AI or not?

Summary

In this lesson, students consider the impact of generative AI technology on the information landscape. They start by completing a K-H-W-L chart. Then students take a short quiz featuring AI-generated images and explore tips to determine whether an image is AI-generated. Finally, students will reflect on how AI tools have changed the nature of visual evidence.

🕐 **Duration**
30-60 minutes

⭐ **Grade Level(s):**
6-8, 9-12+

Learning Objectives

I can ...

1. define artificial intelligence and generative AI.
2. explain how to determine if an image is AI-generated or an authentic photo.
3. reflect on how AI tools have changed the nature of visual evidence for online claims.

NLP Standard

S4: Students demonstrate increased critical habits of mind, including effective verification skills and the ability to detect misinformation and faulty evidence.

Common Core State Standards (CCSS)

CCSS.ELA-LITERACY.CCRA.R.7: Integrate and evaluate content presented in diverse formats and media, including visually and quantitatively, as well as in words.

CCSS.ELA-LITERACY.CCRA.SL.2: Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.

CCSS.ELA-LITERACY.CCRA.L.6: Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Essential Questions

1. How can you tell if something is AI-generated or authentic?
2. How have AI tools changed the ways you evaluate visual evidence for online claims?
3. What problems can arise when people mistake AI content as authentic? What about when they dismiss authentic visuals as AI-generated?

Materials
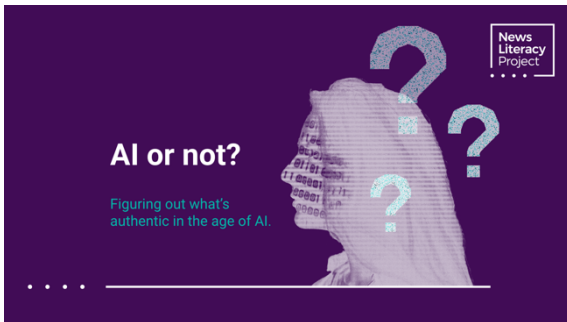
- AI or not? Lesson slides.
- K-H-W-L chart.
- AI or not? Bird quiz.
- "Can you spot a real bird from an AI-generated one?" video (in slides).
  - Video is also available on TikTok and Instagram.
- Classroom needs:
  - Internet access and projector or smartboard.
  - At least one internet-enabled device per student group.
- Infographic: "6 things to know about AI" (suggested).

Vocabulary

- **Artificial intelligence:**
  Technology that aims to replicate the way the human mind works to perform a wide variety of tasks, including analyses and comparisons that go beyond what people's minds can do.

- **Generative AI:**
  Layers of powerful algorithms that learn patterns in data and then use this understanding to create new content. These tools are capable of producing text and synthetic images, video and audio.

Procedure

Introduction

Open the AI or not? Lesson slides. Explain to students that today's lesson will test their ability to separate real photographs from AI fakes. Tell them they will examine tips on how to spot AI-generated visuals. Finally, they will reflect on how AI tools have changed the ways they evaluate visual evidence for online claims.

Advance to Slide 3 and discuss students' prior knowledge using the K-H-W-L chart.

Students should fill out the **Know** section with facts and details about AI that they consider to be confirmed. The **Heard** box should be filled with details students have heard from others — including rumors or speculation — but about which they are uncertain. (Optional: Distribute two copies of the K-H-W-L charts to each student so that they can more easily revise at the end of the activity.)

Hold a class discussion for students to share what they put in their **K** and **H** sections. If you hear responses that are highly questionable or false, ask students to dig deeper: How do they know that the items they placed under K are accurate and confirmed? Where did they hear the details that they placed under H? Are they more inclined to believe or question things they hear, depending on the source? Why or why not?

Advance to Slide 4 and have students fill out the **Want** section of the chart about things they want to know about AI tools.

Once students have completed the three sections, define **artificial intelligence** and **generative AI.** Read the Word Wall definitions in the slides. Ask the **first essential question**: How can you tell if something is AI-generated or authentic?

Follow-through

1. To begin to answer the first essential question, have students complete <u>"AI or not? Bird quiz."</u> Students can take the quiz individually or in groups.

