Social Education 84(3), p. 152–158
©2020 National Council for the Social Studies

Rx for an Infodemic: Media Decoding, COVID-19 and Online Teaching

Chris Sperry and Cyndy Scheibe

In early February 2020 the World Health Organization (WHO) named a new kind of media consumption ailment, saying, "The 2019-nCoV outbreak and response has been accompanied by a massive '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."[1] Like COVID-19, this media "infodemic" has spread rapidly across the globe.

This article aims to answer a number of questions about the infodemic. What factors have led to this historical moment where our media and our politics are so polarized that truth has become so malleable? How are we to address these realities in the social studies classroom? How can we teach to our core knowledge and skills standards while enabling students to navigate the complexities of our hyper-mediated civics? And how do we do all this while teaching our students online during an unprecedented pandemic?

A Perfect Storm for Epistemological Divergence

The volume and speed of information in today's hyper-mediated culture has no historical precedence. Teenagers were already consuming nearly 10 hours of media a day prior to COVID-19[2] and media use has now shot up during the global shut-down.[3] Our ability to thoughtfully reflect on the data we receive has been short-circuited by the overabundance and velocity of information in the twenty-first century. We need to teach students how to best manage this onslaught through well-reasoned reflection on both their media diet and the information that confronts them daily.

Contemporary media biases have also inflamed the infodemic by catering insatiably to fear, anger, and controversy. Fifty years ago, our news environment was dominated by a small number of national TV networks that all sought to deliver the broadest swath of American viewers to their advertisers. This necessitated a moderate approach that marginalized "extreme" views and helped keep the electorate focused on the political middle. Our news diet started to change with the growth of cable news in the 1980s and talk radio in the 1990s. Then came the Internet that built on the capacity of cable and radio to segment or filter viewers (and advertising dollars) into echo chambers. The rise of social media propelled forward the trend for our news media consumption to act as a positive feedback loop, reinforcing polarized politics. Our students need to understand these social, technological, and economic forces if they are to have greater agency in their media consumption.

A March 2020 Pew Research Center study found that 79% of Fox News viewers thought that *the news media have exaggerated the risks about the coronavirus outbreak*. But only 35% of MSNBC viewers felt the same.[4] The segmenting of our citizenry into divergent media universes is another critical factor in our current infodemic, where one's view of the coronavirus—like our views of nearly everything else—reflects our identities more than the facts.[5] 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. Facts have become tools for confirming one's views and delegitimizing those belonging to others. If we as social studies teachers want to help students pursue truth, we need to develop strategies to help them honestly reflect on their own confirmation biases.

The coronavirus infodemic has been spread by these converging forces. Our hyper-speed, fear-driven, tribalized, and polarized civil society can no longer agree on basic scientific truths. The basis of enlightenment thinking is brought into question when reason defers to passion, facts defer to identities, and everything becomes political. To

address this condition, we need to teach students to be analytical and reflective media consumers (and producers). We need them to consistently and habitually ask good questions about sourcing and credibility, about the accuracy and currency of information, about the economics of media, about context and impact, and about biases. Students need to understand the biases in media messages, but also their own tendency to seek out and validate information that fits with their preexisting views. It is not enough to just tell students what to think—rather we need to facilitate the development of wisdom, of rational, compassionate, and reflective thought, and of an open-minded pursuit of truth.

Media Literacy: A Prescription for an Infodemic

In late April, Michelle Cuilla Lipkin, executive director of the National Association for Media Literacy Education, shared these guidelines for coping with the infodemic:[6]

- Be intentional about your sources of information.
- Breathe. Take a break. Don't be on news sources 24/7
- Stick with trustworthy sources. Different sources are good for different types of information—and be sure to vet the organization itself.
- Check the original source, not just the retweet forwarded to you.
- Confirm the information—by doing lateral searching and seeking the information that might have been left out.
- Remember things change fast, so always check the date and time of the information you receive.
- Share information thoughtfully.

