# INTERPRETING AI IN THE NEWS: A Media Literacy Lesson Plan

## Topic

Media Literacy: Using reporting on artificial intelligence to practice critical thinking skills

## Grade level and subject

High school English, Journalism, or History

## Type of lesson

One time

## Duration

90 minutes (one block period or two 50 minute class periods)

## Objective

Students will learn to analyze how artificial intelligence is discussed in the media, identifying how an author’s writing choices can contribute to misconceptions about AI.

## Materials

Students need the following materials for this lesson:

* Access to several news sources about AI.
	+ In-class, the teachers will provide 3-5 articles for students to work on, splitting into groups to discuss what the articles do well and what they do poorly. Example articles are linked below. (Due to copyright rules, we cannot provide PDFs of articles, but as an educator, you have fair use permission to teach these for your classes.)
	+ For the homework portion, students will find their own articles online (these do not need to be provided).
* *What to look for in great reporting on AI* (rubric)

## Directions

1. 20 minutes: Teacher introduces the concept of “artificial intelligence” and talks about different examples of tools that exist today (self-driving cars, ChatGPT, autofocus on your phone).
	* **What is artificial intelligence?** The definition of what counts as AI continues to evolve and remains a subject of debate. In this lesson plan, “AI” will be used to refer to human-made systems designed to emulate problem-solving or decision-making abilities that are normally associated with humans. To learn more check out [AI 101 from Aspen Digital](https://www.aspendigital.org/report/ai-101/), [AI Toolkits from aiEDU](https://www.aiedu.org/aitoolkits), or the [AI Literacy Lessons from Common Sense Media](https://www.commonsense.org/education/collections/ai-literacy-lessons-for-grades-6-12).
	* **Teachers can start by showing students the following examples:**
		+ Self driving car example: <https://www.youtube.com/watch?v=-Rxvl3INKSg>
		+ ChatGPT: <https://chat.openai.com/>
			- Teachers can solicit examples from the class (e.g., “Write a poem about being in high school” or “Write a program to find the first 100 prime numbers”)
2. 15 minutes: Teacher introduces four criteria for excellent writing about AI. After each example illustrating a criteria, the teacher asks students why the suggestion was important.
	* **Don’t personify**. Sometimes people write in ways that imply that an AI tool took a conscious action (“struggled”) or made a conscious decision (“lied”), when in fact AI tools are just computer programs following their code. Great writing about AI uses action verbs appropriate to non-living systems (e.g. “generates,” or “outputs,” rather than “believes” or “understands”).
		+ An example that personifies:
			- ChatGPT struggles to provide correct citations for its claims.
		+ A correction using the criteria:
			- ChatGPT is not able to generate correct citations.
	* **Use accessible language.** The language technologists use to talk about AI is full of jargon—words which have a different meaning to the general public, like “training” or a “model.” Because these words have a different meaning to the general public, writing that uses them quickly becomes confusing. Word choice and metaphor used to describe AI tools should ideally be accessible to the audience you are writing for.
		+ An example of inaccessible language:
			- Machine learning utilizes pre-processed datasets to train a model to make inferences about novel data.
		+ A correction using the criteria:
			- A machine learning system is a type of AI that essentially serves as a pattern recognition tool.
	* **Specifically describe current capabilities**. Sometimes people write about things AI tools might enable people to do in the future, without clarifying what type of tool they’re referring to and what these types of tools can do today, which leads people to both presume AI is one all-encompassing technology and that these tools have greater capability than is currently possible.
		+ An example of anticipating future capabilities:
			- AI is getting smart enough to face off against doctors and lawyers.
		+ A correction using the criteria:
			- Generative AI systems can be prompted to return correct answers for many leading professional exams including the LSAT and medical licensing exams.
	* **Talk about human actors**. Not mentioning the people responsible for creating the AI tool and deciding how it gets used can hide where real decisions about the technology are made.
		+ An example of hiding human actors:
			- The AI system fired 1000 employees.
		+ A correction using the criteria:
			- Management used an AI tool to select 1000 employees to fire.
3. 20 minutes: Teacher details how one example sentence can improve by following each of the four criteria above. Teacher can use the [Talk Better About AI example sentence](https://drive.google.com/drive/u/0/folders/1nFgygVx8NJGMTTwg9uLrjlIIVDZoLlbE) presentation or the bullet points below. Teacher can ask the class for input on which parts of the sentence to improve to increase participation.

