



AI Terminology Explained

Plain-English AI Glossary

Term	Definition
Artificial Intelligence (AI)	The broad field of making computers perform tasks that normally require human smarts, like recognizing images, understanding language, or solving problems.
Machine Learning (ML)	A subset of AI where computers learn patterns from data instead of following explicit rules programmed by humans.
Deep Learning (DL)	A branch of ML that uses multi-layered neural networks to automatically discover complex patterns in large datasets.
Neural Network	A computational model inspired by the brain, made up of layers of interconnected “neurons” that transform input data into predictions or decisions.
Large Language Model (LLM)	A type of deep learning model trained on massive text corpora to understand and generate human-like language.
Transformer	A neural network architecture that processes entire sequences of data (like sentences) at once, enabling state-of-the-art performance in language tasks.
Tokenization	The process of breaking text into smaller units (tokens), such as words or subwords, which models use as the basic building blocks for language tasks.
Embedding	A way of converting tokens into numeric vectors so that a model can manipulate language as mathematical objects.
Inference	Running a trained model to get predictions or generate output, such as classifying an image or completing a sentence.
Training	The phase where a model learns from data by adjusting its internal parameters to minimize errors on a given task.
Parameters	The internal weights of a model that get tuned during training; more parameters usually mean a more powerful but resource-hungry model.



Hyperparameters	Settings that control how training happens (like learning rate or batch size) but aren't changed by the model itself.
Fine-tuning	Starting from a pre-trained model and training it further on a smaller, task-specific dataset to boost performance on that task.
Prompt	The piece of text or instruction you give to a language model to guide its output (for example, "Write a summary of...").
Prompt Engineering	The practice of crafting, testing, and refining prompts so that a model responds more accurately and usefully.
Generative AI	AI systems designed to create new content - text, images, music, code - often by predicting what comes next in a sequence.
Supervised Learning	An ML setup where the model learns from labelled examples (input paired with the correct output).
Unsupervised Learning	An ML setup where the model finds patterns in unlabelled data without explicit right or wrong answers.
Reinforcement Learning (RL)	A learning paradigm where an agent learns to make decisions by receiving rewards or penalties for its actions in an environment.
Overfitting	When a model learns the noise in its training data so well that it performs poorly on new, unseen data.
Underfitting	When a model is too simple or hasn't trained enough and fails to capture the underlying patterns in the training data.

Beyond This Glossary

- Explore interactive tools like Google's AI Experiments or OpenAI's Playground to see these terms in action.
- Try fine-tuning a small open-source LLM on your own text to experience how parameters and prompts shape the output.
- Dive into real-world case studies - such as AI-driven tutoring apps or classroom analytics dashboards - to see how concepts like embeddings and inference power personalized learning.
- Keep an eye on emerging topics like multimodal models (images + text), self-supervised learning, and AI ethics to expand your vocabulary and stay ahead of the curve.