

Making Sense of AI

Infosheet

This infosheet gives you a quick rundown of the key takeaways from the course. Whether you're new to AI or just looking for a refresher, it's a useful guide to help you get started.

Contents

- 1 How AI works Page 2-4
- 2 Responsible AI use Page 5-6
- 3 How to write effective prompts Page 7
- 4 Helpful resources Page 8

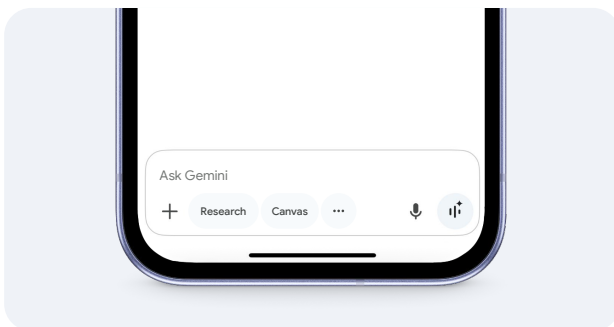
AI explained

What is AI?

Computer programs that have the ability to mimic cognitive functions associated with human intelligence.

Artificial Intelligence

Tech talk



Prompt

The input or request given to the AI. Contains things like questions, instructions, contextual information, and examples.

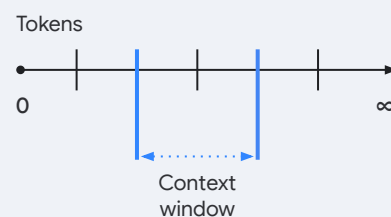
Tokens are the smallest building blocks, like part of a word, an AI can process.

Tokens

The smallest building blocks an AI can process, like part of a word. It's how the AI reads and responds to your input.

Context window

How many tokens the AI model can process at once. The longer the context window, the more information a model can take in and process.



Machine learning explained

What is machine learning?

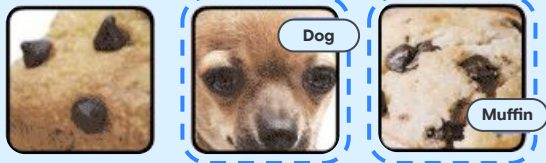
Machine learning is a subset of AI that helps systems learn and improve over time by recognising patterns in data—without needing explicit programming.

Artificial
Intelligence



Machine
Learning

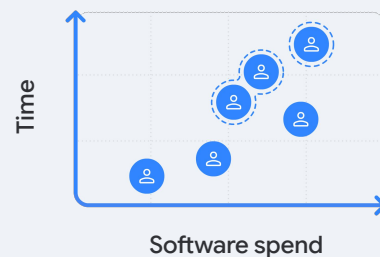
Types of machine learning



Supervised learning

Learns from labelled data, meaning it's trained on examples with known answers.

Used in: Training spam filters based on emails labelled as 'spam' or 'not spam.'



Unsupervised learning

Analyses unlabelled data, identifying hidden patterns without explicit instructions.

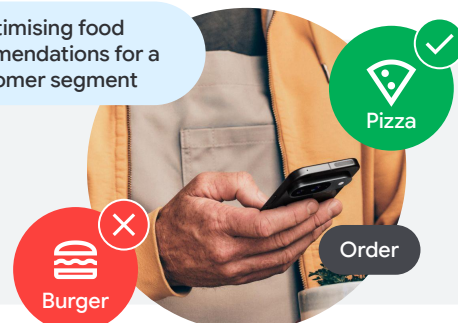
Used in: Creating customer segments by detecting patterns in purchase data.

Reinforcement learning

Learns through trial and error, receiving rewards for actions that lead to desired outcomes.

Used in: Improving food suggestions in delivery apps based on completed orders.

Optimising food recommendations for a customer segment



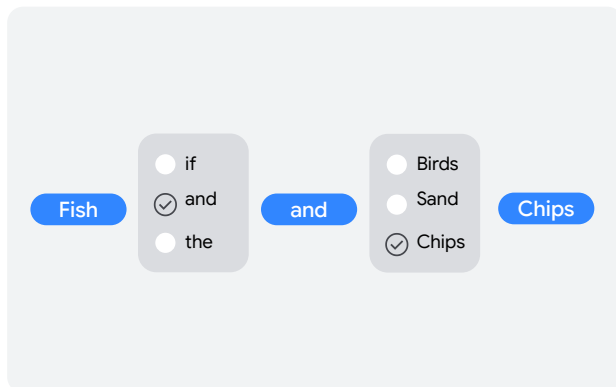
Generative AI explained

What is generative AI?

Also known as gen AI.
Creates new content,
including text, images,
and code, by learning
from large datasets.



