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Why Adopting GenAI Is So Difficult

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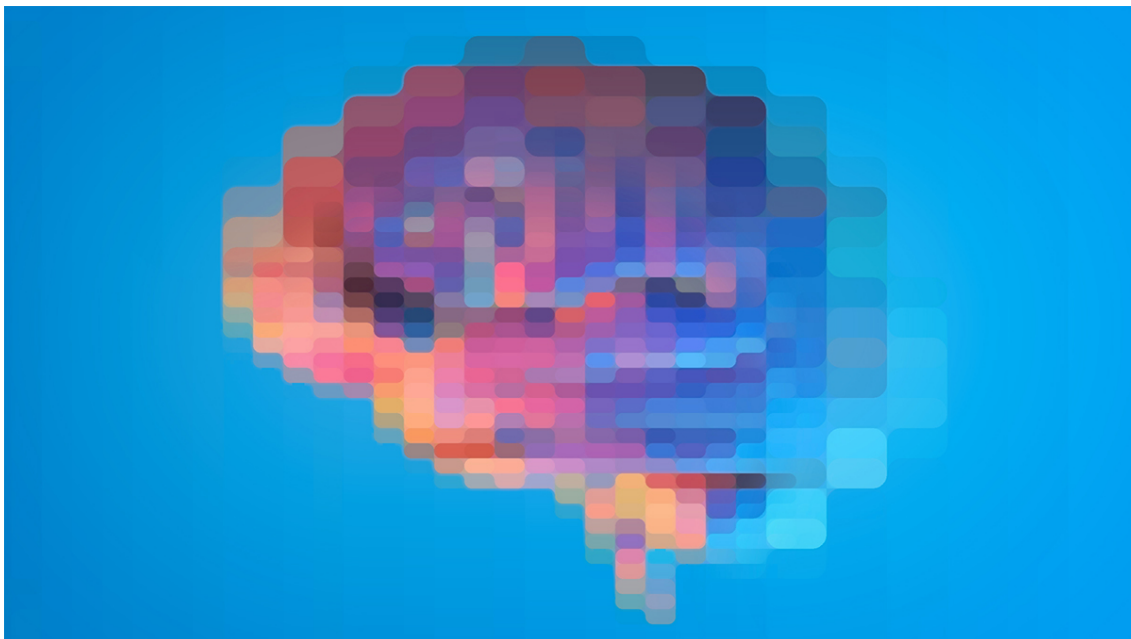


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Summary. More than a year after the launch of ChatGPT, companies are still facing the same question when they first considered the technology: How do they actually go about putting it into business use? Many companies have simply discovered that generative AI tools like... [more](#)

In the nearly year and a half since the release of ChatGPT 3.5, both businesses and individuals alike rushed to explore generative AI (GenAI) technologies. For many, there was a palpable fear of missing out on the next big thing, of being overtaken by competitors who were able to crack the code of using it to revolutionize their businesses, or being caught flat-footed by sweeping, industry-wide change. Report after report has touted

the transformative power of GenAI across industries and its implications on the future of work. Adding more heat to the fire, media articles continuously reminded us that jobs would likely be lost at scale and speedily.

Today, the GenAI frenzy has seemingly calmed — at least marginally. Many companies are still facing the same questions they were a year ago: How can they take advantage of the promised cost savings and substantial efficiency gains that GenAI allegedly offers? How do they actually go about putting it into business use?

From our front-seat rows in helping companies to adopt and use AI, we see many struggling. There are a few reasons for this.

First, many businesses, large and small, are still grappling with how to integrate traditional AI — such as rule-based algorithm and machine learning — into their operations. At best, they are in an exploratory phase with traditional AI, and at worst they're simply feeling lost. A recent study suggested that more than 70% of the large companies surveyed were still wondering how to reap the potential benefits that AI can offer.

Second, GenAI is far more complex and is geared to serve specific purposes. While it is able to write a 5,000-word report in no time, it cannot, for example, do a basic data entry task, like extracting and classifying driver's license data, that traditional AI can do easily. As such, companies need to think deep and hard about which business cases might be appropriate to find the benefits of GenAI. Navigating through traditional AI is like steaming through choppy waters with a state-of-the-art but somewhat cumbersome vessel, and GenAI adds more tonnage, power, and an even more turbulent sea. A company still unsteady with the former will of course struggle with the latter.

Third, the longer-term implications of adopting GenAI — such as the long-term costs and the impacts of current and future regulation — are still uncertain. To us, the current situation

throws us back to just before the millennium. While companies back then may have seen the need for setting up websites, few could clearly see the specific roles that the wider internet would play as an integral part of omnichannel strategies, let alone across devices and as phone apps.

Given all this, it makes sense that most companies are still searching for a path forward (even if it can feel like everyone else has it figured out). That doesn't mean the search is folly. Here's how companies can get their bearings and figure out what to do next.

