



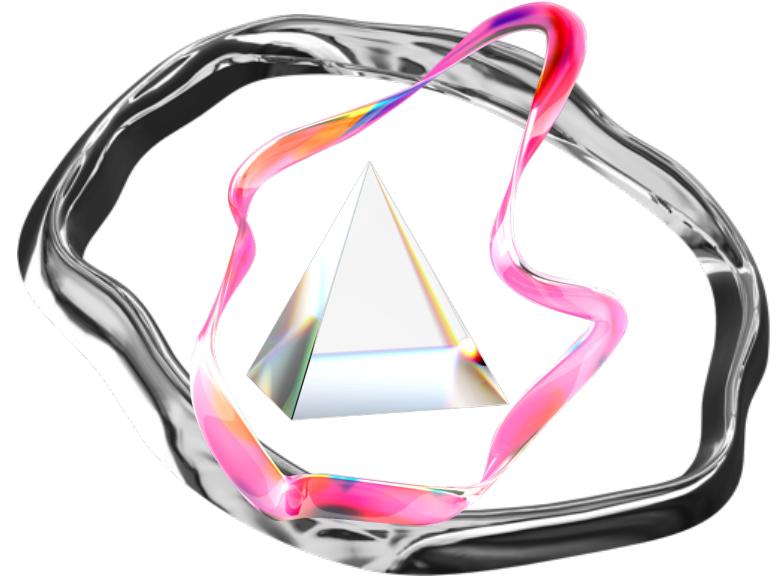
**AI + AI + AI**  
**AI MODULE X SCREENS**

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AIAIAINews

# 3 WEEKS

13th March -> 31st March



**HTTPS://GITHUB.COM/ENRIQUEKI/AIAIAI**  
+  
**SLACK**

# WEEK #2

22nd March -> 24th March



## **AI X THIS WEEK**

**:: CHATGPT + DALLE2 + PROMPT DESIGN**

The background consists of a dense, abstract pattern of wavy, monochromatic lines, possibly representing a digital or physical surface. The lines are primarily black and white, creating a high-contrast, textured appearance. They form various peaks and valleys, suggesting depth and movement. The overall effect is reminiscent of a topographic map or a microscopic view of a material's surface.

