Reading the Flood

Humans vs. AI in the Archive

Grades 6–12 · Social Studies, ELA/Literacy, Computer Science & AI Literacy · Flood MR 100: The Great Mississippi Flood of 1927

Module Overview

In this module, students investigate how historical evidence is preserved, interpreted, and sometimes misunderstood by examining archival materials related to the Great Mississippi Flood of 1927. Students work as historians, archivists, investigators, and AI analysts as they compare their own interpretations of photographs, letters, maps, newspaper articles, government records, oral histories, and other primary sources with interpretations produced by artificial intelligence.

The central activity, **Reading the Flood: Humans vs. AI in the Archive**, asks students to analyze archival evidence themselves before using AI. They then verify AI-generated claims against the original sources, identify errors or hallucinations, examine bias and missing context, and determine when human expertise remains essential. The module emphasizes historical thinking, evidence evaluation, AI literacy, media literacy, environmental justice, and the importance of preserving community records.

Quick Links

Lesson Outline

Student Handouts

Standards

Essential Questions

- How do humans and AI interpret historical flood records differently?
- How do historians determine whether an interpretation of a primary source is accurate?
- How reliable is AI when interpreting photographs, handwriting, maps, and historical documents?
- What information can be lost when archives are damaged or destroyed?
- Whose stories are preserved in archives, and whose stories may be missing?

- How can bias affect both historical records and AI interpretations of those records?
- How can AI support historical research without replacing human judgment?
- What responsibilities do people have when using AI to interpret the experiences of communities in the past?

Knowledge Checklist

Students should understand:

- The difference between a primary source and a secondary source.
- The purpose and importance of an archive.
- How photographs, letters, maps, newspapers, government records, oral histories, and other documents provide evidence about past events.
- The difference between observation and interpretation.
- That historical documents can contain bias, incomplete information, outdated terminology, and perspectives shaped by their creators.
- That archives do not preserve everyone's experiences equally.
- That AI can summarize, transcribe, describe, and organize historical information but can also make errors.
- The meaning of an AI hallucination.
- Why AI-generated claims must be verified against original evidence.
- How metadata helps identify and preserve historical records.
- How the Great Mississippi Flood of 1927 affected different communities in different ways.
- Why damaged or missing documents can change what historians are able to know about the past.

Skills Checklist

Students will be able to:

- Closely examine primary-source documents and photographs.
- Distinguish observations from interpretations.
- Identify the creator, date, audience, purpose, and context of a historical source when evidence allows.
- Extract evidence from archival sources.
- Analyze photographs for environmental and social information.
- Use AI tools to analyze historical documents.

- Compare human and AI interpretations.
- Verify AI-generated claims using original evidence.
- Identify AI errors, unsupported assumptions, and hallucinations.
- Recognize historical bias and missing perspectives.
- Corroborate information using multiple sources.
- Create basic metadata for archival materials.
- Construct evidence-based explanations.
- Communicate findings and uncertainty clearly.

Module Sequence

Duration: 7 days (14 class periods), about 2 weeks

Day	Focus
Day 1: What Is an Archive?	Introduce archives, primary sources, documentary records, and the importance of preserving evidence.
Day 2: Observation vs. Interpretation	Students practice closely examining photographs and documents without immediately drawing conclusions.
Day 3: Reading the Flood: Human Analysis	Students independently analyze 1927 flood archival materials without AI. *(Part A)*
Day 4: Reading the Flood: AI Analysis	Students use AI to analyze the same archival materials and record AI-generated claims. *(Part B)*
Day 5: Humans vs. AI	Students compare interpretations, verify AI claims, and identify errors, hallucinations, assumptions, and missing context. *(Part B)*
Day 6: Bias, Context, and Ethics	Students examine archival bias, racial and social representation, problematic historical language, and ethical issues associated with AI interpretation.
Day 7: Archive Reconstruction Challenge	Students use incomplete or damaged records, AI tools, human reasoning, and corroborating evidence to reconstruct a flood-related event and explain the limits of what can be known.

