showed that many youth cannot tell the difference between a real news story and “sponsored content” (or an advertisement).²

Teachers, as well as the public, often look at these findings and decide that the problem is one of capacity. “Youth must learn how to judge the credibility of online content!” Certainly, this matters but it is an incomplete diagnosis. Reasoning and analytic capacities are not enough, especially when it comes to civic and political information.

One thing that makes learning and thinking about politics different than many other subjects is that students (along with adults) often have strong

prior beliefs regarding these topics. Few students have staked out a position on elections prior to learning about them. The same cannot be said of questions revolving around abortion policy, or gun laws, or any number of hot button issues. And the research is clear. Prior beliefs can be enormously influential on students' judgements of the credibility of truth claims related to controversial issues.

For instance, Lodge and Taber found that emotions often surface when engaging with socio-political concepts. These emotions, in turn, trigger what's called “hot cognition,” whereby positive and negative feelings bias subsequent information processing.³ This can lead individuals to seek out evidence that aligns with their preexisting views (*confirmation bias*), to attempt to dismiss perspectives that contradict their beliefs (*disconfirmation bias*), and to consider claims that align with their views as stronger and more accurate (*prior attitude effect*).⁴ These dynamics, which psychologists call *directional motivation*, can limit an individual's ability to learn from diverse viewpoints, especially when it comes to politicized topics. In fact, Redlawsk found that individuals who encountered

new information that contradicted their prior perspective often become more committed to their prior beliefs rather than learning from the new information.⁵

It's easy to see how these motivations can undermine judgments of credibility. Rather than focusing on whether a statement is accurate, youth—like adults—often focus on whether a statement supports their prior beliefs. These problems are exacerbated by (a) the growth of the Internet which makes it easier to circulate such content, (b) increasing partisanship, which means people are even more likely to focus on what their “team” says regardless of whether its accurate, and (c) diminished trust in institutions like the news media. Given these dynamics, it is fundamentally important that educators support youth in developing a “healthy level of skepticism” so they can critically evaluate online information while at the same time identifying trustworthy sources of news.⁶

Does Civic Media Literacy Instruction Make a Difference?

Although the field is new, early research demonstrates that civic media literacy education can be significantly beneficial. Specifically, drawing on survey data from a nationally representative sample of young people, we found that those with no civic media literacy learning opportunities were just as likely to judge inaccurate posts as accurate as they were posts that used factually accurate evidence.

Figure. 1

Study Finds Media Literacy Education Can Help

According to a Youth and Participatory Politics survey, youth with no civic media literacy learning were just as likely to judge inaccurate posts as accurate as they were posts that used factually accurate evidence.



The survey found that 84% of young people would like to learn how to tell if online news and information is trustworthy.



Young people who received civic media literacy learning opportunities were 26% more likely to judge an evidence-based post as "accurate" than they were to judge an inaccurate post as "accurate," even when both posts aligned with their perspective on an issue.

In contrast, youth who received civic media literacy learning opportunities were 26 percent more likely to correctly identify an inaccurate political post as inaccurate even when the post aligned with their perspective on the issue (See Figure 1).⁷ The civic media literacy learning opportunities that we found to be impactful were experiences that promoted the importance of accuracy and that taught skills related to judging the accuracy of online content. Therefore, it is critical for schools and community-based educational institutions to integrate civic media literacy learning opportunities that attend to these priorities.

Unfortunately, media literacy instruction that supports youth in judging the credibility of civic and political information found online is lacking. In a 2013 survey, 33 percent of high school age youth did not report having a single class session that focused on how to tell if information found online was trustworthy, and only 16 percent reported having more than a few class sessions focused on this topic.⁸

Furthermore, providing all youth with equitable access to high quality civic

media literacy education must be a central concern of any effort. While these opportunities are relevant for all school contexts, they are particularly important to address in under-resourced schools. In fact, Hargittai found that Internet skill level increases correspondingly with students' socioeconomic status.⁹

Moreover, on average, white students, middle class students, and students in higher-track classes experience more classroom-based, after-school, and informal civic learning opportunities.¹⁰ Thus, educational institutions will need to put in place a range of supports including improved infrastructure, professional development, curricular resources, and administrative support in order to make equitable and high-quality opportunities available to all students.

What Can Teachers Do?

In what follows, we argue that three educational approaches are paramount. First, we must help students develop the skills and capacities to tell what is accurate. Second, we argue that metacognition is necessary to become aware of one's biases as well as to develop and cultivate a com-

mitment to accuracy. Finally, we argue that ongoing opportunities for students to practice use of these skills and metacognitive thinking is necessary to instill habits that can be applied across settings and contexts. (See Table 1 on page 211) Taken together, these approaches have the potential to support young people in developing the capacity to judge the accuracy and credibility of online information, the commitment to accuracy, and the awareness of their biases.

Develop Nuanced Skills and Strategies.

