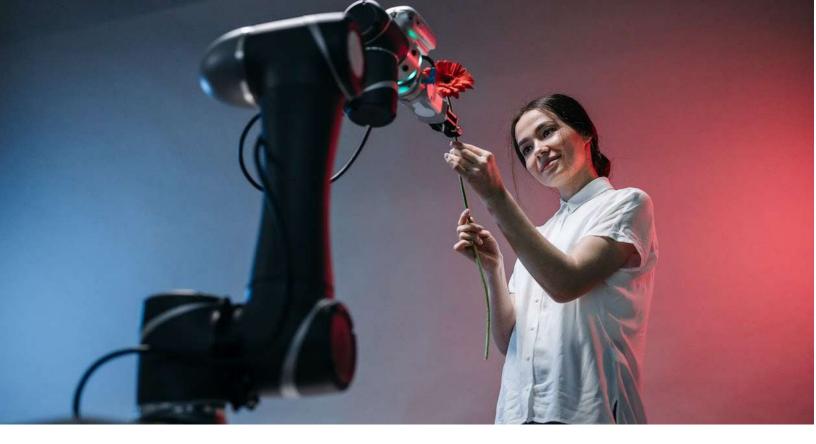# MYTHOS GROUP

2023 — THE YEAR OF ARTIFICIAL INTELLIGENCE (AI)

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By Amit Patel

ABSTRACT

We're still in the early days of 2023, but one topic has clearly dominated the conversation in all industries and business sectors. That topic is artificial intelligence or AI. We are being inundated with news of AI – some good and some bad – and this rapid fire of information can be confusing at best and scary at worst. The truth of the matter is that AI is quickly advancing whether we're ready or not. As business leaders, it behooves us to learn all we can about this powerful new tool and figure out how we can utilize it to our advantage. Of all the new technologies emerging today, AI is likely to have the greatest impact on our daily personal and professional lives, so let's dig a little deeper into the subject and explore where we've been and where we're going with AI.

> *"Artificial intelligence is here and being rapidly commercialized, with new applications being created not just for manufacturing but also for energy, healthcare, and oil and gas. This will change how we all do business."*
>
> *Joe Kaeser*

A BRIEF HISTORY OF AI

Simply put, AI is the simulation of human intelligence processes, like problem-solving and decision-making, that's carried out by machines. AI may seem like a new technology, but it has actually been around for decades and has already played a huge role in manufacturing, the automotive industry, finance, the medical field and more. While machines that mimic the cognitive functions of humans first started to creep into the collective consciousness in 1998 (when IBM's Deep Blue computer won a chess match against world champion Gary Kasparov), their development actually began almost 100 years ago with Alan Turing's stored-program concept, now known simply as the Turing machine.

Unfortunately, Turing's work wasn't fully recognized for its groundbreaking nature during his lifetime, but in 1956, two years after Turing's death, a group of researchers conducted a workshop at Dartmouth that would begin the age of AI research in earnest. The Dartmouth Summer Research Project on Artificial Intelligence was where John McCarthy, an Assistant Professor of Mathematics, first coined the term "artificial intelligence" to describe machines that could think. Now known as "The Father of Artificial Intelligence," McCarthy defined AI as, "the science and engineering of making intelligent machines."

Because of a perceived lack of progress, major funding was cut for AI initiatives and research, and the field of study entered what was dubbed an "AI Winter." This dearth in funding and financing would last well into the 1990s, and it wasn't until the turn of the 21st century that AI research and advancements caught a second (or third) wind. In the early 2000s, humanoid robots created by Honda and MIT showed the world what practical AI might look like. At the same time, major advances in machine learning (ML) were in the works, which eventually lead to Apple's introduction of Siri, the world's first AI personal assistant.

Since then, AI development has been on a roll, with new advancements and releases occurring at breakneck speed. According to a 2022 study done by McKinsey, adoption of AI has doubled since 2017 and between 50% and 60% of organizations currently use AI in some way. It's important to note here that many of the statistics and sources we'll cite do not make any delineations between artificial intelligence and augmented intelligence. For many intents and purposes, the two can be used interchangeably. However, augmented intelligence is slightly different from AI because augmented intelligence utilizes AI technology and devices while keeping a human element in the process. Whereas AI looks to function independently of humans, augmented intelligence is designed to enhance human intelligence rather than replace it.

In this article, we'll look at some of the most promising and profitable ways that AI technology is being implemented – with or without a human element involved. We'll also explore some of the unintended consequences and potential pitfalls of AI that we're watching closely.

> *"Artificial intelligence is the new electricity."*
>
> *Andrew Ng*

AI-POWERED FINANCE

On January 31st of 2023, news got out that an AI-powered Equity ETF (AIEQ) from ETF Managers Group was up 13.5% year to date as of January 27th according to data from Morningstar. That's twice as high as the performance of some other well-known ETFs. And while AIEQ is an actively managed fund with fees up to .75%, that's still an eye-opening difference in return, especially since the fund has trailed other benchmark funds in the past few years. The reason for the sudden improvement could be luck, but it also could be a reflection that AI is getting smarter and performing better.

Finance and financial technology or FinTech is yet another sector of the economy that's poised to benefit greatly from the adoption of AI. Not only will AI revolutionize the ways in which individuals, investors and fund managers manage money, but AI will also revolutionize the ways in which consumers interact with financial institutions, make financial decisions and mitigate financial risks. The AI-powered financial market size was around $7.91 billion in 2020 and it's estimated that it will reach close to $27 billion by 2026.

Research from Oracle shows that 87% of business leaders believe that they will fall behind their competitors if they don't rethink their financial processes, and 85% of business leaders surveyed report that they want help from AI. These leaders realize that the sheer amount of data that AI can work with is unparalleled. AI can analyze standard market data in addition to non-standard data like social media posts and earnings calls to make market predictions, decisions and risk assessments on a much larger scale.

In addition to data analysis, AI can automate manual processes, deploy digital assistants, facilitate customer engagement and improve product offerings. According to Insider Intelligence, banks could enjoy an aggregate potential cost reduction of $447 billion by 2023 from AI applications. With numbers like that, it's no wonder that 80% of banks are "highly aware" of AI's benefits. Financial institutions are also highly aware of the risks associated with not adopting AI into their business models, which can include losing out to competitors, a higher stress level among workers, inaccurate reporting and reduced productivity.

According to CB Insights, Capital One, J.P. Morgan Chase and Royal Bank of Canada are leading the way when it comes to AI innovation in retail banking. The investments that these organizations have made in AI technology have gone way beyond virtual assistants and management tools to include acquiring AI startups, applying for AI patents, investing in internal research and development, and aggressively courting top talent in the AI field. AI initiatives at these banks include security and anti-fraud measures, loan approval, web payments, AI development tools, synthetic financial datasets, sports analytics, AI infrastructure, electronic trading and portfolio management.

> *"Banks have to upgrade themselves, or risk being burnt to the ground."*
>
> *JP Nicols*