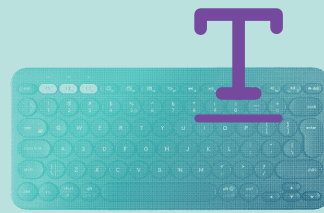


# 6 things to know about AI

Artificial intelligence technology is not new, but dramatic advances in generative AI have captured the world's attention and are transforming the information landscape. **Here are six news literacy takeaways** and implications to keep in mind as this technology continues to evolve.



## TEXT

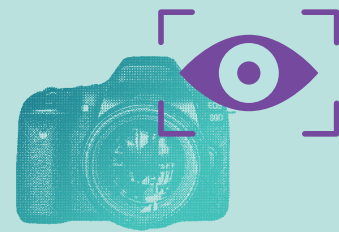
### TOOLS

*Chatbots:* ChatGPT, Google Bard, Bing Chat, Claude, etc.

### HOW THEY WORK

Generative AI chatbots rely on a technology called a **large language model** to synthesize large amounts of information and imitate human writing. They are trained on vast databases of internet text and digitized online writings, including books, articles and websites.

Chatbots use probability to predict what words and phrases go together to answer a given prompt. Some experts compare them to autocompletion tools on steroids.



## VISUALS

### TOOLS

*Image generators:* DALL-E, Midjourney, Stable Diffusion, etc.

### HOW THEY WORK:

These tools have **learned how to arrange pixels** to generate digital images after being trained on billions of images and text captions scraped from the web.

They allow anyone to generate compelling and custom visuals from written prompts and can imitate styles of paintings or create photo-realistic images.



## 1 Generative AI tools are not objective ...

They are subject to the biases of the humans who make them — and integrate any biases baked into their training data. Data sets often include copyrighted, misleading and overtly biased material. These tools do not just learn human biases; they can also amplify, extend and entrench them.

**T** Researchers have raised concerns about AI chatbots generating misinformation and providing responses that include conspiracy theories, pseudoscience and harmful content.

**[E]** AI image generators amplify biases in race and gender and can default to harmful Western stereotypes. A [Bloomberg experiment](#), for instance, found that Stable Diffusion produced AI images dominated by people with lighter skin tones for high-paying jobs, while images of fast food workers and dish washers skewed toward darker skin tones.

## 2 ... or reliably factual.

AI tools might feel authoritative and credible, but the responses they generate are routinely riddled with inaccuracies.

**T** Chatbots have been known to make up sources, provide incorrect answers to simple questions and write persuasive responses that include misinformation. Experts refer to false information presented with confidence as “hallucinations” — a persistent issue with this technology.

**[E]** AI image generators can create anything you ask for — however absurd, whimsical or potentially harmful and misleading. While many people use image generators to make fun, fanciful images, bad actors can use them to smear public officials or produce other damaging fakes.

## 3 It's not all bad.

It can be easy to get swept up in alarmist takes, but AI tools also have tremendous upsides. For example, they can boost scientific research and make complicated or specialized tasks more accessible, like writing computer code or building websites. Some news organizations use AI to responsibly automate certain tasks, such as [The Associated Press](#) using AI to compile corporate earnings and sports box scores.



## 4 Content is easier than ever to create — and fake.

AI chatbots and image generators produce text and visuals at an unprecedented scale — and have the potential to supercharge the spread of misinformation. Some tools are even being used to produce fabricated news broadcasts using realistic-looking AI anchors. Be ready to encounter even more information with less transparency about its origin.

## 5 It signals a change in the nature of evidence.

Don't let AI technology undermine your willingness to trust anything you see and hear. Just be careful about what you accept as authentic.

**T** Traditional signals of credibility — such as clean writing, academic footnotes or sleek website design — are relatively easy to fake in today's information landscape. But AI chatbots make them easier than ever to game — at scale. Skills like “[lateral reading](#)” become even more critical.

**[E]** The rise of more convincing fake photos and videos means that finding the source and context for visuals is often more important than hunting for visual clues of authenticity. Any viral image you can't verify through a reliable source — using a reverse image search, for example — should be approached with skepticism.

