Critical AI Literacy

A Short Guide for Teachers

Definitions, Frameworks, and Questions for Your Class

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AI literacy teaches people how to use AI tools. Critical AI literacy asks a different set of questions: who built this tool, whose data trained it, who benefits from its outputs, and who gets harmed. The distinction matters for educators because teaching students to prompt well without teaching them to think critically about what they're prompting turns classrooms into training grounds for passive consumption.

How Researchers Define AI Literacy and Critical AI Literacy

The left side collects definitions of AI literacy from major policy and research sources. The right side collects definitions of critical AI literacy, a newer concept that adds power, agency, and the capacity to refuse. Notice how AI literacy centers on skills and safe use, while critical AI literacy centers on questioning systems, recognizing bias, and protecting one's own thinking.

AI Literacy Definitions		Critical AI Literacy Definitions	
Source	Definition	Source	Definition
Mills et al. (2024, p. 4)	*"AI literacy includes the knowledge and skills that enable people to critically understand, evaluate, and use AI systems and tools to safely and effectively participate in an increasingly digital world."*	Roe, Furze, & Perkins (2024, p. 2)	*"The ability to critically analyse and engage with AI systems by understanding their technical foundations, societal implications, and embedded power structures, while recognising their limitations, biases, and broader social, environmental, and economic impacts. This literacy enables both practical engagement with AI and a critical reflection on its ethical implications."*
U.S. Department of Education (2024, p. 41), citing Mills et al.	*"AI literacy includes the knowledge, skills, and attitudes needed to engage with AI safely. (Mills et al., 2024). This skillset is about understanding AI's strengths, limits, and impacts to make informed decisions*	Roe et al. (2025), Digital Plastic (p. 7)	*"We distinguish CAIL from the broader term AI literacy, which is loosely defined and inconsistently applied with no universal definition (Bozkurt et al., 2023). We recognize that students need to engage with*

(2024) and Kulesa et al. (2024)	*about its integration and to prepare learners for the AI-driven future (Kulesa et al., 2024)."*		*AI as part of technological multiliteracy (Stolpe & Hallström, 2024) partly in order to be able to resist and refuse technologies and not simply use or consume them."*
aiEDU (n.d.)	*"The collection of skills and knowledge that a person needs to confidently understand, ethically use, and critically evaluate artificial intelligence in a world where AI is ubiquitous."*	Goodlad & Stoerger (2024). (p. 1)	*"Critical AI literacies position educators, students, and citizens as empowered and active decision-makers as distinct from passive consumers."*
OECD (2025, p. 6)	*" AI literacy represents the technical knowledge, durable skills, and future-ready attitudes required to thrive in a world influenced by AI. It enables learners to engage, create with, manage, and design AI, while critically evaluating its benefits, risks, and ethical implications."*	Maha Bali (2023)	*Unpacks "critical" as three layers: critical thinking (skepticism, questioning), critical pedagogy (social justice, inequality), and critique (harms, credibility). Literacy means "the capacity to know when, where and why to use it for a purpose, and, importantly, when NOT to use it."*

Literacy vs. Critical AI Literacy: A Side-by-Side Comparison

AI literacy and critical AI literacy are not enemies. They're layers. The first gives students functional skills. The second gives them the judgment to use those skills wisely, and the awareness to recognize when the tool itself is the problem.

Dimension	AI Literacy	Critical AI Literacy
Core Question	How do I use AI tools effectively?	What does this AI system do to people, knowledge, and power?
Orientation	Functional competence: skills, prompts, workflows	Critical engagement: questioning assumptions, biases, and consequences
Relationship to AI	User/consumer of AI tools	Active decision-maker who can also resist and refuse AI
What Counts as Knowledge	Knowing how AI works technically and how to prompt it well	Understanding technical foundations AND societal implications, power structures, environmental costs
Approach to Outputs	Evaluate accuracy and usefulness	Evaluate accuracy, credibility, embedded bias, and whose perspective is missing
Role of Ethics	Often mentioned as an add-on or module	Central and inseparable from every interaction with AI
Pedagogy	Training-oriented: learn the tool, practice the skill	Inquiry-oriented: question the tool, examine its effects, make informed choices
Goal	Competent AI users	Empowered citizens who shape how AI is used in their communities and classrooms

Critical AI Literacy Questions for the Classroom

Use these questions across grade levels and subject areas whenever students interact with AI tools. They work as whole-class discussion starters, reflection prompts after an AI-assisted task, or criteria in a rubric for evaluating how students engage with AI. Six domains, 24 questions, each designed to push students from passive use toward active, critical engagement.