2. Discuss the quiz results as a class: Was it harder or easier than you expected? Were there any visual clues that helped you separate the real photos from the AI fakes? Did it feel like you were just guessing?

3. As a class, watch the NLP video on Slide 10. Discuss: Can you determine whether an image is real or AI-generated just by looking for visual clues? What tips did two of the experts offer near the end of the video? *Possible answers:*
   a. *Visual details alone can't tell you if something is or isn't AI.*
   b. *If you don't have additional context, you're just guessing and might start doubting real photographs.*
   c. *Check where the image came from.*
   d. *See if you can verify the image through another reliable source.*

4. Return to the **first essential question**: How can you tell if something is AI-generated or authentic?

5. Tell students to add 1-2 items to the **L** section of their K-H-W-L chart.

6. Have students try to predict which words are missing from the first key takeaway. Then share the complete takeaway: "Generative AI signals a change in the nature of evidence."
   a. **CHECK FOR UNDERSTANDING:** Have students illustrate this takeaway by creating a short comic strip, making a meme or turning it into a song verse.
      • **Differentiate by process:** Give students a choice of whether they would like to work alone, with a partner, or in a small group. Students needing additional guidance may benefit from example memes or comic strips.

7. Examine the four visual tips in the slides for spotting AI content:
   a. **Fine details:** AI image generators sometimes struggle with fine details.
   b. **Text:** AI image generators can also be bad at backgrounds and text.

  c. **Fingers**: AI image generators have often struggled at rendering fingers and hands – though they are rapidly improving.

  d. **Texture**: AI images can have a strange visual texture and look filtered or abnormally smooth.

8. Remind students that while these visual signals are sometimes useful, you can't rely on them as AI image generators continue to improve at producing photorealistic images.

9. Have students brainstorm a list of questions they could use to investigate an image.

10. Ask students the **second essential question**: How have AI tools changed the ways you evaluate visual evidence for online claims?

11. Tell students to add 1-2 items to the **L** section of their K-H-W-L chart.

12. Examine the slides that feature real-world examples of how AI tools have been used to mislead people.

13. Ask students the **third essential question**: What problems can arise when people mistake AI content as authentic? What about when they dismiss authentic visuals as AI-generated?

14. Tell students to add 1-2 items to the **L** section of their K-H-W-L chart.

15. Reveal the second key takeaway: "Don't let AI technology undermine your willingness to trust anything you see and hear."

Differentiation

Differentiation by process is noted in the instruction steps above. Additionally, you may want to differentiate by process and break this lesson up into three different lessons, one for each of the **essential questions**.

Accommodations and Modifications

Options include breaking this activity into chunks, allowing students to work together to share ideas for the K-H-W-L charts but having them complete their own, and offering extended time to those who need it. For those who need a challenge, students can also explore the AI-related examples featured on RumorGuard, NLP's educational fact-checking platform.

Closure

Ask students to return to their K-H-W-L charts: Have students revise any original details in their **K** and **H** sections that they discovered to be false or unconfirmed. Now have them complete the **L** box and add any other takeaways about AI from the lesson. When their charts are complete, have students share some highlights. Ask students to reflect on any questions they still have about this topic. What could they do to explore these questions and find reliable answers? Finally, have students complete an exit ticket summarizing the impact of generative AI on the information landscape in 20 words or less.

Welcome additional questions and areas of exploration, such as how to develop healthy skepticism, which is a natural outgrowth of this type of activity.

Extension Opportunity

For students wishing to deepen their understanding of AI tools, have them review the "6 things to know about AI" infographic and take this AI quiz originally featured in The Sift newsletter. Ask students to write a social media post or create a video explaining to others how they can spot AI fakes.

Name: _____   Date: _____

AI or not?
K-H-W-L Chart

- How can you tell if something is AI-generated or authentic?
- How have AI tools changed the ways you evaluate visual evidence for online claims?
- What problems can arise when people mistake AI content as authentic? What about when they dismiss authentic visuals as AI-generated?

What I **know**	What I've **heard**

What I **want to know**	What I've **learned**

NOTE: This resource is intended to be copied and modified for classroom use.
If you make any changes, please add, "*This resource was adapted from the News Literacy Project.*"

In 20 words or less, summarize the impact of generative AI on the information landscape.