AI Terms Every Student Should Know

A Student Handout • 50+ AI & Edtech Tools and Teaching Tips • ISTELive 26

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One of my former students told me his college friends know how to cheat with AI but have no idea how to use it — or how it works. You can't use, question, or supervise what you can't name. This is a plain-English glossary of the AI words students should know — the same words and definitions used in the "Spy the AI" review game. The last column shows the level of knowledge — Beginning, Intermediate, or Advanced — so you can pick what fits your class.

1. What AI Is

Term	What it means	Level
Artificial Intelligence (AI)	Computer programs that do things that usually need human thinking.	**Beginning**
Algorithm	A set of step-by-step rules a computer follows to make a decision.	**Beginning**
Machine Learning	When computers learn by finding patterns in lots of examples.	**Beginning**
Large Language Model (LLM)	AI trained on huge amounts of writing that can read and write like a person.	**Beginning**
GPT	Generative, Pretrained, Transformer — it makes fresh content from tons of text.	**Beginning**
Chatbot	A program you can 'talk' to in normal language.	**Beginning**

2. Types of AI

Term	What it means	Level
Generative AI	AI that creates new things: writing, pictures, music, video, or code.	**Beginning**
Predictive AI	AI that guesses what will happen using patterns in data.	**Beginning**
Assistive AI	AI that helps you while you work, like grammar fixes or autocomplete.	**Beginning**
Agentic AI	AI that doesn't just answer — it takes several steps to finish a whole job.	**Intermediate**
Multimodal AI	AI that can handle text, images, sound, and video all at once.	**Intermediate**

3. How a Model Works (Under the Hood)

Term	What it means	Level
Training Data	All the text and pictures the AI studied to learn.	**Beginning**

Inference	Every time you actually use the AI after its one-time training.	**Intermediate**
Parameters (Weights)	The billions of tiny numbers inside the AI that store what it learned.	**Intermediate**
Neural Network	The brain-inspired design, built in layers, that lets AI learn patterns.	**Intermediate**
Token	The small chunks of a word the AI reads and writes — it counts in these, not letters.	**Intermediate**
Next-Word Prediction	How an LLM really works — it keeps guessing the most likely next word.	**Beginning**
Transformer	The 2017 invention that decides which earlier words matter most.	**Intermediate**
Temperature	A setting that controls how random or creative the answers are.	**Intermediate**
Context Window	How much the AI can hold in mind at once — like the size of its whiteboard.	**Beginning**
Knowledge Cutoff	The date the AI stopped learning new information.	**Beginning**
Fine-Tuning	Extra training to make an AI better at one specific job or style.	**Advanced**
RLHF	People rate the AI's answers to teach it to be more helpful and polite.	**Advanced**
RAG (Retrieval-Augmented Generation)	When AI answers using documents you give it and shows sources.	**Intermediate**
Embeddings (Vectors)	Turning words and ideas into numbers so the computer can compare them.	**Advanced**
Prompt	The question or instruction you give the AI.	**Beginning**
System Prompt	Hidden instructions that tell the AI how to act before you start chatting.	**Intermediate**
Prompt Engineering	Writing a good prompt: role, situation, task, format, and rules.	**Beginning**
Prompt Stacking	Using one AI to write the prompt for another AI tool.	**Intermediate**
Few-Shot Prompting	Giving the AI a few examples in your prompt so it matches what you want.	**Intermediate**

4. Problems & Limits

Term	What it means	Level
Hallucination	When AI says something false but sounds totally sure.	**Beginning**
Confabulation	A more accurate word for 'hallucination' — filling gaps with stuff that sounds right.	**Intermediate**
AI Model Drift	When an AI model slowly gets less accurate over time because the world keeps changing while its training stays frozen — so it falls out of date.	**Intermediate**

Model Collapse	When new AI models are trained on other AI's output instead of real human data, they get worse each round — losing accuracy and variety. (A cousin of model drift.)	**Advanced**
AI Fatigue	Answers get worse in a long chat — or people get worn out from too many AI tools.	**Beginning**
Bias	Unfairness in the answers that comes from unfairness in the training data.	**Beginning**
Sycophancy	When the AI just tells you what you want to hear, even when you're wrong.	**Intermediate**
Stochastic	The AI picks words by chance, so you won't always get the same answer twice.	**Intermediate**

5. AI, People & Safety

Term	What it means	Level
Anthropomorphism	Treating something that isn't alive as if it has feelings.	**Beginning**
The Eliza Effect	Believing a simple program truly understands you.	**Beginning**
The 'Language of Deception'	Marketing words that make AI sound human — 'reading,' 'learning,' 'thinking.'	**Intermediate**
AI Is an 'It'	AI is a tool — not a friend, therapist, or boss.	**Beginning**
AI Social Companion	Apps made for ongoing 'friendship' chats with an AI.	**Beginning**
AI Psychosis	When heavy AI use feeds unhealthy or delusional thinking.	**Intermediate**
Deepfake	Fake but realistic images, audio, or video of real people, made by AI.	**Beginning**
Prompt Injection	Tricking an AI into breaking its own rules with sneaky instructions.	**Advanced**
Algorithmic Discrimination	When predictive AI treats people unfairly based on their data.	**Intermediate**
Human in the Loop	A person checks and is responsible for every AI result.	**Beginning**

6. Using AI Well

Term	What it means	Level
Computational Thinking	Breaking a problem into clear steps a computer can follow.	**Beginning**
Testing Models	Trying the same task in several AI tools to see which does it best.	**Intermediate**
Custom GPT / Gem	A saved, set-up version of a chatbot with your own instructions.	**Intermediate**
Claude Skill	A reusable helper that can be agentic — carrying tools to do multi-step jobs.	**Intermediate**
AI Citation	Telling people which AI you used and how, including your prompts.	**Intermediate**

Personal Information (PII)	Private info you should never put into AI without permission.	**Beginning**
Vibe Coding	Describing what you want and letting AI write the code for you.	**Intermediate**

Where to Learn More — Curriculum for Teaching Students About AI

Program	What it offers	Level
Code.org — AI Discoveries code.org	Free middle-school AI unit plus AI woven into its CS courses.	**Beginning**
MIT RAISE — Day of AI dayofai.org	Free K-12 lessons on how AI works, bias, and ethics (the MIT middle-school curriculum).	**Beginning–Intermediate**
Learning.com — EasyTech with AI Literacy learning.com	K-8 lessons on what AI is, how it works, and how to use it ethically.	**Beginning**
Experience AI (Google DeepMind + Raspberry Pi) experience-ai.org	Free lessons on how AI really works, built for ages 11–14.	**Beginning–Intermediate**
Common Sense Education commonsense.org	Free AI-literacy lessons (grades 6–12) plus a free "AI Basics" course for teachers.	**Beginning**
AI4K12 ai4k12.org	The "5 Big Ideas of AI" national framework and a directory of teaching resources.	**Teacher framework**
aiEDU (The AI Education Project) aiedu.org	Free AI-literacy lessons with a focus on access and equity.	**Beginning**
Machine Learning for Kids machinelearningforkids.co.uk	Free hands-on site where students train simple AI models (ages 10–14).	**Intermediate**
Elements of AI elementsofai.com	Free online intro course — great for teachers and older students.	**Intermediate**

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