

# GENEERATIVE AI

ENGULFED IN

no text and typos

TITLE

An elegant and impactful full-page title slide for 'Generative AI', ensuring no text and no typos. The design features a sophisticated theme, with a c



- Coverage has been tweaked to suit the participants from diverse background
- Extensively used DALLE, Microsoft Designer for the diagrams and the outputs are retained as it is in this presentation. Hence, you may see typo in few of the images
- Knowledge base available in the open source are leveraged for Educational purpose only
- Few more may be when discuss the slides ;)



## AGENDA

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*ChaiGPT*



*Coffee beans*



*Servings*



This picture and most in this presentation are created with

DALL-E

and

Microsoft Designer

# Chai Gpt

CHAFFEST GUEDST SHEPT  
T TEAETHOP





I am sure **100%** of you already tasted this  
ie., knows about GPT.



Even if not 100%

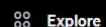
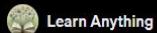
Or, atleast **99%** of you would be



*for Teatallers...*

[Chartlink](#)[F&O OPEN LOW SA...](#)[Open High](#)[F&O OPEN HIGH S...](#)[Pylmagesearch OCR](#)[The Pylmagesearch...](#)[MLOps](#)[Azure DP 900](#)[Stanford](#)[Kaggle Solutions](#)[CNBC](#)[Helium](#)[Maps](#)[AutoRegex: Convert...](#)[NLP Summit - Oct...](#)[All](#)

ChatGPT 3.5 ▾



Today

Generative AI Artistic Image

Word Document Text Extraction

Yesterday

Ask about my dog.

Calculate Tata Motors Book Value

Previous 7 Days

Enhancing Data for Insights

Future Hypecycle Trends

Harvard Business Review Style

LinkedIn Profile Expertise

AI and Vehicle Brands

Imagen da sombra intrigante



How can I help you today?

**Help me study**

vocabulary for a college entrance exam

**Make a content strategy**

for a newsletter featuring free local weekend events

**Come up with concepts**

for a retro-style arcade game

**Suggest some codenames**

for a project introducing flexible work arrangements

Message ChatGPT...



Activate Windows

Go to Settings to activate Windows.



Pinned



Cooper ✅ @peakcooper · Mar 26

...

#GPT4 saved my dog's life.

After my dog got diagnosed with a tick-borne disease, the vet started her on the proper treatment, and despite a serious anemia, her condition seemed to be improving relatively well.

After a few days however, things took a turn for the worse 1/

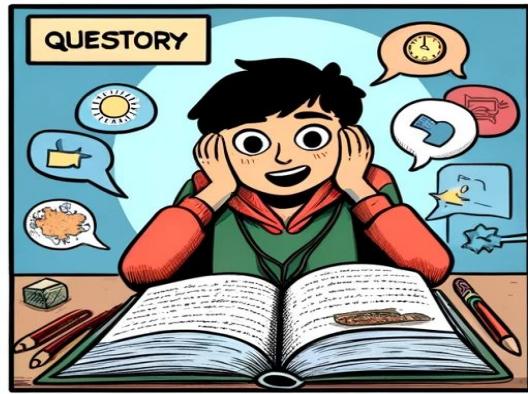
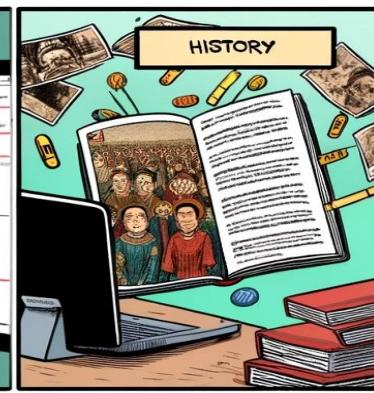
538

8K

26K

10M





A student has difficulty in reading History, uses ChatGPT to summarize paragraph of answer into few lines, input the scanned text book and ask what are the different questions can be asked in this, prepare study aids, flowcharts, mind map diagrams to remember date, place and facts



*"In the pages of history and the journey of evolution, lies the timeless lessons of life, the best education one can receive."*

So, let understand What is Large Language Model and how it evolves to here?



