

# Understanding the rapid rise of AI

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For years, artificial intelligence (AI) was a concept confined to the realms of science fiction. However, what was once centre stage in fantasy is fast becoming reality. AI has experienced rapid growth, particularly since the development of generative AI which allows vast datasets to be processed in order to create new outputs.

While AI has been steadily transforming the world we live in for a number of years, with applications including robotic surgery, personalised shopping, and software for self-driving vehicles to name but a few, it has been a particularly hot topic since OpenAI's ChatGPT-3 large language model was unveiled in late 2022. Indeed, Google Trends data show that worldwide search interest in AI has more than doubled in the last year, and it was crowned Collins Dictionary's 2023 Word of the Year.

## What is AI?

While there is no single, universally accepted definition, at its core, AI refers to the development of computer systems capable of performing tasks that typically require human intelligence. These tasks encompass a broad range, from problem-solving and learning to language comprehension and visual perception.

The most popular instance of 'generative AI' is ChatGPT, a language model developed by OpenAI. GPT stands for "Generative Pre-trained Transformer," and is a type of AI that has been trained on diverse datasets containing parts of the internet, books, articles, and more. The "pre-trained" aspect means that the model has already learned from a vast amount of data before being fine-tuned or used for specific tasks.

ChatGPT, as the name suggests, is designed for natural language understanding and generation, particularly in a conversational context. It can generate human-like responses to text prompts and has the ability to understand and generate coherent text. It has been trained on a wide range of topics and can be used for various applications, including chatbots, language translation, code generation and content summarisation.

However, it is important to note that while large language models such as ChatGPT demonstrate impressive language capabilities, it may not always provide accurate or contextually appropriate information, and its responses are generated based on patterns learned during training.

## AI driving investment returns

Companies across various industries are recognising the transformative potential of AI and strategically incorporating it into their operations. Companies such as Google, Amazon, Microsoft and Meta are leveraging their vast datasets to stay at the forefront of AI innovation. Google uses AI to enhance its search algorithms, providing users with more relevant and personalised search results, while Microsoft deploys machine learning to gain accurate insights and faster automated response to real-time threats when it comes to cybersecurity.

Investor excitement over their prospects [helped a small group of tech giants drive a large proportion of equity market gains in 2023](#). One of these, US semiconductor company Nvidia, recorded one of the largest one-day gains in value ever in May after forecasting sales growth figures well ahead of analyst expectations. The company cited exponential growth from a number of industries looking to increase computing processing power as they explore AI productivity gains. While Nvidia's semiconductor chips are seen as one of the purest plays on growing AI demand, positive read-across from the update lifted shares across the technology sector.

## Is there a catch?

It has not all been plain sailing for AI enthusiasts. There is a prominent body of experts – including the likes of the prime minister Rishi Sunak, Elon Musk and even the man often touted as the godfather of AI, Geoffrey Hinton – warning over the potential dangers from AI growth. These range from extinction risks to less existential threats such as privacy and copyright concerns or scams and other malicious uses.

A common concern is that AI could prove more efficient than humans at a huge range of tasks, displacing large numbers of people from their jobs in a painful economic shift.

## Disruptive change creates value as well as risks

While Liontrust's [Global Innovation](#) investment team agree that AI will be hugely disruptive, they think that it can be a positive force if harnessed correctly. They also believe that it could be a dangerous strategy for investors to bet against its success: “When we consider AI, we believe it has the potential to be both a great innovation and drive great investment returns for the right companies. Indeed, it may prove to be one of the most important innovations of all time on both counts.

“Make no mistake, AI will not be contained to the technology sector but will affect every sector of the market. Ignoring it will mean betting against it because it will be a brutal source of disruption for many companies on the wrong side of it.”

Whether you are an AI enthusiast or a reluctant adopter, it seems AI is here to stay and will soon become embedded in many aspects of our day-to-day lives, whether we are aware of it or not. For investors, an understanding of the technology's potential applications could help when seeking to identify the biggest ‘winners’ and to avoid the failures, both of which typically accompany this kind of technological advancement. However, as many established or ‘old economy’ businesses will also be able to deploy AI to make productivity improvements, a diversified equity investor in equities could potentially benefit from the growth that AI confers on the economy.

For a comprehensive list of common financial words and terms, see our glossary at:  
<https://www.liontrust.co.uk/benefits-of-investing/guide-financial-words-terms>

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## Key Risks

**Past performance does not predict future returns. The value of an investment and the income generated from it can fall as well as rise and is not guaranteed. You may get back less than you originally invested.**

The issue of units/shares in Liontrust Funds may be subject to an initial charge, which will have an impact on the realisable value of the investment, particularly in the short term. Investments should always be considered as long term.

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