Teacher Notes

Students should always conduct their own analysis before using AI. This prevents the AI response from influencing their first observations and makes the human–AI comparison much more meaningful.

Select a range of archival materials with different levels of difficulty. Useful examples include photographs of flooded towns and refugee camps, handwritten letters, telegrams, newspaper articles, evacuation notices, flood maps, weather reports, government records, and oral histories. Some materials can intentionally include difficult handwriting, poor image quality, missing information, or historically biased language.

Remind students that **an AI response is not evidence.** The historical source is the evidence. AI provides an interpretation that students must evaluate.

Historical sources from the 1920s may contain racist, discriminatory, or outdated terminology. Prepare students before presenting these materials and explain that examining such language is part of understanding how race, power, and inequality shaped both historical experiences and the documentary record.

Encourage students to use language of uncertainty when evidence is incomplete:

- "The evidence suggests..."
- "We cannot determine..."
- "One possible interpretation is..."
- "Additional evidence would be needed to confirm..."

The goal is not to determine whether humans or AI are universally "better." Students should recognize that both humans and AI can overlook information, make assumptions, and interpret evidence incorrectly.

Vocabulary for Focus

Archive: A collection of records preserved because they have historical, legal, cultural, governmental, or personal value.

Primary source: Original evidence created during or near the time being studied, such as a photograph, letter, newspaper, map, diary, or government record.

Documentary record: The collection of recorded evidence that survives about people, places, and events.

Observation: Something that can be directly seen, read, heard, or measured in a source.

Interpretation: An explanation of what evidence might mean.

Evidence: Information used to support a conclusion or explanation.

Corroboration: Comparing information with other independent sources to determine whether the evidence supports the same conclusion.

Context: The historical circumstances surrounding a source that help explain its meaning.

Bias: A perspective or preference that can influence how information is created, selected, presented, or interpreted.

Archival bias: Gaps or imbalances in the historical record caused by whose information was created, collected, preserved, or lost.

Metadata: Information describing a record, such as its title, creator, date, location, subject, and source.

Authenticity: Evidence that a document or object is genuine and is what it claims to be.

AI hallucination: Information generated by AI that appears plausible or confident but is incorrect, unsupported, or invented.

Verification: Checking a claim against reliable evidence to determine whether it is accurate.

Uncertainty: A condition in which available evidence does not allow a definite conclusion.

Digital preservation: Protecting and managing information in digital form so that it remains accessible over time.

Reading the Flood

Humans vs. AI in the Archive

Objectives

Students will be able to (SWBAT):

- Analyze primary-source materials related to the Great Mississippi Flood of 1927.
- Distinguish direct observation from historical interpretation.
- Use evidence to develop an initial interpretation of an archival item.
- Use AI to analyze the same historical material.
- Compare human and AI interpretations.
- Verify AI-generated claims against primary-source evidence.
- Identify hallucinations, unsupported assumptions, bias, and uncertainty.
- Explain situations in which AI can assist historical research and situations in which human expertise remains essential.

Part A: Human Archive Analysis

Time: Day 3 (2 class periods)

Teacher Notes

Prepare groups of approximately **3–5 archival items**. These may include photographs, letters, maps, newspaper clippings, government flood reports, handwritten notes, oral histories, telegrams, agricultural reports, or weather bulletins. Whenever possible, select records that represent different communities and perspectives.

Students should not use AI during Part A. Their independent interpretation creates the baseline needed for Part B.

Remind students: *Observation* asks, "What does the evidence actually show?" *Interpretation* asks, "What do I think that evidence means?"

Do not require students to reach conclusions when the evidence is insufficient. Recognizing uncertainty is an important research skill.