Searching for an information about  
**'Mr. Beast'**  
in a  
cooking book

### Challenges:

Limited to available data  
Chance of Success - Low (or) Minimal  
No Cognitive



Searching for an information about  
‘Does Afghanistan Cricket team exists  
when India won 1983 world cup’

### Challenges:

- |                   |                                     |
|-------------------|-------------------------------------|
| Analysis          | -> Extensive human effort           |
| Chance of Success | -> Low (or) Minimal                 |
| Cognizance        | -> Subject to available information |



## Search

1. 'Does Afghanistan Cricket team exists when India won 1983 world cup?'

If no result, search

'When Afghanistan Cricket team played first International match?'

Also, relate

What is the odd of South Africa team to win Cricket World cup...ever?

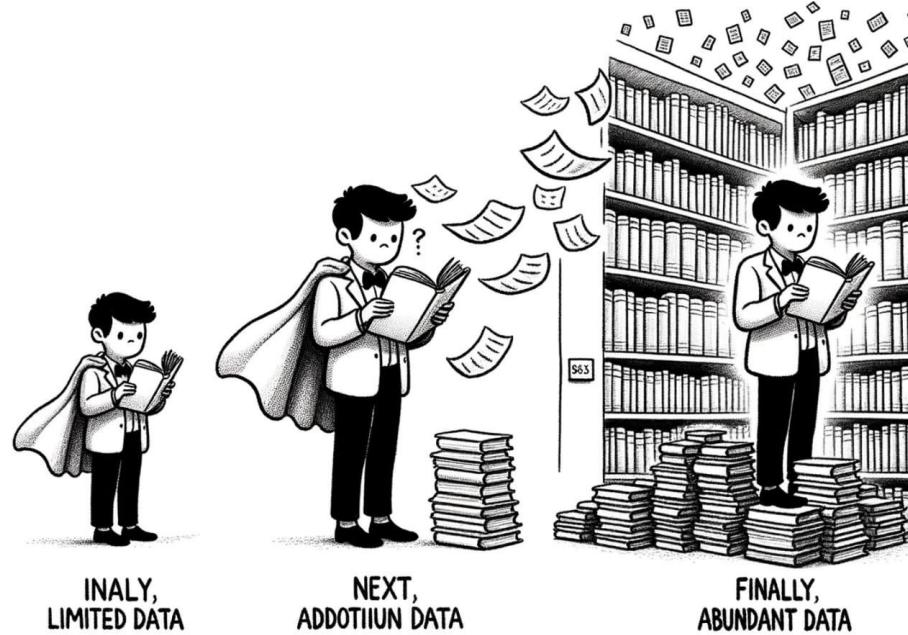
## Pros & Cons:

Analysis becomes easy

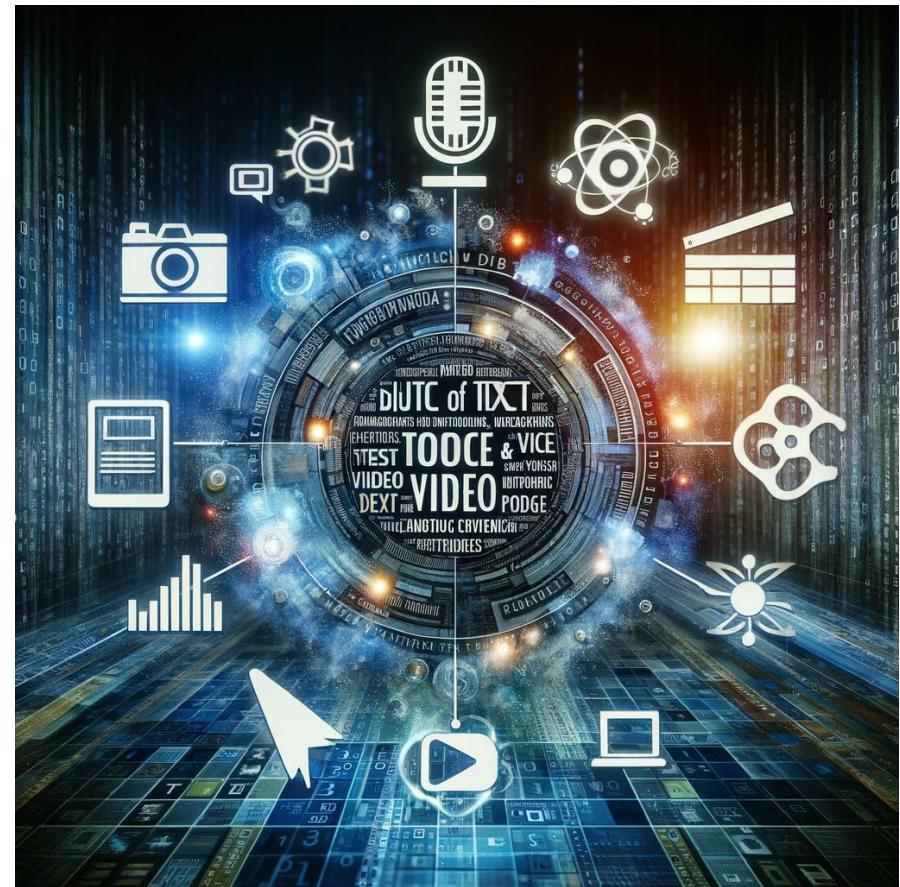
Chance of Success - Medium to High

Additional Cognizance become possible on top of Human Intelligence

So, what is the Evolution (or)  
Change here?



Amount of Data, makes the availability of  
Information, possible



How about creating a database with

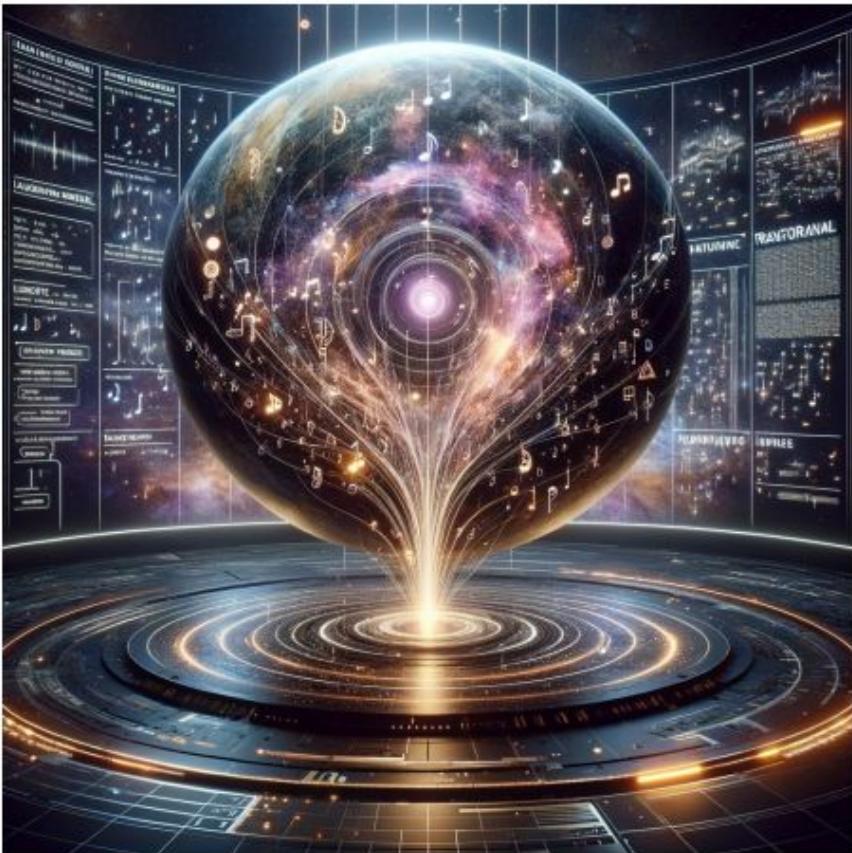
- All books
- All discussion forum
- All Research
- All text in the Internet
- All Images
- All Voices
- All Videos

with *Cognizance* and *Coherent* capability



Generative AI

## Generative AI



Generative AI refers to a **category of artificial intelligence** that can generate new content, often mimicking human-like creativity. This content can include **text, images, music, and even code**.