The Market for GenAI

The first decision most companies have to make is *which* GenAI product they want to use. Right now, there are now a lot of GenAI suppliers — both industry titans such as Meta and Alphabet and newcomers like Hugging Face, Anthropic, and Stability.ai. This market is set to become even more crowded, with data-rich corporations such as Bloomberg and JPMorgan Chase signaling their intention to enter the fray, and an Apple working on its own offering, called Ajax. There are a few factors companies should consider.

For one, Open AI and its current rivals are now vying to be solution developers' top choice of GenAI, and the latecomers may have already missed the boat. OpenAI's recent introduction of a simple tool for creating ChatGPT-powered apps is likely an attempt to consolidate its position, as users who are accustomed to one system are likely to use it again in future endeavors. With the largest — and arguably the best — GenAI in the market, OpenAI is in the best position to establish an ecosystem.

That said, solution developers will likely not want to swear allegiance to any of the GenAI makers as to retain the option of being able to select GenAI for different projects. This in turn has given rise to toolkits such as LangChain, an open-source platform designed to enable users to work across different GenAI at the same time.

The competition at play between different GenAI companies somewhat resembles the early days of the duel between iOS and Android. A large ecosystem would enable OpenAI to remain the (money-making) market leader for a few years until its rivals are able to join force. This does not necessarily mean that Apple and Google would unite to compete with Microsoft. More likely, we would see rivals agreeing on the same standard to collaborate on in order to stand against OpenAI's dominance. We believe this is not dissimilar to the situation in 2015 in which Android's supporters were finally able to establish a meaningful ecosystem to rival iOS. As the GenAI market consolidates, we can expect to see two to three large factions competing among themselves. Expect more companies, big tech and startup alike, to redouble their efforts to be at the heart of these systems.

Key Considerations to Take Advantage of GenAI

Given this current state of affairs, how could businesses onboard GenAI? Here, we would like to offer a few suggestions:

Choose performance over novelty.

In our long experience working with GenAI, its performance doesn't stem from human-like text responses in a conversational manner or a model that is trained on a vast amount of data. To get the best out of GenAI, you must ask whether it's the right technology for a particular task or goal.

For instance, while ChatGPT is (for the moment) better at handling words and languages, we have found that traditional deep-learning models deliver much better results at processing images. Another discovery: In one product we are building, we found that ChatGPT-4 is better at "understanding" users' queries, while version 3.5 is faster and better at converting processed output into responses to users.

In other words, instead of unquestioningly embracing the latest AI technology, companies must understand the business problems that they are trying to solve and find the most suitable

AI tool based on both the strengths and weaknesses of each of available options.

Combine GenAI with the power of vector database.

This is a new form of database that specializes in retrieving the closest matching records to best answer specific queries (as opposed to traditional databases that merely hold the records). Companies can use an GenAI such as ChatGPT to break down users' queries, and then use a vector database to look for the best answers that match those parameters.

Consider an analogy: If you were interviewing for a job, ChatGPT and its competitors would offer the ability to “read the room,” analyzing the interviewers' posture, facial expressions, word choices, and tones. Vector databases, on the other hand, would act like your memory and wisdom banks, constituting the capability to come up with the best things to say.

Put differently, GenAI by itself may not be sufficient. Depending on the problems to be tackled, it can only be half of the technology solution. The need for vector database to make GenAI truly useful means companies should expect to face even more complexity and long lead time when putting the solution together.

Never forget human-in-the-loop.

As ever, no matter how powerful AI technologies seem to be, their abilities are only as good as how much humans are involved. This is no different for GenAI. Humans play a critical role in guiding GenAI toward business goals, managing interactions within IT systems, designing the actions required for data going to and coming out of AI models as well as mitigating hallucinations — the made-up or outright false information produced by GenAI — that remains a major problem of GenAI today.

Trace your data.

While the problem of hallucinations remains rampant, it's important to establish a clear trail from data source all the way to end-users. Traceability enables users to know the original source of data, which bolsters reliability and trustworthiness of the GenAI output, thereby creating a stronger foundation for informed decision-making.

Companies need to ensure that data lineage is a prominent feature in both their technology stacks as well as processes and workflows. Only in this way companies can be in full knowledge that they are using the right kind of data.

Have realistic expectations.

GenAI is a fast-traveling ship with a lot happening below deck. It is hard to know exactly what, how much, and how quick GenAI companies can realistically achieve. Believing with conviction that it can yield immediate results and outstanding financial returns will most likely lead to disappointments. Leaders must recognize that the exploratory and experimental journey of GenAI will likely be a long one.

The utilization of GenAI technologies in business operations transcends a mere technological investment; it's fundamentally a business imperative. Hard as it is as an undertaking, to onboard GenAI in company operations is to understand the nuances of the current GenAI developments and have a keen awareness of the challenges presented. Yet, for those businesses that can successfully make use of GenAI to reach their business goals, the rewards can only be both promising and huge.

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