**TODAI**

## **ARTIFICIAL INTELLIGENCE**

Any technique that allows computers to mimic human intelligence

### **MACHINE LEARNING**

Algorithms that use statistics to find patterns in large amounts of data

### **DEEP LEARNING**

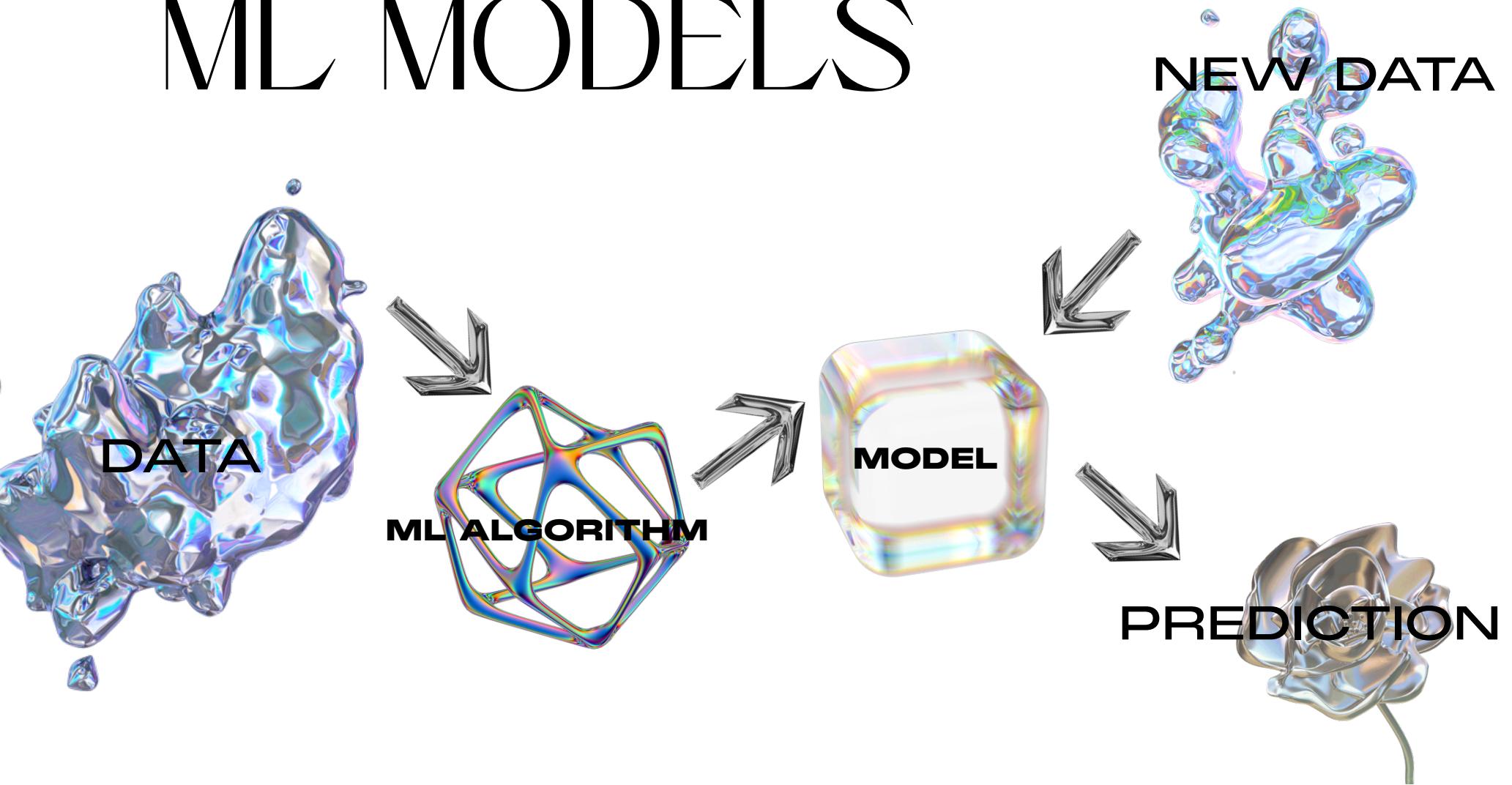
ML methods based on artificial neural networks

# **AI WHAT?**

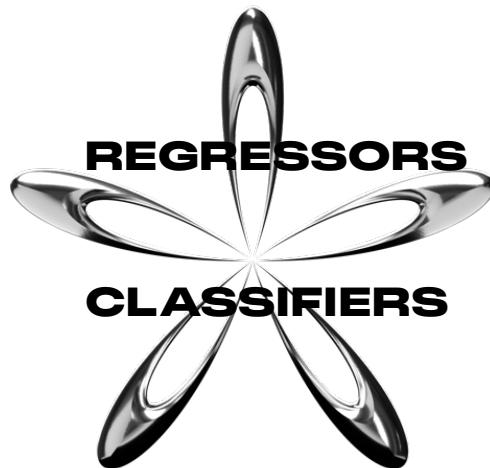
General ai - sentient and autonomous artificial intelligence (some argue this is impossible)

Narrow ai - ai that solves a particular problem

# ML MODELS



# USE CASES :



<https://becominghuman.ai/a-primer-of-29-interactions-for-ai-866164ab12f0>

# USE CASES TODAY:



# BOTH FROM OPENAI

## OpenAI

Article

Talk

52 languages

Read

Edit

View history

From Wikipedia, the free encyclopedia

Coordinates: 37.7623°N 122.4148°W

Not to be confused with [OpenAI](#).

It has been suggested that [GPT-4](#) be merged into this article. [\(Discuss\)](#) Proposed since February 2023.