In order for these literacy skills and analytical orientations to become *habits* of thinking for our students, they need to be practiced regularly, across grade levels and throughout our curricula. For media literacy to become truly integrated into our teaching, it must support the existing learning standards, teach to our content, address testing, and help us to reach all students more effectively—particularly the least engaged. And it needs to be adaptable, work in different contexts, and fit easily within 45-minute classes where the pressure to cover the content is palpable. Throughout the remainder of this article we will focus on one particular approach for integrating media analysis into the social studies curriculum: "constructivist media decoding."[7]

Constructivist media decoding is centered around engaging media documents—from YouTube videos, film trailers and tweets to historic paintings, stories and songs. Teachers use these "texts" as platforms for collective analysis, asking each student to apply their knowledge and perspectives to a rigorous reading—a "constructivist decoding." When students are expected to think deeply and defend their analysis with evidence, they can be enabled to deepen their relationship to thought. When they consistently interrogate claims and question sources, they can develop habits of inquiry that extend beyond the classroom. When they are expected to reflect honestly on their own thinking and to trust their classmates to do the same, we can have profound conversations that touch on the meaning of truth—even (or especially) when analyzing a meme, an Instagram post or TV show.

Lessons for the Infodemic:

During March and April, Project Look Sharp, a program of Humanities & Sciences at Ithaca College, developed a series of constructivist media decoding lessons that teach both critical thinking skills and social studies content about COVID-19 related topics. All of these lessons apply the fair-use of copyright law to enable teachers to repurpose current media documents for critique and criticism in the classroom. Teachers can download these lessons for free at **www.projectlooksharp.org**.[8]

The media decoding lesson, "Misinformation about COVID-19: How to Figure It Out," is based on three short YouTube videos to teach essential knowledge about the coronavirus (and its infodemic) as well as habits of questioning information you receive through media sources. The videos include a brief CNN report, "How Coronavirus Infodemic is Infecting the Internet"; a clip from a late-night news/comedy show with John Oliver satirizing coronavirus misinformation; and a video blog by "a digital information literacy expert." The videos themselves communicate a great deal of important information about the infodemic, including the dangers of passing misinformation through social media, the tendency to mistrust everything one hears, and the importance of getting your facts from reliable sources. In addition, the questions in the lesson plan have students discuss the purpose of each video, the credibility of the information, and the media techniques used to persuade and entertain viewers. Activities like this build the kind of metacognition that will prepare students for the next infodemic, the next election, and for life in the twenty-first century.

Another lesson, "Changing Our Media Habits," encourages students to learn about and reflect on changes in media use during the pandemic. This lesson uses charts, graphs and illustrations from five different sources as the key media texts. From those documents, students learn how media consumption has significantly increased during the pandemic, how different age groups have turned to different media sources (e.g., more online videos and TV for Gen Z), and how all generations are using more online sources than ever before. In this lesson, students are again asked to reflect on the media documents themselves and also to come up with their own

questions to assess the credibility of the information and the sources of these media messages.

A third lesson, "Trusting Web Videos on COVID-19 (Or Not)," goes a step further in prompting student metacognition. The short video documents for this lesson include:

1. A clip from televangelist Jim Bakker's program showing Naturopathic Dr. Sherrill Sellman promoting a "Silver Solution" to combat coronavirus,

2. An emergency room doctor giving advice to family and friends on how to avoid contracting the virus,

3. President Donald Trump in a press conference suggesting the use of hydroxychloroquine, and

4. Dr. Anthony Fauci on a TV news program cautioning against experimental treatments.

Students are asked questions about each speaker's purpose and ways to determine the credibility of each speaker on this issue. Then students are asked how different people might interpret the credibility of these messages differently. This prompts students to think about their own biases based on their political, religious, or cultural identities.

The lesson "Confirmation Bias, Coronavirus, and the 2020 Presidential Campaign" overtly connects the coronavirus to political confirmation bias. It begins with a controversial political ad supporting Democratic presidential candidate Joe Biden that highlights equally controversial comments made by President Trump during the period when the coronavirus was spreading ("This is their new hoax," "We have it totally under control," "No, I don't take responsibility"). The lesson includes a tweet by the *Trump War Room* and an article from the fact-checking website *Politifact* about a similarly edited pro-Biden ad that concludes: "The Biden campaign's ad is misleading. It's an example of what *The Washington Post* calls 'splicing' or 'editing together disparate videos' that fundamentally alters the story that is being told."[9] After students evaluate the credibility of each document, they are shown a definition of **Confirmation Bias**: *The tendency to view messages and sources that agree with one's biases as accurate and credible and to discredit messages and sources that contradict one's views.* Students are then asked:

1. How might your political views and your own confirmation biases influence how you assess the credibility of each of these messages?

