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Prescription for an *Infodemic*: A Pedagogical Response in an Era of “Fake News”

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As of this writing our country is in the midst of an unprecedented economic and educational shutdown due to the coronavirus pandemic. Simultaneously, across the globe we are suffering from, as the World Health Organization claims, an Infodemic: “an over-abundance of information – some accurate and some not – that makes it hard for people to find trustworthy sources and reliable guidance when they need it” (World Health Organization, 2020, p. 2). The Covid-19 Infodemic was made possible by a convergence of social changes that have left our media so politicized, authority so subjective, and our politics so polarized that truth has become virally malleable?

This chapter attempts to answer three questions about this unprecedented historical and pedagogical moment. What are the factors that have led to this crisis of belief? What do we know about how young people assess truth in mediated messages? And, how can media literacy help our students to effectively navigate the complexities of their hyper-mediated world?

A Perfect Storm for Epistemological Divergence

Long before the Internet revolutionized media, Alvin Toffler (1970) wrote the book Future Shock about the ever-increasing rate of change that was warping our ability to manage life in the 20th century. The mass and velocity of digital information in the 21st century has short-circuited our collective ability to thoughtfully reflect on the data we take in. We need educational strategies that will support young people in learning to manage this onslaught to our collective (and individual) nervous systems.
At the time in which Toffler was writing, our news environment was dominated by a small number of national TV networks that all sought to deliver the broadest swath of American eyeballs to their advertisers. This fueled a particularly moderate approach to the news that marginalized “extreme” views and helped keep the electorate focused on the political middle. What is now referred to as “traditional journalism” emerged from the economic incentives propelled by the primary 20th century mass media technologies of radio and TV. Starting in the 1980s with the growth of cable news and in the 1990’s with the rise of talk radio, the presentation of “news” became increasingly fueled by political passion (particularly on the right). The Internet magnified the capacity of cable and radio to segment viewers (and advertising dollars) into political echo chambers. The rise of social media propelled forward the trend for our news media consumption to act as a positive feedback loop, reinforcing fragmented politics. Today one can watch, listen and read news 24 hours a day that represents only one narrow slice of ideological identity. This segmenting of our media ecology has had a profound influence on how we perceive the world and how we perceive those who disagree with our views.

While these technological and economic changes to the news business have helped to divide the world views of our citizenry, so has our politics. As Ezra Klein (2020) explains in his book *Why We’re Polarized*, social changes (e.g., the civil rights movement), demographic changes (e.g., the browning of America), and political changes (e.g., the South becoming Red), have led to the tribalization of American politics. As a citizenry, we have become progressively more entrenched in cultural, religious, racial, geographic and ideological identities that are fed by media filter bubbles – a self-reinforcing loop of political and social polarization.
Another component of this perfect storm of division has been the undermining of traditional authorities. Many factors have fed this movement, both from the left and right. The “youth revolution” of the 1960s and ‘70s legitimized the delegitimization of “the system,” seeding alternative lifestyles, institutions and perspectives. Legacies of this movement have included broad gains in social, civil and environmental justice, but also the undermining of traditional authorities that can include science, medicine, education and politics. The movement on the right to delegitimize authority has been even more pronounced in recent years. The success of the modern Republican Party was built, in part, on a criticism of big government. While the Tea Party expanded that to a critique of established politics, Donald Trump took it to an unprecedented level. Few analysts anticipated Trump’s extraordinary ability to not only delegitimize mainstream politics and established media, but to use opposition to those authorities as a cornerstone for his own popularity. In addition, Trump tapped into a deep vein in American politics and social media that leveraged fear of demographic, social and global changes to get attention and ultimately power.

The biases of traditional corporate media have also contributed to our divided politic. Drama sells, as does inflamed passions, controversy, and fear. In their book _un-Spun_, Brooks Jackson and Kathleen Hall Jamieson (2007) point to the “FUD Factor” – generating fear, uncertainty and doubt – as a primary tool used by politicians, advertisers and the news media to get people to keep coming to them for answers and information. In the 20th century these draws for audience eyeballs were, at least in part, moderated by social forces and policies (e.g., the Public Interest Standard for broadcast news). Today these corporate media biases operate untethered. The greatest calamities, the deepest fears, the bloodiest conflicts, and the most
outrageous voices have been able to dominate mainstream media coverage. We can’t seem to look away from the endless string of car crashes. And this fits the appetite of corporate media.

