EXCHANGE AI PROJECT

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AI Glossary of Terms

A clear and accessible reference guide to key Artificial Intelligence concepts — developed for teachers, trainers, and learners in adult education and beyond.

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About This Glossary

This glossary has been developed as an educational resource for **teachers, trainers, and learners** in adult education and related fields. It provides clear and simple explanations of key terms used in Artificial Intelligence (AI), serving as a helpful companion for anyone working with or studying AI technologies.

While particularly suited for adult education and graduate learners across all disciplines, it can also support teachers in other education levels in understanding AI concepts. The glossary is designed to complement introductory lectures and facilitate deeper discussions on AI throughout courses.

Its main objective is to provide a **quick reference point** for basic and most common AI terms and definitions used in our daily communication and learning. It is by no means an exhaustive resource — it aims to introduce and support learners at the beginning of their learning journey.

ⓘ At the end of this glossary, you can find an entertaining interactive quiz to further enhance your teaching and learning experience.

Project

Expeditions for Change: Navigating the Skills & AI Landscape

Acronym & Web

EXChange AI | https://exchangeai.eu/

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Coordinator

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Terms: A — Artificial Intelligence

AI (Artificial Intelligence)

Computer systems that simulate human thinking abilities like reasoning, problem-solving, learning, and decision-making.

AI System

A machine-based system designed to operate with varying levels of autonomy, that may exhibit adaptiveness after deployment and that, for explicit or implicit objectives, infers from the input it receives how to generate output — such as predictions, content, recommendations, or decisions that can influence physical or virtual environments.

AI Augmentation

Using AI to enhance or improve tasks, making them faster or of higher quality.

AI Automation

The use of AI to fully automate tasks without human involvement.

EXCHANGE AI

Terms: A — Models, Tools & Intelligence Types

AI Model

A system trained on data to recognize patterns and perform specific tasks.

AI Tool

Software that uses AI to help with various activities, such as writing, translation, or analysis.

AI User

Anyone who uses AI tools for personal or professional tasks.

AI Transformation

The process of integrating AI technologies into organizations to improve performance and innovate.

Artificial Narrow Intelligence (ANI)

AI systems designed for a specific task, such as voice assistants or self-driving cars.

Artificial General Intelligence (AGI)

Hypothetical AI with the ability to perform any intellectual task a human can do.

Terms: A — Adversarial & Agentic AI

Adversarial Attack

A deliberate attempt to deceive an AI model by feeding it altered or misleading inputs.

Adversarial Defense

Techniques used to protect AI from adversarial attacks.

Agentic AI

AI systems that can act like goal-driven agents: they can plan steps, make decisions, use tools, and take actions to complete a task with some level of autonomy.

Instead of only answering a question, Agentic AI can work toward a goal — for example, researching a topic, comparing options, drafting a report, checking data, and revising its output based on results.

Agentic AI represents a significant leap beyond simple question-answering — these systems can autonomously pursue multi-step goals, making them powerful tools for complex workflows.

Terms: B & C — Bias, Data & Conversational AI

Key terms for understanding how AI systems can be shaped by data quality, reasoning methods, and conversational interfaces.

AI Bias

Unfairness in AI caused by poor-quality or incomplete data, often resulting in discrimination. A systematic deviation from a true state — including subjective individual bias, data and algorithm bias, developer bias, and institutionalised biases ingrained in societal context.

Biased Data

Datasets that over-represent or under-represent certain groups, causing skewed results.

Big Data

Massive and complex data sets that traditional data management tools cannot handle. Characterised by large volume, high variety (frequently in unstructured or semi-structured formats), high velocity in generation and processing time, and varying degrees of quality and reliability.

Chain-of-Thought Prompting

A method where an AI is asked to explain its reasoning step-by-step.

Chatbot

A computer program designed to simulate conversation with a human, usually over the internet, especially one used to provide information or assistance as part of an automated service.

Computer Vision

AI that interprets and analyzes visual information like photos and videos.

Conversational AI Tool

AI systems designed to engage in text-based dialogue, such as chatbots.

Terms: C — Clickbait, CLI & Cognitive Tasks

Clickbait

A text or thumbnail link designed to attract attention and entice users to click and view, read, stream, or listen to linked online content. The content is typically deceptive, sensationalised, or otherwise misleading. Also referred to as *linkbait*.

CLI (Command-Line Interface)

A text-based way to interact with AI tools, models, or development frameworks by typing commands instead of using a graphical interface.

Cognitive Task

Mental activities like learning, reasoning, and remembering — the kinds of tasks AI systems are increasingly designed to assist with or replicate.

⚠ Clickbait and deceptive digital content are growing concerns in the age of AI-generated media. Critical digital literacy is essential for all learners.

