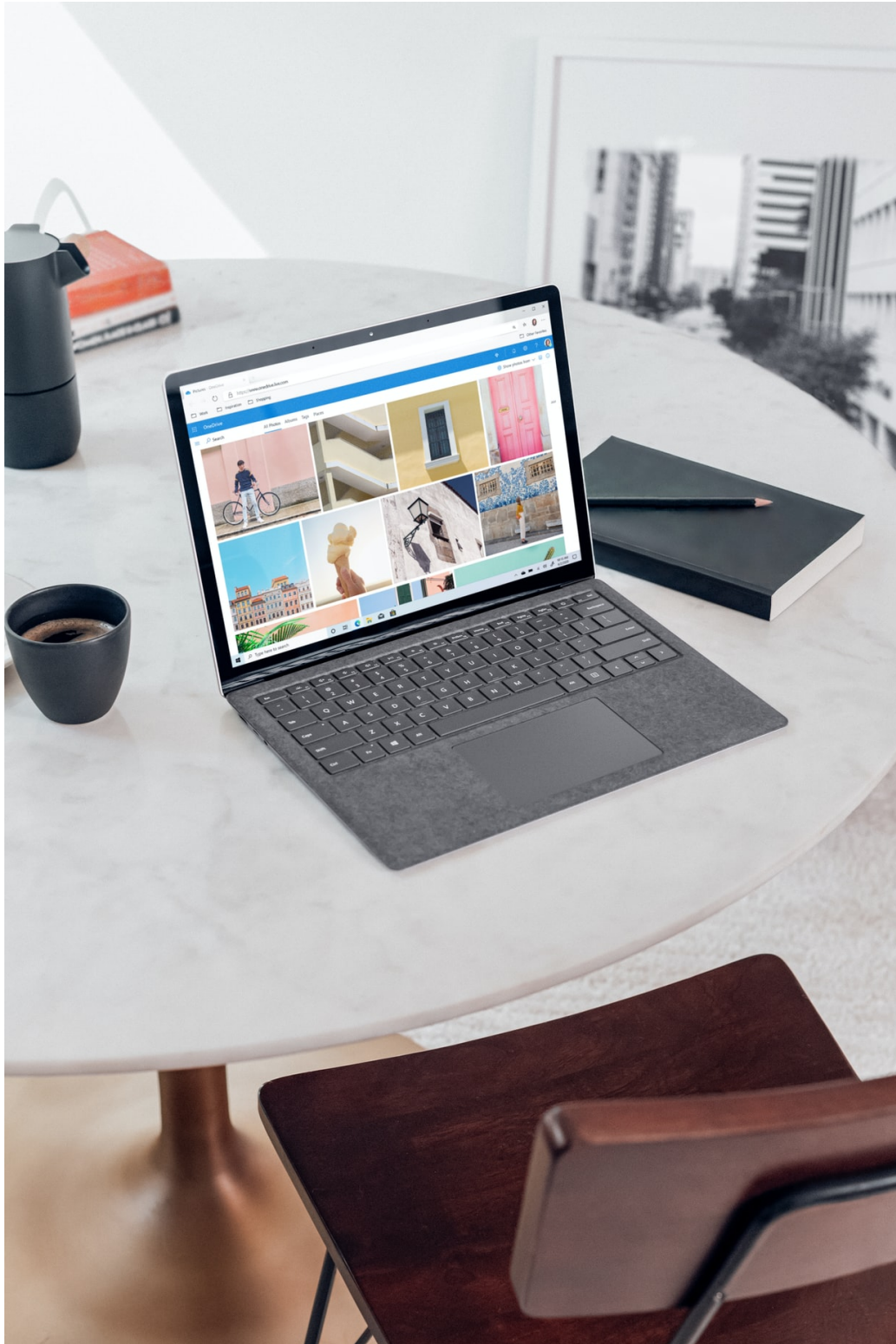


May 4, 2023

What does the advent of Generative AI mean for investors?

