Trust But Verify: Evaluating AI Outputs

An AI literacy strategy for K-12 educators.

Today's Journey

01

Why Verification Matters

Understanding AI's confidence problem

02

Evaluation Practice

Analyzing AI-generated content together

03

Student Strategies

Teaching critical engagement with AI

04

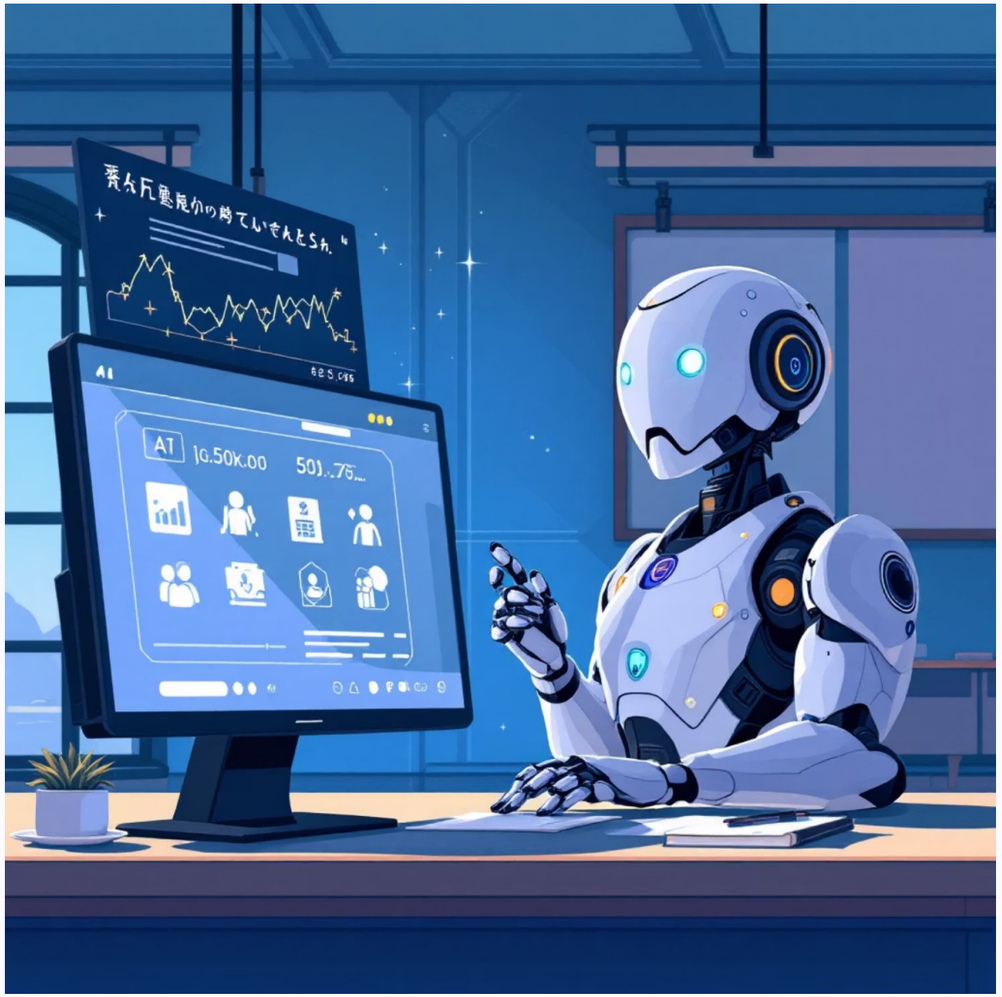
Implementation Plan

Taking these skills back to your classroom

The Confidence Paradox

AI tools are designed to sound **authoritative and confident** - even when presenting:

- Factual errors
- Outdated information
- Cultural or historical bias
- Oversimplified explanations
- Made-up references or sources



"I'm designed to sound right, not be right."

Learning Objectives

By the end of this session, you will be able to:

Practice fact-checking and evaluation of AI-generated outputs

Apply verification techniques to identify potential inaccuracies

Recognize risks when AI content is used without review

Understand the educational impact of unverified AI information

Develop classroom strategies for critical AI engagement

Design approaches to help students question and verify AI outputs

Let's Analyze Together

Examine the AI-generated example and consider:

Strengths

What aspects of this output seem particularly strong, convincing, or helpful?

Concerns

Where do you spot potential errors, omissions, or bias in the content?

Student Impact

What misconceptions might develop if students accepted this without verification?

Take notes on your observations - we'll share findings in a few minutes

Common AI Output Issues

Hallucinations - Completely fabricated "facts" or references

Outdated information - Content based on training data cutoff

Simplification bias - Complex topics reduced to basics

Cultural assumptions - Western or majority perspectives dominating

Classroom Verification Strategies

Cross-Reference Check

Teach students to verify information across multiple credible sources before accepting AI outputs

Guided Questioning

Develop a set of critical questions students can ask about any AI-generated content

Bias Detection

Help students identify when perspectives are missing or when content shows subtle preference

Citation Hunt

Challenge students to verify sources or find proper citations for AI claims

Modeling for Students

Think Aloud Process

Demonstrate your verification thought process:

- "I notice this claim seems unusual, so I'll check..."
- "Let me compare this with what our textbook says..."
- "I wonder if this explanation is complete?"
- "What perspective might be missing here?"

This makes invisible critical thinking skills visible to students

Detective Mindset: Error-Finding as Learning

1

Frame as Investigation

Position students as digital detectives searching for clues and inconsistencies in AI outputs

2

Celebrate Discoveries

Praise students who find errors or limitations in AI-generated content

3

Turn Errors Into Teaching

Use AI mistakes as opportunities to deepen understanding of the subject matter

Remember: Finding AI errors isn't failure—it's an opportunity to build critical thinking and digital literacy skills!

Key Takeaways

AI as Starting Point

Position AI tools as the beginning of research or learning—never the final authority

Verification Habits

Build regular verification routines in your classroom whenever AI is used

Critical Consumers

Our goal is students who question, verify, and think independently—with or without AI