

The Artificial Intelligence Revolution is Here

Where Should Investors Begin?

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Google CEO Sundar Pichai recently described the impact of artificial intelligence (AI) as “more profound than fire or electricity,” which left many investors asking how to invest and where to begin.¹ Some would suspect to do so, it would take investments in start-ups or obscure corners of the technology industry. While venture capital is potentially one way to invest in AI, surprisingly, some of the biggest participants in AI are already represented within common large cap indexes such as the S&P 500. Companies within the technology, healthcare and data analytics sectors (to name a few) have been laying the groundwork for these technologies for many years. Below are some of the reasons why AI investments may be closer than you might think.

The Influence of Size

Large-cap companies such as Microsoft, Meta, Alphabet and Amazon, among others, have been investing in and building AI platforms for a number of years. For instance, Microsoft is a strategic investor in ChatGPT, which was born out of research that began in 2015 (OpenAI) and whose first model was launched in June 2018. In some instances, the time and capital poured into AI by companies may offer a head-start to making commercially viable products.

The research and development costs to build and run these programs can be significant. Some estimates put the cost to just run the servers necessary to power ChatGPT at \$700,000 a day and is expected to rise given the higher degrees of sophistication and bigger datasets of future ChatGPT models. Larger businesses versus their smaller business peers (or start-up brethren) often have significantly more capital to invest and sustain these products while they are still early in development.

Information Edge

High-quality data is a fundamental cornerstone of AI, as it plays a critical role in training and refining algorithms. Companies which have amassed extensive datasets over time may have a substantial advantage over their less established counterparts. Tesla, for example, has accumulated billions of data points for its autonomous vehicles (and that is billions more than its next competitive rival), providing a wealth of information for enhancing their AI capabilities.

¹ Source: [60 Minutes](#)

According to experts, ChatGPT-4 could include a staggering 170 trillion parameters (a 1,000x increase when compared to the ChatGPT version which exists today).² It is also not just clusters of information; Adobe is further developing Photoshop's Generative AI product suite, helping users edit photos with a few clicks and a few words. Competitive advantages with data may serve as fuel which powers AI's learning and decision-making capabilities.

The Power of Partnership

Unlocking AI is also likely to come through meaningful partnership and collaborations with non-AI companies. Such partnerships could have a wide reach and may touch essentially every sector of the economy. Recently, Wendy's partnered with Google to evolve the customer drive-thru experience, which will include conversations with customers, the ability to understand made-to-order requests, and generated responses to frequently asked questions. Salesforce (CRM) rolled out Einstein GPT, which adds OpenAI's features across its software platform. Salesforce and Accenture (ACN) are also teaming up to accelerate the deployment of generative AI across customer relationship management technologies. These partnerships are likely the first of many, as businesses consider ways which AI can help improve their offerings.

In Closing

Investors may presume investing in new or emerging technologies would require investing in start-up businesses; however, in the case of AI, it is actually closer and more prevalent than investors might otherwise realize, as a number of large cap U.S. stocks, particularly those in the technology sector, already have a meaningful stake in the AI market. Therefore, investments in these already established large companies may offer exposure, albeit indirect, to the possibilities AI has to offer.

Finally, it is worth noting that, with the allure of exciting new products or technologies, an investing program does not come without risk, as there is a risk that the "losers" in this emerging space could outnumber a select few big "winners." Individuals with interest in investing in AI should do so with caution and in the context of the overall investment portfolio and with one's ability to bear risk.

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²<https://medium.com/@mlubbad/the-ultimate-guide-to-gpt-4-parameters-everything-you-need-to-know-about-nlps-game-changer-109b8767855a>

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