## 6 Reputable sources matter more than ever.

Credible sources follow processes to verify information before sharing it, and this should translate into higher levels of trust. Professional journalism ethics — such as fairness, transparency and accuracy — can be seen in the quality of information published by standards-based news organizations. Generative AI tools don't show the same concern for truth, verification or the public interest.



This infographic was created by the News Literacy Project with support from SmartNews, a news app for mobile devices.

For a future founded on facts

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# Is it legit?

## Five steps for vetting a news source

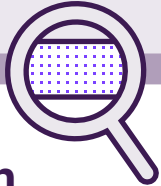
Many sources compete for attention online, including partisan blogs and bogus sites posing as legitimate news organizations. It can be tough to know what to trust. Follow these steps to cut through the noise and learn how to evaluate sources for signs of credibility – as well as for red flags that signal a source should be avoided.

### Test your source savvy!

Scan this QR code to put your source-vetting skills to the test.



# 1



### Do a quick search

Conducting a simple search for information about a news source is a key first step in evaluating its credibility. It's important to look beyond social media. Go to a search engine and plug in the name of the website or publication. Do other legitimate sources, such as standards-based news organizations or [fact-checking websites](#), describe this publication as unreliable? Satirical? Is it a state-run propaganda "news" site? If so, there's no need to spend more time vetting. Look elsewhere for reliable information.

➤ **Tip:** Wikipedia can be a good place to start and lead you to relevant source links; just keep in mind that some credible local newsrooms may not have an entry there. You can also see if a source has been vetted for inclusion on news aggregators, such as [Google News](#), [Apple News](#) and [SmartNews](#).

# 2



### Look for standards

Reputable news organizations aspire to ethical guidelines and standards, including fairness, accuracy and independence. These standards should be available publicly – often in the form of editorial policies or a code of ethics. Look for evidence that a source follows such standards. If someone is mentioned in a critical story, for instance, did the journalist give that person a chance to comment?

➤ **Note:** Some professional journalism standards are commonly shared across the industry, such as the [Society of Professional Journalists Code of Ethics](#). Other policies are unique to different newsrooms.

### Beware of these trust busters!

If you spot any of these problems, look elsewhere for credible news.

✗ **False or untrue content:**  
Publishing a demonstrably false claim without correcting it

✗ **Clickbait tactics:**  
"Baiting" you with sensationalized language, including misleading or exaggerated headlines, or headlines that are purposely vague to drive clicks

✗ **Lack of balance:**  
Consistently focusing on one angle or side of a legitimate debate or controversy, while ignoring or distorting other perspectives

✗ **Manipulated images or videos**  
**Tip:** You can do a [reverse image search](#) using

[Google](#), [TinEye](#)

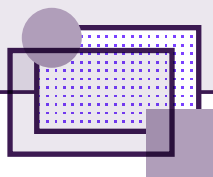
and [Yandex](#)

(among other tools) to see if visuals have been misrepresented or altered in some way.

✗ **State-run or state-sponsored propaganda:**  
Using government-controlled news organizations to further national agendas and improve public image

✗ **Dangerous, offensive and malicious content:**  
Could include discriminatory language, unverified pseudoscience, content that promotes violence or coverage that – as the SPJ Code of Ethics states – panders "to lurid curiosity"

# 3

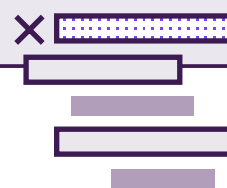


### Check for transparency

Quality news sources should be transparent, not only about their reporting practices (see Step 2), but also about their ownership and funding. Is it clear who owns and runs this website or publication? Is advertising labeled responsibly? Can you tell who is writing and producing content? Is there a way to contact newsroom editors and reporters?

➤ **Remember:** "About" pages can provide some of these details, but they can also be misleading and omit important information (about a source's ownership or lack of independence, for example). [Don't be fooled](#) by a [sleek web design](#), or trust the "About" page on an unfamiliar site without further verification. If something seems suspicious, check it out.

# 4



### Examine how errors are handled

Credible news sources are accountable for mistakes and correct them. Do you see evidence that this source corrects or clarifies errors?

