

AI SIMPLIFIED

ESSENTIAL TERMS FOR EVERYONE

Artificial Intelligence (AI) is rapidly becoming part of our everyday lives. However, for those less familiar with AI, it can be daunting. Below are definitions for some basic AI terms to help you better understand this technology and the discussions surrounding it.

Artificial Intelligence (AI)

Machines or computers performing tasks typically requiring human intelligence, like learning, reasoning, and problem-solving.

Example: Virtual assistants like Siri and Alexa

Machine Learning (ML)

A subset of AI where computers learn patterns directly from data, improving automatically through experience.

Example: Email spam detection and recommendation systems on Netflix

Deep Learning

An advanced type of machine learning modeled after the human brain, using neural networks (see the next box) to recognize complex patterns in large datasets.

Example: Facial recognition on smartphones

Neural Networks

Structures inspired by the human brain composed of interconnected layers that process and analyze data to find patterns.

Example: Image classification software

Generative AI (GenAI)

AI capable of creating original content such as text, images, audio, or videos by learning patterns from vast amounts of data.

Example: ChatGPT and image creators like DALL-E

Chatbots/Natural Language Processing

Chatbots are AI-powered conversational agents. Natural Language Processing (NLP) is the technology behind them that helps interpret and generate human language.

Example: Customer support bots and translation apps

Prompts

Instructions or questions provided to AI models to guide their responses or tasks.

Example: Asking ChatGPT to summarize an article or write an analysis of a sales report

Algorithm

A clear, step-by-step set of instructions that AI and computers follow to accomplish tasks.

Example: Google's search algorithm

Deep Fakes

Highly realistic images, videos, or audio artificially created using deep learning, making it appear as though real people are saying or doing things they didn't.

Example: Fake videos of celebrities or politicians

Hallucination (AI)

When an AI model returns incorrect or fabricated information as fact, due to inaccurate training data, interpreting a pattern incorrectly, or some other cause.

Example: A chatbot providing a statistic that is not real

Foundation Models

Powerful, large-scale AI models trained on massive datasets that can adapt to a wide range of tasks with minimal additional training.

Example: Open AI's GPT-4 and Google's Gemini

Data / Dataset

A structured collection of information (text, images, audio, videos) used to "teach" or train AI systems.

Example: Photos labeled as "cats" or "dogs" to train a pet recognition app

Large Language Models (LLMs)

Specialized AI models designed to understand, generate, and respond naturally in human language.

Example: ChatGPT and Bing Chat

Audio Models

AI designed to process or generate audio, including speech recognition and audio creation.

Example: Voice assistants like Siri, Alexa, and audio transcription software

Video Models

AI tools that analyze, generate, or edit video content.

Example: Automatic video editing software and security video analysis tools