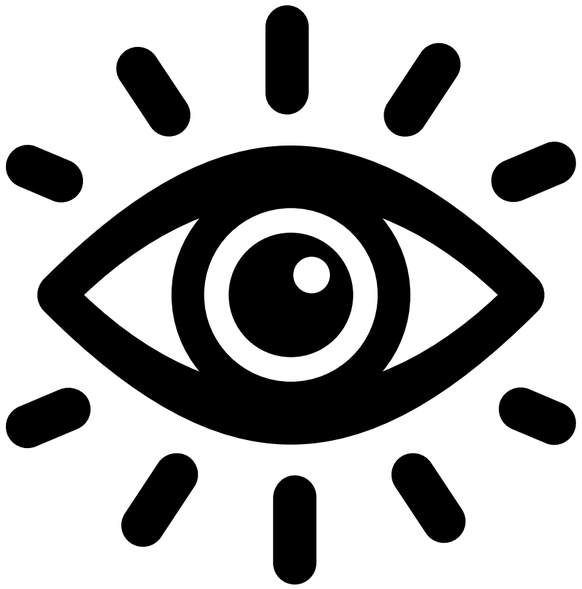
Independent Schools Queensland
choice & diversity

# MAKING SENSE OF AI: Curiosity & Critical Thinking

Candace Neville

# Student Reality

**AI is already shaping what students see, read, and believe.**



**Understanding AI matters before students use it for learning.**

# Activity 1: Quick, Draw!


Scan the QR Code and use your phone.

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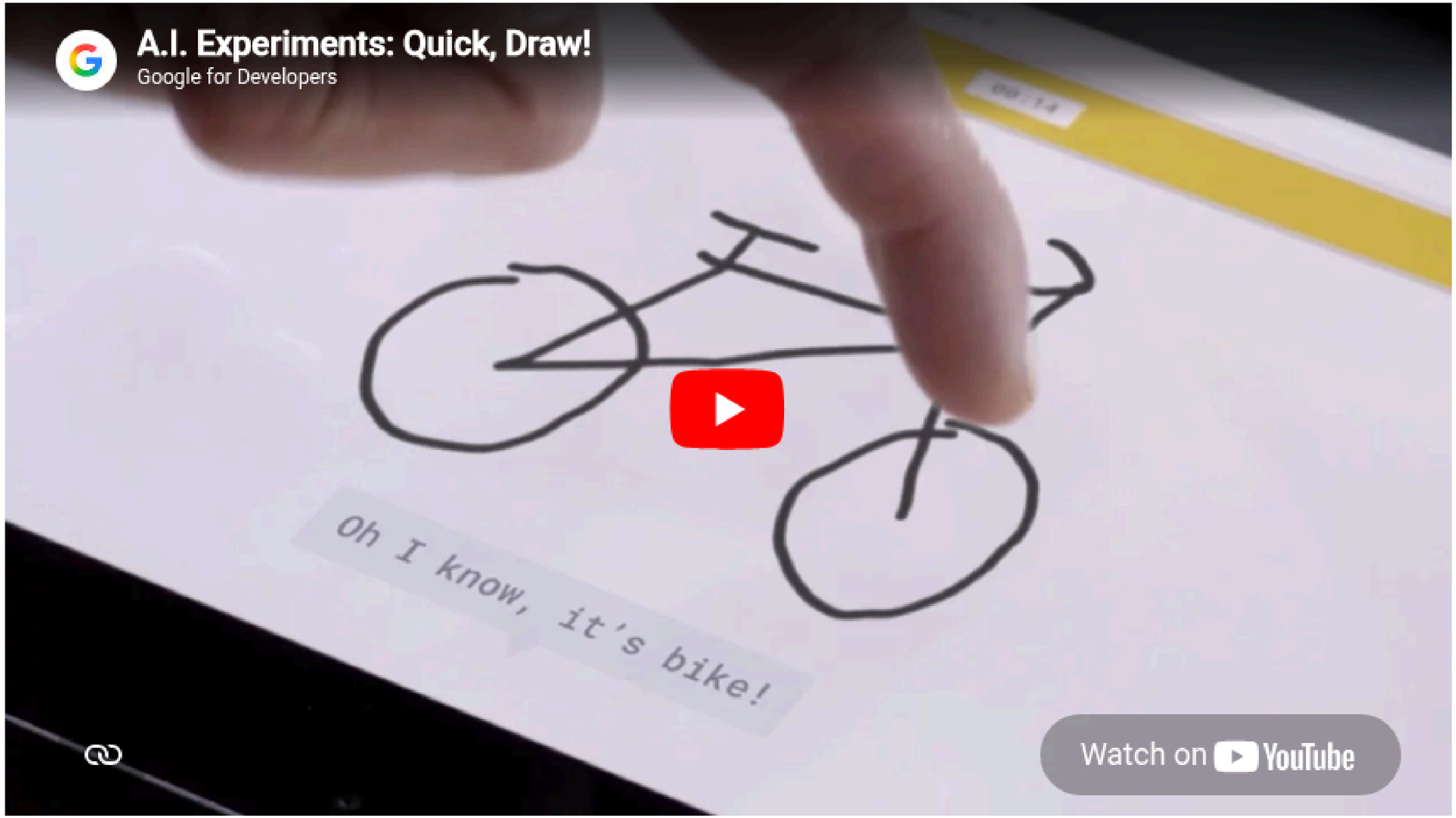