Domain	What It Means	Questions to Ask Students
Output Evaluation	*Can you trust what AI gives you?*	1. How do you know this answer is accurate? 2. What would you need to check before trusting this? 3. Can you find a credible source that confirms or contradicts this output? 4. Does this response sound confident but say very little?
Bias Awareness	*Whose perspective is represented, and whose is missing?*	1. If this model was trained mostly on English-language internet data, what perspectives might be absent? 2. Does this output reflect one cultural viewpoint more than others? 3. Would the answer change if you asked the same question in a different language? 4. Who benefits from the way this answer is framed?
Thinking Ownership	*Is the thinking yours or the machine's?*	1. What did you think about this topic before you asked AI? 2. Can you explain this answer in your own words without looking at it? 3. If I removed the AI output, what would you still know? 4. Did you use AI to help you think, or to think for you?
System Understanding	*Do you understand how this tool actually works?*	1. How does a large language model generate a response? 2. Why does AI sometimes produce confident-sounding wrong answers? 3. Why might two different AI tools give different answers to the same question? 4. What does it mean that AI predicts the next word, not understands the question?
Ethical Awareness	*What are the broader consequences of using this tool?*	1. Whose work was used to train this model, and were they compensated? 2. What are the environmental costs of running AI at scale? 3. Is it fair to submit AI-generated work as your own?

		4. What happens to people whose jobs involve tasks AI can now automate?
Strategic Use	*Are you using AI intentionally, or just taking the path of least resistance?*	1. What is the learning goal of this task, and does using AI support or undermine it? 2. At what point in your process did you bring in AI, and why? 3. Could you have done the difficult thinking first and used AI to refine it? 4. What would you lose by not doing this work yourself?

How to Use This Guide

Before an AI-assisted task: Pick 2-3 questions from the framework and share them with students as thinking prompts.

After an AI-assisted task: Use the questions as a reflection activity. Ask students to write or discuss what they noticed about the AI output and their own thinking process.

In assessment design: Build critical AI literacy into rubrics by evaluating whether students questioned, verified, and critically engaged with AI outputs.

In professional development: Use the comparison table to help colleagues understand the difference between basic AI literacy and critical AI literacy.

References

aiEDU. (n.d.). What is AI literacy? *AI Education Project*. Retrieved October 15, 2025, from https://www.aiedu.org/about

Bali, M. (2023, April 1). What I mean when I say critical AI literacy. Reflecting Allowed. https://blog.mahabali.me/educational-technology-2/what-i-mean-when-i-say-critical-ai-literacy/

Goodlad, L. M. E., & Stoerger, S. (2024). Teaching critical AI literacies: "Explainer" and resources for the new semester. Critical AI @ Rutgers. https://hcommons.org/?get_group_doc=1004981/1734718038-TeachingCriticalAILiteracies_livingdocument.pdf

Mills, K., Ruiz, P., Lee, K., Coenraad, M., Fusco, J., Roschelle, J. & Weisgrau, J. (2024, May). *AI Literacy: A Framework to Understand, Evaluate, and Use Emerging Technology.* https://doi.org/10.51388/20.500.12265/218

OECD. (2025). Empowering learners for the age of AI: An AI literacy framework for primary and secondary education (review draft). *OECD.* Paris. https://ailiteracyframework.org/wp-content/uploads/2025/05/AILitFramework_ReviewDraft.pdf

Roe, J., Furze, L., & Perkins, M. (2024). Funhouse mirror or echo chamber? A methodological approach to teaching critical AI literacy through metaphors (arXiv: 2411.14730). arXiv. https:// doi.org/10.48550/arXiv.2411.14730

Roe, J., Furze, L., & Perkins, M. (2025): Digital plastic: a metaphorical framework for Critical AI Literacy in the multiliteracies era, Pedagogies: An International Journal, https://doi.org/10.1080/1554480X.2025.2557491

U.S. Department of Education, Office of Educational Technology. (2024). *Empowering education leaders: A toolkit for safe, ethical, and equitable AI integration.* U.S. Department of Education. https://files.eric.ed.gov/fulltext/ED661924.pdf