Terms: D — Data, Deep Learning & Digital Inclusion

Data

Any digital representation of acts, facts, or information and any compilation of such acts, facts, or information, including in the form of sound, visual, or audiovisual recording.

Data Bias

Systematic issues in data that lead to unfair outcomes in AI systems.

Deep Learning

A type of machine learning that uses layers of algorithms called neural networks to analyze data.

Deepfake

Synthetic media where AI alters videos or images to make people appear to say or do things they never did.

Drift

The reduction in AI accuracy over time as real-world conditions change.

Terms: D — Deceptive Patterns & Digital Inclusion

Deceptive Patterns

Unfair practices deployed through the structure, design, or functionalities of digital interfaces or system architecture that can influence individuals to make decisions they would not have taken otherwise. Also (and formerly) referred to as *dark patterns*.

Digital Exclusion

Marginalisation of an individual or group deprived of full access and capacity to use ICT, hindering their participation in economic, social, and political life. Four main factors: limited access, lack of motivation, limited digital competence, and lack of confidence or trust.

Terms: F, G & H — Prompting, Generative AI & Hallucination

Few-shot Prompting

A technique where an AI is shown several examples before generating a response, helping it understand the desired format or style.

Filter Bubble

An echo chamber primarily produced by ranking algorithms on digital platforms such as search engines and social media, which personalizes information without any active choice on the part of an individual.

Generative AI

AI that can create new content, including text, images, music, or videos.

Generative Adversarial Network (GAN)

A type of AI that generates new data by having two models compete with each other — one generating content, one evaluating it.

Hallucination

An AI-generated output that is incorrect or fabricated — a critical limitation to be aware of when using AI tools.

Human-in-the-Loop

A process where humans oversee and guide AI systems to ensure quality and accuracy.

Terms: H — Human-Centric AI & High-Risk Systems

High-Risk AI System

One which is likely to negatively affect health, safety, or fundamental rights. High risk, in the AI Act, is placed between unacceptable risk (forbidden) and limited risk (which has some transparency requirements).

Human-AI Collaboration

Process of one or more humans working with an AI system or systems to achieve a human-defined goal, based on the rationale that humans and AI systems have complementary strengths.

Human-Centric

An approach to developing and using digital technologies which strives to ensure that human values are central — ensuring respect for fundamental rights, including those set out in the Treaties of the European Union and Charter of Fundamental Rights. Human-centric also entails consideration of the natural environment and other living beings, as well as a sustainable approach enabling the flourishing of future generations.

Terms: I, K & L — Identity, Knowledge & Language Models

Interpersonal Harm

Negative impacts on individuals' relationships or well-being caused by AI systems.

Identity Theft

The act of stealing another person's personal identifying information — such as their name, bank or credit card details, electronic signatures, or passwords — without their permission, to commit fraud or other crimes.

Knowledge Cutoff

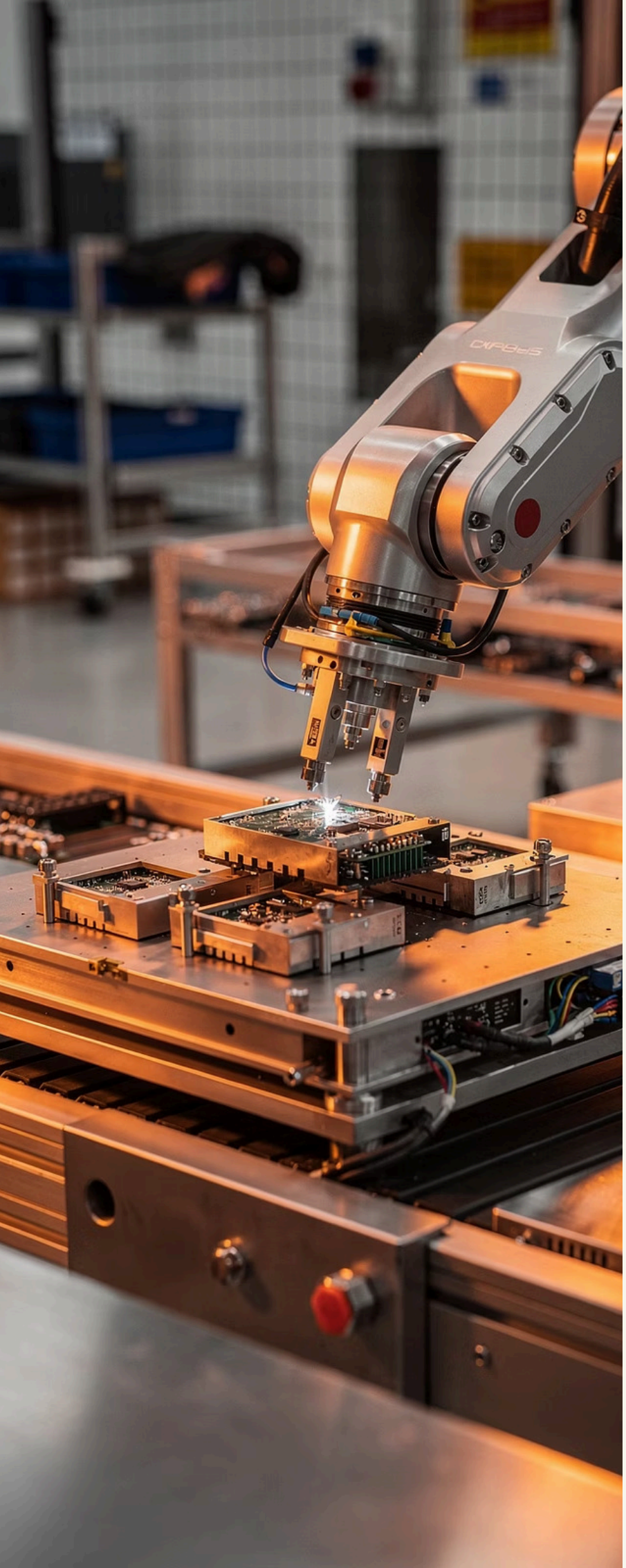
The latest point in time up to which an AI model was trained, beyond which it has no knowledge of events or developments.