Materials

- Teacher computer with projector or interactive board
- Printed or digital archival materials related to the 1927 flood (3–5 items per group)

- Handout 1: Human Archive Analysis
- Handout 2: Photograph Analysis
- Handout 6: Exit Tickets
- Student notebooks or data journals
- Pencils and highlighters
- Optional: magnifying glasses for examining photographs and documents
- Optional: computers or laptops with internet access (if using digital archives)

Lesson Outline

Warmup

- Project a historical photograph from the 1927 flood without providing a caption.
    - Ask students to make two lists:
        - **I OBSERVE:** What can you literally see?
        - **I INTERPRET:** What do you think those observations might mean?
    - Compare responses as a class. Identify statements that students initially believed were observations but were actually interpretations.

Intro/Mini Lesson

- Introduce the concept of an **archive** and explain how historians use primary sources to reconstruct the past.
- Briefly introduce: primary sources, documentary records, archival bias, corroboration, context, and metadata.
- Explain that historical sources do not automatically "tell us what happened." Someone must interpret them.
- Introduce the day's central question: **If two people (or a person and an AI) look at the same historical evidence, will they reach the same conclusions?**
- Explain that students will first work as human historians. **AI is not permitted until Part B.**

Activity: Human Archive Analysis

- Divide students into small groups and provide each group with 3–5 archival items.
- For each item, students complete **Handout 1: Human Archive Analysis** (source type, creator, date, audience, observations, interpretations, perspectives, assumptions, and open questions).
- For photographs, students use **Handout 2: Photograph Analysis** to examine details such as water level, buildings and infrastructure, boats and transportation, clothing, people and body language, signs and written information, animals, visible

damage, technology, environmental conditions, and possible indicators of social or economic differences.

- Students label each statement as either:
  - **O** = Observation
  - **I** = Interpretation
- Groups develop a short preliminary explanation of what they believe each source tells them about the 1927 flood.

Exit Ticket

- Answer in 2–3 sentences: What is one conclusion you can make confidently from today's archival evidence, and what is one question the evidence cannot answer? *(Handout 6)*

Part B: AI Analysis and Verification

Time: Days 4–5 (4 class periods)

Teacher Notes

Students now use AI to analyze the same sources they analyzed independently in Part A. The purpose is not to determine whether AI "wins." Students are investigating:

- what AI notices, and what humans notice;
- what AI misses, and what humans miss;
- what AI assumes;
- whether AI communicates uncertainty appropriately;
- whether AI invents information when evidence is incomplete.

Require students to verify every important AI claim against the original source. **AI responses are claims to investigate, not facts to accept.**

Materials

- Teacher computer with projector or interactive board
- Computers or laptops with internet access
- Access to an approved AI tool
- Same archival materials used during Part A
- Completed Handouts 1 and 2 from Part A
- Handout 3: AI Claim Verification
- Handout 4: Human vs. AI Comparison
- Handout 5: Metadata Record (optional challenge)
- Handout 6: Exit Tickets

Lesson Outline

Warmup

- Ask students: **If an AI gives an answer confidently, does confidence make the answer more likely to be correct? Why or why not?**
- Have students briefly discuss with a partner before sharing responses.

Intro/Mini Lesson

- Introduce **AI hallucination**: an AI-generated statement that appears plausible but is incorrect, invented, or unsupported by the available evidence.
- Demonstrate the difference among:
    - **Evidence:** something actually visible or written in the source.
    - **Inference:** a reasonable conclusion drawn from evidence.
    - **Hallucination:** a claim presented without supporting evidence.
- Remind students that historians also make mistakes and assumptions. The goal is to evaluate both human and AI reasoning.
- Model several appropriate AI prompts:
    - For written records:
        - "Transcribe only the text you can confidently read. Mark uncertain words instead of guessing."
        - "Summarize this document using only evidence contained in the document."
        - "Identify the creator, audience, and purpose if the evidence supports those conclusions."
        - "What information are you uncertain about?"
        - "What additional evidence would you need before drawing conclusions?"
    - For photographs:
        - "Describe only what is visibly present in this image."
        - "Separate observations from interpretations."
        - "What evidence supports each interpretation?"
        - "What details cannot be determined from the photograph alone?"
        - "What historical context would you need before interpreting this image?"

