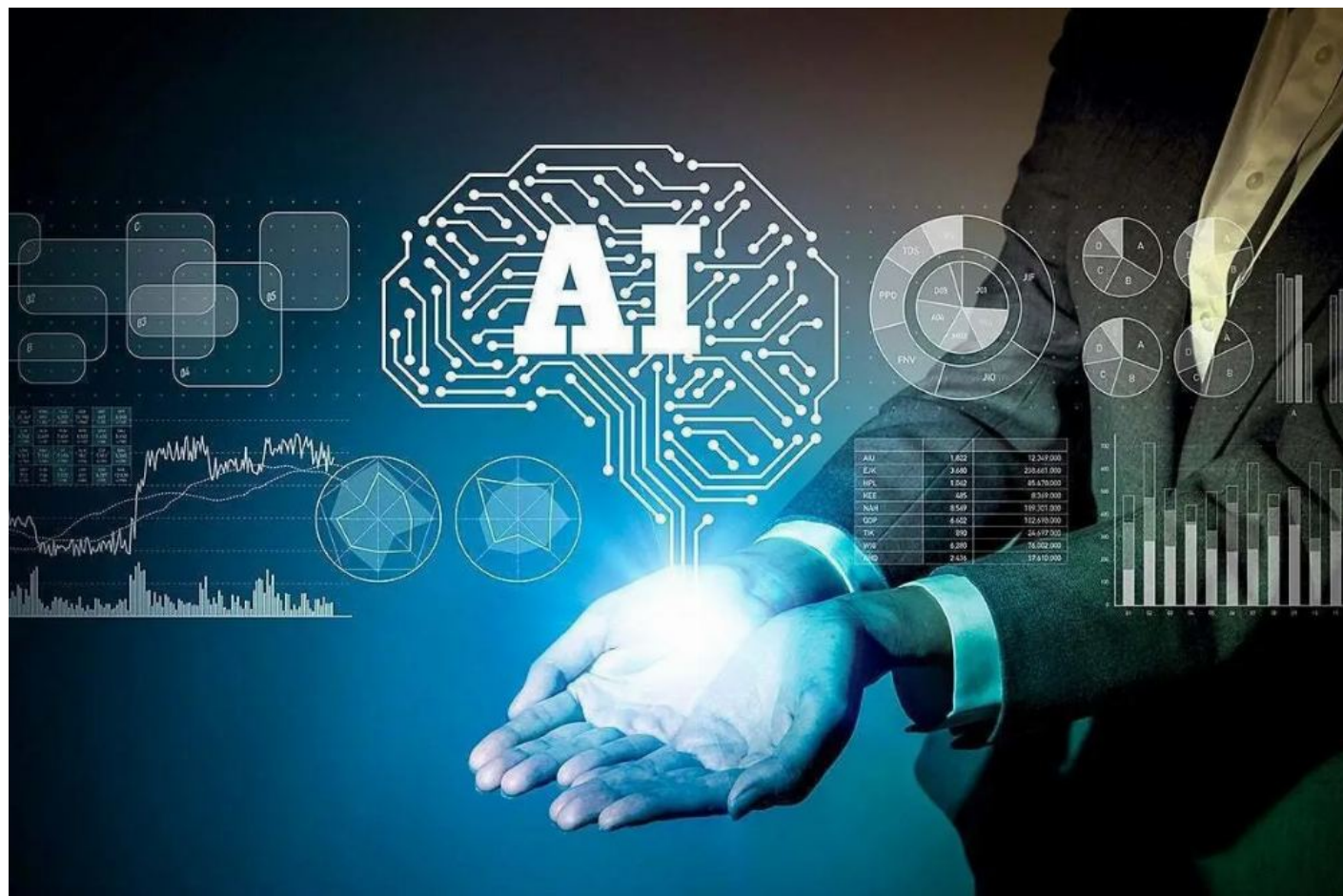


Is Google Gemini Better than ChatGPT?

December 8, 2023 • vajiramandravi.com



What's in Today's Article?

- Why in the News?
- About Artificial Intelligence
- What is ChatGPT?
- About Google's Gemini

Why in the News?

- Google has surprised the world with the launch of Gemini, which it claims to be its largest and most capable Artificial Intelligence model.

About Artificial Intelligence

- Artificial intelligence (AI) is the ability of a computer or a robot controlled by a computer to do tasks that are usually done by humans because they require human intelligence and discernment.
- The term is frequently applied to the project of developing systems endowed with the intellectual processes characteristic of humans, such as the ability to reason, discover meaning, generalize, or learn from past experience.
- AI algorithms are trained using large datasets so that they can identify patterns, make predictions and recommend actions, much like a human would, just faster and better.

What is ChatGPT?