Knowledge Graph

A network that connects information to enable better reasoning and search.

Large Language Model (LLM)

AI systems trained on vast text datasets to generate and understand human language. LLMs power many of today's most widely used AI tools, including chatbots and writing assistants.



Terms: M — Machine Learning, Multimodal & MCP

Machine Learning (ML)

A branch of AI where computers learn from data without being explicitly programmed.

Multimodal Model

AI models that process multiple types of input — for example, text, images, and audio — simultaneously.

Motion Planning

Used in robotics and autonomous vehicles to determine safe and efficient movement paths.

MCP (Model Context Protocol)

An open standard that lets AI models connect to external tools, data sources, and services in a consistent way. It allows an AI model to access databases, files, calendars, research tools, code environments, or business systems without needing a custom integration for every single one.

Terms: N, O & P — Neural Networks, Prompting & Privacy

Natural Language

Everyday human language used for communication — the kind AI systems are increasingly trained to understand and generate.

Neural Network

A system of algorithms inspired by the human brain, used in deep learning to process data.

One-shot Prompting

Providing an AI with a single example to guide its response.

Open Dataset

Freely accessible datasets available for public use in research and development.

Privacy

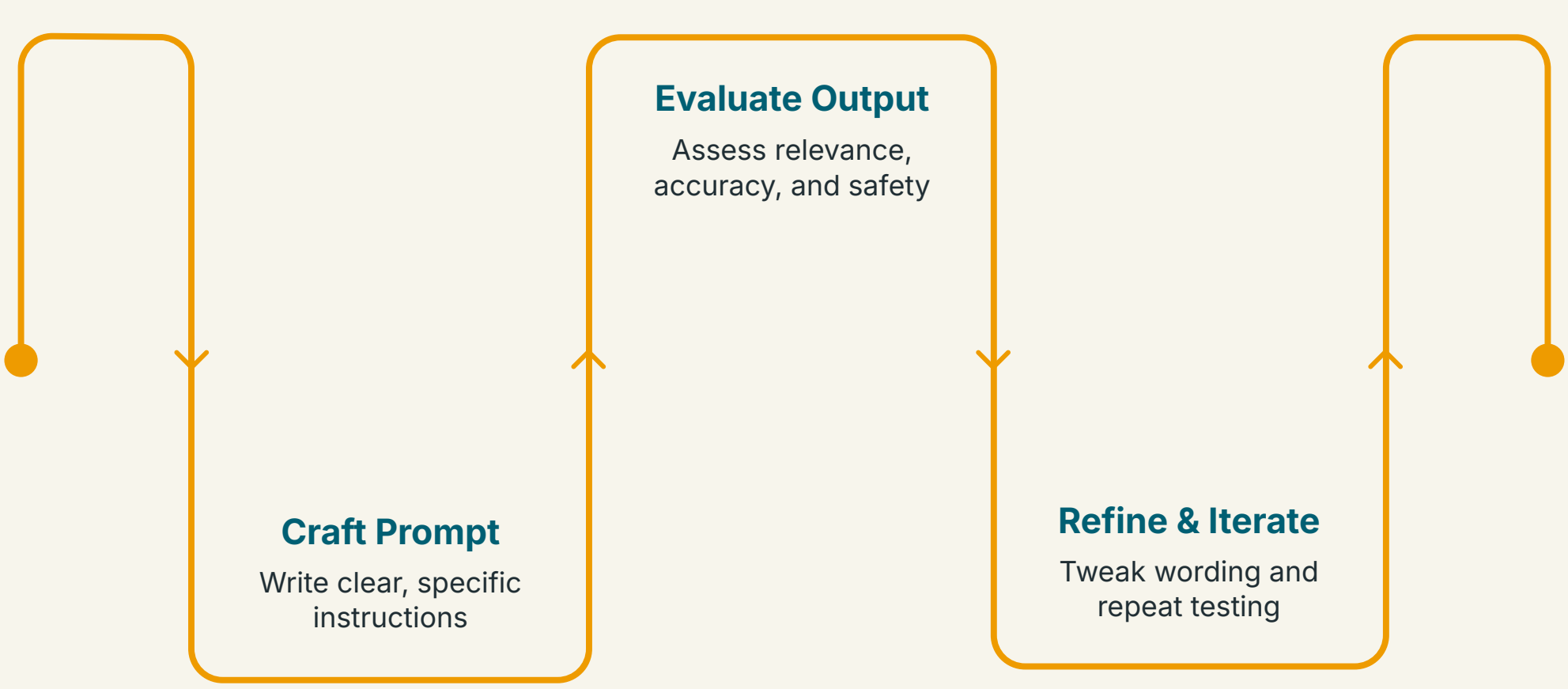
The right to control how personal information is collected and used.