Activity: Human vs. AI Archive Investigation

- Students submit the archival item to AI and record the response.

- **AI Claim Verification:** for each important AI statement, students complete **Handout 3**, checking whether evidence is present in the source and marking the claim accurate, unsupported/incorrect, or unsure.
- Students compare the two analyses using **Handout 4: Human vs. AI Comparison**.
- Groups identify at least:
    - one thing the human analysts noticed that AI missed;
    - one thing AI noticed that the students missed;
    - one AI claim that required verification;
    - one place where neither humans nor AI had enough evidence to reach a conclusion.
- If appropriate sources are available, include records containing incomplete information, difficult handwriting, historically racist terminology, biased reporting, or missing perspectives.
    - Ask students to consider whether AI recognizes the historical bias, explains its context, overlooks it, or unintentionally reproduces it.

Optional Challenge: Hallucination Hunt

- Give groups a particularly difficult archival source.
- Their mission is to identify the first point at which AI:
    - guesses;
    - invents missing information;
    - incorrectly identifies a person or place;
    - treats an interpretation as fact; or
    - expresses more confidence than the evidence warrants.
- Students must explain **how they know** the claim is unsupported.

Optional Challenge: Metadata Recovery

- Students create a basic archival record using **Handout 5: Metadata Record**.
- Students then ask AI to produce metadata for the same item and compare the two versions.

Exit Ticket

- **Middle School: Flood Detective Report** *(Handout 6)*. Complete each sentence starter:
    - The archival source tells us…
    - AI helped by…
    - AI made a mistake or assumption when…
    - The original evidence shows…
    - A human historian is still necessary because…

- **High School: AI Reliability Analysis** *(Handout 6).* Respond in one short paragraph:
    - How reliable was AI as a tool for interpreting your historical source?
    - Identify one thing AI did well, one limitation or error, and one example of evidence you used to verify or challenge its interpretation.
    - Explain one situation in which human historical judgment remains essential.

Closing Reflection

- End with the larger questions:
    - If AI confidently misunderstands a damaged or incomplete historical record, and no human checks the original evidence, could our understanding of history change?
    - Who might be most affected when the voices already least represented in the archive are interpreted incorrectly?

Student Handouts

Handout 1: Human Archive Analysis

Handout 2: Photograph Analysis

Handout 3: AI Claim Verification

Handout 4: Human vs. AI Comparison

Handout 5: Metadata Record (Optional Challenge)

Handout 6: Exit Ticket (Middle School)

Handout 6: Exit Ticket (High School)

Handout 1: Human Archive Analysis

Name: _____ Group: _____ Date: _____

Complete one table for each archival item. **No AI yet!** Use only what you can see, read, and reason from the source.

Archival item #: _____ Item title or description: _____

Question	Student Evidence/Response
What type of source is this?	
What can you directly observe?	
Who created it?	
When was it created?	
Who may have been the intended audience?	
What appears to be happening?	
What evidence supports that interpretation?	
What details stand out?	
What perspectives are represented?	
Whose perspectives might be missing?	
What assumptions are you making?	
What questions remain unanswered?	

Handout 2: Photograph Analysis

Name: _____ Group: _____ Date: _____

Look closely at the photograph. For each detail, write what you see. Then label the statement **O** (Observation) or **I** (Interpretation).

Detail	What I see	O or I
Water level		
Buildings and infrastructure		
Boats and transportation		
Clothing		
People and body language		
Signs and written information		
Animals		
Visible damage		
Technology		
Environmental conditions		
Possible signs of social or economic differences		

Our preliminary explanation: What does this photograph tell us about the 1927 flood?