The AI systems behind generative AI are typically trained on **large datasets** and use sophisticated algorithms to create output that is similar in style or content to their training data.

# Large Language Models (LLM)

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**A Large Language Model (LLM)**, is a type of artificial intelligence (or) Generative AI model designed to understand, generate and sometimes translate human language. These models are "large" both in terms of the size of their neural network and the amount of data they have been trained on. Key characteristics include:

**Neural Network Architecture:** LLMs are typically built using a variant of the transformer architecture, which excels in handling sequential data like text.

**Training Data:** They are trained on vast datasets comprising text from books, articles, websites, and other written sources. This training enables them to understand and generate language in a way that is often contextually relevant and syntactically correct.

**Capabilities:** LLMs are capable of performing a variety of language-related tasks, such as text completion, question answering, text summarization, translation, and even creative writing. They can also assist in more specialized tasks like coding, data analysis, and educational tutoring.

**Challenges and Limitations:** While powerful, LLMs have limitations. They can sometimes generate incorrect or nonsensical responses, they may perpetuate biases present in their training data, and they lack true understanding or consciousness.

**Applications:** These models are used in a wide range of applications, from chatbots and virtual assistants to tools for writers, researchers, and software developers. Examples: Some well-known LLMs include OpenAI's GPT series (like this one, GPT-4), Google's BERT and T5, and Facebook's BART and RoBERTa.

# Large Language Model (LLM)



DALL-E

A Large Language Model (LLM) like me, ChatGPT, is a type of artificial intelligence model that's designed to understand, generate, and interact with human language. These models are "large" both in terms of the size of the neural network (the number of parameters) and the amount of data they've been trained on. Key characteristics of a Large Language Model include:

1. **Training Data:** LLMs are trained on vast amounts of text data. This data can include books, articles, websites, and other forms of written language. The model learns patterns, structures, and nuances of language from this data.
2. **Neural Network Architecture:** They are typically based on a transformer architecture, which is particularly effective at handling sequential data like text. The transformer model allows the LLM to pay attention to different parts of the input data and understand context.
3. **Language Understanding and Generation:** Once trained, an LLM can generate text, answer questions, summarize content, translate languages, and even perform tasks like writing code. It does this by predicting the next word in a sequence or generating responses based on the input it receives.
4. **Applications:** LLMs are used in various applications like chatbots, writing assistants, information retrieval systems, translation services, and more.
5. **Challenges and Limitations:** Despite their capabilities, LLMs have limitations. They can sometimes generate incorrect or biased information, struggle with understanding context or intent, and their outputs need to be carefully evaluated for accuracy and appropriateness.



