



Invited Essay

Fake news, fake truth: A new purpose for public schooling[☆]

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ABSTRACT

The world is adversely affected by the plethora of easily available fake and misleading information. Public schools are established to help generate responsible citizens. Public schools may have a role to play in addressing the fake news, fake truth problem.

1. Introduction

It is common to ask schools to solve social problems, even some which the schools may not control. However reluctant in the past I will now suggest a new responsibility to public schooling, on the grounds that there may be no other choice.

Recall the original purpose of public schooling as created by Frederick the Great, the leader of Prussia in 1763. It was not to augment human capital through the acquisition of cognitive skills; rather it was for the purpose of helping create social cohesion. The first public schools were associated with the inclusion of a neighboring community where the population was Catholic rather than Lutheran. It was his view that Catholic children need not to abandon their faith because their village was now ruled by someone of a different faith. What was required was that they show loyalty to the same political community. He had two laws passed to underpin this concept. One was to establish a curriculum in common across Lutheran and Catholic schools; the other was to establish a new tax to support Catholic and Lutheran schools so that all children would be exposed to the new curriculum (Heyneman, 2000, p. 175.).

One relevant reference: In the 1940's one criterion to acquire a certificate of graduation from secondary education in California was a demonstration that one could swim. Today that sounds strange, but with 1350 Kilometers and 164,000 square miles of coast line, and with many youths drowning in the ocean, the requirement did not seem strange at the time.

2. What is the problem today?

In his new book on the COVID-19 pandemic titled: *Preventing the New Pandemic: Vaccine Diplomacy in a Time of Anti-Science* (Hotez, 2021). Peter Hotez makes the following observation: That there are 500

websites spreading anti vaccine misinformation, whose assertions are widely disseminated by social media and e-commerce platforms. He says that “the largest e-commerce platform of them all, Amazon, is now the most active promoter of fake anti-vaccine books.... Go to Amazon books, click on ‘Health, Fitness and Dieting’ in the scroll down menu at the left, and then click on ‘Vaccinations’ to see how legitimate books on vaccines are pushed behind fake ones.” He finds that the online environment is so clogged with misinformation that it is now hard for concerned parents to find trustworthy information. “Serious and meaningful information regarding this topic resembles a lost message in a bottle floating aimlessly in the Atlantic Ocean” (cited in Groopman, 2021, p. 57).

A review of Hotez's book appeared in *The New Yorker* in an article titled: “Beyond the Vaccine: Preventing another Pandemic Will Be a Political Task as Much as a Medical One” (Groopman, 2021). The title raises two concerns. First, by saying that preventing the next pandemic is a political task does not mean that the problem can be solved by legislation and rulings in court. What it really means is that it is a public problem, and that means that public schools have to help provide a feasible response.

The second concern about the title is that fake, misleading and damaging information is not solely related to vaccinations. This kind of information helps damage personal behavior in many ways. Misleading information can lead to theories of conspiracy which can help create chaos when none was necessary; misleading information can augment hostility between social groups of citizens and political neighbors. Misleading information can augment a person's feeling of anxiety and fear, which can lead to depression or to extremist political acts of desperation.

The evidence of this is not hard to find (Mozar, 2018; Kubota, 2007). What is hard to find are feasible policies and programs which can reduce the damaging effects of fake and misleading information. There are

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many organizations and academics who are leading the way on this.

For instance, the American Library Association (ALA) has discovered that: 80% of the students in middle school mistake sponsored content for real news; that 75% cannot tell the difference between real or dishonest news on Facebook; and that only One Out of Three can identify a bias in a news source (ALA [Information Source](#), 2021).

The ALA has concluded that students do not meet the standards set by the International Society for Technology in Education (ISTE) to critically select, evaluate and synthesize digital resources. This means that students do not understand the difference between fake and real news. American librarians are now helping to standardize the underpinnings of what is known as *media literacy*.

Media literacy according to the ALA, includes what may be obvious to some, but not to everyone. Media literacy includes five 'truths'.

1. **Authorship:** All media messages are written through 'constructed authorship'.
2. **Rules and format:** All media messages use a creative language with its own rules and format.
3. **Audience:** Different people experience the same message differently.
4. **Framing:** all media messages have embedded values and points of view.
5. **Power and/or purpose:** Most media messages are organized to gain profit or to advance a specific political purpose.

With these five 'truths' the librarians have launched into a training program which can prepare students to better understand media messages and what to do about them. For example, the ALA is actively demonstrating how to identify the differences between dishonest and real news:

Real News: Comes from a respected news outlet: *If you're not sure, verify the story on:* Snopes.com, FactCheck.com, PolitiFact.com.