Handout 3: AI Claim Verification

Name: _____ Group: _____ Date: _____

Write each important statement the AI made. Go back to the **original source** and check it. The source is the evidence, not the AI.

AI Claim	Evidence present in source?	Accurate?	Unsupported/ Incorrect?	Unsure?

Handout 4: Human vs. AI Comparison

Name: _____ Group: _____ Date: _____

Category	Human Analysis	AI Analysis
Important details noticed		
Important details missed		
Observations		
Interpretations		
Emotional interpretation		
Historical context		
Assumptions		
Bias		
Errors		
Unsupported claims		
Appropriate uncertainty		
Overall reliability		

Our group found:

- Something humans noticed that AI missed: _____
- Something AI noticed that we missed: _____
- An AI claim that required verification: _____
- Where neither had enough evidence: _____

Handout 5: Metadata Record (Optional Challenge)

Name: _____ Group: _____ Date: _____

Create an archival record for your item. Then ask AI to create one and compare.

Metadata Field	Student Entry	AI Entry
Title		
Date		
Creator		
Location		
Type of record		
Keywords		
Description		
Information uncertain or missing		

Handout 6: Exit Ticket (Middle School)

Name: _____ Group: _____ Date: _____

Part A

What is one conclusion you can make confidently from today's archival evidence, and what is one question the evidence cannot answer? (2–3 sentences)

Part B · Middle School: Flood Detective Report

The archival source tells us...

AI helped by...

AI made a mistake or assumption when...

The original evidence shows...

A human historian is still necessary because...

Handout 6: Exit Ticket (High School)

Name: _____ Group: _____ Date: _____

Part A

What is one conclusion you can make confidently from today's archival evidence, and what is one question the evidence cannot answer? (2–3 sentences)

Part B · High School: AI Reliability Analysis

In one short paragraph: How reliable was AI as a tool for interpreting your historical source? Identify one thing AI did well, one limitation or error, and one piece of evidence you used to verify or challenge its interpretation. Then explain one situation in which human historical judgment remains essential.

Standards

Codes reflect each state's current standards. Items highlighted in yellow should be confirmed against the final published state document before release.

Louisiana

Grade/Course	Code	Focus
Grade 8 Social Studies (U.S. & Louisiana: Industrial Age–Modern Era)	8.12.g	Describe the causes of the Great Mississippi River Flood of 1927 and explain how the disaster and government response affected Louisianans.
Grade 8 Social Studies	8.12.j	Explain the causes and effects of migration and population shifts in the United States during the early twentieth century, including the Great Migration.
Grade 8 Social Studies	8.6 a–d	Use a variety of primary and secondary sources to analyze social studies content; evaluate claims, counterclaims, and evidence; compare and contrast multiple sources and accounts; explain how the availability of sources affects historical interpretations.
Grade 8 Social Studies	8.7	Construct and express claims that are supported with relevant evidence from primary and/or secondary sources, social studies content knowledge, and clear reasoning and explanations.
High School U.S. History	US.5 a–d	Use a variety of primary and secondary sources to analyze content; evaluate claims, counterclaims, and evidence; compare multiple sources and accounts; explain how the availability of sources affects historical interpretations.
High School U.S. History	US.6	Construct and express claims that are supported with relevant evidence from primary and/or secondary sources, social studies content knowledge, and clear reasoning and explanations.
High School U.S. History	US.13	Analyze the political, social, cultural and economic effects of events and developments after World War I and during the 1920s.
Grades 6–8 Computer Science	M.IC.2B	Analyze communication technologies and then describe how the technology's use influences individuals and society.
Grades 9–12 Computer Science	H.DA.2A	Explain and describe the impacts of uncertainty and the limitations of data collection technology and tools.
Grades 9–12 Computer Science	H.IC.3F	Analyze the data provenance of computational artifacts.

Grades 6–12 Science	SEP 6, 7, 8	Science and Engineering Practices: Constructing Explanations; Engaging in Argument from Evidence; Obtaining, Evaluating, and Communicating Information.