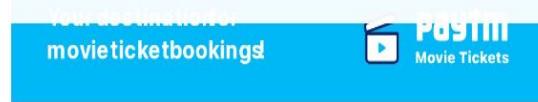
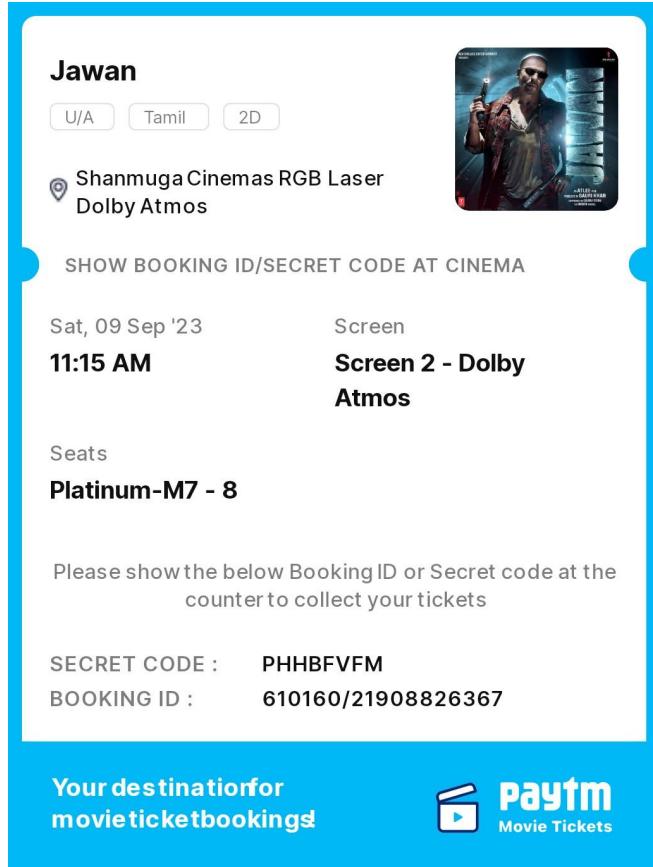
## MULTIMODAL CAPABILITIES

OF GPT MODELS



Multi Modal 1 - **TEXT**

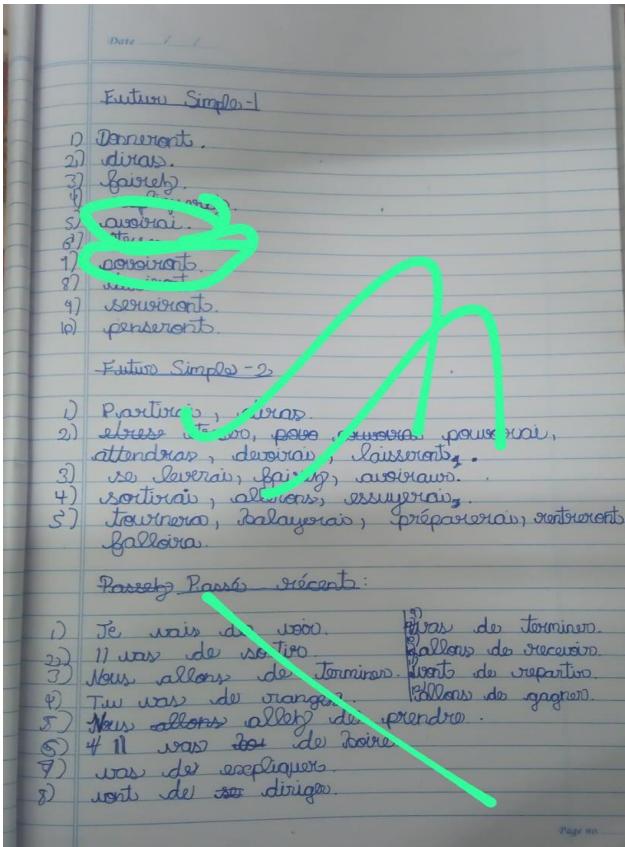
I have uploaded a movie ticket confirmation page in ChatGPT and asked to annotate.  
I can boldly say that none of the Named Entity Recognition tool (or) annotation tool is as perfect as this.



- **Movie Title:** Jawan
- **Language:** Tamil
- **Format:** 2D
- **Cinema:** Shanmuga Cinemas RGB Laser Dolby Atmos
- **Date & Time:** Sat, 09 Sep '23 at 11:15 AM
- **Screen:** Screen 2 - Dolby Atmos
- **Seat:** Platinum-M7 - 8
- **Instructions:** You're advised to show the Booking ID or Secret code at the cinema counter to collect your tickets.
- **Secret Code:** PHHBFVFM
- **Booking ID:** 610160/21908826367
- **Platform:** The ticket has been booked via Paytm Movie Tickets.

It seems like you've booked a ticket to watch the Tamil movie "Jawan" on the specified date and time. Always remember to arrive a bit early at the cinema and have the relevant codes or IDs ready for a smooth ticket collection process.

With a curiosity, I tried to understand what are the mistakes done by my son in his French homework...