Prompt

The input or instructions provided to an AI system to guide its output.

Prompt Engineering

The process of crafting effective prompts to get desired outputs from AI — an increasingly important skill for AI users.



Prompt engineering is a foundational skill for working effectively with modern AI tools — the quality of your input directly shapes the quality of the AI's output.

Terms: Q, R — Quality, Responsibility & Retrieval

Quality-of-Service Harm

When AI systems perform worse for certain user groups, creating unequal experiences and outcomes.

Representational Harm

When AI perpetuates stereotypes or discrimination through its outputs.

Responsible AI

The practice of designing and using AI in ways that are ethical, fair, and beneficial to individuals and society.

Reinforcement Learning

A machine learning method where an AI system learns through trial-and-error by receiving rewards or penalties.

RAG (Retrieval-Augmented Generation)

A method where an AI model first retrieves relevant information from external sources — such as documents, databases, websites, or knowledge bases — and then uses that information to generate a more accurate answer. RAG helps AI answer using provided or up-to-date knowledge, instead of relying only on what the model already learned during training.

Reasoning at the Edge

Performing AI reasoning or decision-making directly on local edge devices — such as smartphones, sensors, drones, vehicles, robots, or IoT devices — instead of sending all data to a central cloud server. It allows AI to think and act closer to where the data is created, making responses faster, more private, and less dependent on internet connectivity.

Terms: S — Security, Sentiment & Swarm Intelligence

Security

Protecting systems and data from unauthorized access or attacks.

Social System Harm

The broader societal risks from AI, such as increasing inequalities across communities and institutions.

Supervised Learning

A type of machine learning where models are trained on labeled data.

Speech Recognition

AI that converts spoken language into text.

Sentiment Analysis

Identifying emotions or opinions in text using AI techniques.

Swarm Intelligence

An approach inspired by the collective behavior of groups in nature — such as ants, bees, birds, or fish. AI based on collective problem-solving, where many small units cooperate to produce intelligent behavior as a group.

Terms: T & U — Training, Transfer Learning & Unsupervised Learning

Training Set

A collection of data used to train an AI model — the foundation of any machine learning system.

Transfer Learning

Reusing a pre-trained AI model for a new but related task, saving time and computational resources.

Transparency

The ability to understand how an AI system makes decisions — a key principle of responsible and trustworthy AI.

Unsupervised Learning

A method where an AI model learns from unlabeled data to find patterns and structures on its own.

These foundational concepts — training, transfer, transparency, and unsupervised learning — form the backbone of modern AI literacy for educators and learners alike.

Test Your Knowledge — Take the Quiz!

Check your knowledge of the key AI terms described in the glossary by taking the interactive quiz — created using Google's NotebookLM and Gemini's Canvas!

Each quiz question is available in the consortium languages:

EN

English

BG

Bulgarian

IT

Italian

DE

German

Take the Quiz Now

Scan the QR code or follow the link:
https://gemini.google.com/share/87c62d866cfd

Enjoy your learning and have a great time with the quiz!

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Key References

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