

Generative AI Explained by AI

TECHNOLOGY

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WHAT IS GENERATIVE AI?

VISUALLY EXPLAINED... BY GENERATIVE AI

Generative artificial intelligence (AI) has dominated headlines and earnings calls over recent months. With access to these technologies increasing day-by-day, we asked AI to help demonstrate the power and influence of this new tech trend.

This robot—and all the visuals in this infographic, including icons – were generated using AI software like MidJourney and DALL-E.



The text captions were also generated using AI (ChatGPT).

This image was created on MidJourney using the following text prompt: a robot head, portrait, no background, artificial intelligence, minimalist and white aesthetic, futuristic, digital, realistic, 4K



Generative AI is a type of artificial intelligence (AI) that uses machine learning algorithms to create new and original content like images, videos, text, and audio.

1 Forming a Database

A neural network, consisting of various information or media files like images, text, data, sounds, etc., forms the basis of artificial intelligence.



2 Inputting a Prompt

The user provides the AI with a description or sample of the desired content...



Prompts can be any user-submitted material, like words, numbers, or photos.



3 Generating Content

...and the AI uses its neural network to generate new examples that are similar to the ones it has trained from.



This image was created on MidJourney using the following text prompt: a technical illustration of a woman sitting behind a desktop computer on a long table, isometric view, 3D rendering, realistic, 4k

Examples of Generative AI Technology



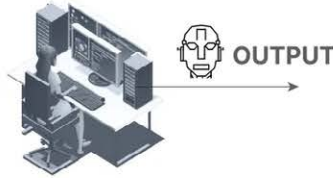
ChatGPT
text generation AI



INPUT PROMPTS



"Write a limerick about data taking over the world. Include the word: egg"



"Data taking over the world, it's true
It's growing like an egg that's due
It's everywhere we go
It's taking over slow
But it's the future, there's nothing we can do."

Real-Life Applications of this Platform
• communications, journalism, publishing, creative writing, writing assistance



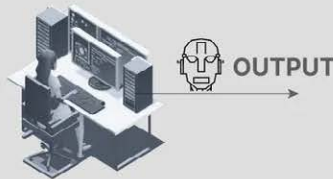
Midjourney
image generation AI



INPUT PROMPTS



• a rabbit wearing a sunhat
• Santa Claus in a blue outfit
• a watercolor of a red icycle in front of a waterfall



Real-Life Applications of this Platform
• advertisements, published illustrations, corporate visuals, novel image generation



Codex
computer coding generation AI



INPUT PROMPTS



"Write script to change a website's background color in Python"



Here's an example script that uses the 'requests' and 'BeautifulSoup' libraries in Python to change the background color of a website:

```
import requests  
from bs4 import BeautifulSoup  
  
# send a GET request to the website  
response = requests.get("https://yourwebsite.com")  
  
# parse the HTML content  
soup = BeautifulSoup(response.content, 'html.parser')  
  
# locate the element you want to change the background color of  
element = soup.find('body')  
  
# add a new style attribute to the element  
element['style'] = 'background-color: pink;'  
  
# print the modified HTML  
print(soup.prettify())
```

Real-Life Applications of this Platform
• web design, software development, coding/scripting, technology

As its name implies, generative artificial intelligence (AI) is capable of “generating” new and original content like text, audio, images, and videos.