Our students also need to understand the biases stemming from the different forms of media. Marshall McLuhan (1964), in his book *Understanding Media*, argued that we should be paying more attention to the communication mediums themselves – and their inherent biases – than to the messages they convey. McLuhan’s argument that “the medium is the message” rings true in this time of proliferating media forms. Social media have both democratized mass communications and undermined professional journalism. The Facebook message from your favorite uncle may seem personal and carry his credibility, but it also may have originated in Ukraine as a scam for advertising revenue. It is important for young people to regularly reflect on the biases in media – the sources, their messages and their forms.

The proliferation of new media forms, the biases of for-profit news, the delegitimization of traditional authorities, the polarization of our electorate into segmented information bubbles, and the quantity and speed of 21st century media have all helped to bring us to this historical moment where one’s understanding of what is true and what is fake has more to do with our tribally affiliated news sources than our understanding of the facts.

**Whose News, Whose Facts?**

One of the core principles of media analysis is that people interpret media messages through their own lenses – through their own identities, experiences and motives (NAMLE, 2013). This is most evident in our “understanding” of “fake news.” Donald Trump popularized the term to delegitimize mainstream media outlets that regularly criticized the president. Trump uses criticism of these historic institutions of journalism – these lying bastions of elitism – to fuel
the resentments of his outraged base using social media and through supportive news outlets, most notably Fox News. For others the term “fake news” refers to media messages that are inaccurate, intentionally deceptive, and just plain lies. The typical purpose of this type of fake news is financial gain, often through advertising revenue. But it can also be spread for political purposes, such as the debunked Pizzagate conspiracy theory that Hillary Clinton’s 2016 presidential campaign was involved in a sex trafficking operation run out of a Washington DC pizzeria. Social media have fed on these tribalized untruths. The top 20 fake news stories about the 2016 election received more engagement on Facebook than the top 20 stories from the major media outlets. (Chang, Lefferman, Pedersen, & Martz, 2016).

Both types of fake news – truly fake news and accusations of fake news – share a common root, the polarization of belief about “the facts.” The factors discussed earlier have led our nation to a situation where the flood of facts – including false facts, biased facts, distorted facts, misleading facts and accurate facts – have enabled us to choose the facts that fit our pre-existing views.

The Infodemic

Our hyper-speed, dramatized, tribalized, and polarized culture became a prime breeding ground for the coronavirus infodemic where civil society could no longer agree on basic scientific facts. A March 2020 PEW Research Center study found that 79% of Fox News viewers (but only 35% of MSNBC viewers) thought that the news media had exaggerated the risks about the coronavirus outbreak (Jurkowitz & Mitchell, 2020). So many false coronavirus theories went viral, literally overnight, that it would take the remainder of this chapter just to list them. Some claims, like Alex Jones’ peddling of SuperSilver Immune Gargle were blatant pitches to sell 21st
century snake oil. Others tied into larger conspiracy theories. Despite any evidence, Donald Trump suggested that the virus may have been intentionally released from a lab in Wuhan (Dilanian, Kube & Lee, 2020), while a Chinese official suggested that the US military brought the virus to Wuhan (Sardarizadeh & Robinson, 2020). Many of these stories fit snugly into the vein of political conspiracy that has thrived in our era of “alternative facts.”

The basis of enlightenment thinking is brought into question when reason defers to passion, facts defer to identities, and everything becomes political. As educators we need to reexamine our approach to teaching students about truth. We have tried to double-down on science and facts, but the converging forces of social and technological change have overwhelmed our methodologies. We need a new pedagogy that recognizes the constructivist nature of learning. But this should emerge from what we know empirically about how students assess what is true and not true in the media.