First, educators can help students develop nuanced skills and strategies for assessing the accuracy of truth claims that move beyond hard and fast rules or rote checklists. Such rules and lists misrepresent how complex online information has become and, therefore, may make students more susceptible to believing misinformation.¹¹ For example, superficial characteristics such as the polished "look" of a website or whether the domain is .com or .org are not reliable features by which to judge the credibility of a website. Instead, educators can help students understand the complexity that exists and explicitly teach a

range of skills and strategies youth can utilize to navigate the online information landscape.

McGrew et al., of the Stanford History Education Group (SHEG), call these kind of strategies *civic online reasoning*—“the ability to effectively search for, evaluate, and verify social and political information online”¹²—which includes the ability to identify who is behind a piece of information, to evaluate the evidence, and to investigate additional sources. Two key strategies that SHEG recommends from studying professional fact-checkers include reading laterally (scan unfamiliar sites strategically and then leave to search for information about their credibility elsewhere) and exercising click restraint (become more discerning consumers of search engine results).¹³ In short, educators can highlight strategies for choosing between the various results of a search, for checking the reliability and credibility of sources, and for finding background information on groups making varied claims by looking on a range of sites. (See Classroom Example #1.)

Classroom Example #1: A 9th grade English teacher named Ms. Richards in Oakland, California, focused on helping her students learn to judge the credibility of different online sources in preparation for a research project on a contemporary civil rights issue. While reading articles about New York’s controversial “Stop and Frisk” policy, Ms. Richards asked students to use a “Trust-O-Meter” that included critical inquiry questions that guided students in assessing whether a source was trustworthy, thereby highlighting factors that made a source questionable or untrustworthy.* By weighing the strengths and weaknesses of a source, Ms. Richards found that students were better able to determine the credibility of the online sources as well as reflect on the complexity of such a task.

* E. Middaugh, “Digital Civic Literacies in Oakland High Schools,” EDDA Research Summary No. 2 (2015a), http://eddaoakland.org/wp-content/uploads/2015/07/EDDA_Research-Brief_Digital-Literacy_R.pdf.

Reflect on Thought Processes. In addition, young people may benefit from developing an awareness of the role their individual thinking plays in understanding and evaluating information. They can also reflect on their own personal biases in relationship to that analysis. Metacognition—the awareness of one’s learning processes—often takes the form of an internal dialogue where students are thinking about their own thinking.¹⁴ Educators can help make metacognitive processes visible to students in order to surface the kinds of sense-making, self-assessment, and reflection that supports the productive analysis of online information. (See Classroom Example #2.)

In addition, educators can help students acknowledge how their own opinions may influence their evaluation of a claim. By understanding how their prior beliefs may elicit positive

Classroom Example #2: In an 11th grade social studies classroom in Chicago, Illinois, a teacher, Mr. Dudley, turns on the projector and shows his students a screencast of his laptop. Students can see Mr. Dudley type several key terms into a search engine window, click around a few websites looking for more information, and check other sites to determine the credibility of the author and organization. They can also hear him think aloud by describing the thoughts and questions that come to mind. After watching, students discuss what they saw Mr. Dudley doing and what strategies they could use in their own research project about contemporary issues affecting their community. By making his process visible, Mr. Dudley surfaces the complexities of online research as well as the skills and stamina needed to navigate this new information landscape.*

* J. Kahne, E. Hodgins, and E. Eidman-Aadahl, “Redesigning Civic Education for the Digital Age: Participatory Politics and the Pursuit of Democratic Engagement,” *Theory & Research in Social Education* 44 (2016): 1–35.

or negative feelings that bias their processing of information, students can work to ensure these triggered reactions do not eclipse their efforts to assess the accuracy and credibility of an argument. For example, teachers can support students to develop what Lavine, Johnston, and Steenbergen called “critical loyalty.”¹⁵ Those with critical loyalty still hold strong values and beliefs, but they adopt a critical stance when evaluating an argument—even when it aligns with their beliefs. In other words, educators can highlight metacognitive processes that strengthen students’ ability to evaluate the accuracy and credibility of political claims while at the same time stressing the need to carefully assess one’s biases and seek out varied perspectives. (See Classroom Example #3.)

Classroom Example #3: An English teacher named Ms. Moa worked with 12th grade students in Oakland, California, to write a series of blog posts reflecting on their thinking and learning as they researched a pressing social issue for a capstone project. After doing some initial research, students paused and chronicled what they found, what sources were reliable and why, what challenges they faced, what they could do next to deepen their research, and the extent to which their thinking about the issue changed. Students also read and commented on their classmates’ posts in order to offer thoughts and advice. This process enabled students to learn about the reflective thinking of their peers.*

* K. S. Schultz, E. Hodgins, and J. Paraiso, “Blogging as Civic Engagement: Developing a Sense of Authority and Audience in an Urban Public School Classroom,” in *#youthaction: Becoming Political in the Digital Age*, eds. E. Middaugh and B. Kirschner (Charlotte, N.C.: Information Age Publishing, 2015), 145–166

Practice, Practice, Practice. Finally, studies suggest that it is important for students to be given multiple opportunities to