- OpenAI is the artificial intelligence research company which developed ChatGPT.
- ChatGPT is an AI chatbot that uses natural language processing to create humanlike conversational dialogue.
- The language model can respond to questions and compose various written content, including articles, social media posts, essays, code and emails.
- ChatGPT is a form of generative AI — a tool that lets users enter prompts to receive humanlike images, text or videos that are created by AI.
- The GPT stands for “Generative Pre-trained Transformer,” which refers to how ChatGPT processes requests and formulates responses.
- ChatGPT is trained with reinforcement learning through human feedback and reward models that rank the best responses.
 - This feedback helps augment ChatGPT with machine learning to improve future responses.
- Apart from ChatGPT, other famous examples of AI algorithms (known as AI Chatbots) are Google’s Bard, Microsoft’s Bing Chat, etc.

About Google’s Gemini

- Google has surprised the world with the launch of Gemini, which it claims to be its largest and most capable Artificial Intelligence model.
- Google has unveiled Gemini in three models Ultra, Pro, and Nano.
- Google has shared a sheet comparing key metrics where Gemini overshadowed GPT-4 (ChatGPT’s most powerful model to date).
- Features of Google’s Gemini:
 - Gemini is Google’s family of highly capable multimodal models.
 - On the other hand, Generative Pre-trained Transformer – 4 (GPT-4) is a multimodal large language model from OpenAI which was launched in March this year.
 - Reportedly, Gemini Ultra has accomplished state-of-the-art benchmarking, which is essentially the practice of evaluating the efficiency and performance of a new model.
 - The ultra-version has been designed for data centres and is still under red-teaming safety review and will be available sometime in early 2024 and reportedly on a new version of Bard.
- Multimodal mastery and super-fast:
 - Gemini can recognise images and speak in real-time. It is reportedly five times stronger than GPT-4.

- The faster processing essentially means Gemini is capable of tackling complex tasks with relative ease.
 - It is also the first AI model to outperform human experts on the MMLU benchmark with a 90 per cent score.
 - MMLU stands for Massive Multitask Language Understanding, and is a test that covers 57 subjects across humanities, STEM, Social Sciences, etc.
 - Next-generation capabilities and real-time learning:
 - Gemini is reportedly trained on massive datasets of text and code.
 - This ensures that the AI model has the latest information and can reportedly offer accurate and highly reliable answers to queries and prompts.
 - The data sets that Gemini is trained on contain data from web documents, codes, books, and a wide array of audio, video, and image data.
 - Unlike GPT-4, Google's Gemini is said to be constantly learning and improving.
 - Upper hand in scientific research:
 - Gemini is capable of analysing vast amounts of data and can recognise patterns and trends.
 - Reportedly, the model can also generate hypotheses for further research.
 - AI experts feel this could revolutionise scientific discovery and may lead to breakthroughs in domains such as technology, medicine, and more.
 - Gemini Pro outperforms GPT-3.5:
 - Gemini Pro will be integrated into Google's chatbot Bard and across Google Apps, making it accessible to millions of users, and it will be free.
 - On the other hand, ChatGPT's free version offers only GPT-3.5.
 - In six out of eight benchmarks, the Pro version surpassed GPT-3.5.
 - This makes it the most powerful free AI chatbot in the world. With access to millions and multimodal capabilities, Gemini Pro, in all likelihood, will overtake ChatGPT.
 - Gemini Ultra outperforms GPT-4:
 - As mentioned above, Gemini Ultra is the most powerful model in the Gemini family.
 - It is the first time in a year that an AI model has managed to outdo GPT-4.
 - Gemini Ultra managed to achieve a SOTA in 30 out of 32 popular academic benchmarks.
 - When it came to reasoning, Gemini Ultra performed marginally better than GPT-4 in Big-bench Hard, DROP, and HellaSwag benchmarks.
 - In Math, Ultra outperformed GPT-4 in GSM8K and MATH benchmarks.
 - The model also leapt ahead of GPT-4 when it came to Python code generation.
-

Q1) What is ethical and unethical hacking of computer?

While hacking is illegal, ethical hacking is a legal method of breaching a security system to detect potential security threats. Ethical hackers look at systems to see if there are any flaws that cybercriminals could take advantage of.

Q2) What is meant by the internet of things?

The Internet of Things (IoT) describes the network of physical objects—“things”—that are embedded with sensors, software, and other technologies for the purpose of connecting and exchanging data with other devices and systems over the internet.

Source: [Is Google Gemini better than GPT-4? 6 reasons why it may outperform OpenAI's GPT series](#)

Source: <https://vajiramandravi.com/current-affairs/google-gemini-chatgpt/>

© Vajiram & Ravi. For personal use only.