**How Students Assess Truth**

In 2016 the Stanford History Education Group (SHEG) published an often-cited study of how students assess misinformation in the news. They concluded:

At all grade levels, students struggled to make even the most basic evaluations. Middle school students could not distinguish between news articles and sponsored content. High school students were unable to identify verified social media accounts. Even college students could not determine the organization behind a supposedly non-partisan website. In short, we found young people ill equipped to make sense of the information that floods their phones, tablets, and laptops. (Breakstone, p. 219)
This conclusion was reinforced in a follow-up study in 2019. The SHEG researchers in both studies found that students often applied the strategies they had been taught in school for assessing the credibility of web sites, including avoiding Wikipedia, looking for evidence, and using check lists such as the CRAAP test (Currency, Relevancy, Authority, Accuracy, Purpose) (Meriam Library, 2010). Unfortunately, these strategies typically fell short of the kind of inquiry students needed to be effective in their evaluation. While students avoided Wikipedia, they readily accepted the credibility of other, even less accurate sites. They accepted evidence at face value without questioning the reliability of the “evidence.” For example, in the study students watched a YouTube video titled Democratic Ballot Stuffing that showed a poll worker looking away as another person stuffed ballots. For most high school students, this was conclusive “evidence” of Democratic election fraud. When evaluating the credibility of websites, students were typically fooled by less credible sites if they had a professional-looking design and credible-sounding authorship. In short, the students followed the guidelines they were taught but did not apply independent critical thinking skills that would enable them to see nuance and probe beyond the given strategies. (SHEG, 2016)

All educators have many examples of students who can fluidly apply a strategy during class exercises and assessments, but then fail to apply those the very next week in class, let alone to apply well-demonstrated academic learning to their life outside of school. In their book The Teacher’s Guide to Media Literacy: Critical Thinking in a Multimedia World, Cyndy Scheibe and Faith Rogow (2012) write that curiosity – the desire to ask questions – is a key component of critical thinking and successful media literacy. It is this broader engagement in the process of inquiry – going beyond the teaching of discrete analytical skills – that is key to developing life-long habits of analysis, evaluation and critical thinking.
Other research on student thinking about the news, although far less cited than the SHEG study, has far-reaching implications for teaching and learning. In *Educating for Democracy in a Partisan Age: Confronting the Challenges of Motivated Reasoning and Misinformation*, Joseph Kahne and Benjamin Bowyer (2017) evaluated how young people (aged 15 to 25) understand fake news. Like the SHEG study, Kahne and Bowyer found that students were ill-prepared for the era of fake news. But they disaggregated different groups of students based on their prior political knowledge, leading to important insights about how students see fake news. They discovered that high school students who are very knowledgeable about politics are no better able to identify misinformation in the news than students who know very little about politics. In fact, their greater knowledge and motivation leads them to more readily spin the facts to confirm what they already believe and to disconfirm contradictory information and sources (confirmation bias).

The Kahne and Bowyer study punches a hole in the old belief that “if we teach our students the facts - they will understand the truth.” If we are to have an authentic democracy, we need to shift from an over-emphasis on teaching facts to developing (and assessing) students’ habits of critical thinking, including about their own biases. In addition to giving our students knowledge and communicating the importance of facts, we need to teach young people, from kindergarten through college, to ask good questions, to value good reasoning, to be open-minded, and to reflect on their own thinking.

In their article, *Misinformation in the Information Age: What Teachers Can Do to Support Students*, Joe Kahne and Erica Hodgin (2018) identified three media literacy strategies that were successful in helping young people to identify truth vs fiction in the news:
#1 - Develop Nuanced Skills & Strategies for assessing the accuracy of truth claims that move beyond hard and fast rules or rote checklists.

#2 – Reflect on Thought Processes including supporting students to develop an awareness of the role their individual thinking plays in understanding and evaluating online information and helping students acknowledge their own opinions and perspectives and how those may influence/bias their evaluation of a claim.

#3 - Practice, Practice, Practice - giving 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.

Media Literacy - Prescription for an Infodemic

The epistemological crisis described above stems, in part, from an educational approach that has trained students to rely on external authority to vet truth. Public schooling in the Twentieth century has been shaped by a factory model of mass production that sees learning as primarily about the transmission of knowledge from state to teacher to student – assessed by standardized tests and codified by Carnegie units of credit. The infodemic stems, in part, from an educational approach that has trained students to rely on external authority to vet truth. We need a new pedagogy.

Constructivism is the pedagogical belief that each student is at the center of their own learning, that they construct knowledge through their own meaning making. While we often wish as educators that we could merely fill students up with understanding, all educators know intellectually and experientially that that is not how learning happens. Quality teaching depends on the teacher assessing how our students think. A constructivist pedagogy sees the role of the
classroom teacher as an orchestrator of collective and individual learning through facilitating interactions, organizing activities, providing resources, asking questions and sharing information. Constructivist pedagogy imbues each student with the authority and responsibility for their own education.