OpenAI is an American artificial intelligence (AI) research laboratory consisting of the non-profit OpenAI Incorporated (OpenAI Inc.) and its for-profit subsidiary corporation OpenAI Limited Partnership (OpenAI LP). OpenAI conducts AI research with the declared intention of promoting and developing a friendly AI. OpenAI systems run on the fifth most powerful supercomputer in the world.<sup>[5][6][7]</sup> The organization was founded in San Francisco in 2015 by Sam Altman, Reid Hoffman, Jessica Livingston, Elon Musk, Ilya Sutskever, Peter Thiel, Olivier Grubisic and others,<sup>[8][10]</sup> who collectively pledged US\$1 billion. Musk resigned from the board in 2018 but remained a donor. Microsoft provided OpenAI LP with a \$1 billion investment in 2019 and a second multi-year investment in January 2023, reported to be \$10 billion.<sup>[10]</sup>

## History [ edit ]

### 2015–2018: Non-profit beginnings [ edit ]

In December 2015, Sam Altman, Greg Brockman, Reid Hoffman, Jessica



# CHATGPT

ChatGPT<sup>[a]</sup> is an artificial intelligence chatbot developed by OpenAI and launched in November 2022. It is built on top of OpenAI's GPT-3 (Generative Pre Trained Transformer) family of large language models and has been fine-tuned (an approach to transfer learning) using both supervised and reinforcement learning techniques.

Transfer learning : a research problem in machine learning (ML) that focuses on storing knowledge gained while solving one problem and applying it to a different but related problem.<sup>[b]</sup> For example, knowledge gained while learning to recognize cars could be applied when trying to recognize trucks.

# CHATGPT

**It used human trainers to improve the model's performance.** In the case of supervised learning, the model was provided with conversations in which the trainers played both sides: the user and the AI assistant. In the reinforcement learning step, human trainers first ranked responses that the model had created in a previous conversation.<sup>[10]</sup>

In addition, OpenAI continues to gather data from ChatGPT users that could be used to further train and fine-tune ChatGPT. Users can upvote or downvote responses they receive from ChatGPT and fill out a text field with additional feedback.<sup>[14][15]</sup>

# CHATGPT

Belongs to family of Natural Language Processing (NLP) Applications  
Transformer Architecture  
Neural Nets all over

## Self-attention Mechanism

### Language Translation

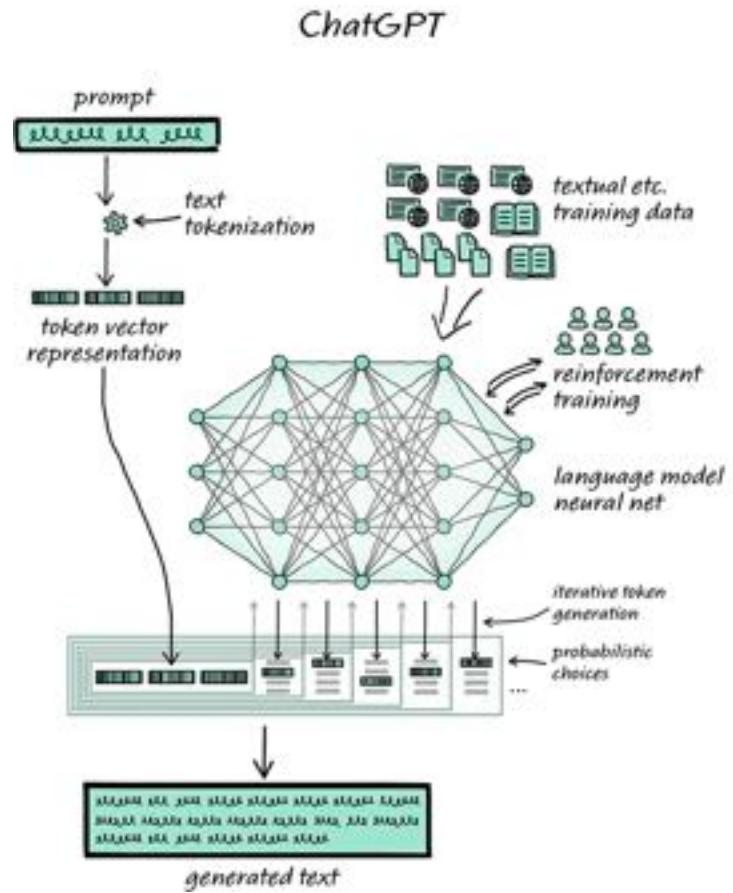
If the model is translating a sentence from English to French, it might give more attention to words like "the," "a," and "an," which are important for determining the grammatical structure of the sentence.