# 5



### Assess news coverage

An important step in vetting sources is taking time to read and assess several news articles: Do you see original reporting? Do they provide straight news reports, or just commentary and opinion? Are there grammatical and/or spelling errors? How do news articles from this source compare to coverage from other standards-based newsrooms on this same topic? Many people have strong opinions about news sources without evaluating them firsthand.

➤ **Tip:** Take note of bylines (names) on news coverage. These bylines can help you confirm that this coverage was written or produced by professional journalists. Bylines are also a sign of transparency and accountability.

News Literacy Project

SmartNews

This infographic was created by the **News Literacy Project** in partnership with **SmartNews**, a news app for mobile devices.

For a future founded on facts [newslit.org](#)

# News media bias

People across the political spectrum often feel that “the media” is biased against their beliefs and values. But what counts as bias in news? And why do so few people feel that news coverage is slanted in their favor?

Here are **six tips** to help you think clearly about this nuanced and important topic:

## 1 Differentiate news from opinion

The standards of quality journalism call for news reports — also called “straight news” or “hard news” — to be as free of bias as possible. But **opinion columns, editorials and op-eds are not produced to be impartial** — they’re supposed to express an opinion.



The Wall Street Journal news division strives to avoid bias, but its opinion section is well known for its conservative views.

## 2 Think about bias as a spectrum

Nothing humans produce can be entirely free of potential bias, so it’s more helpful to think about bias in news as a spectrum (**more or less biased**) rather than a binary (biased and unbiased).



## 4 Recognize your own biases

Our own preconceptions can cause us to misperceive elements of news coverage, make assumptions about the motivations of journalists, or diligently search for ways to criticize and dismiss coverage as “biased” if it challenges our ideas and beliefs. Though it may seem that bias in news is blatant and deliberate, the reality is that it’s much more often unintentional and open to debate.



## 5 Be wary of media bias charts and ratings

Bias charts and rating systems seem to provide an easy way to assess bias in news, but **they often contain startling shortcomings**.

Some popular media bias visualizations are based on small samples of coverage that include opinion pieces alongside news reporting. They also mislead by comparing credible news organizations to sources that routinely push disinformation, propaganda and conspiracy theories. This falsely implies that journalists, hyperpartisans and conspiracy theorists are all part of the same community of practice. They’re not.



## Different types of bias ... can take different forms in coverage

### TYPES



**“Big story” bias:** Journalists’ judgment is clouded by their perceptions of an event or development as a major, important story.



**Corporate bias:** Business interests of a news outlet — including advertisers and its parent company — influence coverage.



**Demographic bias:** Race, gender, ethnicity or other factors — such as culture or economic class — distort news coverage.



**Neutrality bias:** A journalist or news outlet tries so hard to avoid appearing biased that the coverage misrepresents the facts.



**Partisan bias:** Journalists’ own political views affect news coverage.

### FORMS



**Absence of fairness and balance:** The failure to present all relevant viewpoints on an event or issue in an accurate and impartial way.



**Framing:** How a news report is approached and organized.



**Sourcing:** The voices and perspectives deemed relevant and important enough to be included in a news story.



**Story selection:** What a news organization decides is newsworthy enough to cover or feature.



**Tone:** The words and phrases used to describe the person, issue or event being covered.

## 6 Think about bias in terms of types and forms

Break through the hyperbole and political rhetoric around the issue of bias by testing your initial perceptions. What **type** of bias do you think you’re seeing? And what **form** do you see it taking in coverage?

### Public feedback makes journalism better

If your initial perception of bias in news coverage holds up under scrutiny, say something! Share your thoughts with the reporter on social media or write a letter to the editor.



## Think you’ve spotted an example of biased news?

Double-check your initial perceptions by asking: What would “unbiased” news about this subject look like? » If your perceptions of bias are accurate, you should have concrete ideas for how a news report could be made more impartial.