ChatGPT

Alright, let's take a look at the circled conjugations from the image:

**1. Future Simple-1 Section:**

- "avoirai": The correct future simple form of "avoir" (to have) for the first person singular (je) is "aurai".
- "aurons": This looks correct for the future simple form of "avoir" for the first person plural (nous). However, without context, it's difficult to say why it might be considered incorrect.

**2. Future Simple-2 Section:**

- "Partirai": This seems correct for the future simple form of "partir" (to leave) for the first person singular (je).

Without additional context, it's a bit challenging to determine why some conjugations are considered incorrect. It's possible that there's a mismatch between the verb tense being studied and the provided conjugations, or perhaps there's an error in the base verb being used for the conjugation. It's also worth noting that handwriting can sometimes introduce ambiguity, which might lead to misunderstandings.

If you have more specific questions or need further clarification on any of these conjugations, please let me know!



Multi Modal 2 - **IMAGE**

# = ChatGPT 4



⋮



you

Chill evening weather walking in the Nehru street, shopping street in Pondicherry



CHATGPT



Here are the visual representations of Nehru street in Pondicherry during a tranquil evening. Please let me know if any of these resonate with your vision or if you want further adjustments



further



Brilliance of LLM in placing French style buildings and colors in the image even those details mentioned explicitly



I haven't mentioned the dressing style (or) South India jewel patterns but LLM understands just by the word PONDICHERRY



This is seriously next level....Vehicle that you could see only in PONDICHERRY or VILLUPURAM...TEMPO in the background



Qf Commucceion anchechine fe rapiene vimation  
for emmattore bireeduo ro uu abientatu eladpre,  
dctgmgancionl for hsfrep orante.

Multi Modal 3 - **VOICE**

# Woman loses Rs 1.4 lakh to AI voice scam: What is it and how not to become a victim

TIMESOFINDIA.COM / Updated: Nov 20, 2023, 10:28 IST



## AI songs that mimic popular artists raising alarms in the music industry

"I think artists should be more afraid," one producer says.

By [Nathan Smith](#), [Emily Lippiello](#), and [Ivan Pereira](#)

