Teaching Students to Identify, Challenge, and Combat

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1<sup>st</sup> Career
Dictionary.com Word of the Year for 2018

MISINFORMATION
[mis-in-fer-mey-shuhn]
(n) false information that is spread, regardless of whether there is intent to mislead

- Dictionary.com

The Post–Truth World

*post–truth* – adjective

Relating to or denoting circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief.

[https://goo.gl/a4ZbU8](https://goo.gl/a4ZbU8)
In the Post-Truth World, Beliefs = Truth

“Nearly two-thirds of people get their news through online technology platforms.”

“These often-self-referential echo chambers have created an environment where there is no bedrock. Beliefs have come to equal truth.”

http://bit.ly/2P8IOwQ
<table>
<thead>
<tr>
<th>Truth</th>
<th>Post-truth</th>
</tr>
</thead>
<tbody>
<tr>
<td>I think therefore I am</td>
<td>I believe therefore I'm right!</td>
</tr>
</tbody>
</table>

![Image of cartoon characters comparing truth and post-truth]
For some, the interconnected digital ...
America’s Last Line of Defense (ALLD)

“No matter how racist, how bigoted, how offensive, how obviously fake we get, people keep coming back.”

Christopher Blair
Creator of ALLD

Blair’s Facebook site amassed an audience of 6 million visitors who thought his posts were factual.

https://wapo.st/2Bfs6RL
Presentation Objectives

- Define the:
  - “fake news” and,
  - the “digital native” generation.

- Review research on:
  - social media use by “digital natives,” and their ...
  - ... literacy in evaluating information accessed through social media.
Presentation Objectives

- **Recommend:**
  - Websites with downloadable posters and checklists, and
  - Fact-checking lesson plans sources.

KQED Teach
Presentation Objective

- Introduce fact checking websites recommended by and other sources.
  - FactCheck.org
  - Politifact.com
  - Snopes.com
Presentation Objective

- Show fact checking queries limited to a fact checking site
  - Snopes.com + others
- Show procedure to complete a reverse image search in Google
Fake News Defined

- Fake news are articles that are intentionally and verifiably false, that could mislead readers, and ...

... that are easily spread online to large audiences willing to believe the fictions and spread the word.”
Bananas with Flesh-Eating Bacteria

- “Bananas from Costa Rica are infected with a flesh-eating bacteria.”
- “Necrotizing fasciitis decimated the monkey population and grafted itself to the banana skin.”
- “The FDA has been reluctant to issue a country-wide warning fearing a nationwide panic.”

Source – Manheim Research Institute (Germany)

Fact Checking: Manheim Research Institute

No results found for "manheim research institute" AND "costa rica" AND bananas AND "necrotizing fasciitis" AND site:de.
To Combat the Fake News

CDC Newsroom
Press Release

For Immediate Release: January 28, 2000
Contact: CDC Media Relations (404) 639-3286

False Internet report about necrotizing fasciitis associated with bananas

The bacteria which most commonly cause necrotizing fasciitis frequently live in the human body. The usual route of transmission for these bacteria is from person to person. Sometimes, they can be transmitted in foods, but this would be an unlikely cause for necrotizing fasciitis. FDA and CDC agree that the bacteria cannot survive long on the surface of a banana.

For information about necrotizing fasciitis, check CDC’s website at http://www.cdc.gov/ncidod/dhmd/diseaseinfo/#G. Look under "Group A Streptococcus" which is the most common cause of necrotizing fasciitis. Or, call (404) 371-5375.

###
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Who are Generation Z “Digital Natives?”

- They are ...
  - ... under 20 years of age.
  - ... the first generation to grow up with technology.
  - ... “spending their entire lives surrounded by and using computers, ... smartphones, and the other toys and tools of the digital age.”

They prefer social media.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Facebook</th>
<th>Instagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-29</td>
<td>88%</td>
<td>59%</td>
</tr>
</tbody>
</table>

Pew Research Center Social Media Fact Sheet
http://www.pewinternet.org/fact-sheet/social-media/
How They Communicate

 Teens prefer texting to talking as their favorite way to communicate.
How Digital Natives Get Their News

**Figure 1: How students got their news from different pathways**

- **Peers**: Discussions with peers (e.g., online or face-to-face) - 93%
- **Social Media**: Social media (e.g., Facebook, Twitter) - 89%
- **Online Newspapers**: Online newspaper sites (e.g., nytimes.com) - 76%
- **Faculty**: Teachers/Professors (online or face-to-face) - 70%

In 2018 teens favor ...