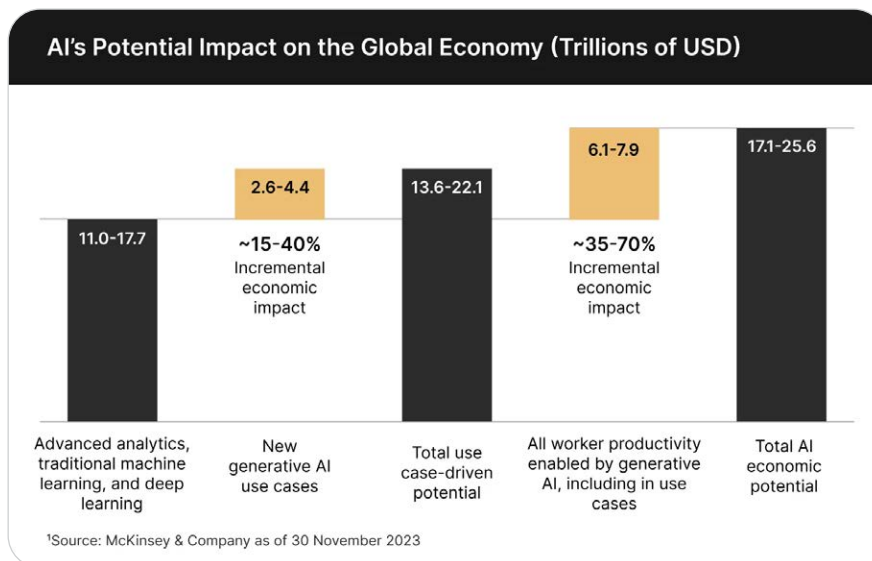
Generative AI is underpinned by machine learning, a process by which computers “learn” through analyzing vast quantities of data, autonomously recognizing patterns without external human input.

Generative AI is now capable of performing a wide set of tasks ranging from:

- Image Processing and Creation
- Natural Language Processing
- Speech Recognition
- Coding

With countless use cases, generative AI has the potential to revolutionize the economy and the many ways in which the world works.

Labor productivity gains from generative AI are expected to deliver at least \$6.1 trillion in incremental value to the global economy annually, according to economic and consultancy estimates.¹

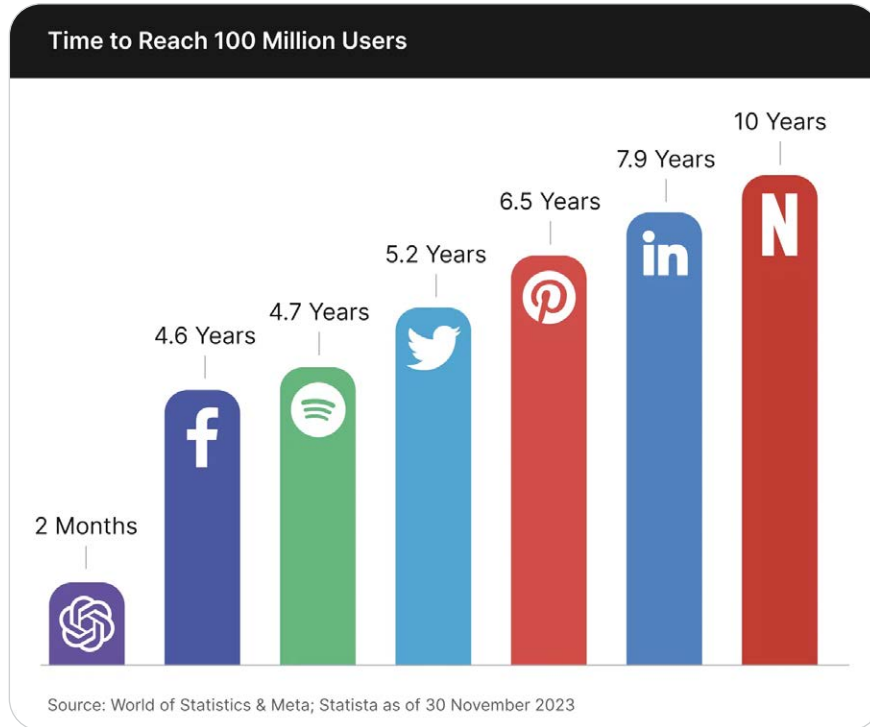


Digital Disruption

ChatGPT, GPT-3, DALL-E, Stable Diffusion, and other generative AI products have taken the world by storm.