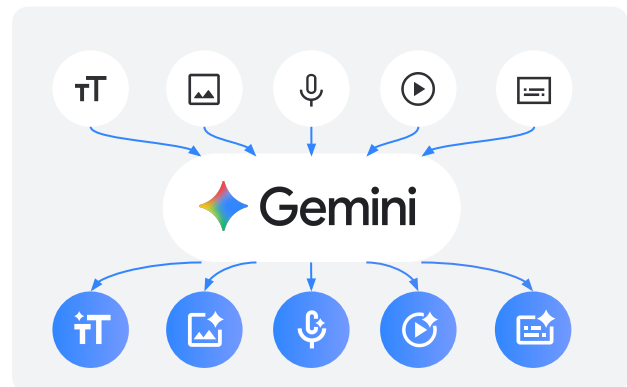
Generative AI models



Large Language Models (LLMs)

Generate natural-sounding text by predicting word combinations based on patterns learned from extensive text data.

Used in: AI chatbots, summarisation tools, and text generation apps.



Large Multimodal Models (LMMs)

Process and combine different types of data, such as text, images, and video.

For example, Google's AI assistant, Gemini, can analyse an image then generate captions.

Image created using Gemini for the purpose of the training, using the following prompt: Create a photorealistic image of a cat wearing sunglasses and playing the guitar. [Create responsibly.](#)

Responsible AI use

Generative AI tools are great at processing information and recognising patterns, but lack critical thinking and human awareness. Responsible AI use means choosing the right tool and understanding its limitations. It requires carefully crafting prompts (the instructions you give the AI) and critically evaluating outputs to minimise bias, misinformation, and ethical risks.

Biases and stereotypes

AI learns from data, which can contain biases that reinforce stereotypes. Since AI reflects patterns in its training data, being aware of these biases helps create more inclusive, accurate results.



Specify diversity

Use inclusive language in your prompts to encourage diverse outputs.



Challenge assumptions

If AI outputs lack diversity, refine your prompt for better representation.

Hallucinations and inconsistencies

AI can sometimes produce incorrect or misleading responses, known as hallucinations. These happen due to limited data, unclear prompts, or AI's tendency to predict patterns rather than facts.



Fact-check and cross-reference

Verify AI outputs using a trusted source



Use clear, detailed prompts

Avoid vague instructions



Include reliable references

Guide AI toward factual responses

Using gen AI responsibly **at work**

It's important to consider a few things before using generative AI with a work-related task. This checklist will help you assess when and how to use AI in a way that is ethical, secure, and aligned with your company's guidelines.

Is AI the right tool?

Consider the effects of using AI to help solve your problem or task and always use your best judgment and critical thinking skills. Before using AI, ask yourself whether or not AI is right for the task you're working on.



Do I have approval?

Get approval to use AI from the appropriate people at your company before you use gen AI on projects or with clients.



Is the data private and secure?

Consider the privacy and security implications of the gen AI tool you're using, whether it's a public or proprietary tool. If you're unsure, avoid entering confidential or personal data. Check if your company has an enterprise version of a gen AI tool that allows you to put it to work on other use cases.



Is the content accurate?

Evaluate all AI-generated content before you incorporate it into your work or share it with anyone. Always ensure that a human verifies an AI's output before applying it anywhere.



Am I being transparent?

Disclose your use of AI to your team and clients, and be transparent about how you use it.



How to write effective prompts



Scan me

Writing effective prompts is a skill anyone can learn. Think of a prompt as a conversation starter with AI-powered assistants like Gemini.

Prompting framework

Prompt frameworks help make AI responses clearer, more relevant, and tailored to your needs. The four main areas to consider are **Prompt**, **Task**, **Context**, and **Format**.



Persona

Tell the AI what role to play and how to respond.



Task

Tell the AI what you want to do or create.



Context

Provide as much background as possible.



Format

Specify the desired structure (e.g. bulleted list).

You don't need to use all four in every prompt, but using a few will help make AI responses more relevant.

Example prompt

Here is an example of a prompt using all four areas that could work well in Gemini:

As an expert travel planner, create an itinerary for a seven-day holiday to Japan.

I enjoy scenic walks and local cuisine. Activities should be within a three-hour train ride of Tokyo and suitable for spring weather. Present the output as a table with days separated by row.

Persona

Task

Context

Format

Helpful resources

Explore these resources to sharpen your AI skills and put them into action. Whether you're new to AI or ready to use it at work, these apps, guides, and courses will help you get started.

Gemini app

Chat with Gemini on Android and iOS to supercharge your ideas, write, learn, plan and more.*



Scan me

Google AI Professional Certificate

Build your AI fluency and get more done, faster.*



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Gemini Notebook

Your AI research and thinking partner, grounded in the sources you provide



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Getting started with AI

An action plan to help small businesses explore and use AI.



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AI tools for business

Explore the benefits of Google Workspace with Gemini.**



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AI for small business

Discover AI applications to streamline operations and drive growth.**



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The Keyword

Stay up to date with the latest Gemini news.



Scan me

* Check responses for accuracy. Available in select countries and languages.

** Availability and features may vary depending on device, language, country, subscription, and corporate account settings. Internet connection and set up may be required. Check responses for accuracy.

*** An enrollment fee may apply, depending on applicable terms and conditions.