<table>
<thead>
<tr>
<th>Platform</th>
<th>Use (%)</th>
<th>Most Often (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>YouTube</td>
<td>85%</td>
<td>32%</td>
</tr>
<tr>
<td>Instagram</td>
<td>72%</td>
<td>15</td>
</tr>
<tr>
<td>Snapchat</td>
<td>69%</td>
<td>35</td>
</tr>
<tr>
<td>Facebook</td>
<td>51%</td>
<td>10</td>
</tr>
<tr>
<td>Twitter</td>
<td>32%</td>
<td>3</td>
</tr>
<tr>
<td>Tumblr</td>
<td>9%</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Reddit</td>
<td>7%</td>
<td>1</td>
</tr>
<tr>
<td>None of the above</td>
<td>3%</td>
<td>3</td>
</tr>
</tbody>
</table>

Source: Pew Research Center
Teens, Social Media & Technology 2018
https://pewrsr.ch/2DAX4oQ
Fake News Fools Kids (Age 10-18)

31% of kids who shared a news story online in the last six months say they shared a story that they later found out was wrong or inaccurate.

Methodology: This report examines how children receive and perceive the news and is based on a survey of 853 children age 10 to 18 living in the United States that was administered by SSRS from January 10 to January 22, 2017.

www.commonsense.org/research

Ibid
56 information evaluation tasks to **7800** middle school, high school, and college **students** across 12 states
From the Executive Summary

- “Digital natives” may be able to flit between Facebook and Twitter while simultaneously uploading a selfie to Instagram and texting a friend.”

- “But when it comes to evaluating information that flows through social media channels, they are easily duped.”

Fake News 2018
Furthermore the study concluded ...

“At each level—middle school, high school, and college—[there is a] stunning and dismaying consistency.”

“Young people’s ability to reason about the information on the Internet can be summed up in one word: *bleak*.”
Bleak: A Carefully Chosen Word

- Not hopeful or encouraging; unlikely to have a favourable outcome; for example, a bleak future.

- Do we have a problem?

https://en.oxforddictionaries.com/definition/bleak
Consider this.

judgment on the reliability of the webpages.
Of the Stanford students ...

- Half concluded that the article from the American College of Pediatricians (ACPeds) was "more reliable."
  - ACPeds ties homosexuality to pedophilia.
  - The Southern Poverty Law Center said it is “a fringe anti-LGBT group that masquerades as the premier U.S. association of pediatricians.”
- Students who preferred the American Academy of Pediatrics entry *never uncovered the differences between the two groups.*
And at U.C. Berkeley

“Students overuse Google and misuse scholarly databases. Indeed, they’re not very good at using Google for these purposes.”

“Google’s own research scientists lament that students are unable to take advantage of the resources that are available to those who know how to find them.”
Algorithms will solve the problem!

“The software algorithms that decide our news feeds are programmed to prioritize user attention over truth to optimize for engagement, which means optimizing for outrage, anger and awe.”

Did technology kill the truth?
https://www.brookings.edu/research/did-technology-kill-the-truth/
YouTube’s Algorithm

“YouTube’s autocomplete function recommends controversial or fake points of view like conspiracy theories or hyper-partisan points of view, over more measured videos.”

https://cnb.cx/2P8czvM; https://nyti.ms/2ySmLOR; https://on.wsj.com/2qp4qUS
And what about Facebook?
...“the second is algorithmic amplification.”

“Facebook promotes extreme content like hate speech and conspiracy theories over thoughtful, balanced, deliberate work.”
“Teens Reject Journalistic Objectivity”

- The study:
- “Reveals new attitudes about what it means to be informed and a youth preference for opinionated rather than objective news.”