# Levels of Scientific Evidence, with Dr. Kat

Scientific evidence can be confusing! It's easy to mistake weak evidence for strong evidence. Sometimes people share unreliable things on social media with good intentions, but sometimes they're exploiting the public's lack of understanding of different levels of evidence. We all encounter claims online, but **all evidence is not created equal**. So, how can you tell the quality? This infographic can help you find your way.



newslit.org

This infographic was developed by the News Literacy Project and Dr. Katrine Wallace, an epidemiologist and assistant professor at the University of Illinois at Chicago. Follow Dr. Kat on TikTok @epidemiologistkat.

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## TIP

### Scientific evidence in the news

News reports and opinion pieces about scientific topics might cite a mix of different kinds of evidence. Be sure to examine what type is being presented: *Is it quoting an expert? Is it a "study"? What kind of study?* Refer back to the pyramid to evaluate the quality of evidence included. (And don't forget to check the date! If the study or date of the news report is old, the data might have changed.)



### Scan here

to watch Dr. Kat lead you through this chart!

#### META-ANALYSIS

Statistical method that combines the results of multiple scientific studies.

**Example:** Connection between [intelligence test scores and education](#).

#### RANDOMIZED TRIAL

The gold standard for testing health claims. (The top layer does not include experiments but summarizes them.) Researchers randomly assign participants to groups to make fair comparisons and test treatments in ways that minimize bias.

**Example:** [Pfizer COVID-19 vaccine trials](#).

#### CASE-CONTROL STUDY

A study that compares a group of individuals with a specific condition to a group of people without that condition to find out what may have caused it.

**Example:** A study used to determine a [link between smoking and lung cancer](#).

**Don't forget!** Correlation does NOT equal causation.

#### CASE REPORT / CASE SERIES

A study on one person (report) or one group (series) of people with similar clinical characteristics. Because these studies don't make comparisons, they aren't as strong as the evidence in higher levels of the pyramid.

**Example:** [Interesting cases reported with no control group](#).

#### EXPERT OPINION

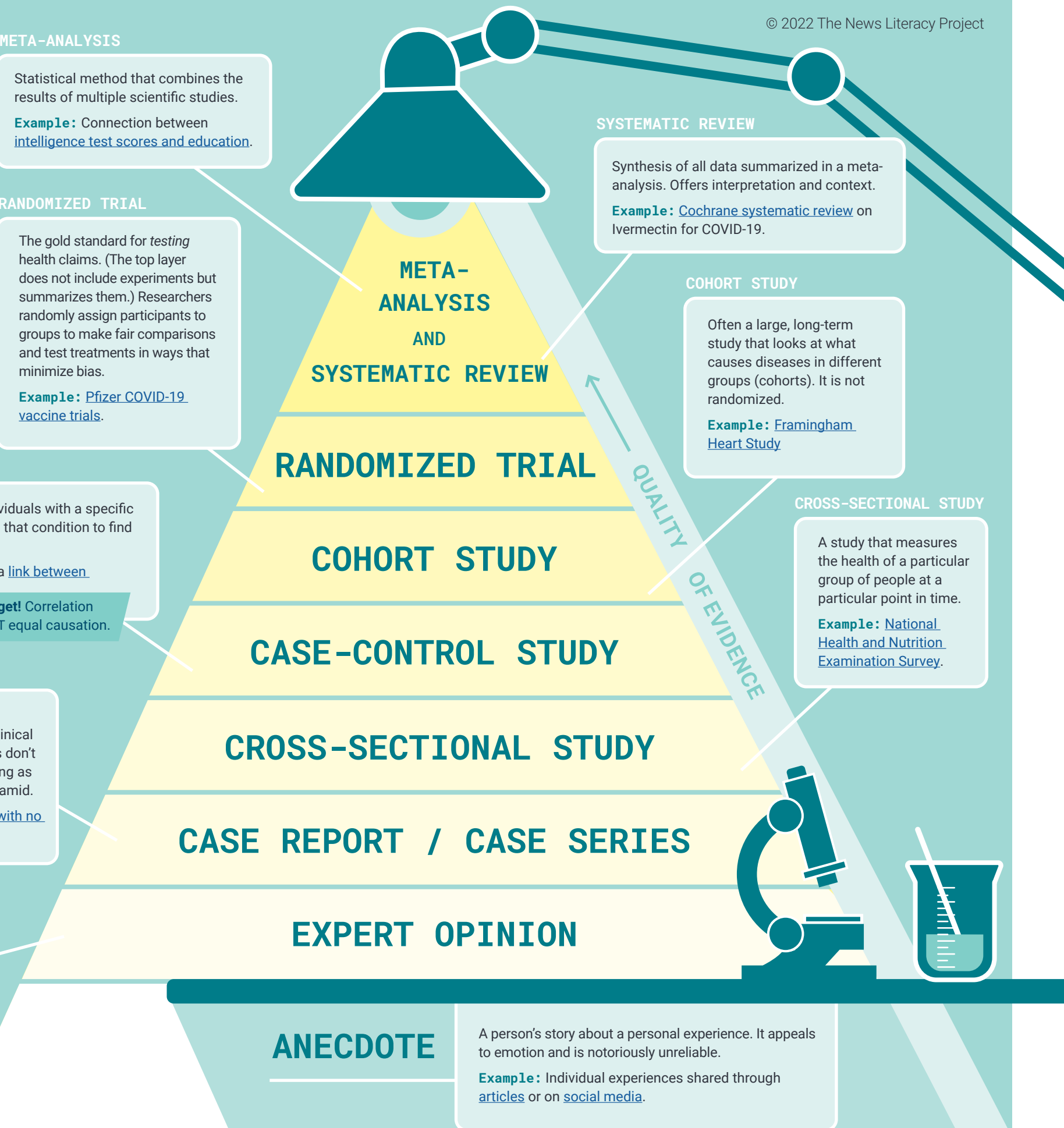
An educated opinion presented without data. More prone to bias. Can be useful before we have reliable data on a topic. (That said, expert opinion should shift to be evidence-based!)

