

# Generative AI

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**In news**– In the wake of newly released models such as Stable Diffusion and ChatGPT, generative AI has become a ‘hot topic’ for technologists, investors, policymakers and for society at large.

## **What is generative AI?**

- Generative AI is a cutting-edge technological advancement that utilises machine learning and artificial intelligence to create new forms of media, such as text, audio, video, and animation.
- Generative AI is not a new concept, and machine-learning techniques behind generative AI have evolved over the past decade.
- Deep learning and General Adversarial Network (GAN) approaches have typically been used, but the latest approach is transformers.
- **A Generative Pretrained Transformer (GPT) is a type of large language model (LLM)** that uses deep learning to generate human-like text.
- **They are called “generative” because they can generate new text based on the input they receive, “pretrained”** because they are trained on a large corpus of text data before being fine-tuned for specific tasks, and **“transformers”** because they use a transformer based neural network architecture to process input text and generate output text.
- **Generative AI stretches beyond typical natural language processing tasks such as language translation, text summarization** and text generation.
- OpenAI’s latest release ChatGPT, which caused a viral sensation and reached a million users in just **Beyond the creative space, generative AI models hold transformative capabilities in complex sciences** such as computer engineering.

- For example, Microsoft-owned GitHub Copilot, which is based on OpenAI's Codex model, suggests code and assists developers in autocompleting their programming tasks.
- The system has been quoted as autocompleting up to 40% of developers' code, considerably augmenting the workflow.
- Generative AI works by training a model on a large dataset and then using that model to generate new, previously unseen content that is similar to the training data.
- This can be done through techniques such as neural machine translation, image generation, and music generation.
- It has the potential to revolutionize many industries by automating the creation of content and enabling the generation of new ideas and concepts.
- **Generative AI can craft sales, marketing, and brand messaging.** Agencies can generate personalised social media posts, blogs, and marketing text and video copies by providing a text prompt to a **Generative AI service, like ChatGPT.**
- In addition, the service can quickly iterate different text by simply tweaking the prompt to effectively communicate with the audience.
- **DALL.E, a generative image generation service, can also generate original imagery to align with the branding.**
- Many startups are exploring services like DALL.E2, Bing Image Create, Stable Diffusion, and MidJourney to create their brand logo and to align the same with Generative AI text messaging. Instoried is using Generative AI for marketers to become better copywriters.
- However, it also raises ethical concerns about the potential for biased or inaccurate content to be generated and disseminated.