Voice of the CIO

Chief information officers are taking the lead to guide adoption of generative AI

Generative artificial intelligence (GenAI) technology is seen by many as the latest shiny object that everyone wants to chase. In our recent discussion with chief information officers (CIOs), they acknowledged the hype but also stated that GenAI might be different from other highly touted technologies that have fallen from the limelight. Unlike those past technologies, GenAI is receiving a lot of interest from company leadership, who are asking how their organizations can benefit from these automated tools. It follows, then, that CIOs wanted to know how their counterparts are approaching GenAI, what specific use cases it's being applied to, how far along organizations are in their use of GenAI, and how companies can derive value from it. But they also had questions about the risks, particularly for regulated industries. When it comes to rolling out GenAI at their organization, CIOs saw themselves as playing a prominent role, even outside the boundaries of IT. That role not only includes educating leadership about GenAI's positives and negatives, first and foremost, but also ensuring the technology is deployed where it can provide the organization with maximum benefits and in a way that affords minimal risks.

Companies are using GenAI but are mindful of the risks

Companies are pushing forward with GenAI, having already deployed the technology in some areas and piloting applications in others. But CIOs also expressed concerns about the risks around GenAI and are confining initial use to internal applications. Many voiced the critical need for a "human in the loop," while others pointed to their organization's efforts to establish GenAI use protocols through the creation of responsible AI frameworks.

As companies begin deploying GenAI, they are focusing on internal uses among their employees. One CIO participant described how their organization's first application of GenAI was to help its sales associates better manage their communications—in other words, polishing up their written communications to make them sound more professional and error free. The CIO added that their company will continue to use AI to help its sales and marketing efforts and engage with customers, including using "conversational AI" to help with inquiries and scheduling of appointments. Another participant said that their organization was looking at GenAI for HR

Key takeaways

- Organizations have already deployed GenAI, albeit to a limited extent, mostly for internal-facing functions.
- CIOs recognized the risks associated with GenAI, such as inaccurate results and threats to intellectual property. Those in regulated industries are particularly cautious.
- To address GenAI risks, there are controls, such as "human in the loop" or "human owns the result," that are critical, at least for now.
- Some CIOs have begun to build out responsible AI frameworks to help guide the deployment and use of GenAI throughout their organization.
- CIOs recognize they have knowledge gaps when it comes to GenAI and are willing to engage with third parties, such as advisers, consultants, and universities, for assistance.
- CIOs are proactively educating leadership about the benefits and drawbacks of GenAI, as well as managing expectations regarding its claims to increase productivity.
- CIOs see themselves as having a prominent, if not a leadership, role in the deployment of GenAI throughout the organization, not just in IT.
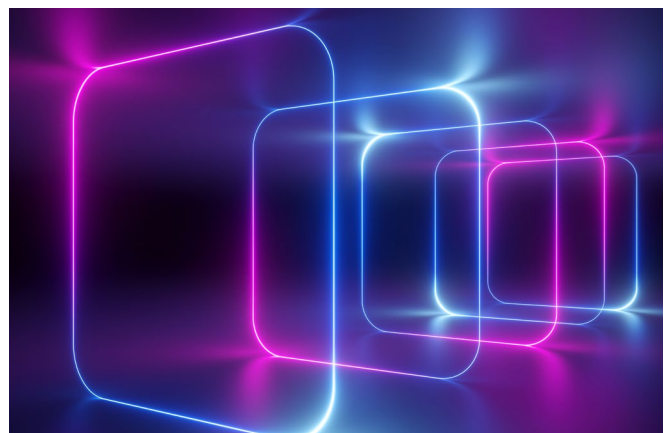
applications, such as talent acquisition, while a third said their company right now was confining GenAI to writing code and document summation.

In highly regulated industries such as banking, regulators are already looking at GenAI. So, in these industries, pursuing GenAI applications is more difficult. To address these concerns, a CIO of a regulated company told the group that their organization has created a cross-functional team, comprising business functions, technology, security, and risk and compliance, to explore GenAI use. The CIO continued that the team has found potential opportunities for GenAI use within their organization, although uses for the technology are limited, for now.

It's one thing to implement GenAI; it's another to ensure it doesn't invite additional risks to the organization. GenAI, for all of its ability to impress users with its responses, isn't without drawbacks. GenAI answers can be prone to errors and bias. Additionally, there's the risk of exposing the intellectual property users may input, since GenAI keeps and draws on all the data it receives. Participants noted that these flaws are slowing their organization's plans to deploy GenAI for more external, customer-facing applications.

To help mitigate these risks, companies are employing a number of approaches, such as putting humans in the process to review the results and to catch inaccuracies. Another participant said that their company put on a "hackathon," involving teams from around the organization to determine the potential uses for AI and where the risks would be too great. Several other participants spoke of their organization forming a team, using resources from digital, data and analytics, as well as ethics and compliance and legal, to create a responsible AI framework.