**Example:** [Nutrition opinion piece](#).

#### ANECDOTE

A person's story about a personal experience. It appeals to emotion and is notoriously unreliable.

**Example:** Individual experiences shared through [articles](#) or on [social media](#).



# Misinformation

Misinformation thrives on social media where anyone can share almost anything they choose, and attention spans are short. Here's a quick guide to help you understand what misinformation is and how to recognize it.

## Why do people share misinformation?



Many people share misinformation unknowingly and sometimes with good or altruistic intentions — whether to articulate their perspectives, warn others away from danger or join others in trying to make sense of the world around them.

But some research suggests that some people also knowingly share things they suspect are false — whether to damage “the other side” in a political debate, get social media likes and shares, or conform to their ideological identities.

Bad actors — such as hyperpartisans, trolls and even foreign agents — create and share disinformation to cause division and confusion, to promote political interests and points of view or for financial gain.



Mis- and disinformation are fundamentally exploitative in nature, often targeting our most deeply held values and beliefs to **elicit a strong emotional reaction** that overrides our more rational thought processes.

**Watch out!** While the emotions most often elicited by mis- and disinformation are fear, anger and outrage, more agreeable emotions like curiosity and hope are also used to bypass our cognitive defenses.

## Misinformation:

Information that is misleading, erroneous or false. Misinformation is generally shared — and sometimes created — by people who are unaware that it's inaccurate. This is the best term to use when the intent of the creator or sharer is unknown.

## VERSUS

## Disinformation:

A subset of misinformation that is deliberately created or shared with the intention to misinform and mislead others, usually to achieve a desired ideological, political or financial result.



**Remember:** The intent behind the creation or amplification of false information is often impossible to determine.

## Types

Adapted from First Draft's [seven types of mis- and disinformation](#), created by Claire Wardle.

Misinformation can be categorized based on what makes it false or misleading. The following five types are commonly found online:



### False context

An image, video, quote or other piece of content is presented in a new, false context that changes its meaning.

### Imposter content

Content — such as a fake tweet from a public figure, or a fake ad — that falsely uses a well-known name, brand or logo to fool people into believing that it is authentic.



### Fabricated content

Misinformation that is entirely made up, such as computer-generated imagery or entirely fictional reports presented as “news.”