From one of the pro-Biden Political Ads reviewed in the lesson "Confirmation Bias, Coronavirus, and the 2020 Presidential Campaign."

How might your political views and your own confirmation biases influence how you assess the credibility of this political ad?

2. What do you learn about yourself from this activity?

While these COVID-19 related media literacy lessons teach to C3 standards for evaluating sources, using evidence, and communicating conclusions, as social studies teachers we must still address other core content during this challenging time. The following lessons integrate the critical questioning of media messages about the pandemic with additional social studies content. "COVID-19 and the Economy: Conflicting Priorities" uses editorial articles from Fox News and CNN to address complex economic issues through evidence-based media decoding. The lesson "COVID-19 & Climate Change" has students decode graphs to learn about carbon projections, fossil fuels, renewable energy, and economic inequality. Finally, "How Disease Spreads: Cholera Epidemic of 1892" contrasts an anti-immigrant *New York Times* article and anti-Semitic political cartoon from 1892 with more contemporary sources on how viruses spread. This lesson helps students discover the role racism played in the infodemic of 1892 and connect that to current concerns.

COVID-19: *Social Media Goes Viral*

Ideally social studies teachers will use the methodologies and models described here to develop their own media decoding lessons. To illustrate the development of one such activity, we look at the lesson: "Social Media Goes Viral: Fact Checking Messages about COVID-19," by Sox Sperry.[10]

In any media decoding activity, it is important to start with establishing student learning goals. Goals for the lesson "Social Media Goes Viral" include:

1. Heightening student awareness of the ways in which social media helped to spread unscientific allegations about the coronavirus, and

2. Supporting students' ability to recognize and seek out reliable information that will help them to stay healthy and discerning in this unprecedented time.

These goals are aligned to C3 standards from Dimension 2 (disciplinary tools and concepts in Civics), Dimension 3 (evaluating sources and using evidence), and Dimension 4 (communicating conclusions and taking action). This lesson also teaches the key media literacy concept: *Media and media messages can influence beliefs, attitudes, values, behaviors and the democratic process.*

Finding the Right Media Documents

Media decoding activities center around engaging media documents, appropriate to the class, that allow students to reach the objectives through inquiry, dialogue, and reflection. For this lesson we chose a set of social media messages that began circulating at the beginning of the COVID-19 outbreak and that subsequently were identified as misinformation by the World Health Organization. These messages alleged, falsely, that keeping one's throat moist could prevent one from catching the virus. These "infodemic" messages were circulated in a wide variety of social media channels including email and Twitter. We selected a text message suggesting this untrue prevention strategy[12] which was then reposted on Facebook.[13] These two documents became the "anchor" documents that would enable students to ask and answer questions about the viral nature of false advice circulated through social media. We then selected a webpage from a fact checking site (Snopes.com) that offered a "deep reading" of the trail from misinformation to corrected information.[14] To complete this set, we found a tweet from the WHO[15] that countered the original bad advice provided in the text and the Facebook post.

Asking the Right Questions

The next step was to develop core questions and follow-up probe questions that linked the documents to our goals through constructivist media decoding. Constructivist pedagogy assumes individuals construct their own meaning and understanding, each through their own unique perspective. This pedagogy recognizes that just giving students the

6 Key Concepts in Media Analysis[11]

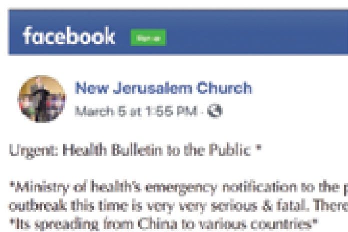
1. All media messages are "constructed."
2. Each medium has different characteristics, strengths, and a unique "language" of construction.
3. Media messages are produced for particular purposes.
4. All media messages contain embedded values and points of view.
5. People use their individual skills, beliefs and experiences to construct their own meanings from media messages.
6. Media and media messages can influence beliefs, attitudes, values, behaviors and the democratic process.