Fake News 2018

Journal of Communication Inquiry
http://bit.ly/2zIwqiQ
Recall How Digital Natives Get Their News

Figure 1: How students got their news from different pathways

- **Peers**
  - Discussions with peers (online or face-to-face): 48%
  - **Social Media**
    - Social media (Facebook, Twitter): 72%
    - Online newspaper sites (e.g., nytimes.com): 32%
  - Faculty (teachers/professors): 23%

- **Social Media**
  - **Peers**
    - Online newspaper sites (e.g., nytimes.com): 76%
    - Faculty (teachers/professors): 70%

[How Students Engage With News](http://bit.ly/2RD4onX)
Truth and Social Media

“Truth is no longer dictated by trusted authorities of information, but is networked by peers.”

Lies, Propaganda, and Fake News: The Challenge of Our Age
https://bbc.in/2zr6hg2
So ...

Who Comes Between Fake News and Students?
Teacher Resources

- ISTE
- KQED Teach
- common sense education®
- npr
- PBS
- Infographics

Fake News 2018
EVALUATING INFORMATION: THE CORNERSTONE OF CIVIC ONLINE REASONING

EXECUTIVE SUMMARY
STANFORD HISTORY EDUCATION GROUP
PRODUCED WITH THE SUPPORT OF THE ROBERT R. MCCORMICK FOUNDATION

https://stanford.io/2D3nbEZ
“The Stanford study provides sufficient detail to use their study stimuli as teaching tools.”

American Psychological Association
Psychology Teacher Network
Critical thinking and information fluency: Fake news in the classroom
http://bit.ly/2AMTx58

https://stanford.io/2D3nbEZ
Most Students Don’t Know When News Is Fake, Stanford Study Finds

https://on.wsj.com/2yPnT5O
Students Have 'Dismaying' Inability To Tell Fake News From Real, Study Finds

https://n.pr/2qsKdxe
Highly Recommended!

Project Information Literacy

How Students Engage with News: Five Takeaways for Educators, Journalists, and Librarians

ISTE–Recommended Fact–Checking Sites

- Article – “Top 10 sites to help students check their facts”
- Sites’ focus – Politics and media bias

Fact-Checking (Rumor)

Mission — “… an online touchstone of rumor research.”

“It is often the first to set the facts straight on wild fake news claims.”
Fact-Checking（Politics）

“… monitors the factual accuracy of what is said by U.S. political players.”
“The most ridiculous falsehoods get our lowest rating, Pants on Fire.”
Fact-Checking (Politics)

https://votesmart.org/
Fact-Checking

The International Fact-Checking Network is a unit of the Poynter Institute dedicated to bringing together fact-checkers worldwide. The IFCN was launched in September 2015 to support a booming crop of fact-checking initiatives by promoting best practices and exchanges in this field.

The Sixth Global Fact-Checking Summit will be in Cape Town in June 2019
BY DULCE RAMOS - NOVEMBER 15, 2018

https://www.poynter.org/channels/fact-checking
Fake News Sites

http://bit.ly/2yP2lGg

Examples of Fake News

Examples of Fake, Parody, and Misleading News Sites

- Snopes: Junk News Archive
  Long before Facebook, Twitter or even Google existed, the fact checking website Snopes.com was running down the half-truths, misinformation, and outright lies that ricochet across the Internet. Today it remains a widely respected clearinghouse of all things factual and not.
The Honest Truth about Fake News ... and How Not to Fall for It (with Lesson Plan)

By Matthew Green
MAY 3, 2017

Lesson Plan: Fighting Fake News

By Rachel Roberson

Featured resources

The Honest Truth About Fake News (KQED’s The Lowdown)


Evaluating Evidence: The Cornerstone of Civic Online Reasoning (Stanford University History Education Group study)

Opening quick write prompt:

What are potential consequences when fake news goes viral? Why or why not?

A quick write allows students to write down their thoughts before discussing the opening question in order to increase participation and make the discussion more accessible to English Language Learners.

Objective

- Students will analyze the problems and potential consequences associated with the spread of fake news.
- Students will identify and evaluate ways to avoid fake news in social and academic settings.

Essential Question and Lesson Context

What happens when fake news spreads? What actions can I take to verify news stories, photographs and other sources of online information?