# Draw a Telephone

On a post-it note:
Draw a telephone

# Compare and Notice

Compare your drawing with your neighbour
Talk about:

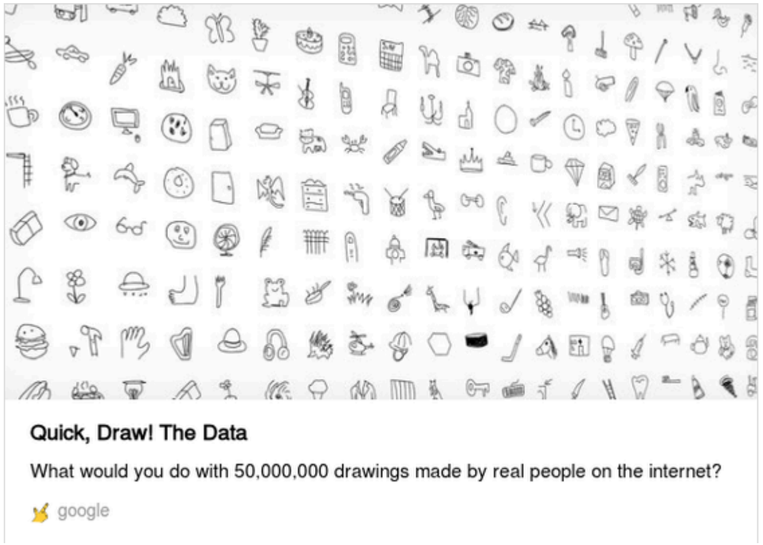
- How are your drawings similar?
- How are they different?
- What kind of phone did you each draw?

What influenced how your telephone looks?

# What This Reveals About AI and Bias

Just like people drew different telephones based on:

- The generation they grew up in
- The country they live(d) in
- The technology they've had access to
- What they've seen most often




AI learns from:

- The drawings, images, or data most commonly included
- The places and people who contributed the data
- The time period when the data was collected

# What This Reveals About AI and Bias

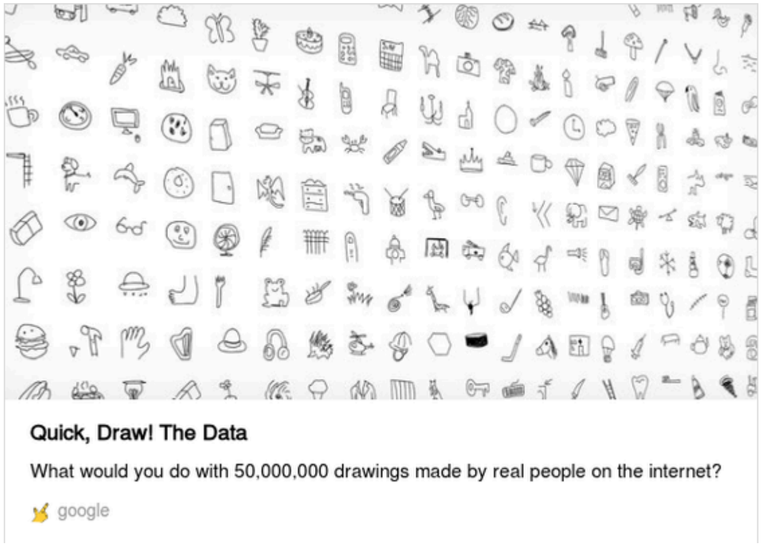
Where bias comes from

If a training dataset mostly reflects:

- One country or region
- One generation’s technology
- One cultural or economic context

Then the AI will:

- Expect that version of the world
- Perform well for some users
- Struggle or misinterpret for others



# The AI Safety & Privacy Checklist

1. Data Privacy & Personal Information
   - Anonymity: Does the tool require a login? (Quick, Draw! does not, which is a major plus for privacy.)
   - PII (Personally Identifiable Information): Does the tool ask for names, ages, or emails?
   - Data Usage: Does the site's privacy policy state that data (the drawings) is used for commercial purposes or sold to third parties?
   - Location Tracking: Does the site attempt to access the device's GPS or precise location?

2. Content & Interaction
   - User-Generated Content: Is there a "live gallery" where students might see inappropriate drawings from other global users?
   - Chat Functions: Can students communicate with other users within the app? (No chat exists in Quick, Draw!, making it lower risk.)
   - Ads and Pop-ups: Are there targeted ads or "dark patterns" trying to trick students into clicking external links?

# The AI Safety & Privacy Checklist

3. Algorithmic Safety (The "AI Factor")

- Feedback Loops: Does the AI provide negative or discouraging feedback if the student cannot draw well?
- Model Transparency: Is there information available about how the AI was trained?

4. Institutional Compliance

- Age Rating: Is the tool rated for the age group you are teaching? (Check Terms of Service for "Minimum Age").

# Why This Matters for Students

If students don’t understand bias…

They may:

- Trust AI outputs too quickly
- Assume AI is neutral or objective
- Miss what’s missing or misrepresented
- Accept misleading answers as “correct”

**AI sounds confident — even when it’s wrong.**

# Critical Thinking Is the Skill That Matters

Critical thinking helps students ask:

- Should I trust this?
- What might be missing?
- Where did this come from?
- Does this make sense in context?

**AI gives answers. Humans must make judgements.**

# What is a real-world example of this?


**The Hidden Power of reCAPTCHA**

- Crowdsourced Labour: reCAPTCHA turned millions of daily security checks into a global workforce, transcribing distorted text that standard software (OCR) was unable to recognise.
- Verification Logic: Users were shown two words: one "known" word to prove they were human and one "unknown" word from a scanned book for them to digitise.
- Historic Impact: This massive effort digitised over 13 million New York Times articles and translated the equivalent of 17,600 books in its first year alone.
- Modern Shift: The system has evolved from transcribing books to labelling images (like traffic lights and crosswalks), effectively training the AI models used for Google Maps and autonomous driving.

**Kumar, A. (2018, September 4). How we all helped (unknowingly) Google to digitize books. Good Audience. https://blog.goodaudience.com/how-we-all-helped-unknowingly-google-to-digitize-books-acb45bc65084**

# The "Erosion of Reality" (Media Literacy)

Students are surrounded by images, videos, and information that look real — even when they aren’t.

**The challenge:**

As AI-generated content becomes more convincing, it is harder to tell what is accurate, manipulated, or entirely fabricated. Over time, this can lead to confusion, disengagement, or misplaced trust.