While there are many forms of media literacy, the approach presented here operates from the premise that students need to be the drivers of their own learning. Approaches that are merely designed to fill students up with knowledge or skills will fall short of enabling autonomous critical thinking. For students to be prepared to think in sophisticated, flexible and nuanced ways about the media messages that will be coming in the next iteration of “the news” – we need to give them practice, practice, practice in complex, rigorous, creative and independent thinking. Of course, this needs to be developmentally appropriate but that does not mean simple, easy, concrete and scripted. It must include each student’s genuine engagement with inquiry, curiosity, creativity and self-reflection.

For the last 25 years Project Look Sharp, a media literacy initiative at Ithaca College, has developed an approach to media literacy that uses a constructivist pedagogy to teach for authentic democratic citizenship while addressing the practical concerns of the classroom today. Educators are overwhelmed with continually expanding mandates for teaching more knowledge and skills, and for addressing a huge range of important social concerns such as equity, trauma, and anxiety. Media literacy (or digital literacy or information literacy) can easily become one more unfunded mandate to be tagged onto the already overloaded curriculum. To address the imperatives of our social and pedagogical crisis, media literacy can enable teachers to more effectively address the core curriculum, reaching all students in compassionate, student-centered
and creative ways. To address these concerns, Project Look Sharp has developed a classroom approach to media literacy that is…

- **Student-Centered**, using an inquiry-based methodology that honors student thinking
- **Transformative** for educators, provoking a shift from didactic to constructivist teaching
- **Applicable** to the practical concerns and limitations that teachers encounter daily
- **Curriculum-Driven** by the core outcomes/standards in each discipline
- **Adaptable** to different levels, content, types of learners and teaching contexts
- **Engaging** for all students but particularly students marginalized by traditional approaches
- **Habitual**, motivating students to continually use media literacy in their lived experience
- **Metacognitive**, prompting students to continually reflect on their own thinking
- **Creative**, immersing students in meaningful issues from the personal to the global
- **Radical** in addressing power and enabling a different vision for the future
- **Empowering** through literacy, enabling students to read and write their worlds

**Constructivist Media Decoding**

Constructivist Media Decoding (CMD) is the process of leading a class through the collective analysis of any media document(s) – such as a website, book cover, video clip, painting, tweet, map, photograph, or song – using curriculum-driven questioning. In contrast to media analysis provided by an authority (i.e. teacher, author or film), CMD is centered on the knowledge, analysis and evaluation provided by the students. The teacher facilitates the CMD by probing student interpretations of a media document so that students develop and share key understandings. Unlike the more open ended Visual Thinking System (VTS) approach, CMD is curriculum driven. While the students provide their original analysis, the teacher provides the
media document along with the questions and probes to address specific objectives. To see short annotated video demonstrations of the CMD process go to www.projectlooksharp.org > Professional Development > Our Approach > Demonstration Videos.

This approach enables teachers to repurpose all types of engaging media documents to teach subject area content and objectives teaching media literacy and critical thinking skills. This is fundamentally a literacy process – learning to decode the myriad forms of communication that dominate modern society. But the process is also practical and applicable to all levels and all subjects. A teacher can use CMD periodically or every day. It can be used as a hook for a new unit, as a prompt for a broader discussion, as a means of teaching new content, as a platform for students to apply knowledge, as a catalyst for deep conversations, to facilitate discussion of a controversial issue, as a review of content, or as an assessment of skills and knowledge.

The constructivist process puts students at the center of critical thinking – which is not always comfortable for students. It is more cognitively demanding and intellectually rigorous than listening to someone’s else’s analysis. But it is typically more engaging for students than traditional methodologies of presentation, developing an expectation in the class that each student needs to be consistently prepared to offer their thoughts and feelings. And, it is fun and engaging for students to listen to their peers analyze and evaluate rich media documents. This process is often particularly successful with students who are alienated by traditional classroom methodologies. When done well, students with disabilities, students who speak English as a second language, and students whose perspectives and voices are often marginalized can fully participate.

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High School Students Commenting on the Process of Constructivist Media Decoding:
Gabe: Media literacy is different than other forms of teaching because it's literally like teaching you how to learn.