Fake news is no longer a matter of the occasional hoax. There is growing evidence that fake news has the power to shape public opinion and even sway elections. As more Americans get their news online, it is increasingly vital that students know how to verify sources and spot fake news or images, which often appear indistinguishable from a reliable source. This lesson asks students to analyze the consequences of fake news and build the skills needed to question and verify what they view online.

Key vocabulary

Pre-teach key vocabulary before students do the activity, especially if you have English Language Learners. After going over the simple definition, consider providing a visual aid or having students draw one. More ideas for how to pre-teach vocabulary can be found here.
Fact-Checking Tips & Tools for Teachers & Students

Show students where to look for credible information on the web. Explain that professional fact-checkers may already have done this important work for us. Use the resources below as references for finding vetted and fact-checked information.

Help Students Fact-Check the Web Like the Pros
With so much information on the web -- true, false, and everything in between -- it's no wonder students have a hard time separating fact from fiction.

Cheat Sheet: Turn Students into Fact-Finding Web Detectives
The web is overflowing with info — true, false, and everything in between — but...

http://bit.ly/2QegUKk

Fake News 2018
Reviews “lateral reading” employed by fact checkers.

http://bit.ly/2QFDmMm
Includes a student worksheet!

http://bit.ly/2PB4sXW
K12 Teaching Resources

News & Media Literacy Curriculum Resources
Select a level to access on-topic, classroom-ready learning resources.

- Grades K-2
- Grades 3-5
- Grades 6-8
- Grades 9-12

1. Pay attention to the domain and URL. (.com.co)
2. Read the "About Us" section.
3. Look at the quotes in a story.
4. Look at who said them.
5. Check the comments.
6. Do a reverse image search.

https://n.pr/2F4lXMl
Lesson Plan: How to teach your students about fake news

This lesson gives students media literacy skills they need to navigate the media, including how to spot fake news.

Subjects
Social studies, U.S. government, civics, journalism

Estimated Time
One 50-minute class

Grade Level
7-12

Introduction
A recent study by Stanford University found an overwhelming majority of students were not able to tell the difference between so-called real news. Part of the solution involves providing students with the media literacy skills they need to deal with problems with fake news, including social media. With the help of NewsHour Extra, students will explore the confidence exploring the media that they come across every day.

Essential Q
How do you know something is reliable?

Warm Up Activity
Complete the following News-Hour Extra Daily News Story activity with your students: Did fake news influence the outcome of the 2016 Election? You may also want to show your class Craig Silverman’s story from BuzzFeed, which is the subject of the News-Hour piece.

https://to.pbs.org/2Rz0SL3
Close to Home: Charlottesville

- Introduction
- Key Terms [Defined]
  - Media literacy
  - Confederacy
  - alt-right
  - neo-Nazi
- Discussion questions
- Extension activities

https://to.pbs.org/2yPdUNR
Fact Checking Checklist

Fact Checking Comic

Checklist Example
Library Guides

5 WAYS TO SPOT and STOP FAKE NEWS DON'T GET TAKEN IN

Take a moment to think before you click - and share

https://guides.library.harvard.edu/fake

Reports from Harvard and other universities:

Fake news and the spread of misinformation
From the Shorenstein Center at the Harvard Kennedy School, links to peer-reviewed articles.

Nieman Reports: Election ’16: Lessons for Journalism
From the Nieman Foundation at Harvard; several articles on fake news and news literacy

Evaluating Information: The Cornerstone of Civic Online Reasoning
Stanford University study on high school and college students (lack of) news literacy

Lies, Viruses and Viral Content: How News Websites Spread (and Debunk) Out, Lies, Unverified Claims and Misinformation
Robert Hernandez Center for Digital Journalism, Columbia University
RESOURCES about "HOW TO AVOID FAKE NEWS" and about CRITICAL THINKING

https://teachingkidsnews.com/fakenews/
The House Hippo defending his territory.
High School Teaching Resources

Sections

• What's wrong with fake news?
• What can I do to avoid fake news?
• Fact checking links
• Known fake, parodid and misleading news sites
• Fake news in the news
• Lesson Plan Ideas