### Language Modeling

If the model is generating a news article, it might give more attention to words like "said," "according to," and "reported," which are commonly used in news writing to attribute information to sources.

### Sentiment Analysis

If the model is analyzing a movie review, it might give more attention to words like "amazing," "terrible," and "disappointing," which are strong indicators of positive or negative sentiment.



<https://writings.stephenwolfram.com/2023/01/wolframalpha-as-the-way-to-bring-computational-knowledge-superpowers-to-chatgpt/>  
<https://en.wikipedia.org/wiki/ChatGPT>

# DALLE.2

**DALL-E** (stylized as **DALL·E**) and **DALL-E 2** are deep learning models developed by OpenAI to generate digital images from natural language descriptions, called "prompts". DALL-E was revealed by OpenAI in a blog post in January 2021, and uses a version of GPT-3<sup>®</sup> modified to generate images. In April 2022, OpenAI announced DALL-E 2

OpenAI has not released source code for either model.

<https://en.wikipedia.org/wiki/DALL-E>

# DALLE.2

In early November 2022, OpenAI released DALL-E 2 as an API, allowing developers to integrate the model into their own applications. Microsoft unveiled their implementation of DALL-E 2 in their Designer app and Image Creator tool included in Bing and Microsoft Edge.

DALL-E's model is a multimodal implementation of GPT-3<sup>12</sup> with 12 billion parameters<sup>13</sup> which "swaps text for pixels".

<https://en.wikipedia.org/wiki/DALL-E>

# DALLE.2

DALL-E was developed and announced to the public in conjunction with CLIP (Contrastive Language-Image Pre-training).<sup>[45]</sup> CLIP is a separate model based on zero-shot learning that was trained on 400 million pairs of images with text captions scraped from the Internet.<sup>[46][47][48]</sup> Its role is to "understand and rank" DALL-E's output by predicting which caption from a list of 32,768 captions randomly selected from the dataset (of which one was the correct answer) is most appropriate for an image. This model is used to filter a larger initial list of images generated by DALL-E to select the most appropriate outputs.

DALL-E 2 uses a diffusion model conditioned on CLIP image embeddings, which, during inference, are generated from CLIP text embeddings by a prior model.<sup>[47]</sup>

