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Recent Developments in Artificial Intelligence

Artificial intelligence has gone through multiple developments since 2020. AI has made significant strides in scientific research, autonomous agents, and real-time problem-solving applications. One of the biggest developments in scientific research was Google DeepMind's AlphaFold. This AI model can determine the structure of a protein pretty accurately within a few seconds or minutes. In 2024, three scientists who discovered powerful techniques to decode and even design novel proteins — the building blocks of life — were awarded the Nobel Prize [1], and AlphaFold was a key piece for them to win the award.

In November 2022, the most popular AI model at present was launched, called ChatGPT. ChatGPT is an AI-powered conversational model developed by OpenAI, and is designed to understand and generate human-like text. By January 2023, ChatGPT became the fastest service to reach 100 million monthly active users (within 2 months) [2]. After the successful launch of ChatGPT, other companies followed and several AI models, similar to ChatGPT launched. These models represent a significant leap in AI capabilities, enabling more comprehensive and versatile applications [3].

In 2024, there was an evolution from conversational AI to functional AI, unlocking potential in industries like customer service, finance, and e-commerce. The AI model Agent AI revolutionized automation by allowing systems to execute tasks on their own. Unlike simple chatbots, these AIs could make decisions, execute online tasks, and work through problems step by step [4].

Over the past two years, Artificial Intelligence has become an integral part of entertainment and social media, introducing various features that people enjoy. Some of these include voice cloning, text-to-image/video conversion, and animating pictures to make them appear as videos. While these technologies have been widely used on social media, they have not always been utilized in positive ways. As AI continues to evolve, the world looks forward to seeing how it reshapes society, offering unprecedented opportunities while also presenting new challenges. Its future will ultimately depend on how we choose to develop and integrate it responsibly.

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