The following steps show the evolution of a “bad” sentence into an excellent sentence. For context, the final, excellent version is a quote from this article in The Markup, which was a winner featured in the [2023 Reporting on AI Hall of Fame](https://techprimers.aspendigital.org/hall-of-fame/): <https://themarkup.org/prediction-bias/2023/10/02/predictive-policing-software-terrible-at-predicting-crimes>

The article discusses the use of an algorithm by a New Jersey police department that was right less than 1% of the time. Here’s the full paragraph, with the sentence highlighted:

*For example, the city of Newark, New Jersey, used risk terrain modeling (RTM) to identify locations with the highest likelihood of aggravated assaults. Developed by Rutgers University researchers, RTM matches crime data with information about land use to identify trends that could be triggering crimes. For example, the analysis in Newark showed that many aggravated assaults were occuring in vacant lots.*

* + Start with an example sentence that demonstrates many of the traits of misleading reporting on AI: “*The AI has learned to predict crimes.*”
	+ Iteratively improve the sentence by **removing personification** (for example: change “has learned” to the more accurate “matches crime data with information about land use”)
	+ Use clear and specific language to **name the specific technique** instead of the catchall “AI” (for example: “risk terrain modeling” instead of “AI”)
	+ **Remove hyperbolic language** (“to predict crimes”) and replace with current capabilities (“to identify trends that could be triggering crimes”)
	+ Finally, **highlight the human actors** missing from the original description (“Developed by Rutgers University researchers”)
1. 20 minutes: Class is assigned a collection of articles (examples below) featuring descriptions of AI, and splits into groups to discuss what they do well and what they do poorly. Pass out copies of the *What to look for in great reporting on AI* document or pull it up on a projector to assist students in their evaluations.
	* Alternatively, teachers can choose to use the “[jigsaw](https://www.readingrockets.org/classroom/classroom-strategies/jigsaw#:~:text=Jigsaw%20is%20a%20cooperative%20learning,they%20learn%20with%20their%20classmates.)” method, assigning one article for the class and giving each group a different focus area (e.g., “how did your article use personification?”)
2. 10 minutes: Class reconvenes as a group to discuss what each group found and which descriptions were the best.
	* What was your article about? What was AI used or developed for? Who were the people who used or developed the AI?
	* How do the writing choices of the author influence the way you feel about the AI tool? What would you change to make the article better?
3. 5 minutes: Teacher assigns homework (see ***Assessment****)*.

## Examples of Articles

Teachers can use the following articles for in class conversations:

* [Predictive Policing Software Terrible At Predicting Crimes](https://themarkup.org/prediction-bias/2023/10/02/predictive-policing-software-terrible-at-predicting-crimes), The Markup
	+ **Article topic:** Predictive policing software used by a city in New Jersey turned out to be right “less than 1% of the time.” The article mentions two different types of AI tool: Geolitica’s predictive policing system and Rutgers University’s risk terrain modeling algorithm.
	+ **How it describes AI:** The authors center the developers of the different AI tools they reference and the cities using them, contextualize the performance of the tools through interviews with proponents and critics and through investigative journalism, and don’t personify the tools themselves.
	+ **Key Excerpt:** “Developed by Rutgers University researchers, [risk terrain modeling] matches crime data with information about land use to identify trends that could be triggering crimes. For example, the analysis in Newark showed that many aggravated assaults were occurring in vacant lots.”
* [Artificial Intelligence, Energy and the Economy](https://www.rstreet.org/research/artificial-intelligence-energy-and-the-economy/), R Street
	+ **Article topic:** The environmental impacts of artificial intelligence.
	+ **How it describes AI:** The author highlights the human (corporate) actors behind some major AI tools and uses action verbs appropriate for non-human systems (creates, predicts, produces). However, the author also uses a fair amount of inaccessible language, or jargon (e.g., model, trained).
	+ **Key Excerpt:** “Importantly, although AI-optimized hardware may lower per-task energy consumption because of its efficiency, the total energy consumption of AI workloads can still be significant because AI models are typically large and run continuously.”
* [How AI Puts Elections at Risk — And the Needed Safeguards](https://www.brennancenter.org/our-work/analysis-opinion/how-ai-puts-elections-risk-and-needed-safeguards), Brennan Center for Justice
	+ **Article topic:** AI tools like deepfake audio and video and enhanced disinformation could pose new threats to democracy.
	+ **How it describes AI:** The authors don’t highlight human actors when talking about AI—the AI is the actor in many sentences, which gives it agency it doesn’t really have (including the excerpt below). However, they do a good job articulating specific current and near-term impacts of different types of AI tool on the information ecosystem.
	+ **Key Excerpt:** “While AI has been able to synthesize photo-quality “deepfake” profile pictures of nonexistent people for several years, it is only in recent months that the technology has progressed to the point where users can conjure lifelike images of nearly anything with a simple text prompt.”
* [ChatGPT Can Be Broken by Entering These Strange Words, And Nobody Is Sure Why](https://www.vice.com/en/article/epzyva/ai-chatgpt-tokens-words-break-reddit), Vice
	+ **Article topic:** In early 2023, researchers found that ChatGPT could not process certain inputs. (Note: this article includes cursing.)
	+ **How it describes AI:** The authors personify ChatGPT, but they use scare quotes around some personifying language (“unspeakable”) and keep human and corporate actors relatively center stage.
	+ **Key Excerpt:** “Two researchers have discovered a cluster of strange keywords that will break ChatGPT, OpenAI's convincing machine-learning chatbot, and nobody's quite sure why.”
* [A Conversation With Bing’s Chatbot Left Me Deeply Unsettled](https://www.nytimes.com/2023/02/16/technology/bing-chatbot-microsoft-chatgpt.html), The New York Times
	+ **Article topic:** A New York Times reporter had an unsettling conversation with a Bing chatbot.
	+ **How it describes AI:** The author aggressively personifies and oversells the capabilities of the chatbot, emphasizing the worst version of every criteria in this lesson plan.
	+ **Key Excerpt:** “It’s now clear to me that in its current form, the A.I. that has been built into Bing — which I’m now calling Sydney, for reasons I’ll explain shortly — is not ready for human contact. Or maybe we humans are not ready for it.”
* [ChatGPT Is a Blurry JPEG of the Web](https://www.newyorker.com/tech/annals-of-technology/chatgpt-is-a-blurry-jpeg-of-the-web), The New Yorker
	+ **Article topic:** The article draws an analogy between using ChatGPT and making repeated copies of an image until all the detail in the image is lost.
	+ **How it describes AI:** The author uses an accessible extended metaphor to articulate how a complicated technology works.
	+ **Key Excerpt:** “Think of ChatGPT as a blurry jpeg of all the text on the Web. It retains much of the information on the Web, in the same way that a jpeg retains much of the information of a higher-resolution image, but, if you’re looking for an exact sequence of bits, you won’t find it; all you will ever get is an approximation.”