Scheibe, C. & Rogow, F. *The Teacher's Guide to Media Literacy: Critical Thinking in a Multimedia World*. Thousand Oaks, Calif.: Corwin/Sage, 2012.

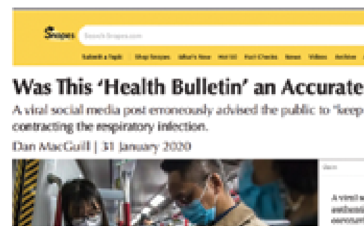
Excerpts from media documents used for decoding in the lesson *Social Media Goes Viral*

Text Message

Facebook Post



Snopes Article



Here are some questions that align with the standards we selected for the lesson:

- **What is the source and what is the purpose of this media message?**
- **How credible is the information in each source? Why do you think that?**
- **What questions might you ask to assess the credibility of each source?**
- **What are the pluses and minuses of sharing community health tips via social media?**
- **What are some sources of reliable information related to protecting community health?**
- **Why do you consider these reliable?**
- **What information might you share about preventing the spread of viruses?**
- **Who might you share it with and what forms would you use to share it?**

answers—providing your own analysis or laying out the facts—is not enough. Students must be the intellectual workers themselves, defending their own analysis as they grapple with truth seeking. Constructivist questions invite collective readings about media messages that provide opportunities for students to sustain and extend their thinking through consistent probing for evidence. They invite multiple readings that represent the nuanced interpretations that each individual brings to understanding the meanings within media documents. They also take into account that there are often many different but equally valid interpretations that lead individuals to consider other viewpoints.

These types of objectives-driven media decoding questions can fuel a rich collective and constructivist analysis, while still teaching to content and standards. While this example illustrates a basic format to follow, there is no set script for leading a particular decoding. Each situation is different, and each class of students requires the teacher to carefully craft questions. Our "Key Questions to Ask When Analyzing Media Messages" can help you develop your own questions.[16]

The Decoding Process

As advocated by the C3 Framework, students need to learn to identify the evidence that backs up claims and positions in diverse documents, especially informational texts. Both preparation and practice help teachers make many decisions while facilitating a decoding activity, including: where and when to probe (*what makes you say that? what is your evidence? does everyone agree?*); which students to call on; the moments to pause; the times to add critical information; and the places to dig deeper. This is the art of teaching that cannot be replaced by a computer, a book or a video. When we do this well, we support students in the clarification of their own interpretations as they listen to the analysis of their peers and discuss ethical issues.

Typically, this kind of media decoding would be done face-to-face. In a face-to-face classroom setting, we know our students and we can use body language to assess emotional responses and sense the dynamics in the room. We can probe for different purposes: to have students provide text-based evidence; to elicit elaboration or clarification; or to have a student communicate a particular understanding that will enable peers to grow their thinking. While this is harder to do in online instruction, distance learning has a range of tools that enable teachers to facilitate meaningful media decoding in both synchronous and asynchronous platforms.

Leading a Media Decoding Online

At the time we wrote this article, we'd been teaching online for five weeks as part of an Ithaca College course, *Media Literacy and the Psychology of Inquiry*. Like almost all other K-12 and college educators, we had to make the shift from classroom to online teaching without any warning and little training. And while it was daunting at first, we gradually came to appreciate the ways in which media decoding lent itself to student engagement—and to drawing

all students (even the shy ones) into discussion. Based on that experience (along with conversations with K-12 teacher collaborators) we've come up with some recommendations.

For Synchronous (Live, Real Time) Decoding with Students:
For this type of decoding, the teacher would show a short video clip, image, or piece of text, or play an audio clip or music excerpt, and then ask students questions about what they've seen, read, or heard. Some questions will be specific to the content and your curriculum goals, but in media literacy we're also often interested in exploring the source and purpose, techniques used in making the message, credibility, and impact on the audience. Here are six general "rules" to follow:

1. Use a technology platform like Zoom or Google Meet that allows students to respond to questions by typing into a chat box or raising hands (virtually or through video).

