

What is GPT-4 ?

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In news– AI powerhouse **OpenAI** has recently announced **GPT-4**, the next big update to the technology that powers ChatGPT and Microsoft Bing, the search engine using the tech.

About GPT-4-

- **GPT-4 is a large multimodal model created by OpenAI** and announced on March 14, 2023.
- **GPT-4 is supposedly bigger, faster, and more accurate than ChatGPT**, so much so, that **it even clears several top examinations with flying colours, like the Uniform Bar Exam** for those wanting to practice as lawyers in the US.
- The company has made the language model's powers known in its announcement blog for the same, saying that it is more creative and collaborative than ever before.
- Where **GPT-3.5-powered ChatGPT only accepted text inputs, GPT-4 can also use images to generate captions and analyses.**
- GPT-3 and GPT-3.5 only operated in one modality, text, meaning users could only ask questions by typing them out.
- Aside from the fresh ability to process images, OpenAI says that **GPT-4 also “exhibits human-level performance on various professional and academic benchmarks.”**
- The language model can pass a simulated bar exam with a score around the top 10 per cent of test takers and can solve difficult problems with greater accuracy thanks to its broader general knowledge and problem-solving abilities.
- For example, it can answer tax-related questions, schedule a meeting among three busy people, or learn a user's creative writing style.
- GPT-4 is also **capable of handling over 25,000 words of**

text, opening up a greater number of use cases that now also include long-form content creation, document search and analysis, and extended conversations.

Difference between GPT-4 and GPT-3-

GPT-4 can 'see' images now:

- The most noticeable change to GPT-4 is that it's multimodal, allowing it to understand more than one modality of information.
- GPT-3 and ChatGPT's GPT-3.5 were limited to textual input and output, meaning they could only read and write.
- However, GPT-4 can be fed images and asked to output information accordingly.
- If this reminds you of Google Lens, then that's understandable. But **Lens only searches for information related to an image.**
- GPT-4 is a lot more advanced in that it understands an image and analyses it.

GPT-4 is harder to trick:

- One of the biggest drawbacks of generative models like ChatGPT and Bing is their propensity to occasionally go off the rails, generating prompts that raise eyebrows, or worse, downright alarm people. They can also get facts mixed up and produce misinformation.
- OpenAI says that it spent 6 months training GPT-4 using lessons from its "adversarial testing program" as well as ChatGPT, resulting in the company's best-ever results on factuality, steerability, and refusing to go outside of guardrails.

GPT-4 can process a lot more information at a time:

- **Large Language Models (LLMs)** may have been trained on billions of parameters, which means **countless amounts of**

data, but there are limits to how much information they can process in a conversation.

- **ChatGPT's GPT-3.5 model could handle 4,096 tokens or around 8,000 words** but GPT-4 pumps those numbers up to 32,768 tokens or around 64,000 words.
- This increase means that where ChatGPT could process 8,000 words at a time before it started to lose track of things, GPT-4 can maintain its integrity over way lengthier conversations.
- **It can also process lengthy documents and generate long-form content** – something that was a lot more limited on GPT-3.5.

GPT-4 has an improved accuracy:

- OpenAI admits that GPT-4 has similar limitations as previous versions – it's still not fully reliable and makes reasoning errors.
- However, GPT-4 significantly **reduces hallucinations relative to previous models** and scores 40 per cent higher than GPT-3.5 on factuality evaluations.
- It will be a lot harder to trick GPT-4 into producing undesirable outputs such as hate speech and misinformation.

GPT-4 is better at understanding languages that are not English:

- Machine learning data is mostly in English, as is most of the information on the internet today, so training LLMs in other languages can be challenging.
- But **GPT-4 is more multilingual** and OpenAI has demonstrated that it outperforms GPT-3.5 and other LLMs by accurately answering thousands of multiple-choice across 26 languages.
- It obviously handles English best with an 85.5 per cent accuracy, but Indian languages like Telugu aren't too far behind either, at 71.4 per cent. What this means is

that users will be able to use chatbots based on GPT-4 to produce outputs with greater clarity and higher accuracy in their native languages.

Further reading:
<https://journalsofindia.com/chatgpt-vs-googles-bard/>