Generative artificial intelligence

Generative artificial intelligence or **generative AI** is a type of artificial intelligence (AI) system capable of generating text, images, or other media in response to prompts.[1][2] Generative AI models learn the patterns and structure of their input training data, and then generate new data that has similar characteristics.[3][4]

Notable generative AI systems include ChatGPT (and its variant Bing Chat), a chatbot built by OpenAI using their GPT-3 and GPT-4 foundational large language models,[5] and Bard, a chatbot built by Google using their LaMDA foundation model.[6] Other generative AI models include artificial intelligence art systems such as Stable Diffusion, Midjourney, and DALL-E.[7]

Generative AI has potential applications across a wide range of industries, including art, writing, software development, product design, healthcare, finance, gaming, marketing, and fashion.[8][9][10] Investment in generative AI surged during the early 2020s, with large companies such as Microsoft, Google, and Baidu as well as numerous smaller firms developing generative AI models.[1][11][12] However, there are also concerns about the potential misuse of generative AI, such as in creating fake news or deepfakes, which can be used to deceive or manipulate people.[13]