The CIO's role in the GenAI journey

Many see GenAI as a hyped technology, like the metaverse and robotic process automation (RPA), which was going to transform business, but eventually faded from view. But GenAI is different in its ability to sustain the interest of business leaders, so it may be here to stay. Said one CIO participant: "My CEO never talked about RPA; she is talking about this."

CIOs tend to be skeptical, and rightly so, of overhyped technology. Vendors are going to try to sell to everyone else in the firm because CIOs ask the tough questions around security and technical aspects. Participants saw this situation as an opportunity for the CIO to help lead their company's efforts around GenAI and, in doing so, elevate the role of tech more broadly in the organization. Said one forum participant: "I think the CIO's role is to be more of a shepherd of the program, letting it grow in an organized manner, but not necessarily just within the IT office."

Added another, "CIO isn't just tech. Our primary job is differentiating for our businesses through technology. This is another example of something coming down the pike, where you have an opportunity to do something, but you have to do it responsibly."

Support of leadership was critical, however. One participant said that their organization launched an AI accelerator program with the CEO as the sponsor to make sure it had visibility across the organization. Then the program enrolled champions from each division in the corporation with the goal of creating use cases that they will govern and execute on those use cases that have the greatest value.

"It is really important to have that voice of the CEO, and then my voice letting people know that we're not trying to stop innovation, but we want to be very practical and pragmatic about where we choose to play in this space," the CIO added. "Because it's too easy to just go and download an app and start doing work."

Others voiced that their organization had followed similar processes, although a few said they weren't using GenAI terminology but rather focused on concrete topics like "automation and augmentation."

As they continue to roll out their GenAI platforms, the CIOs acknowledged that they don't have the expertise to really understand GenAI thoroughly. Although participants were cautious about using third-party vendors, they recognized they would need outside help from advisers, consultants, or partnering with universities as the moved forward. More important, CIOs should lead these outsiders "into the building" as a way to stay in the conversation versus their having access without the CIO's knowledge.
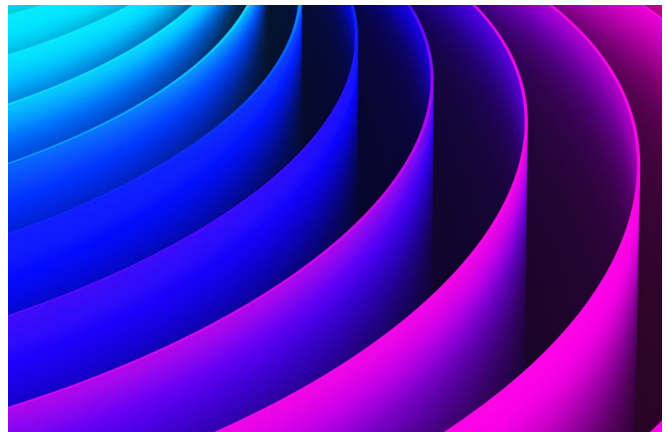
Educating leadership about GenAI is a priority

With any new technology, educating users about its uses and limitations is essential. When it comes to getting people up to speed on GenAI, CIOs are pursuing a wide spectrum of education initiatives. Among these, instructing company leadership about what AI can and can't do was clearly a top agenda item.

One participant described how their company ran a workshop for the leadership board, consisting of a history of AI, some real use cases in the industry, and then some hands-on exercises. The experiences spurred many questions from the participants.

In addition to demonstrating the beneficial aspects of GenAI, it is equally important to show leadership the limitations of GenAI that can have significantly adverse impacts on the business. One participant used images of the board members in deep fakes and "hallucinations" to drive the point home.

Education also includes managing expectations regarding the purported productivity benefits of GenAI. A number of participants agreed that when it came to using AI in

software development, productivity did improve, but the increase was not nearly as much as was promised by AI providers.

Rank-and-file users will need to undergo training as well. When it comes to GenAI, the better you can engineer the prompt, the better results you'll get. Users will need to be trained to shift their thinking from creating keyword searches to writing well-thought-out prompts to elicit the most comprehensive, accurate, and applicable answers.

Given all the attention GenAI is attracting, it's natural for leadership to want to identify use cases that would benefit from this new technology. But participants noted that not

all use cases are appropriate for GenAI—at least for now—and are better addressed by other tools and solutions. The more effective course is for leadership to do what it always has done—identify the problems the business is facing that need to be solved.

"Who knows what might solve the problem," said one CIO. "But don't focus on use cases for GenAI. That'll come at some point when the hype dies down the technology gets a little more mature."

Additional insights

2023 KPMG US Technology Survey Report

Our thinking: The CIO's path to driving value with generative AI

Generative AI for HR and Workforce

Where will AI/GenAI regulations go?

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