November 4, 2023, 12:14 AM



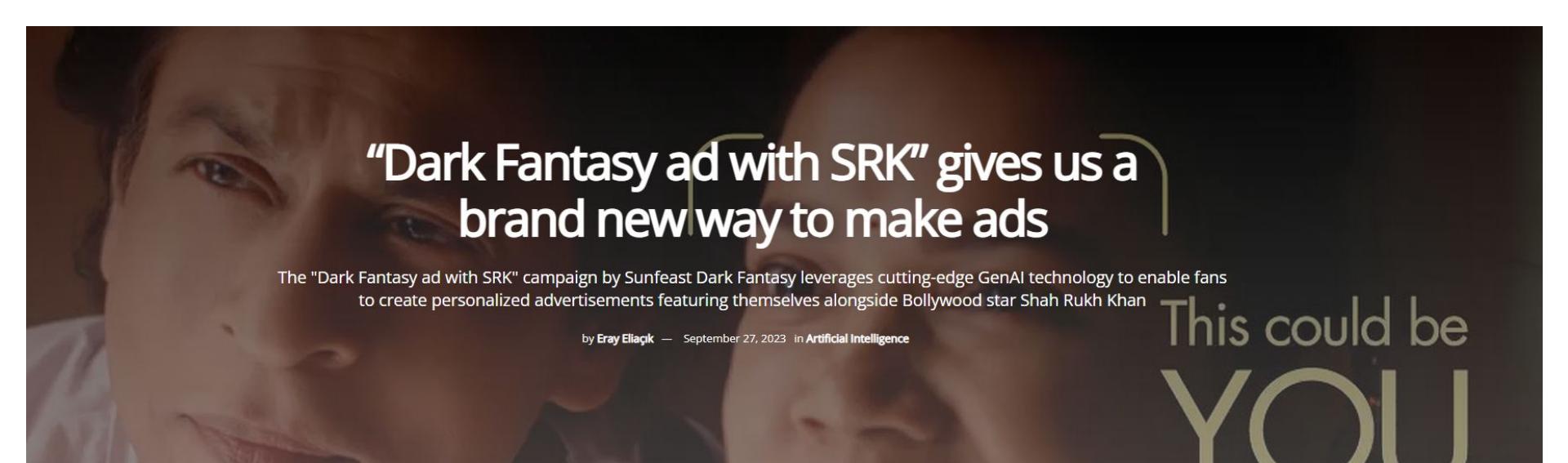
MUSIC

## Google's latest AI music tool creates tracks using famous singers' voice clones

NOVEMBER 17, 2023 · 5:01 AM ET



Multi Modal 4 - **VIDEO**



# "Dark Fantasy ad with SRK" gives us a brand new way to make ads

The "Dark Fantasy ad with SRK" campaign by Sunfeast Dark Fantasy leverages cutting-edge GenAI technology to enable fans to create personalized advertisements featuring themselves alongside Bollywood star Shah Rukh Khan

by Eray Eliaçık — September 27, 2023 in Artificial Intelligence

“<https://pika.art/login>”

On hearing the capabilities, think of Use Case that is possible in your domain

**Jawan movie ticket** -> Can you read the values from agreements/ forms to feed into UI by improving accuracy and turn around time?

**Answer sheet validation** -> Can you simulate your QA process from wireframe/ UI?

**Text/ Image Creation** -> Can you synthesize your test data generation to cover all possibilities of business scenarios?

**Voice cloning** -> Can you build a product to recognize your customer just with voice (or) product to prevent fraudulent attacks?