Lesson Plans, Handouts & Related Videos

**How to Recognize a Fake News Story**

1. Read past the headline
2. Check what news outlet published it
3. Check the publish date and time
4. Who is the author?
5. Look at what links and sources are used
6. Look out for questionable quotes and photos
7. Beware confirmation bias
8. Search if other news outlets are reporting it
9. Think before you share

50 checklists options for recognizing fake news.

https://goo.gl/nxyKiq
Infographic

Internat’l Federation of Library Assns.
https://goo.gl/LNZvoB
Logical Fallacies Poster

https://yourlogicalfallacyis.com/poster
‘E.S.C.A.P.E. Junk News Lesson

https://newseumed.org/tools/lesson-plan/escape-junk-news
Our “E.S.C.A.P.E. Junk News” poster helps you be a better, more informed media consumer. It gives you crucial questions to evaluate information, such as “Do the facts hold up?” and “What’s the big picture?” You can download the poster, and a DIY bookmark with the handy acronym, for free. If you are an educator, you can find the accompanying lesson plan here.

DOWNLOAD THE E.S.C.A.P.E. POSTER

DOWNLOAD THE E.S.C.A.P.E. BOOKMARK

http://bit.ly/2zJBH1m
Media Bias Chart: Version 4.0

https://www.adfontesmedia.com
Interpreting Media Bias Chart

ALTERNATE REALITY: VIRAL PROPAGANDA
CHART DEMONIZES INDEPENDENT MEDIA

Media Bias Chart

https://pewrsr.ch/2DT4AfJ
Media Bias Chart

Sharyl Attkisson

Emmy Award for Investigative Journalism

http://bit.ly/2OUUE6x
Photo Hoax?

Hoaxed: The ‘Illegal Alien Mom with Barefoot Kids’ Photo was a Setup – Another Staged #FakeNews Production

Yesterday’s Headline is todays hoax. The illegal alien mother ‘fleeing’ from the border wall was all a lie. It was a setup.
site:snopes.com limits all the results to only snopes.com webpages. The site: syntax works with any website.
Snopes.com Results

**FACT CHECK: Was the 'Illegal Alien Mom with Kids' Photograph ...**
https://www.snopes.com › Fact Check › Politics ▼

Claim: A photograph of a migrant mother and her children fleeing a tear gas attack near a border crossing was staged.

Claimed by: Multiple Sources

Fact check by Snopes.com: False

**Immigration Archives | Snopes.com**
https://www.snopes.com/fact-check/category/immigration/ ▼

Was the 'Illegal Alien Mom with Kids' Photograph Staged? 26 November 2018 - "The illegal alien mother 'fleeing' from the border wall was all a lie. It was a ..."

**FACT CHECK: Did News Media Incorrectly Report That Border Agents ...**
https://www.snopes.com › Fact Check › Politics ▼

Claim: News media outlets misrepresented a photograph of a two-year-old migrant girl whose mother was arrested at the U.S.-Mexico border as depicting an instance of...

Claimed by: Multiple Sources
Formatted Snopes.com Query

"fact check" AND (what you are fact checking) AND site:snopes.com

"fact check" AND justice ginsburg AND retirement AND site:snopes.com
Justice Ginsburg retiring?

Did Justice Ruth Bader Ginsburg Announce She Will Be Retiring in ...
22 hours ago - "Santa Monica Observer plays fast and loose with the facts. ... Did Ginsburg Announce She Will Be Retiring in January 2019? .... Producing reliable thorough investigative reporting ..."

FACT CHECK: Is Ruth Bader Ginsburg Retiring and Moving
https://www.snopes.com › Fact Check › Junk News ◄
Claim: Ruth Bader Ginsburg has resigned her U.S. Supreme Court seat and moved to New Zealand.
Fact check by Snopes.com: False

Feedback
Other Site-Limited Queries

- “fact check” AND (what you are fact checking) AND site:factcheck.org
- “fact check” AND (what you are fact checking) AND site:www.politifact.com
- Save image to the desktop.
- Open Google Images.
- Drag image into image search template.
Drag and Drop Image Results

About 25,270,000,000 results (1.14 seconds)

Image size:
255 × 197

Find other sizes of this image:
All sizes - Small - Medium

Best guess for this image: different flowers in world

50 Most Beautiful Flowers In The World - StyleCraze
https://www.stylecraze.com › News › Trends ▼
Sep 18, 2017 - During Victorian era, special meanings were assigned to various flowers to send out coded messages and allowed individuals to express ...