## Assessment

Students will find one news article about artificial intelligence from the current year and evaluate it based on the four criteria. Students will write a paragraph about why they chose the article, where it succeeds, and where it fails. Teachers can consider adding a second day to this assignment, during which students split into groups and discuss the articles they found, before reconvening to discuss as a class.

# Assessment

Find one news article about artificial intelligence from the current year and evaluate it based on the four criteria. Write a paragraph about why you chose the article, where it succeeds, and where it fails. Use the criteria in the ***What to look for in great reporting on AI*** document to evaluate your article. For help with some AI terminology, check the ***AI Vocabulary*** guide.

Try searching for articles about AI in some of these publications:

* Rest of world
<https://restofworld.org/>
* The Verge
<https://www.theverge.com/>
* TechCrunch
<https://techcrunch.com/>
* The Associated Press
<https://apnews.com/>
* Wired
<https://www.wired.com/>
* Time
<https://time.com/>
* Reuters
<https://www.reuters.com/>
* Semafor
<https://www.semafor.com/>

Some keywords to try searching for:

* AI or Artificial Intelligence
* Computer Vision
* Deepfake or Synthetic Media
* LLM or Large Language Model
* Multimodal AI
* Generative AI
* Algorithmic Decision System or Automated Decision System

# What to look for in great reporting on AI

|  |  |  |  |
| --- | --- | --- | --- |
| **Criteria** | **Best** | **Okay** | **Worst** |
| Employs action verbs appropriate to non-living systems (e.g. “generates,” or “outputs,” rather than “believes” or “understands”)*Note: while best avoided, personifying terms may be used in simile or within “scare quotes”* | Does not use personifying language to refer to technology. | Uses some personifying language to refer to technology, but qualifies its use (e.g., with scare quotes). | Personifies the technology in a way that is misleading about capabilities. |
| Uses clear and specific language to convey meaning and defines terminology where appropriate. | Uses clear and specific language (including metaphor or other writing tools) to build meaning while avoiding technical jargon. | Uses some technical language but explains its use in the same sentence through parenthetical, or in a new sentence. | Relies on technical jargon to explain how a tool is being built, deployed, and troubleshooted. |
| Specifically describe current capabilities, as opposed to things AI tools might enable people to do in the future. | Specifies the type of AI tool being used and what the tool can be used to do. | Specifies somewhat but does not mention a tool’s specific purpose or limitations.  | Implies or states that AI is one all-encompassing technology with greater capability than is currently possible. |
| Emphasizes human actors (whether as individuals, roles, or organizations) when describing the creation, deployment, and impacts of AI tools. | Highlights the human and corporate actors as driving forces behind the construction and impact of an AI tool. | Mentions human and corporate actors when writing about an AI tool. | Centers the technology as the independent actor of the sentence, fully obfuscating human actors. |

Students can use the following table to evaluate descriptions of AI based on the four criteria.

# AI Vocabulary

|  |  |
| --- | --- |
| ARTIFICIALINTELLIGENCE | Artificial intelligence (AI) has historically referred to a collection of technologies designed to emulate human intelligence. In recent years, the term has become synonymous with machine learning, a set of computer processes used to identify unintuitive patterns in data. Examples of AI today include speech recognition, autonomous vehicle navigation, and the generation of new content, such as text or images. |
| AUTOMATION | A process where a machine or computer program is used to complete a task instead of a person. While AI is a type of automation, many forms of automation do not use AI. |
| DATA | Data, like AI, is an umbrella term that covers more than just numbers. The term describes many types of information that are stored and processed on computers. Videos, images, temperature sensor readings, and the location information on your phone are all different kinds of data. |
| COMPUTERVISION | A field of computer science dedicated to figuring out how to process images and video with a computer in a way that mimics the human visual system. Some examples: inferring depth from a series of 2D images or isolating food on a line that doesn’t visually meet quality assurance criteria. |
| ROBOTICS | Physical machines which are used to execute a variety of actions (such as object manipulation) either in an unsupervised or supervised way. |