AI Literacy and Its Foundations

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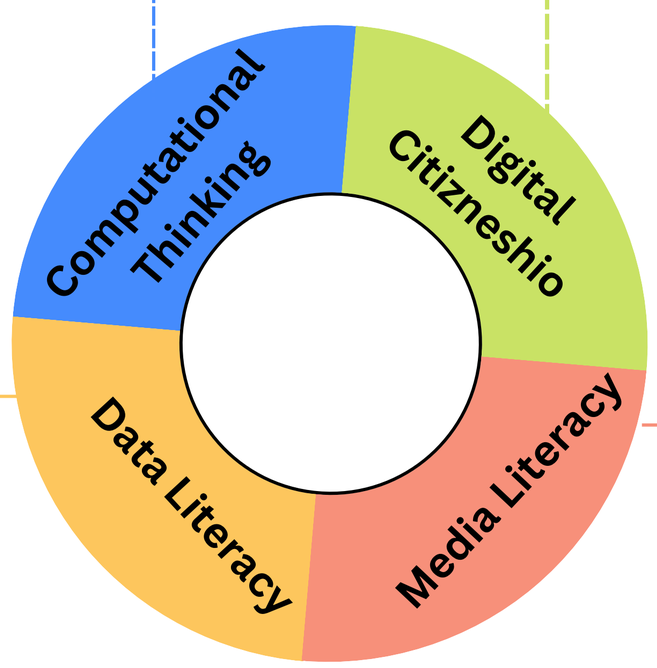
Foundational Literacies → Computational Thinking → Digital Citizneship → Media Literacy → Digital Literacy → AI Literacy



Computational thinking is a problem-solving approach that breaks down tasks so a computer can process them, using logic, abstraction, and step-by-step procedures.

Skills

- **Breaking** problems into smaller parts
- **Creating** algorithms and procedures
- **Recognizing** patterns in data
- **Automating** processes with rules
- **Using** abstraction to simplify complexity

Digital citizenship refers to the responsible use of technology to learn, create, and participate online while protecting privacy, rights, and relationships.

Skills

- **Practicing safe** and ethical online behavior
- **Managing** digital identity and footprint
- **Protecting** personal data and privacy
- **Balancing** media and screen time
- **Communicating** respectfully and responsibly

Data literacy is the ability to collect, analyze, interpret, and use data with critical awareness of quality, context, and limitations.

Skills

- **Collecting** accurate and relevant data
- **Organizing** and visualizing data clearly
- **Assessing** data quality and validity
- **Interpreting** patterns and trends
- **Using** data for informed decisions

Media literacy refers to the ability to access, analyze, evaluate, and create content across media formats with awareness of influence, bias, and intent.

Skills

- **Analyzing** media messages and sources
- **Recognizing** bias and persuasive techniques
- **Creating** responsible digital content
- **Evaluating** credibility of information
- **Understanding** how algorithms shape media feeds

AI Literacy Practices

Algorithmic Thinking, Abstraction & Decomposition	Data Analysis & Inference	Data Privacy & Security	Digital Communication & Expression	Ethics & Impact	Information & Mis/ Disinformation
1	2	3	4	5	6
Example	**Example**	**Example**	**Example**	**Example**	**Example**
Writing step-by-step rules to train an AI to sort images of animals.	Checking the accuracy and patterns in a dataset used for a classroom survey.	Choosing not to share personal details when signing up for an AI writing tool.	Creating a presentation with responsibly sourced AI-generated images.	Questioning if an AI grading tool treats all student groups fairly.	Spotting a deepfake video and verifying the original source.

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

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