Real News: Headlines matches the rest of the article: *Always read beyond the headline.*

Real News: Has a byline naming the person who wrote the article: *Google the author to learn more.*

Real News: URL matches the news source: *Sites ending in .gov or .edu are the most trustworthy.*

Real News: Has a current date: *See if other news outlets have picked up the story.*

Real News: Backs up claims with links to credible sources: *Click the links to make sense.*

Fake News: May come from an unfamiliar website, Therefore: *Check the home and about pages and look for signs of Satire ("for entertainment only") and bias (has a political agenda).*

Fake News: Headlines is an outrageous or doesn't match article: *Be skeptical of over-the-top or emotional headlines.*

Fake News: Doesn't list an author, so one can't investigate them: *Credible news sources Provide contact information.*

Fake News: URL is strange or doesn't match the news outlet, therefore: *Avoid sites ending in .lo or .co and carefully scrutinize sites ending in .com.*

Fake News: May have an old date or there's no other coverage: *Outdated news stories can be misleading.*

Fake News: Fails to provide any proof of claims: *Don't trust into if you can't trace back to its source.*

These principles then lead to a series of requirements which gradually have become standardized. The librarians help students internalize these principles by sending reminders. For instance:

Be Skeptical: Does the headline sound unlikely, unrealistic preposterous? Don't take every headline you see at face value.

Identify the author: Many fake news stories are anonymous. If you can't find out who wrote the information, be wary of the content.

Ask who is in charge or who has sponsored the article: Does the author work for someone? Identify the author's employer if there is one. Think about how "the news" might be biased by the preferences of the

employer.

Consult multiple sources: Check other sources. Are they Reporting the same or similar news? If it's a big story, they will, what do "opposition" sources Say about the story? Do they report the same facts?

Dig deeper before accepting the article's claims: Does the article cite sources or traceable quotes? Find and read the actual study for Confirmation. Put quotes in context.

Check Out the facts: Fact check the story with watch dog sites such as *Snopes.com*, *Politico.com*, and *PolitiFact.com*. It is their job to make sure the information from news sites is accurate.

Compare: Compare the headlines and/or picture against the content of the article. If they don't match, are they meant to mislead or misdirect you?

Spell Check: Does the URL have any odd suffixes or substitutions (like replacing a letter l, for example)? Is this a fake news site pretending to be something else?

Share with Care: Share social media posts only after you have read them and considered their source. Friends and family trust you to share trustworthy information.

Be Open-Minded: Is confirmation bias the tendency to believe reports that confirm what you already believe putting you in an echo chamber? Be open-minded ask questions.

Beware Online "Filter Bubbles": Is predictive searching biasing your information retrieval? Social media often feeds you only items that are similar to items you have liked. This keeps you from getting both "sides" of the story.

Laying out the standards for media competency is a first step. But how are schools to assess the level of student competency? In this regard, there is some progress.

Assessing the level of Media Competence: Stanford History Education Group: A group at Stanford University has designed an assessment test in which students at different ages can be divided into low, medium and high levels of media competence. Here is an example of the Stanford designed test of student competence in media literacy.

This assessment relies on a series of standardized questions about an article:

Authorship: Who made this?

Purposes: Why was this made? What does this want me to do?

Audience: Who is the target audience? My role: why are they trying to reach me? Or who is the author talking to? What is it for?

Economics: Who paid for this?

Effects: Who might benefit from this message? Who might be harmed by it? Is this message good for me or people like me? What does the storyteller want me to remember?

Responses: what actions might I take in response to this message? How should I react to be productive and/or sensible? How does this make me feel and how do my emotions influence my interpretation of this?

Messages & Meaning: What does this want me to think (or think about)? What would someone learn from this? What does this tell me about {insert topic}? What ideas, values, information, or points of view are overt? Implied? What is left out that might be important to know?

Techniques: What techniques are used and why? How do the techniques communicate the message?

Interpretations: How might different people understand this message differently? What is my interpretation and what do I learn about myself from my reaction or interpretation?

Context When was this made? Where or how was it shared with the public?

Credibility: Is this fact, opinion, or something else? How credible is this (and how do you know)? What are the sources of the information, ideas, or assertions? Can I trust this source to tell me the truth about this topic?

The Stanford group has then divided students by age/grade levels and have standardized low, medium and high scores on the test of media competence at each school level.

Here, for instance, are the expectations for a student in **Middle School**.