## The shift: Critical thinking matters more than ever

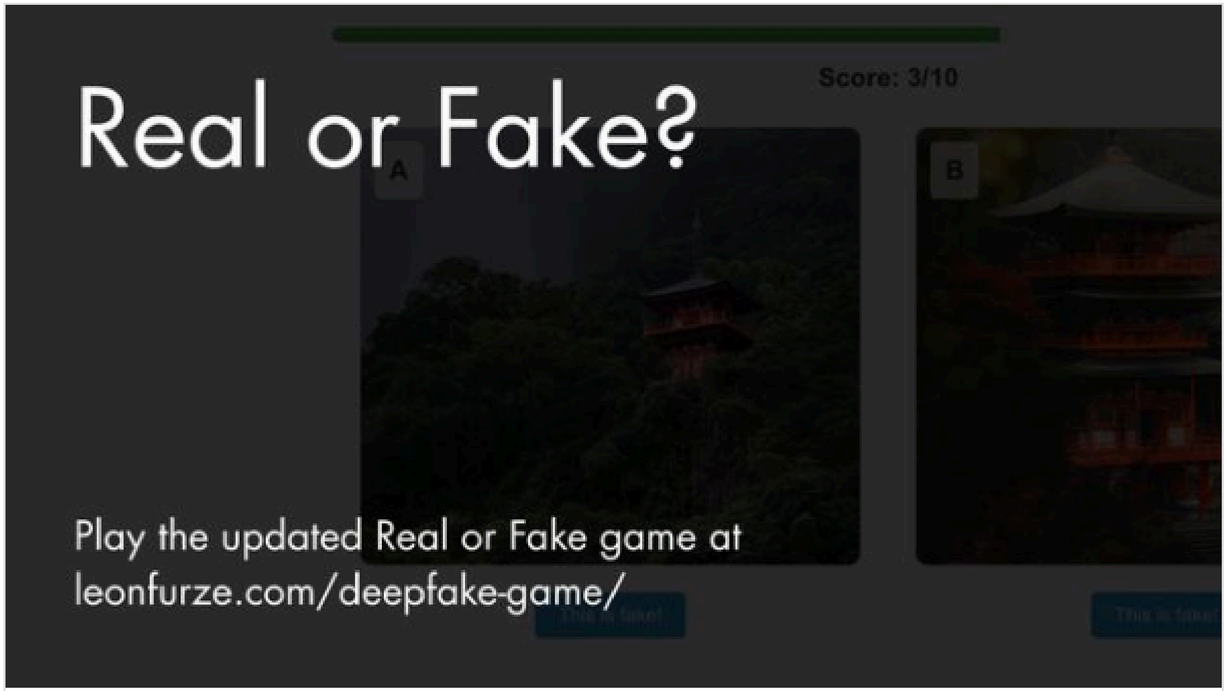
Students need to move from:

- Accepting what looks real
- Reacting quickly
- Trusting confidence or polish

To:

- Slowing down
- Questioning what they see
- Checking context, sources, and intent
- Deciding what deserves trust

# Activity 2: Real or Fake?




**Real or Fake? The AI Deepfake Game**

Real or Fake? The AI Deepfake Game As Generative AI becomes more capable, it's getting harder and harder to spot AI-generated images. Powerful image generation models like Google Gemini Nano …

Leon Furze / Aug 20, 2024

Try and Play

# What Just Happened?

What did you notice while playing?

- Some fakes felt very convincing
- Confidence didn’t always match accuracy
- Quick decisions made mistakes more likely
- It was hard to explain why something felt real or fake

**AI’s strength is realism — not truth.**

# This Is the World Students Are Living In

AI can create content that looks real — even when it isn't.

Students now need to:

- Decide what to trust
- Decide what to share
- Take responsibility for what AI helps them create

**If you instruct AI to create something, you are responsible for it.**

# How Can You Tell?

**Shadows & Light:** Do the shadows point the right way? Does light flicker or "glow" unnaturally on skin or surfaces?

**Symmetry & Anatomy:** Look at the "hard parts" for AI. Are there too many fingers? Are ears or glasses asymmetrical? Does the body merge into the background?

**Physics & Motion:** Does gravity work? (e.g., does a ball bounce correctly, or does it "float"?). Do objects pass through each other like ghosts?

**Signs & Symbols:** Look at text in the background. Is it actual language or "alphabet soup"? (AI often struggles with legible signage).

**Surroundings (Context):** Does the background "warp" or change as the camera moves? Does the scene feel too perfect/sterile compared to the "messy" real world?