The 20 Most Beautiful Flowers You'll Ever See - FTD.com
https://www.ftd.com/blog/share/most-beautiful-flowers ▼
Sep 26, 2016 - We're counting down the top 20 most beautiful flowers in the world. ... there are thousands of different types of roses that can be found in nearly ...
Search Google for Image

Sales for Michelle Obama Memoir Top 2 Million Copies

Right click the image
Select: Search Google for image
Session Conclusion

“Today’s students favor brevity, consensus, and currency in the information and answers they seek.”

“[They] defined their preferences for information sources in a world where credibility, veracity, and intellectual authority are far less of a given—or even an expectation from students.”

Credibility & Authority

The Importance of Truth Workers in an Era of Factual Recession
https://goo.gl/re1rBP
“The Silver Lining is that …

- kids can be taught to be better consumers of information by learning:
  - to pay attention to the source,
  - to consider possible biases or motives, and
  - to think about what details a news source might have left out.”
“Students demonstrated solid strategies to counter the glut of information they encounter.”

“Many read across content producers to obtain a more complete story.”

“They fact-check and they discuss, they seek guidance from professors they trust.”

“They work hard to refine their news choices to those they consider trusted and reliable.”

HOW STUDENTS ENGAGE WITH NEWS
Finally: Welcome to the Post-Truth World

required!
Portaportal Online Bookmarks

www.portaportal.com

Guest Login - barronfakenews
Fake News Bookmarks

Welcome VSTE attendees

Articles and Research Studies
- The Importance of Truth Workers in an Era of Factual Recession
  Article from Medium.com: Allison Head (Project Information Literacy): role of educators and librarians.
  https://goo.gl/LmVQby
- Lies, Propaganda, and Fake News: A Challenge or Our Age
  BBC Article: "Fake news threatens the democratic process itself.
  https://goo.gl/QgAhcy
- Most Students Don’t Know When News is Fake, Stanford Study Finds
  Wall Street Journal video reviewing Stanford study.
  https://goo.gl/DSLml
- Fake News, Misinformation, and Propaganda
  Harvard University Library Guide
  https://guides.library.harvard.edu/fake

Pew Center
- Who Uses Social Media
  Pew Research Center Social Media Fact Sheet: Age 18-39 - 88% use FB
  http://www.pewinternet.org/fact-sheet/social-media/
- The Future of Truth and Misinformation Online
  Pew Center: In the next 10 years, will methods emerge to block fake narratives?
  http://www.pewinternet.org/2017/10/19/the-future-of-truth-and-misinformation-online/
- Many Americans Believe Fake News Is Sowing Confusion
  Pew Center: US adults (64%) say fabricated news causes confusion about the basic facts of current issues.
  https://goo.gl/DYA4F7
Are there any …

Questions?

pbbarron@gmail.com
Presentation Objective

- Introduce “Lateral Reading”
- Document scanning method used by fact checkers, (including librarians).

papers.ssm.com
Lateral Reading: Reading Less and Learning More When Evaluating Digital Information by Sam Wineburg,...
Lateral Reading & Information Evaluation

https://goo.gl/hdSF83
Remember the Stanford students?

- \ldots \textit{vertically}, meaning they would \textbf{stay within the original website} in question to evaluate its reliability."

- “These readers were \textbf{often taken in by unreliable indicators} such as a professional-looking name and logo, an array of scholarly references or a nonprofit URL.”
Question Time!

What apparatus, that you likely carry, influenced this vertical reading pattern?
What the Researchers Learned

“Fact checkers read *laterally*, meaning they would quickly scan a website and *open a series of additional browser tabs*, seeking context and perspective from other sites.”

Ibid
Fact-Checking Browser Tabs

- Two search engines - Google and DuckDuckGo

- portaportal.com for online bookmarks

- or for notes and a reminder

- YouTube for videos about the research topic

- URL shortener for information management