Table 1. What Teachers Can Do to Help Students Navigate Misinformation in the Information Age

Approaches	Teacher Considerations	Classroom Examples
Develop Nuanced Skills & Strategies	<ul style="list-style-type: none"> • Guide students in developing nuanced skills and strategies for assessing the accuracy of truth claims that move beyond hard and fast rules or rote checklists 	<ul style="list-style-type: none"> • Develop critical inquiry questions with students that promote complex analysis of whether a source is trustworthy and what factors make it questionable or untrustworthy
Reflect on Thought Processes	<ul style="list-style-type: none"> • Support students to develop an awareness of the role their individual thinking plays in understanding and evaluating online information • Help students acknowledge their own opinions and perspectives and how those may influence/bias their evaluation of a claim 	<ul style="list-style-type: none"> • Model and think aloud about the kinds of thinking involved in judging the credibility of information or a source • Ask students to regularly reflect on their biases, the accuracy and credibility of sources, the impact of their biases on their judgments of credibility, and what they are learning during a research project
Practice, Practice, Practice	<ul style="list-style-type: none"> • Give students ongoing and varied practice to integrate these ways of thinking and these skills and strategies into their habits, which can then be applied across settings and contexts • Integrate digital civic media learning opportunities within the core curriculum in ways that enable students to extend and deepen their practice of such skills 	<ul style="list-style-type: none"> • Implement a weekly “Do Now” where students research a current event topic and post a brief response coupled with evidence • Integrate regular, often brief, analysis of diverse media messages (including websites, books, videos, social media, etc.) related to core curricular content with reflections on student biases

practice judging the credibility of online and all forms of information. For example, in a naturalistic study involving high school students, Middaugh found that in order for youth to make fluent and flexible use of the media literacy skills and strategies they learned, students needed lots of practice.¹⁶ Ongoing and varied practice can help students to integrate skills and strategies as well as these ways of thinking into their habits and to apply these approaches across settings and contexts. While finding time and space for additional content is certainly a challenge, many teachers we collaborated with found success by integrating digital civic media learning opportunities throughout the core curriculum in ways that deepened and extended students’ learning.¹⁷

In addition, the quality of such opportunities for practice is key to consider as well. Mihailidis found that media literacy education approaches that focus solely on skill attainment result in less interest and engagement by students.¹⁸ Undoubtedly, offering ongoing learning opportunities that are relevant, authentic, and related to students’ interests is critical. Thus, regular classroom routines appear to enable students to become more effective and confident in their research skills. (See Classroom Example #4.)

Classroom Example #4: *Ms. Blake, a high school humanities teacher in Dallas, Texas, integrated regular opportunities for her students to practice judging the credibility of online information via a weekly activity at the start of class*. Students responded to a current event via Twitter using a common hashtag and briefly shared their perspectives on the issue. Ms. Blake drew on content developed by KQED—a public media station in northern California—through a program called “Do Now” in which students across the country responded to and engaged in an online discussion centered around a weekly question about a timely and relevant current event. In their responses, Ms. Blake asked students to include at least one link to a credible source they found that backed up their opinions, which meant students had to conduct some initial research, determine the credibility and reliability of a variety of sources, and weigh what they had learned against their ideas in order to succinctly state their opinions.*

* E. Hodgins and J. Kahne, “Judging Credibility in Un-Credibly Times: Three Educational Approaches for the Digital Age,” in *Fake News: What is it, Why it is Problematic, and What Educators Can Do about it*, ed. W. Journell (New York, N.Y.: Teachers College Press, in press).

Supporting Youth to Become Effective and Thoughtful Civic Actors

The changes in the online information landscape, the divisive nature of political life, and the growing distrust in democratic institutions have all contributed to the increasing circulation of misinformation. These dynamics have made assessing the credibility of information challenging for youth and adults alike. While we have much to learn, studies find that high quality civic media literacy education can be beneficial.¹⁹

In order to integrate such learning opportunities across the curriculum for all students, teacher education programs, educational policymakers, funders, districts, and schools will need to invest in providing teachers with the support, time, space, and resources needed to make these efforts a priority. At the same time, educational institutions and educators must prioritize access and equity so that all youth will be able to develop the skills, strategies, and metacognitive thinking through ongoing practice. In turn, this can support youth to navigate the opportunities and challenges in the digital age and become more effective and thoughtful civic actors. 🌍

Notes

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ERICA HODGINS is the Associate Director of the Civic Engagement Research Group (CERG), www.civicsurvey.org, at the University of California, Riverside and the Project Director of the Leveraging Equity and Access in Democratic Education (LEADE) Initiative. **JOSEPH KAHNE** holds the Dutton Presidential Chair for Education Policy and Politics at the University of California at Riverside. His work can be found at [@jkahne](mailto:jkahne@ucr.edu), jkahne@ucr.edu, and civicsurvey.org.

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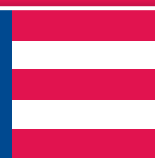


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