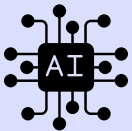# Artificial Intelligence 101

Artificial intelligence (AI) is technology that can perform a variety of tasks previously requiring human intelligence such as analyzing text, detecting patterns, and making recommendations or decisions. AI tools have become increasingly sophisticated and will play a key role throughout the future impacting anything from production design, creative writing, to even programming.

> **AI**
>
> **There are many categories and notable examples of AI**
>
> Generative AI - Natural Language Processing - Large Language Models

- ○ **Generative AI** can create content like images, audio, text, videos, and code.
- ○ **Natural Language Processing** AI has the ability to understand and communicate with human language. It can translate text to a different language, respond to spoken commands, and summarize large amounts of text.
- ○ **Large Language Models** are trained on vast amounts of data through machine learning to understand and produce content, as well as the ability to perform a range of tasks. Some notable examples include:
  - ■ **ChatGPT** has the ability to generate human-like responses, text, and images. Coupled with its widespread public adoption, ChatGPT is already impacting the way we work.
  - ■ **Gemini** is an AI developed by Google, trained by "reading" trillions of words through sources like Google services so it can answer prompts in common sounding language.

Artificial Intelligence Ethics

- ● **AI Ethics** are a set of values, morals, and guiding principles that shape how we should approach AI technologies. AI has shown the potential to negatively impact numerous people or groups. In turn, AI ethics help ensure that this technology is used responsibly so that we can maximize its benefits, while minimizing its risks.

Bias and discrimination
Humans have all sorts of biases and the data we use to train AI systems often reflects these biases. In turn, the content generated by AI can be biased, discriminatory, and reinforce a wide range of stereotypes.

Misinformation
The responses from Generative AI can often appear authoritative, plausible, and convincing. However, these same responses may contain inaccuracies, serious errors, or even misinformation.

Accountability
Concerns are often raised over who is responsible for the generated content. This is not only relevant in terms of the ownership of ideas, but the question of liability in the case of serious harm.

Using AI Responsibly

- **Establish a system of good governance**. Establish a system of good governance: Clearly define accountability for data, output, and decisions in AI use. Create guidelines addressing ethical, legal, and industry standards.
- **Promote ethical principles:** Ensure fairness, inclusivity, and social justice in AI processes. Involve diverse perspectives, avoid bias or discriminatory language, and assess potential harms to affected groups.
- **Prioritize human oversight:** Engage the public, involve experts, and conduct regular evaluations. Set clear boundaries for AI, audit systems for bias or misuse, and ensure compliance with organizational principles.
- **Foster transparency:** Explain AI decision-making processes and data usage. Build trust by identifying biases and avoiding misinformation or disinformation.
- **Ensure data security:** Protect sensitive information through anonymization, authentication, and strict usage policies. Conduct regular safety checks and train employees to maintain cybersecurity.
- **Evaluate AI suitability:** Assess whether AI aligns with your objectives, values, and risks. Use AI for data-driven tasks but reserve nuanced, ethical decisions for human judgment.
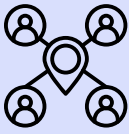
How to get the best response from AI

- While Generative AI can produce almost any type of content, to obtain your desired output you'll need to craft the right input or prompt. Prompts are what dictate an AI model's output and determine its style, tone, and even quality. Simply put, good prompts are the key to unlocking the potential of Generative AI.

Provide as much detail and context as possible
Especially when it comes to images. Detailed prompts generate more customized responses with fewer errors.

Tailor your results by providing different points of view
By informing a chatbot of how you want an answer provided, you can get more accurate responses.

Embrace experimentation
If you don't succeed your first time, give a different prompt. Generating answers from AI is not an exact science, so try multiple approaches to see what works best for you.

AI Example's	Prompt	Response
Summarizing Information	Can you please summarize the following information into a few concise paragraphs? Be sure to include all relevant sources?	Certainly! Based on the information provided, here's a concise summary: Key Point 1: [Brief explanation].
Writing Conciseness	Can you combine these three points into a single, coherent summary paragraph?	Absolutely! Here's a streamlined summary: [Insert the combined points in a seamless narrative].
Data Analysis & Insights	Can you analyze the attached dataset to identify any trends or patterns? Provide a summary of your findings and include any actionable insights?	I've analyzed the dataset, and here are the key trends and actionable insights: Trends Identified: "Sales peaked during Q4, with a 20% increase compared to Q3. Customer satisfaction ratings correlated strongly with delivery times."

Helpful tips for your AI journey

Carefully analyze the content that your AI tool generates. Read the text carefully and double check citations to verify your AI correctly interpreted its instructions.

Use the right AI model for your job. Different tools have specific benefits and limitations, so make sure your AI tool is right for its purpose.

Resources

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"Navigating AI Ethical Challenges and Risks", Skillsoft, accessed Nov 13, 2024, https://www.skillsoft.com/course/navigating-ai-ethical-challenges-and-risks-3c7137d1-70a6-477a-92d5-e61fc3769ca1

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