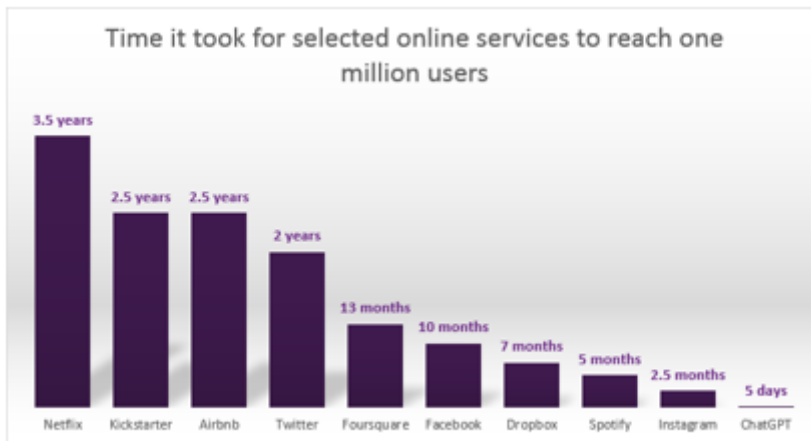


Generative AI chatbots are just the tip of the iceberg. We are on the brink of an explosion of creative and innovative uses of AI which will allow for broader application for this type of technology across a variety of industries. Investors should be aware of the opportunities, but there are also some considerations that must be taken into account...

Generative AI has been propelled into mainstream discourse thanks to the roll-out of OpenAI's ChatGPT. For those who haven't dabbled with it yet, ChatGPT is a chatbot, built on a large-language model (LLM). It can converse, answer questions, give opinions and summarise large

amounts of information. While previous AI models were effective in discerning patterns and relationships in data, LLMs – trained on billions of parameters – can mimic human intelligence and understand language, meaning, nuance and context.

Taken aback by its capabilities of understanding and its human-like responses, people around the world raced to try out the tool for themselves and ChatGPT garnered users at a record pace. It reached 1 million users in just five days; a milestone that Netflix took 3.5 years to arrive at!



Source: Statista, B/L

ChatGPT and other LLMs, which have been under development for a few years already, represent a breakthrough in unsupervised learning, in which the model makes its own predictions and calculations based on the massive amounts of data fed into it (note that we are all training ChatGPT every time we use it). But the potential output goes beyond words. Generative AI is capable of producing videos, art, logos, music and more... Already, it has been used to win a Cannes short film award, for example.



This image used was generated by Dall-E, an AI system that can create realistic images and art from a description in natural language. We asked it to produce a picture of bankers in the future, in the style of Van Gogh.

LLMs can become smarter over time. The more they are used and the more they learn, the more accurate they become and the more business use cases arise. In the finance sector, for example, a bank might use AI to assist it in making better investment decisions by using it to squeeze as much usable information as possible out of data. Even the best fund managers can only access a tiny fraction of available information relevant to security selection and then they can be subject to behavioral biases, which machines are free from. In education, LLMs might be deployed to create learning content, write textbooks or give explanations. In the world of law, they could be used to write legal texts and summarise cases – already ChatGPT has written articles that passed law exams. Customer service firms could train and use generative AI to answer the bulk of client queries...

These are just a few cherry-picked examples. The use cases are innumerate and could usher in advances and efficiencies in almost every sector. While the darker side of that is potential job losses, others counter that it will create new jobs and allow humans to engage in higher-value-added and more creative roles.

It seems that the genie is already out of the bottle and for investors, the future of generative AI will likely evolve rapidly.

According to PwC research, AI could contribute up to \$15.7tn to the global economy by 2030. In Q1 2023 alone, roughly \$1.7 billion was generated across 46 deals pertaining to AI and beyond that, an additional \$10.68 billion worth of deals were announced but not yet completed (according to PitchBook data).

For investors seeking exposure to this fast-growing, disruptive technology, there are however a

few key points to consider.

The first point to consider is that there will be winners and losers. Because of the huge amount of capital and computing resources required, recent leaps in generative AI might be compared to landing on the moon: an impressive achievement, only replicable by those with nation-state level wealth. It is increasingly apparent that big tech behemoths have already planted their flags in the key underlying technology, whether it be through years of internal development or through acquisitions. This could make it difficult for others to break into a market where operating at huge scale with the lowest unit costs will be essential.

As such, there may be more, less obvious, opportunities for investors in areas outside of the core business of generative AI. For example, in vertical applications, where generative AI is integrated into enterprise and commercial services. There is an entire ecosystem of existing technology (and businesses) that stand to benefit from the swift adoption of generative AI (across IT, industry, healthcare and beyond...).

The second consideration is that the lawmakers are scrambling to introduce laws that will govern the evolving technology. There are hundreds of active policy initiatives globally trying to regulate AI and the ground is continually shifting under businesses' feet. With high-profile figures from the AI sector now publicly airing concerns about the technology, this is only set to intensify.

Often, people overestimate the effect of innovation in the short run, but underestimate it in the long run. Beyond the hype surrounding new AI chatbots, generative AI has the potential to be revolutionary, touching almost every industry – albeit this will take time. Long-term investors seeking exposure are advised to adopt a broad approach, not only looking at generative AI infrastructure, but also its applications and at AI-enabled industries.

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