2. Make sure the media example(s) can be seen and/or heard clearly. It's important to test it out the first time you do this; there may be specific settings to enable your computer sound or optimize videos for the platform you're using.

3. If possible, find someone to assist you during the decoding, someone to monitor the chat (and summarize it for you) and keep an eye on the raised hands (calling on students by name to then unmute themselves and answer the question). This could be a teaching assistant, another teacher, a parent, or even a student in the class. Shy students might be inclined to send a private message to the assistant, who could then share it anonymously with the class.

4. Frame the activity so students understand the context (including the source of the message, if appropriate), what they're being asked to look or listen for, and how they should respond to the questions. Provide relevant background information (if necessary) or cue them to previous reading they've done.

5. Ask questions that can engage all students and eventually lead the conversation to your goals. Good starting questions are:

   - What do you notice about this message?
   - What are the messages about ____?
   - What questions would you want to ask about this?

Follow-up questions might be more specific to your content, goals, and learning standards.

6. Probe for evidence to back up student comments and interpretations:

   - Where do you see that?
   - What makes you say that?
   - What's your evidence for that conclusion?

This kind of probing is key to building critical thinking skills, and it's possible to do easily in this kind of synchronous, live online learning platform.

For Asynchronous (Preset, Offline) Decoding with Students:
While asynchronous decoding doesn't easily allow you to engage in back-and-forth probing of student responses, it has the advantage of allowing students to participate in the decoding at any time and to take more time to come up with responses. Again, teachers can provide a short video clip, image, or piece of text, or even play an audio clip or music excerpt—and then ask questions that relate to the content and curriculum goals, as well as the previously noted media literacy goals. Here are some additional "rules" to follow when creating (and assessing) an asynchronous decoding:

1. Use a technology format that allows you to upload or paste in your media example in such a way that students can easily and clearly see, hear and/or read it. Be sure the size of the file isn't too large for students to open. If it is a still image or piece of text, it helps if students can zoom in or increase the size to see details clearly.

2. Provide a written, audio, or video introduction that frames the activity using the guidelines in Step 4 (above). Be sure students know what they're being asked to look or listen for, how they are expected to respond, and roughly how long their responses should be.

3. Decide if you want students to see (or hear) each other's responses—and if you want them to respond directly to each other's comments. If you don't have a way to do that through your regular classroom platform, use tools like VoiceThread, FlipGrid, Padlets, or Poll Everywhere to help you achieve that goal.

4. Ask one or two general questions that will engage all students in the activity to start (see Step 5 above, left, for examples). Don't pose all the questions at once—but encourage students to answer them one at a time, leading to more specific details and standards-based questions.

5. Encourage students to ask their own questions (e.g., What else would you like to know about this message that would help you judge its credibility?) and deepen their analysis by occasionally embedding follow-up probes (e.g., Describe where you see or hear that in the message. Give evidence from the media document to support your conclusion).

6. If you are asking students to respond to each other's comments, be clear about your expectations. It helps to note that you're expecting their additional comments to enrich the conversation by adding new information, bringing in a concept from class, or asking new questions.

One final note. In doing these kinds of online decodings, give yourself—and your students—some time to get the hang of it, and to find the approaches that work best. The conversations and responses will grow increasingly rich as time progresses, and you may find that there are real advantages in engaging all of your students through these online technologies in ways that weren't possible in the regular classroom world.

There Was a Lion at the Watering Hole…

Humans have evolved for survival. Our ancestors in ancient Africa who became fearful when hearing that there was a lion at the watering hole had an evolutionary advantage over those who had no such fear. Similarly, humans evolved to crave salt and fat to keep us alive during times of famine. Today we have an epidemic of obesity because of those drives. And today we have an infodemic, in part because we respond to media messages that tap into our deepest fears, our tribal identities, our evolutionary impulses. In the twenty-first century, responding to the loudest voices that are shouting about the lion is no longer sufficient. Today we need citizens to consistently ask questions about the source of that information, such as: Who says there is a lion at the watering hole? Is that a credible source? Is the information accurate and current? How do I know? What are the biases of the source and the medium that amplified that message? And how do my own biases impact my answers to these questions? Asking these questions is not built into our DNA—but neither is managing our diet to avoid too much salt and fat.