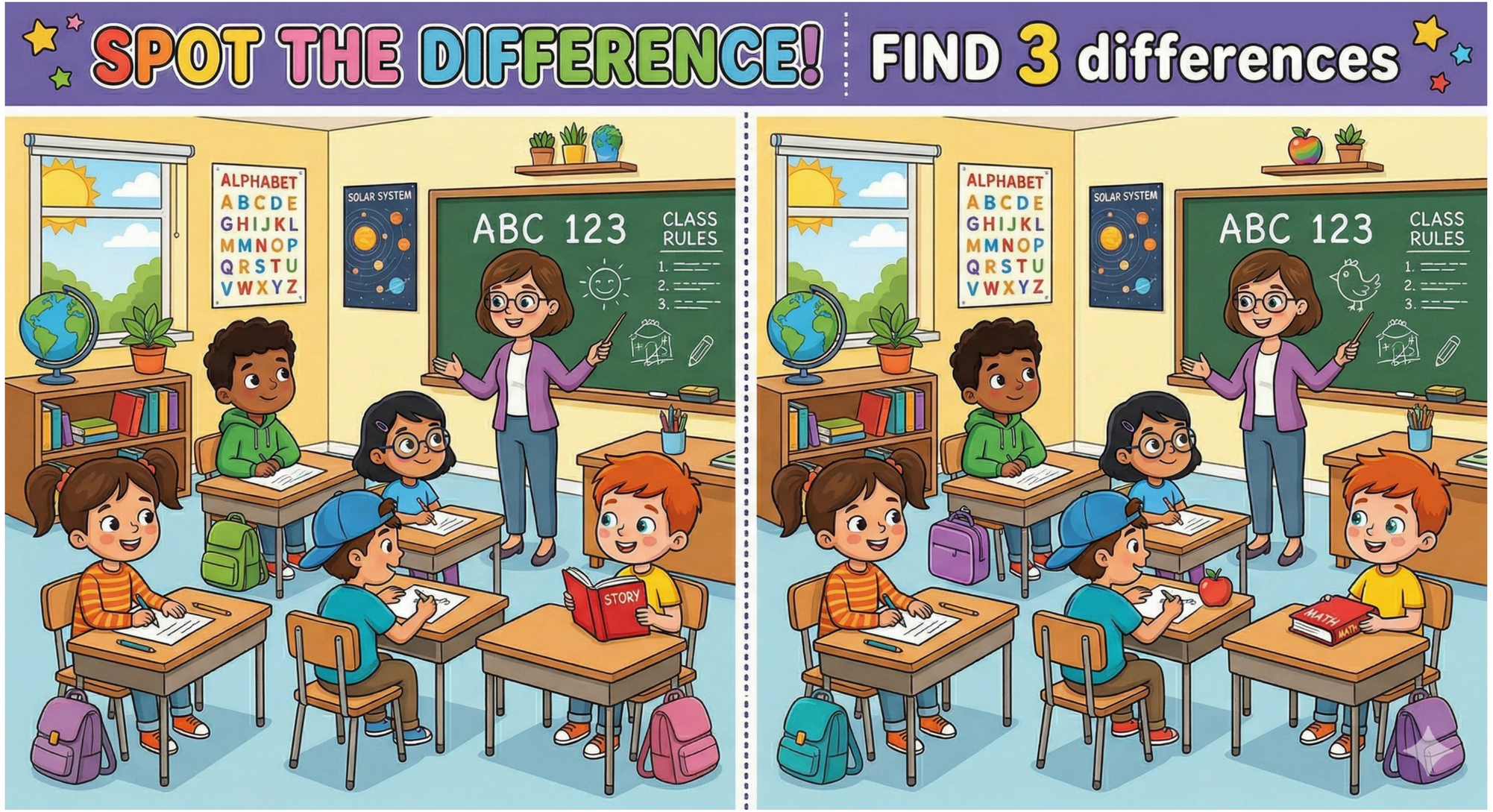
# Practising Critical Thinking with AI

When students encounter AI-generated content, they need to pause and ask:

- What am I being shown?
- What might be missing or exaggerated?
- Who created this — and why?
- How confident should I be?

**Critical thinking slows us down before we believe or share.**

# Activity 3: Spot the Difference



# What This Activity Builds

Spot the Difference isn’t about finding mistakes.

It helps students practise:

- Slowing down instead of scrolling
- Looking for evidence, not just impressions
- Explaining why something feels off
- Questioning images before trusting or sharing them

**Critical thinking is noticing before believing.**

# Algorithmic Echo Chambers

AI doesn't just create content; it chooses what students see.