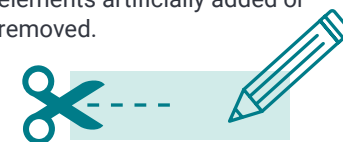
### Manipulated content

Photos, videos, graphics and other types of content that have been “doctored” in some way, such as having one or more elements artificially added or removed.



### Stolen satire

A specific type of “false context” misinformation in which all or part of a piece of satire is presented as authentic.



## Red flags

WATCH OUT!

If you see these common misinformation themes and “rumor cues,” proceed with caution:

### Phrases

- “Let that sink in”
- “The media won’t report this”
- “Make this go viral”
- “Do your own research”
- “There are no coincidences”



### Patterns

- Manipulated text on signs or t-shirts
- Doctored “amazing” nature or space photos
- Photos of protests and crowds
- Screenshots of articles with no links

## Your best defenses

1. Checking out unfamiliar people and sources
2. Glancing through social media comments for replies that call a post into question
3. A quick internet search using key terms from a questionable post



## Key resources

- [“Misinformation” lesson](#) from NLP’s Checkology® virtual classroom
- NLP’s weekly email newsletters: [The Sift®](#) (for educators) and [Get Smart About News](#) (for non-educators)
- NLP’s [RumorGuard™](#)
- [First Draft](#) website
- [The Media Manipulation Casebook](#)

## 8. Use - to exclude from results

To exclude particular terms or websites from your search, just type - (the minus sign) before it. For example, if you wanted to search Facebook groups for the term "cat videos" but wanted to exclude results with the phrase "Zoom filter" you would search:

site:facebook.com/groups "cat videos" - "Zoom filter"

### Hint

Click these search bars to see the results for each example.

## 1. Use quotation marks

If you put **quotation marks** around your search terms, Google will search for webpages containing that exact phrase.

"I'm not a cat"

## 2. Limit to news

If you are looking specifically for standards-based news articles that contain your search term, narrow your initial search results by clicking on the tab labeled **"News."**

Q All Videos Images News Shopping More

## 7. Search one section of a specific website

You can also search for a specific **subdomain** or **subdirectory** on a particular website. For example, to quickly search Facebook (a website) for groups (a subdirectory) that use the exact phrase "cat videos" your search bar should look like this:

site:facebook.com/groups "cat videos"

# Eight Tips to Google Like a Pro

**The internet is inconceivably large.** In fact, it's essentially endless! Sometimes it's easy to find the information you need, but often trying to find something specific can feel like looking for a needle in a haystack. These eight tips can help you improve your search results and zero in on what you're looking for more quickly.

Learn more about advanced search tips in [this tutorial](#). Then, take your search skills to the next level [in this activity](#) by researching the "Birds Aren't Real" conspiracy theory.

News Literacy Project

This infographic was developed by the **News Literacy Project** and **Cindy Otis**, author of *True or False: A CIA Analyst's Guide to Spotting Fake News*.

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## 3. Use basic Boolean operators

Use **AND** (all uppercase) when you're searching to find results that contain more than one exact search term.

"I'm not a cat" AND "Zoom call"

Use **OR** (all uppercase) when you're searching to find content containing only one of your search terms: "Search Term1" OR "Search Term2" OR "Search Term3"

"I'm not a cat" OR "Zoom court hearing" OR "Rod Ponton"

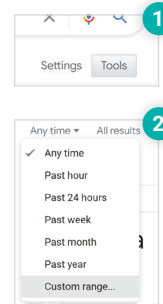
## 6. Search a specific website

Limit your results to one specific website by adding **"site:WEBSITENAME.com"** to the search terms. For example, a search for the phrase "cat videos" on Facebook would be:

site:facebook.com "cat videos"

## 5. Narrow the time frame

When you get results for a search, click on **"Tools"** and then **"Any time."** In the dropdown box, you'll be able to choose from results in the past hour, past 24 hours, past week, past month, past year, or enter a custom date range.



## 4. Use parentheses to group operators

You can use **parentheses** to order the search operations the way you would in a mathematical equation. For example, to search for only one of two search terms AND a third term, you would search: ("Search Term1" OR "Search Term2") AND "Search Term3"

("I'm not a cat" OR "cat filter") AND "Zoom court hearing"