- **News on Twitter:** Students consider different tweets and determine which is the most Trustworthy.
- **Article Analysis:** Students read a sponsored post and explain why it might not be reliable.
- **Comment section:** Students examine a post from a newspaper comment section and explain whether they would use it in a research project.
- **News search:** Students distinguish between a news article and an opinion column.
- **Home page analysis.**

Students identify advertisements on a news website.

Here are expectations for a student in **Secondary School**.

- **Argument Analysis:** Students compare and evaluate two posts from a newspaper's comment section.
- **News on Facebook:** Students identify the blue checkmark that distinguishes a verified Facebook account from a fake one.
- **Facebook Argument:** Students consider the relative strength of evidence that two users present in a Facebook exchange.
- **Evaluating Evidence:** Students decide whether to trust a photograph posted on a photo-sharing website.
- **Comparing Articles:** Students determine whether a news story or a sponsored post is more reliable.

Here are expectations for a student in **Higher Education**.

- **Article Evaluation:** In an open web search, students decide if a website can be trusted.
 - **Research a Claim:** Students search online to verify a claim about a controversial topic.
 - **Website Reliability.**
- Students determine whether a partisan site is trustworthy.
- **Social Media Video:** Students watch an online video and identify its strengths and weaknesses.
 - **Claims on social media:** Students read a tweet and explain why it might or might not be a useful source of information.

3. Examples of the Stanford test of Media Competence (Stanford History Education Group, 2021)

The students are shown a twitter feed— Headline: New pooling shows the @NRA is out of touch with gun owners and their own members.¹ Two out of three-gun owners say they would be more likely to vote for a candidate who supported background checks.

Then students are asked: Why might this tweet be a useful source about the opinion of NRA members? List any sources you used to make your decision. Or why might this tweet not be a useful source for opinions of NRA members?

It is important to note that the issue is not whether the twitter feed is trustworthy but rather the evidence on both sides, evidence that it is trustworthy and evidence of the opposite.

Students are asked: Why it might this tweet be useful?

4. The Rubric

- **Mastery Level:** Student fully explains that the tweet may be useful because it includes data from a poll conducted by a polling firm.
- **Emerging Level:** Student addresses the polling data and/or the source of the polling data but does not fully explain how those elements may make the tweet useful.
- **Beginning Level:** Student does not address the polling data or the source of the polling data as a reason the tweet may be useful.

Then the students are asked why the same tweet might not be useful?

- **Mastery Level:** Student fully explains how the political motivations of the organizations involved may have influenced the content of the tweet and/or poll, which may make the tweet less useful.
- **Emerging Level:** Student addresses the source of the tweet or the source of the news release but does not fully explain how those elements may make the tweet less useful.
- **Beginning Level:** Student does not address the source of the tweet or the source of the news release as reasons the tweet may be less useful.

Here is an example of a student at the **Mastery Level**.

This student explains how MoveOn.org's work as a political advocacy organization might influence the tweet's contents; the student cites the fact that according to the Moveon.orgs page on Wikipedia the organization is a 'progressive public policy' group and would therefore would be against any media information distributed by the NRA. The student at the mastery level also pointed out that the Wikipedia page mentioned that on more than one instance Moveon.org distorted the truth and attempted to alter Google searches for its own benefit. This student concluded "I would seek a different source to know NRA members' opinions on background checks."

Here are examples of a students at the **Emerging and Beginning levels**.

- **Emerging Level:** The emerging student suggests that the tweet is politically motivated but does not explain how this might influence its content. The emerging level of student mentioned that Moveon.org was paid to work on Obama's campaign and therefore are democrat-oriented, when NRA members tend to be Republican.
- **Beginning Level:** At the beginning level the student focused on the nature of Twitter rather than the source of the tweet.

Here is another item from the Stanford test of Media Competence.

5. Newspaper item: is it an ad or an article?

The students are presented with an item from a newspaper and are asked whether this is an advertisement or a news article.

- **Mastery Level:** Student correctly identifies the item as an ad or non-ad and provides coherent reasoning.
- **Emerging Level:** Student correctly identifies the item as an ad or non-ad but provides limited or incoherent reasoning.
- **Beginning Level:** Student incorrectly identifies the item as an ad or non-ad.

The student at the **Mastery Level** correctly categorized the item as an ad based on several of its features. It has 'stop seeing this ad' button, or 'limited time offer, or noting that on the left side there is an offer to 'save \$20' and usually money is involved if people are selling something.