Yara: I never knew how curious of a person I was in my own learning or how interested I was in things I never thought I would be interested in until I started looking at it through different mediums.

David: It’s helped me learn because I can hear other people’s opinions and maybe I can make connections with it or agree or disagree so it helps me have more of an open mind.

Rosie: It doesn’t feel like the teacher is just giving you the information it feels like they are helping you to figure it out for yourself.

Eric: When I’m doing research projects now I’m going to look at the biases first and because most of the time students just go straight to the internet and the first thing that pops up in your Google search is the one that you use but now I think that I’m going to have to really analyze it and understand the bias and then get another point of view.

Vanessa: Media literacy has made me realize that there’s a lot of perspectives and just because they disagree doesn’t mean that one is wrong or right.

Izzy: At other schools it’s more like, here’s a textbook this is true, and at our school we really learn how to even question what we’re being taught.

Gabe: It just changes the way I look at things, everything, not even just TV, computer, iPod, it changes the way my eyes work pretty much, it teaches me how to learn in a sense because it’s teaching me how to watch and how to look, keep a mindful eye and how to be aware.

To see a short video of these students and others go to www.projectlooksharp.org and scroll down to the video: High School Students Speak About Media Literacy.
Teaching students some concrete strategies for identifying misinformation in digital media – such as lateral searching and the CRAAP test – is important, as are specific classes and units focused on media literacy. But, they are unlikely to develop life-long habits of media literacy for all students. We would not be content with “reading” being delivered only in a one-semester class or “writing” limited to an 11th grade elective. Like traditional print literacy, the habits of questioning the constructed nature of media messages (others and one’s own) needs to be continually reinforced and built upon. For this to happen in a comprehensive way, in more than a few committed classrooms, media literacy must support the core curriculum in substantial and meaningful ways.

Habits of critical thinking about all media can be incorporated into the core curriculum by teachers using media as the primary texts for teaching both content and analysis, through teachers using their primary texts as platforms for media analysis, and by teachers enabling students to use multiple media forms for communication, reflection and assessment. Students will become life-long learners when they continually ask questions about any media message: *Who produced this and for what purpose? How do I know the information and the source is credible? What was included, what was left out? Who might benefit from this message and who might be harmed by it?* (Project Look Sharp, 2020).

In addition to questioning the media messages themselves, it is equally important for students to learn to reflect on their own interpretations: *How and why do I see this message differently than others? How do my biases and my identity influence my interpretations of this message and the credibility of the source? What do I learn about myself from my*
interpretations? While there are currently few standards in math, science, ELA and social studies that specifically promote this type of metacognition, media literacy provides a methodology for integrating student self-reflection about their own meaning making into the teaching of core content.

One additional difference between Constructivist Media Decoding and many other media, information and news literacy methodologies is that it shifts the power dynamic between students and teachers. If we are expecting our students to become autonomous thinkers capable of – in the words of Brazilian educator/philosopher Paulo Freire (1964) – transforming the world, we need to shift the center of authority to the student. Students need to become their own intellectual architects and workers - building, deconstructing and rebuilding their own understandings. This does not happen when teachers, and the sources of knowledge they bring to the classroom carry all the authority. This is not to say that the teacher should never share their knowledge or their perspective - it can be dishonest and patronizing to always withhold one’s point of view from students. But, students must trust that the primary role of the teacher is to help them develop their own rigorous, reflective and independent thinking.

Finally, teachers need the materials and resources for integrating CMD into their teaching. They do not have the time to continually find the engaging media documents or the experience to identify the media literacy questions that can link content knowledge and critical thinking. For more than two decades Project Look Sharp has been developing a collection of more than 500 free lessons for integrating the teaching of core content and media literacy skills, searchable by keyword, subject area, grade level and standards.

To truly address the coronavirus infodemic and the broader social and political crisis that threatens civil society, educators need resources, methodologies and a pedagogy that will
empower our students to seek truth throughout their lives. Freire proposed that authentic literacy is fundamentally a process of liberation – that learning to decode the world is an essential part of what it means to be fully human (Freire, 1964). In the 21st century, the ability to thoughtfully decode and create media messages is a certainly a cornerstone of civic participation. In today’s hypermediated information culture, a constructivist methodology of media literacy incorporated across the curriculum is a pre-requisite for authentic democracy. Now we need it to go viral.

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