**Video generation** -> Does remote meetings/ trainings are still not native?

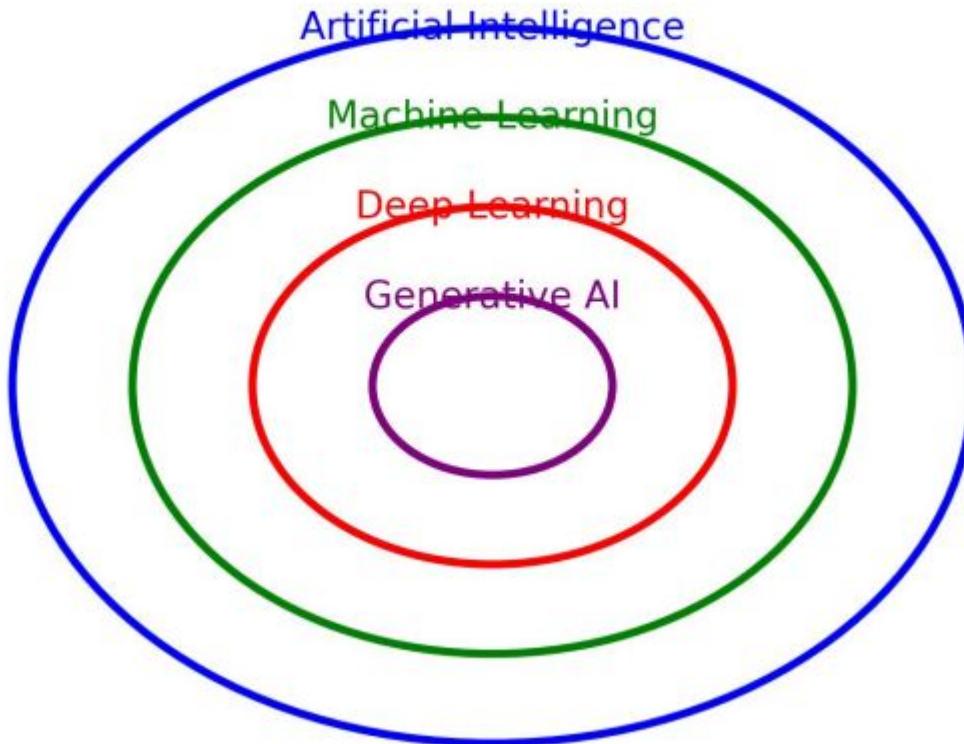
Artificial Intelligence (AI)  
Vs

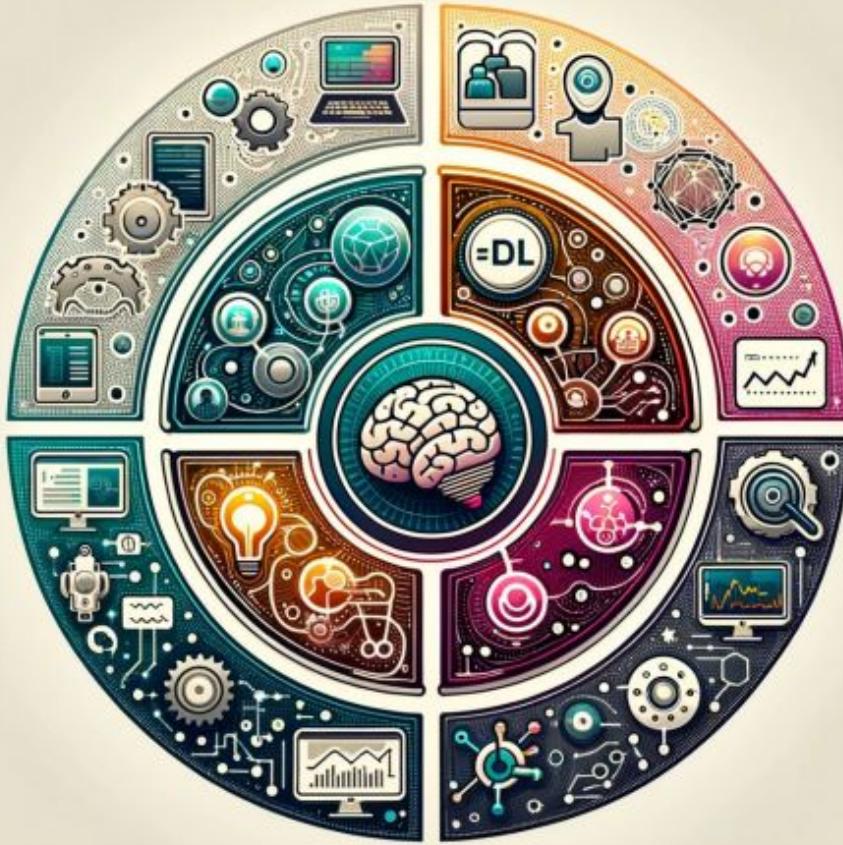
Machine Learning (ML)  
Vs

Deep Learning (DL)  
Vs

Generative AI (GenAI)

## Hierarchy of AI, ML, DL, and Generative AI





The hierarchy can be visualized as:

- AI (Largest Circle): All encompassing, covering any technique that enables computers to mimic human behavior.
- ML (Within AI): A type of AI that enables a system to learn from data rather than through explicit programming.
- DL (Within ML): A specialized ML technique dealing with deep neural networks.

ML is AI, not all AI is ML.

Similarly, all DL is ML, but not all ML is DL.

The progression from AI to ML to DL represents a move from broad, rule-based intelligent systems to more specific, data-driven learning systems, and then to even more refined, deep neural network-based learning.

Generative AI (GenAI)  
Vs

Large Language Model (LLM)  
Vs

GPT 4, BARD, Grok, Mistral ....

## Vehicles



## Vehicles



## Generative AI (Gen AI)



## Large Language Model (LLM)



GPT (3, 3.5, 4, 4 Turbo),  
BARD, Gemini,  
Claude  
Grok.....



A large, three-dimensional neon sign spelling out the word "Teaser". The letters are illuminated from within, casting a glow on the surrounding environment. The sign is set against a dark, textured brick wall. Above the sign, a series of vertical neon tubes in various colors (yellow, orange, red, blue, green) hang down, suspended by thin wires. The floor in front of the wall is a smooth, reflective surface.

Teaser

# Building Bloocks of LLM



# HAPPY LEARNING