At the **Emerging Level** of media competence, a student engages in circular reasoning by saying that: "It is an advertisement because it advertises something".

or points out something irrelevant such as: "It is an advertisement because there's no 'Really Useful' thing on it".

Here is a third illustration, an article about California almonds.

Example of an item on California Almonds. At the mastery level the student correctly identifies the story as an article because: "There is no little blue x, it has an author of the article, and it doesn't say it is sponsored content."

At the emerging level Student identifies a feature that may or may not indicate its status as an ad: "It is not an advertisement because it does

¹ The National Rifle Association is the principal group which lobbies government to liberalize gun ownership regulations.

not have a blue button on top.”²

At the beginning level one student classified the story as an advertisement because: ‘they are trying to persuade people that almonds are good for you and that they should buy them.’

6. Summary: truth or consequences

In sum, we know several things about the tidal wave of irresponsible information. We know that the problem exists in every country where social media are available. We know that children cannot recognize trustworthy sources of information. We know that this problem is not temporary; rather it is a permanent feature of our future. And we know that it is a threat to social cohesion both within and between countries. We can all recognize the damage which results from this problem. We all want the freedom to express ourselves, but we can't live with the extreme consequences of its effects.

But what can be done about it? How is this problem to be addressed successfully? Which institutions are capable? Legislatures? Courts? Should the responsibility remain with organizations in the for-profit sector such as Facebook and Twitter? And how can this problem be effectively addressed when the sources of irresponsible information have no national origin, no single place of invention or distribution.

We are educators. And as educators, our response should be to remind the public what public schools are for. It would not be useful for us to suggest that public schools alone can solve the fake information problem. But what public schools can do is lay the precedent for classifying it as a problem and providing a means by which young citizens can solve the problem themselves. This is the essence of what good public education can do. Public education can identify and classify a problem and then train young citizens to address it on their own. But how can public schools play a role in addressing this problem? It is true that non-legitimate sources attempt to mimic legitimate sources. This makes media literacy, even at a beginning level, all the more important to generalize in a population.

7. Precedents

In 2018 the State of California approved a law to provide schools with a master list of legitimate sources of information on which students could draw. A recently approved Illinois House Bill 234 provides that starting in the 2022–2023 school year, public high schools will provide a unit of instruction on media literacy that will include instruction on how to access information and evaluate the trustworthiness of its source; analyzing and evaluating media messages; creating media messages; assessing how media messages trigger emotions and behavior; and social responsibility. Since 2018 Finland has distributed an instruction book to students with chapters describing the facts which underpin the national curriculum, classroom activities and processes, learning about hoaxes and elections. Perhaps the most compelling arguments instruct students on how to differentiate between information which is defective, information which is deceptive and information which is damaging (Kaktabarri, 2018; Schwartz, 2021; Haquet et al., 2021). However beneficial these efforts may be, they are available for, usually secondary school students if they want them. The question is whether the acquisition of skills of media literacy should be voluntary and whether they should be targeted only to secondary schools.

Using a combination of indicators on press freedom, trust in institutions, and reading scores on international tests the Open Society Institute has created an index of media literacy. On this index, the leading countries included Finland, Sweden, Denmark and Canada. The United States ranked 15th. (Carr, 2021).

The OSI report recommends.

...education as the optimal approach to tackling fake news as a “vaccination” offering resistance against the worst cases of fake news and post-truth. Dealing with fake news and disinformation would dial down the temperature of political and social debates – and confrontations – would improve trust in societies and would contribute to a healthier environment (figuratively and literally) in the Covid-19 pandemic. (OSI, 2021).

The problem with these efforts is that they rely largely on gross naming and shaming or voluntary access to media literacy skills as a means of improvement. This is not sufficient to solve the problem. What other options might be considered? Recall the certificate of swimming in order to graduate from high school a half century ago? Today it is unnecessary, but 50 years ago, the circumstances may have been different. How can public schools address the problem which we face today? I would recommend:

- That schools create a certificate of Media Competence at each level of schooling as one criterion of completion before advancing to the next level.
- That the certificate of Media Competence be divided into three levels: **Beginning, Emerging and Mastery.**
- That the certificate be based not on what is true but on whether the source of information is identified as more or less trustworthy,
- That a certificate of media competence be considered by public schools in all nations, and lastly,
- That the certificate of media competence be utilized in environments well outside of schooling. The certificate of Media Competence, analogous to a driver's license, might be used as a criterion for instance, in an application for employment in the civil service or enter the military.

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² A 'blue button' is used by media companies to identify an item as being financed.