



Goldman Sachs Global Investment Research

OpenAl publicly debuts ChatGPT-3.5, a breakthrough generative AI tool that can generate long-form human-like responses based on text inputs. ChatGPT surpasses one million users in five days.

February 2023 Google rushes to announce its generative Al tool, Bard, a day before Microsoft announces its own AI chatbot, Bing Chat,

January 2023 Microsoft announces substantial multi-vear investment in OpenAI.

March 2023

OpenAl releases ChatGPT-4.0. which includes significant improvements in reliability, creativity, and problem-solving.

March 2023

Salesforce debuts Einstein GPT, a new Al model for CRM clients.

05/2023

June 2023 OpenAI is sued after

June 2023 Nvidia reaches \$1tn market value as its stock increases sharply on Aldriven optimism.

September 2023

OpenAl announces DALL-E3, an advanced version of its Al image generator, capable of creating more detailed images.

09/2023

August 2023

day to run.

Concerns about OpenAl's

financial stability arise after a

costs the company \$700k per

report shows that ChatGPT

October 2023

A study published in cancers journal suggests that AI can be used to assist in the early diagnosis of lung cancer.

November 2023

Microsoft upgrades its Al chatbot and rebrands it to Microsoft Copilot.

February 2024

abilities.

01/2024

GitHub announces Copilot

Enterprise, a version of its

enhanced customization

Al-coding tool that includes

03/2024

May 2024

OpenAI introduces GPT-4o, which is capable of more complex real-time interaction across text, audio. image, and video inputs.



June 2024 June 2024

05/2024

the S&P 500 before correcting toward the end of



Nvidia surpasses Apple will reportedly \$3tn market partner with OpenAI to value, briefly integrate ChatGPT becoming the into iPhone operating

07/2024

largest stock in systems. the month.

11/2022

February 2023

Google's AI chatbot, Bard, provides an incorrect response to a question in its first public demo. Google-parent Alphabet's shares tumble in response.

01/2023

March-April 2023

Meta launches Llama, a large

language model which set new

benchmarks in the AI industry.

03/2023

ChatGPT is briefly banned in Italy due to concerns about data privacy.

February 2023 Google's senior vice president, Prabhakar Raghavan, warns that ChatGPT could provide "completely fictitious" answers to questions.

embezzlement claims.

ChatGPT hallucinates

July 2023 FTC launches an investigation into ChatGPT to determine if it has caused harm by providing users with incorrect information.

07/2023

December 2023

11/2023

Microsoft's Al image generator receives criticism for generating violent images, including of President Biden.



December 2023

Google introduces a new AI

model. Gemini. which will

power a broad range of

products and services.

February 2024

Google's chatbot Gemini is criticized after it generates racially inaccurate and insensitive historical images.



June 2024 McDonald's

removes Alassisted ordering from its drivethrus after numerous order errors.



June 2024 Nvidia's stock slides and the company loses its status as the largest stock in

the S&P 500.



May 2024

April 2024

Meta's stock falls

company announces

a multi-billion-dollar

Al investment plan.

sharply after the

Salesforce reduces its revenue outlook in its earnings report, sparking concerns that AI isn't providing as much of a revenue tailwind as expected.

...and disappointments

Note: This does not constitute an exhaustive list of all Al-related developments. Source: BBC, cancers, OpenAI, tech.co, Google, various news sources, compiled by Goldman Sachs GIR.