<https://en.wikipedia.org/wiki/DALL-E>

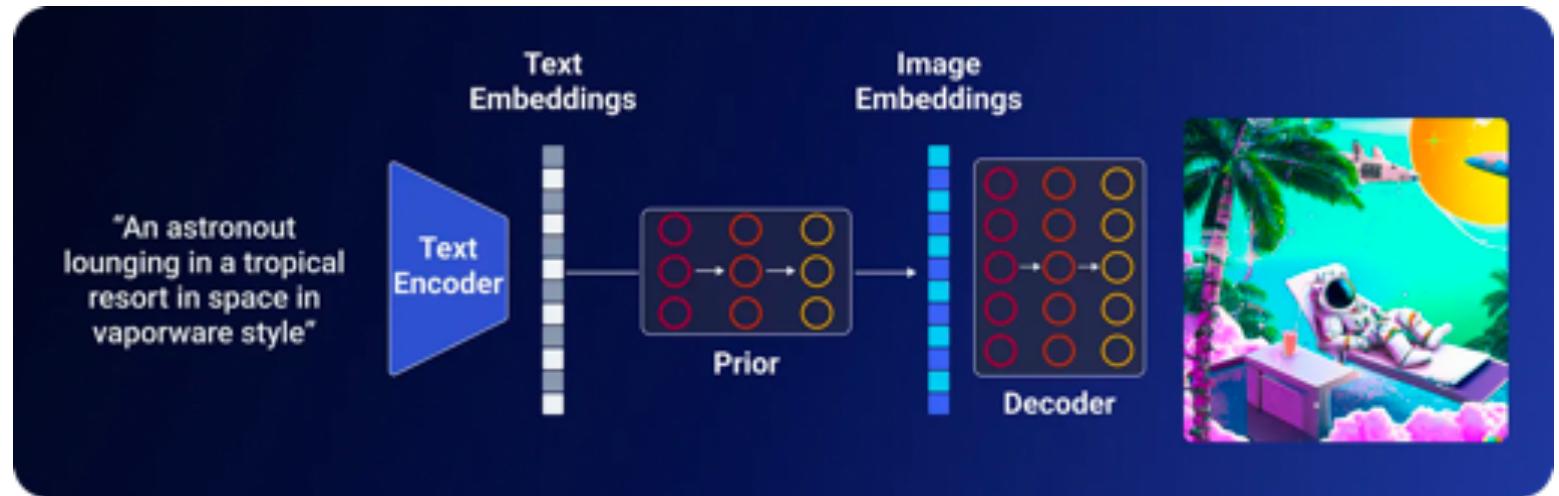
# DALLE.2

Text and Image embeddings are CLIP model

Text Encoder is GPT3 model

The prior is a diffusion model (not GAN)

The decoder is GLIDE also a diffusion model



<https://medium.com/augmented-startups/how-does-dall-e-2-work-e6d492a2667f>

# PROMPT DESIGN

# PROMPT ENGINEERING

Prompt Engineering is the concept in Natural Language Processing (NLP). Usually machine learning models are trained using millions and millions of data points and they start forming their own knowledge base, so one can never really figure out what the machine has learned. The best way to know what the machine knows is to craft different prompts and see what output we get.

<https://uxdesign.cc/prompts-are-the-new-design-tool-caec29759f49>

# WHY?

**PROMPT = DESIGN MATERIAL FOR AI  
FOR A WHILE!**

<https://prompthero.com/academy/prompt-engineering-course>

# NOT THAT EASY

portrait of a humanoid



portrait of a humanoid with exposed brain made of complex mechanical parts, bokeh, Nikon, f 1.8, cinematic lighting, robotic, octane render



<https://uxdesign.cc/prompts-are-the-new-design-tool-caec29759f49>

- [REDACTED]

<https://uxdesign.cc/prompts-are-the-new-design-tool-caec29759f49>

# PROMPT ENGINEERING

Different techniques for different Ai systems!

Search for hacks:

For example, you might use the "act as" hack to tell the ChatGPT to "act as a travel agent" and provide recommendations for vacation destinations based on the user's preferences. Or you might tell the ChatGPT to "act as a detective" and solve a fictional crime. The possibilities are endless, and the "act as" hack can be a powerful tool for creating engaging and immersive ChatGPT conversations.

<https://fka.gumroad.com/l/art-of-chatgpt-prompting>

# PROMPT ENGINEERING

Reddit Is your friend - best up to date techniques !!!

[https://www.reddit.com/r/OpenAI/comments/llctxul/  
advanced\\_chat\\_gpt\\_prompt\\_engineering/](https://www.reddit.com/r/OpenAI/comments/llctxul/advanced_chat_gpt_prompt_engineering/)

[https://www.reddit.com/r/ChatGPTPromptGenius/comments/llw5lzi/  
gpt\\_4\\_as\\_midjourney\\_prompt\\_generator/](https://www.reddit.com/r/ChatGPTPromptGenius/comments/llw5lzi/gpt_4_as_midjourney_prompt_generator/)

# PROMPT ENGINEERING

Although many prompting techniques work on different ai systems - try to find out the prompt techniques for your Ai System of choice.

- ChatGPT can produce prompts for images
- Reddit and Discord have the most up-to-date resources

The background consists of a dense, abstract pattern of wavy, monochromatic lines in shades of gray. These lines create a sense of depth and motion, resembling ripples on water or complex architectural structures. The overall effect is organic and modern.

**3-DAY BRIEF**

# “ENDLESS GRATITUDE”



Design the storyboard of the short film titled “Endless Gratitude” in pairs or on your own. Future horizon is 2023.

Visual style is your choice - realistic, animation, etc but it should be colorful.