This is the art of teaching that cannot be replaced by a computer, a book or a video. When we do this well, we support students in the clarification of their own interpretations as they listen to the analysis of their peers and discuss ethical issues.

We can manage this infodemic—and many more to come—but we need to raise a generation of citizens who are able to reflect on their own thinking and to understand the forces that construct meaning in modern society. The ability to thoughtfully decode media messages is a cornerstone of this civic and human process. Social studies teachers have a critical role in incorporating media literacy into our curriculum—both to teach our content and to teach habits of thinking. This has always been our core mission, but now we need it to go viral.

Notes

1. "Novel Coronavirus (2019-nCoV) Situation Report – 13." WHO (February 2, 2020), 20200202-sitrep-13-ncov-v3.pdf
2. Victoria Rideout and Michael Robb, *The Common Sense Census: Media Use by Tweens and Teens* (2019), Common Sense Media, 2019-census-8-to-18-key-findings-updated.pdf.
3. Katie Jones, *This is How COVID-19 Has Changed Media Habits in Each Generation*, World Economic Forum (2020), www.weforum.org/agenda/2020/04/covid19-media-consumption-generation-pandemic-entertainment/
4. Mark Jurkowitz and Amy Mitchell, "Cable TV and COVID-19: How Americans Perceive the Outbreak and View Media Coverage Differ by Main News Source," Pew Research Center, www.journalism.org/2020/04/01/cable-tv-and-covid-19-how-americans-perceive-the-outbreak-and-view-media-coverage-differ-by-main-news-source/.
5. Ezra Klein, *Why We're Polarized* (Avid Reader Press / Simon & Schuster, 2020)
6. Michelle Cuilla Lipkin quoted in Jonathan Lai's "There's so Much Coronavirus Information Out There. Here's How to Make Sense of It," *Medical Press* (April 24, 2020), https://medicalxpress.com/news/2020-04-coronavirus_1_2.html
7. Project Look Sharp, www.projectlooksharp.org
8. One can search for hundreds of lessons on the Project Look Sharp website, www.projectlooksharp.org/search.php, by keyword (e.g., COVID-19), subject area (e.g., *social studies*), level (e.g., *high school*), or by C-3 standard (see Advanced Search).
9. Daniel Funke, "Ad Watch: Biden Video Twists Trump's Words on Coronavirus," Politifact (March 15, 2020), www.politifact.com/factchecks/2020/mar/15/joe-biden/ad-watch-biden-video-twists-trumps-words-coronavir/#sources.
10. "Social Media Goes Viral: Fact Checking Messages About COVID-19," www.projectlooksharp.org/front_end_resource.php?resource_id=503
11. National Association for Media Literacy Education, Core Principles of Media Literacy Education in the United States, https://namleboard.files.wordpress.com/2013/01/coreprinciples.pdf<
12. Anonymous. Text message. January 2020.
13. New Jerusalem Baptist Church, "Urgent: Health Bulletin to the Public," Facebook, (March 19, 2020), 6:00PM.
14. Dan Macguill, "Was This 'Health Bulletin' an Accurate Coronavirus Warning?" Snopes.com (January 31, 2020).
15. @WHOPhilippines, "Q: If Drinking Water Alleviates a Sore Throat," Twitter, (February 8, 2020). 9:56AM.
16. Key Questions to Ask When Analyzing Media Messages, www.projectlooksharp.org/Resources%202/Key%20Questions%20April-20.pdf
17. See Demonstration Videos under Our Approach at www.projectooksharp.org

Chris Sperry *is the Director of Curriculum and Staff Development for Project Look Sharp at Ithaca College. He has taught secondary social studies and media studies at the Lehman Alternative Community School in Ithaca, New York, since 1979.* **Cyndy Scheibe** *is Professor of Psychology at Ithaca College and the Executive Director of Project Look Sharp. She is the co-author of* The Teacher's Guide to Media Literacy *(Corwin/Sage, 2012) and ASCD's Quick Reference Guide* Media Literacy in Every Classroom *(2017).*