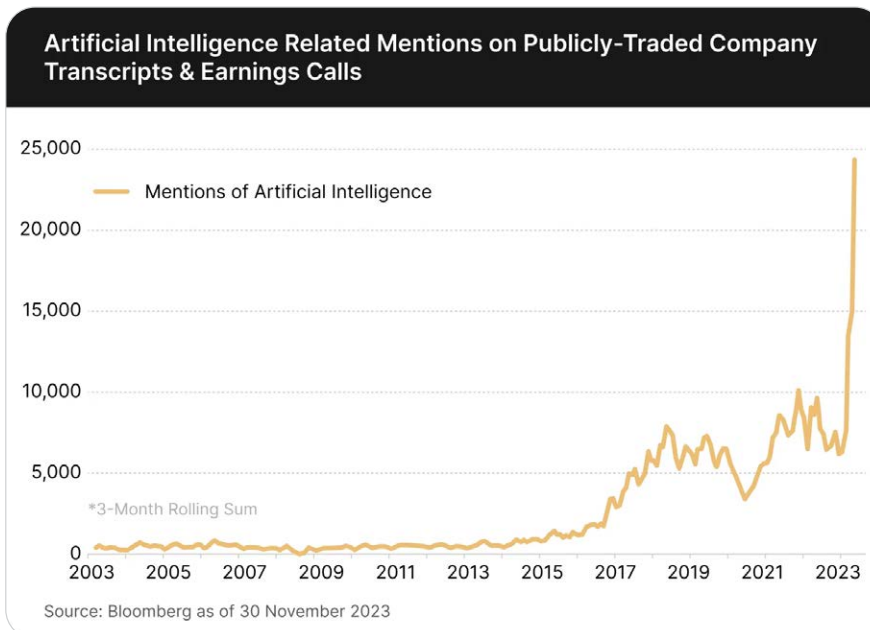
ChatGPT, arguably the most recognizable and popular platform amongst generative AI providers, is a chatbot that produces content based on user input.

Since its launch in 2022, ChatGPT reached its first milestones of 1 million users in just five days and 100 million monthly users in only two months.



Capture the Chatter

Artificial intelligence (AI) continues to revolutionize industry; 177 companies within the S&P 500 cited “AI” during their last quarterly earnings call.



Our **Generative Artificial Intelligence ETF (WISE)** seeks to track the Solactive Generative Artificial Intelligence Index (SOLGAIN), which identifies **40 companies that derive their revenues from either:**

- **Artificial Intelligence**
- **Data Analytics & Big Data**
- **Natural Language Processing**
- **Artificial Intelligence-Driven Services**

WISE seeks to provide investment results that correspond generally to the price and yield performance, before fees and expenses, of the SOLGAIN Index.

ALPS Distributors, Inc (1290 Broadway, Suite 1000, Denver, Colorado 80203) is the distributor for the Themes ETFs Trust.

Investing involves risk, including the possible loss of principal. The investable universe of companies in which WISE may invest may be limited. The Fund invests in securities of companies engaged in Information Technology, which can be affected by rapid product obsolescence and intense industry competition. International investments may involve risk of capital loss from unfavorable fluctuation in currency values, from differences in generally accepted accounting principles or from social, economic or political instability in other nations. WISE is non-diversified.

Shares of ETFs are bought and sold at market price (not NAV) and are not individually redeemed from the Fund. Brokerage commissions will reduce returns. The market price returns are based on the official closing price of an ETF share or, if the official closing price isn't available, the midpoint between the national best bid and national best offer ("NBBO") as of the time the ETF calculates current NAV per share, and do not represent the returns you would receive if you traded shares at other times. NAVs are calculated using prices as of 4:00 PM Eastern Time. Indices are unmanaged and do not include the effect of fees, expenses, or sales charges. One cannot invest directly in an index.

Carefully consider the funds' investment objectives, risk factors, charges, and expenses before investing. This and additional information can be found in the funds' summary or full prospectus, which may be obtained by calling 1-866-5Themes (1-866-584-3637) or by visiting themesetfs.com. Please read the prospectus carefully before investing.

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