Format is free - can be a4 or larger too. Minimum l3 pages (should be easy because some pages might be close ups for emphasis,etc)

# “ENDLESS GRATITUDE”



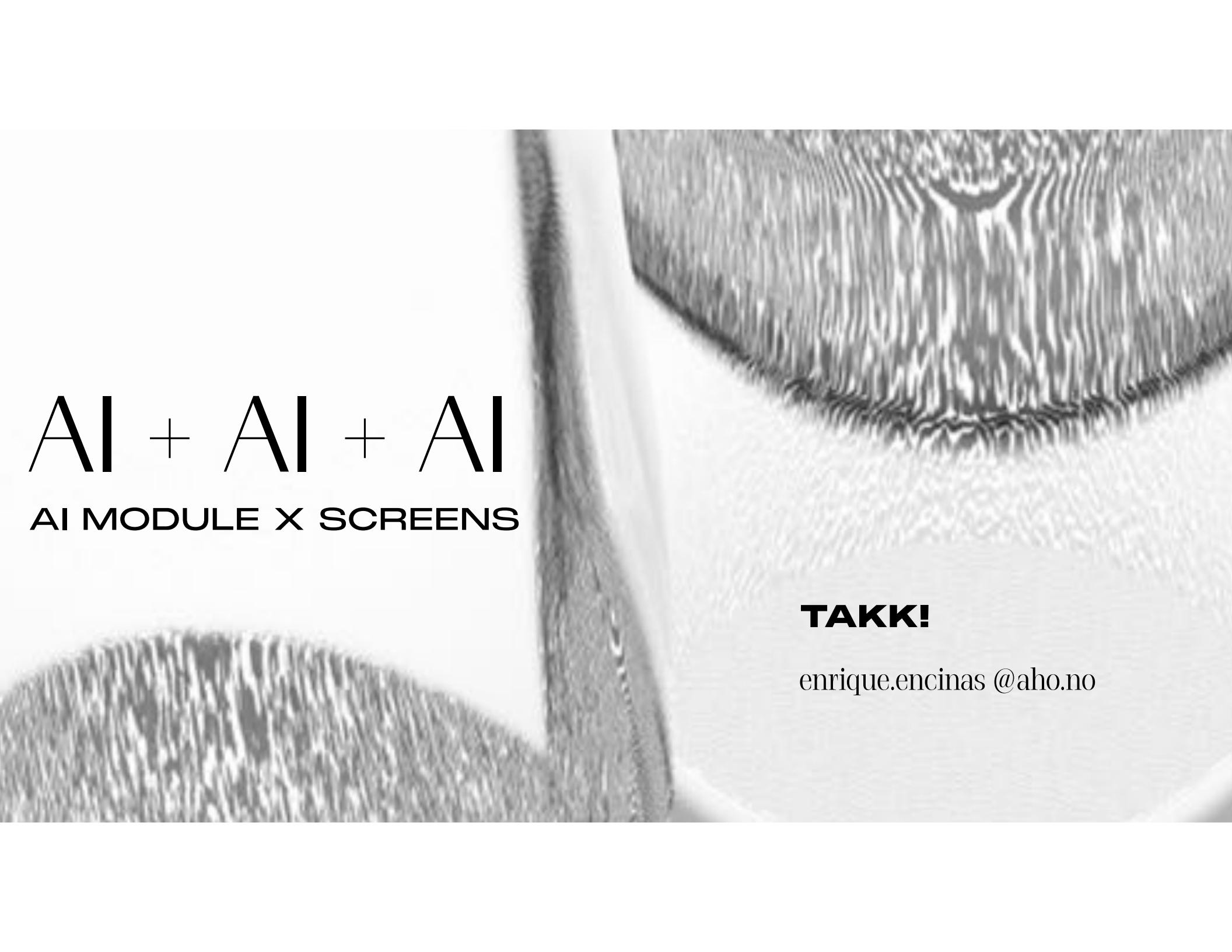
Text generated with ChatGPT

Images **should be consistent** and can be generated with any tech - Dalle2, Midjourney,etc

Bonus: what is the soundtrack like? Find a song or two for the presentation on Friday.

Super Useful: <https://blog.reedsy.com/guide/story-structure/dan-harmon-story-circle/>

Presentations Friday at 11:00



**AI + AI + AI**  
**AI MODULE X SCREENS**

**TAKK!**

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