Mississippi

Mississippi grades 6–8 social studies courses end before 1900, so middle school alignment comes through computer science, science practices, and CCSS literacy.

Grade/Course	Code	Focus
High School Mississippi Studies	MS.1.4	Explain how the geographic features and processes of Mississippi contribute to social, technological, and economic development throughout the state (e.g., Great Flood of 1927).
High School Mississippi Studies	MS.7	Examine the economic, political, and social changes in the Jim Crow Era Mississippi from the end of Reconstruction through World War II.
High School U.S. History 1877–Present	USH 5.6	Analyze the impact of the changes in the 1920s on the economy, society, and culture.
High School U.S. History 1877–Present	USH 4.9	Evaluate the domestic impact of World War I, including the origins of the Great Migration.
Grades 6–8 Computer Science	IC.2.2	Discuss issues of bias and accessibility in the design of existing technologies.
Grades 9–10 Computer Science	IC.3A.1	Evaluate the ways computing impacts personal, ethical, social, economic, and cultural practices.
Grades 6–12 Science	SEP 6, 7, 8	Science and Engineering Practices: Constructing Explanations; Engaging in Argument from Evidence; Obtaining, Evaluating, and Communicating Information.

Arkansas

Grade/Course	Code	Focus
Grades 7–8 Arkansas History	G.1.ARH.4	Analyze the natural phenomena on the environment of specific regions (e.g., Tornado Alley, New Madrid earthquakes, Flood of 1927, Drought of 1930).
Grades 7–8 Arkansas History	G.1.ARH.3	Evaluate the human impact on water systems in Arkansas over time, including the use of rivers and lakes for trade, transportation, recreation, and flood control.

Grades 7–8 Arkansas History	H.1.ARH.7	Discuss social events and issues in Arkansas surrounding discrimination and marginalization.
Grades 7–8 Arkansas History	H.1 (strand)	Ways people gather, view, construct, and interpret historical evidence (Perspective, Evidence, Causation).
Grades 9–12 Arkansas History		Parallel flood and source-analysis standards; confirm codes in the 2022 Grades 9–12 Arkansas History document.
Grades 6–12 Science	SEP 6, 7, 8	Science and Engineering Practices: Constructing Explanations; Engaging in Argument from Evidence; Obtaining, Evaluating, and Communicating Information.

Common Core State Standards (Literacy in History/Social Studies)

Grade/Course	Code	Focus
Grades 6–8	RH.6-8.1	Cite specific textual evidence to support analysis of primary and secondary sources.
Grades 6–8	RH.6-8.6	Identify aspects of a text that reveal an author's point of view or purpose (e.g., loaded language, inclusion or avoidance of particular facts).
Grades 6–8	RH.6-8.7	Integrate visual information (e.g., charts, graphs, photographs, videos, or maps) with other information in print and digital texts.
Grades 6–8	RH.6-8.8	Distinguish among fact, opinion, and reasoned judgment in a text.
Grades 6–8	WHST.6-8.9	Draw evidence from informational texts to support analysis, reflection, and research.
Grades 9–10	RH.9-10.1	Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.
Grades 9–10	RH.9-10.8	Assess the extent to which the reasoning and evidence in a text support the author's claims.
Grades 9–10	RH.9-10.9	Compare and contrast treatments of the same topic in several primary and secondary sources.
Grades 11–12	RH.11-12.7	Integrate and evaluate multiple sources of information presented in diverse formats and media in order to address a question or solve a problem.
Grades 11–12	RH.11-12.8	Evaluate an author's premises, claims, and evidence by corroborating or challenging them with other information.

Grades 11–12	RH.11-12.9	Integrate information from diverse sources, both primary and secondary, into a coherent understanding of an idea or event, noting discrepancies among sources.
Grades 9–12	WHST.9-10.9 / WHST.11-12.9	Draw evidence from informational texts to support analysis, reflection, and research.