Artificial Intelligence (AI) Glossary

General AI Terms

Artificial Intelligence (AI)
The field of creating machines or software that perform tasks requiring human-like intelligence, such as decision-making, language understanding, and visual perception.

Machine Learning (ML)
A type of AI where computers learn from data to make predictions or decisions without being explicitly programmed.

Deep Learning
A subset of ML that uses artificial neural networks to analyze large, complex data sets such as images, speech, or text.

Neural Network
A system of connected nodes (like brain neurons) used in deep learning to recognize patterns and relationships in data.

Large Language Model (LLM)
An advanced AI model trained on massive amounts of text to understand, generate, and respond in human-like language. Examples include ChatGPT and Google Gemini.

AI in Everyday Use

Natural Language Processing (NLP) The technology that enables computers to understand and respond to human language. Used in chatbots, translations, and voice assistants.

Generative AI
AI that creates new content such as text, images, or audio. It powers tools like ChatGPT, DALL·E, and AI-based writing assistants.

Chatbot
A software application that simulates human conversation. Used in customer service, help desks, and learning platforms.

Multimodal AI
An AI system that can understand and respond using multiple input types—such as text,

images, video, or audio—within one unified experience.

Model Context Protocol (MCP)
A framework for giving AI systems the right "context" so they can respond accurately and consistently. It includes details like prior conversations, instructions, goals, or memory. Used in advanced AI assistants to help them act more intelligently across tasks.

Agentic: An AI system that can take goal-directed actions on behalf of a user or organization. It can plan, execute tasks, and make decision, sometimes autonomously, within set limits.

AI Educational Context

Learning Analytics
The use of data and AI to monitor, predict, and support student learning and performance.

Automated Grading
AI-powered tools that assess and score assignments, especially for quizzes, multiple-choice, or short answers.

Academic Integrity Tools
AI systems used to detect plagiarism or monitor test-taking for suspicious behavior. Note: Systems to review written or essay based assignments have not proven reliable for detecting, AI and human work.

Ethical and Practical Concerns

Bias
When AI systems produce unfair results due to biased training data, potentially affecting decisions in education or hiring.

Hallucination (Errors/False information)
When AI generates factually incorrect or made-up responses. It may sound convincing, but it is not grounded in truth or fact.

Transparency & Explainability
The principle that AI decisions should be understandable by humans, especially in high-stakes areas like education or healthcare.