

Generative Artificial Intelligence (GenAI)

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Why in the News?

- The Central government issued an advisory to all intermediaries and generative AI platforms using **artificial intelligence (AI)** models, software or algorithms.
- As per the advisory, all the above-mentioned entities to seek permission from the government and label their platforms as "under testing" before making them available to the public.

About Generative Artificial Intelligence

- Generative AI refers to deep-learning models that can take raw data and “learn” to generate statistically probable outputs when prompted.
- Generative AI is powered by foundation models (large AI models) that can multi-task and perform out-of-the-box tasks, including summarization, Q&A, classification, and more.
- With minimal training required, foundation models can be adapted for targeted use cases with very little example data.

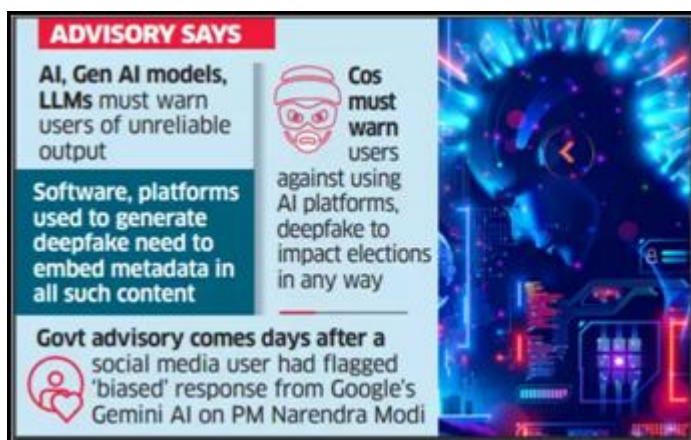
How Does Generative AI Work?

- Generative AI works by using a Machine Learning model to learn the patterns and relationships in a dataset of human-created content.
- It then uses the learned patterns to generate new content.
- The most common way to train a generative AI model is to use supervised learning – the model is given a set of human-created content and corresponding labels.
- It then learns to generate content that is similar to the human-created content and labeled with the same labels.

Common Generative AI Applications

- Generative AI processes vast content, creating insights and answers via text, images, and user-friendly formats. Generative AI can be used to:
 - Improve customer interactions through enhanced chat and search experiences,
 - Explore vast amounts of unstructured data through conversational interfaces and summarizations,
 - Assist with repetitive tasks like replying to requests for proposals, localizing marketing content in five languages, and checking customer contracts for compliance, and more.

News Summary



- All artificial intelligence (AI) models, large-language models (LLMs), software using generative AI or any algorithms that are currently being tested, must seek “explicit permission of the government of India” before being deployed for users on the Indian internet.

- The Ministry of Electronics and Information Technology (MeitY) issued a late-night advisory on March 1, a first-of-its-kind globally.
- It asked all platforms to ensure that their computer resources do not permit any bias or discrimination or threaten the integrity of the electoral process by the use of AI, generative AI, LLMs or any such other algorithm.
- The government advisory comes days after a social media post on X claimed that Google's AI model Gemini was biased when asked if Prime Minister Narendra Modi was a "fascist".
- The user claimed that Google's AI GPT model Gemini was "downright malicious" for giving responses to questions which sought to know whether some prominent global leaders were "fascist".
- Google later said it was working to fix the issues and was temporarily stopping Gemini from generating images as well.

Role/Influence of GenAI on Elections in 2024

- 2024 will see high-stakes elections in over 50 countries, including India, the US, the UK, Indonesia, Russia, Taiwan, and South Africa.
 - Like in previous elections, one of the biggest challenges voters will face will be the prevalence of fake news, especially as AI technology makes it easier to create and disseminate.
 - The World Economic Forum 2024 Global Risk Report ranked AI-derived misinformation and its potential for societal polarization as one of its top 10 risks over the next two years.
 - People with very little technical expertise are capable of using generative AI tools to disseminate fake text, images, videos, and audio across a large digital base in multiple different languages.
 - In addition to spreading propaganda using a small data set, AI is capable of creating deep-fakes and generating voice-cloned audio, presenting significant challenges for governments and organisations across the world.
 - Through its mastery of language, AI can form intimate relationships with people, using that intimacy to personalize messages and influence worldviews.
 - In India, AI is also being used by politicians to reach out to more people, especially in rural areas.
 - For example, a real-time AI-powered tool was used to translate Prime Minister Narendra Modi's speech from Hindi to Tamil during an event in Uttar Pradesh in December 2023.
 - As with any new technology, there is a question of how AI can be used and misused.
 - Many respond to the prospect with alarm, while others see its potential as a positive force.
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Q1) What is LLM in simple terms?

A large language model (LLM) is a type of artificial intelligence (AI) program that can recognize and generate text, among other tasks. LLMs are trained on huge sets of data — hence the name "large." LLMs are built on machine learning: specifically, a type of neural network called a transformer model.

Q2) What do you mean by Machine Learning?

Machine learning is a branch of artificial intelligence (AI) and computer science which focuses on the use of data and algorithms to imitate the way that humans learn, gradually improving its accuracy.

Source: [Govt nod, user consent must for GenAI models](#) | [IE](#)

Source: <https://vajiramandravi.com/current-affairs/gen-ai/>

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