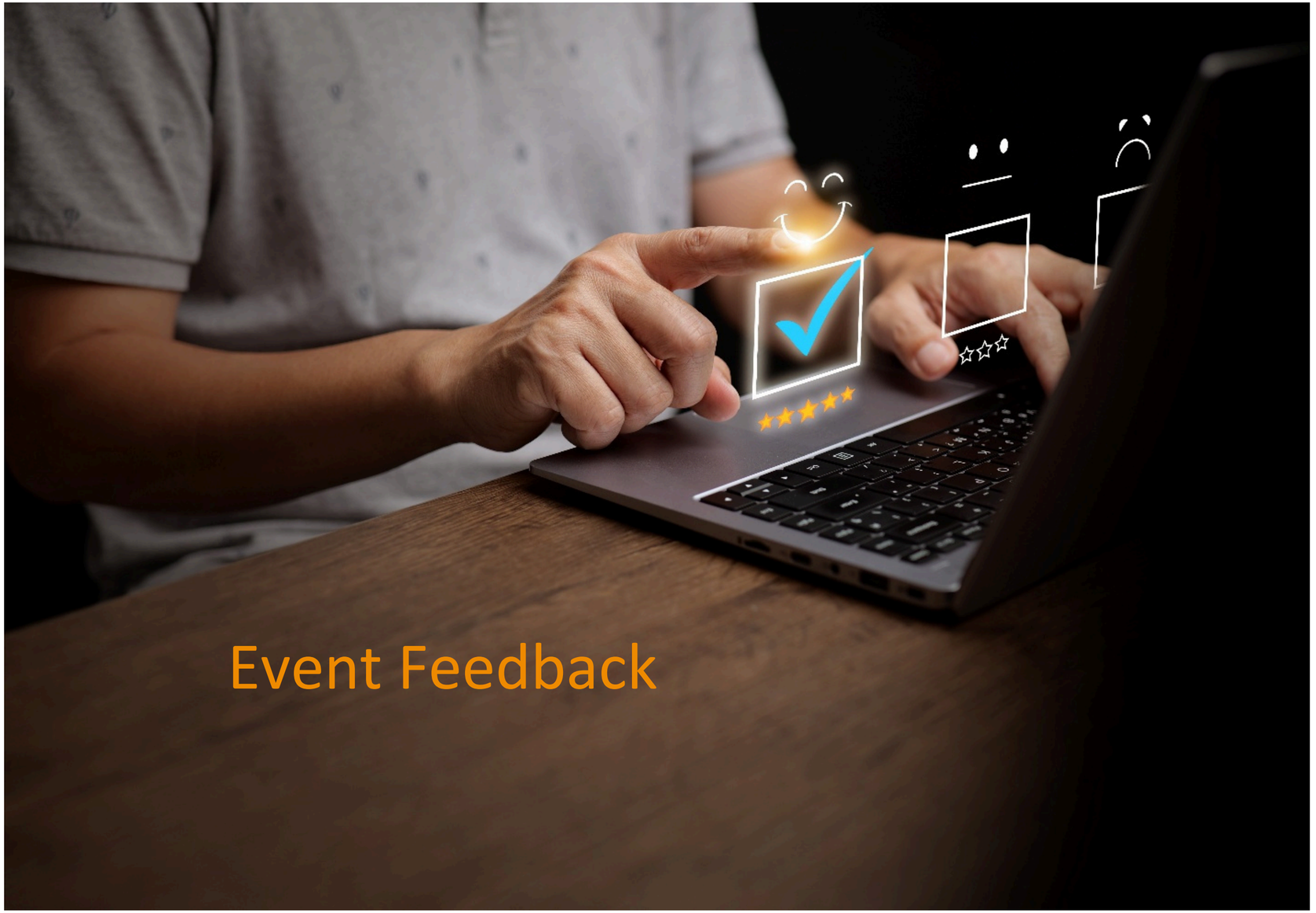
- The Trap: Social media algorithms use AI to feed students more of what they already like. This can create "echo chambers" that narrow their worldview and reinforce biases.

- The Impact: A student interested in a specific hobby or political view might start seeing a world where everyone seems to agree with them, making it harder to develop empathy for different perspectives.

# Questions?

## We’d love to hear from you!

Your feedback will help us in shaping our future events.
Please take a few moments to complete our brief survey.  To provide your feedback, scan the QR code below:



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## MORE INFORMATION

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