



# CDW Documentation

## Key Terms for AI

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# Key Terms for AI

Term / Technology	Category	Definition / Description
<b>Artificial Intelligence (AI)</b>	Concept	Simulation of human intelligence by machines, especially computer systems.
<b>Machine Learning (ML)</b>	Concept	Algorithms that allow computers to learn patterns and make decisions with data.
<b>Deep Learning</b>	Subfield of ML	Uses neural networks with many layers to model complex representations.
<b>Natural Language Processing (NLP)</b>	Subfield of AI	Enables machines to understand and generate human language.
<b>Computer Vision</b>	Subfield of AI	AI techniques to interpret images and videos.
<b>Reinforcement Learning</b>	ML Methodology	Models learn by interacting with an environment and receiving feedback.
<b>Supervised Learning</b>	ML Type	Model is trained on labeled input-output pairs.
<b>Unsupervised Learning</b>	ML Type	Model learns from unlabeled data by identifying patterns.
<b>Transformer</b>	Model Architecture	Deep learning architecture using self-attention, core to GPT and BERT models.
<b>Token</b>	NLP Concept	A unit of text, like a word or subword, used in language models.
<b>Prompt Engineering</b>	AI Interaction Design	Crafting model inputs to steer the output toward desired results.
<b>Inference</b>	AI Operation	Running data through a trained model to get predictions or outputs.
<b>Training</b>	AI Operation	Teaching a model using data so it can make accurate predictions.
<b>Bias</b>	Ethical Concern	Systematic errors in AI that can lead to unfair or discriminatory results.
<b>Explainability</b>	AI Governance	Making AI models' decisions interpretable and understandable to humans.
<b>Tuning / Fine-tuning</b>	Model Optimization	Adjusting a pre-trained model for a specific task or domain.
<b>Overfitting</b>	ML Issue	When a model performs well on training data but poorly on new data.

## Key Technologies and Platforms

Technology	Category	Description
<b>OpenAI</b>	Foundation Model Provider	Creator of ChatGPT and GPT models. Offers APIs for LLMs, embeddings, and other AI services.
<b>Azure OpenAI Service</b>	Cloud Platform	Microsoft's hosted version of OpenAI models with enterprise security, scaling, and governance.
<b>Anthropic</b>	Foundation Model Provider	AI company focused on safety and alignment, creator of the Claude model family.
<b>Mistral (MCP)</b>	Foundation Model Provider	European AI company building open-weight language models, known for fast inference and performance.

<b>Technology</b>	<b>Category</b>	<b>Description</b>
<b>Agentic AI</b>	AI Paradigm	AI systems that act autonomously and can make decisions, take actions, and pursue goals across tools and environments.
<b>LangChain</b>	Agentic Framework	Framework to build agent-based AI applications using chains of prompts, tools, and models.
<b>AutoGPT</b>	Agentic Framework	Autonomous AI agent that breaks down tasks into subtasks and self-prompt to complete goals.
<b>Hugging Face</b>	AI Platform / Model Hub	Open-source platform hosting thousands of models, datasets, and transformers tools.
<b>LLMOps</b>	Operational Practice	Managing, deploying, monitoring, and improving LLMs in production (similar to MLOps).
<b>Retrieval-Augmented Generation (RAG)</b>	AI Technique	Combines LLMs with external knowledge sources (e.g., vector databases) for more accurate and current answers.

## AI Knowledge