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TECH

From CEOs to Coders, Employees Experiment With New AI Programs

ChatGPT's release has sparked a rush of early adopters eager to speed up tasks or avoid being left behind

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Shortly after the release of OpenAI's ChatGPT in November, Jeff Maggioncalda, the CEO of online education company Coursera Inc., jumped into the technology to see if it could save him time.

He began using the chatbot to draft company letters and notes, and asked his executive assistant to try the same for drafting replies to his inbound emails. She prompts ChatGPT based on how she thinks he would respond, and he edits the answers it generates before sending.

"I spend way more time thinking and way less time writing," Mr. Maggioncalda said. "I don't want to be the one who doesn't use it, because someone who is using it is going to have a lot of advantages."

Around the world, business people across industries including architecture, software and entertainment are testing out tech's new frontier: so-called generative AI programs that produce writing, images and art much like humans do.

In the past, AI was hidden within layers of back-end infrastructure for streamlining logistics or automating content moderation. Now, applications like ChatGPT and the image-generator Midjourney have placed the technology directly into the hands of individuals and small businesses who are using the tools to see if they can automate laborious tasks or speed up creative processes. Some are driven by the thrill of being able to do things not previously possible; others by an existential push to master the nascent technology so they don't fall behind.

The groundswell of experimentation has put larger corporations on notice that such tools could soon shake up their industries. From Netflix Inc. to oil-and-gas producer Devon Energy Corp., some companies have started taking tentative steps with generative AI.

AI experts caution, however, that such tools should only be used to support people who are already experts in their domain. Generative AI has been shown to spew disturbing content and misinformation, while other concerns have surfaced over intellectual property theft and privacy.

“The purpose that it is serving is not to inform you about things you don’t know. It’s really a tool for you to be able to do what you do better,” said Margaret Mitchell, chief ethics scientist at AI research startup Hugging Face.

Telmo Gomes, the co-founder and IT director of LiveSense, which is based in Melbourne, Australia, said ChatGPT saves him significant time on research. After his company was hired to develop a system that can detect vaping in public places, he spent hours calling people and googling to determine which sensors worked best. Information was limited; other companies selling vaping detection solutions didn’t disclose what they were using.

Then he typed the question into ChatGPT. Within a few seconds, it spat back several answers, including ones that exactly mirrored the solutions he’d settled on from his research. It also added a note of caution to consider the ethics of monitoring people’s behaviors.

“It completely blew my mind,” Mr. Gomes said. “We’re a small company. It will let us do more with less.”

Nidhi Hegde, a designer at Wimberly Allison Tong & Goo, a global architecture firm that specializes in luxury hotels, said she concluded generative AI would transform her profession when a client sent her team early concept sketches of the building they wanted, which they had created with Midjourney.

Midjourney, which launched in July, takes a range of prompts from text to three-dimensional forms and gives users a high degree of control to edit its generated images.

The sketches that the client provided are traditionally the architect’s job, but Ms. Hegde embraced the process. She fed the client’s images back into Midjourney and asked the program to create several new variations with different structures while keeping a similar design. The clients loved the final version, she said.

“The role of the architect really, really changes,” she said. “Within the industry, we really have to rethink what we’re doing as a service.”

Ms. Hegde now regularly uses Midjourney and dedicates the first half-day of each project to what she calls “the failure stage.” Once, she fed Midjourney an image of a rock and asked it to “make the rock gold.” It generated a glittering gold torso of Dwayne “The Rock” Johnson.

The rapid shift is prompting the firm to formalize policies around generative AI, including to consider the ethics and legal ramifications, according to Sean Harry, the company’s managing principal of design technology, who is leading the effort.

At the Oklahoma headquarters of driller Devon Energy, leadership grew excited about ChatGPT after a group of technicians showed that they could use the tool to test their computer code, said Trey Lowe, the company’s chief technology officer. The group manages the firm’s automation system, which controls equipment in oil fields.

Separately, engineers and scientists have started using the tool to summarize large technical documents, he said. The experiments persuaded the company to pay close attention to how the technology develops.

Mr. Lowe said the company hopes ChatGPT will one day be capable of looking up academic repositories and summing up, say, a hundred scientific papers about hydrogen into a concise report. “For some individuals, just a summary of it will be 100% beneficial to helping them make a decision,” he said.

Lucas Winterbottom, a software engineer at Hong Kong-based financial-technology startup Reap, began using Copilot, an AI coding assistant, built off an earlier version of ChatGPT’s underlying technology, in mid-2022 when it became available to an early batch of testers. He now uses it daily to speed up regular programming tasks, switching to ChatGPT for help in solving less common coding problems.

ChatGPT also helps him get 90% of the way there for drafting internal company notes, he said. “I’m a tech person,” he said. “I don’t fully enjoy writing.”

Not everyone has embraced the technology. Andrew Hundt, a robotics Ph.D. student at Johns Hopkins University, said he avoids coding with generative AI tools because they’ve been shown to copy chunks of their training data, which he worries could compromise the originality of his research. His opinion of the tools soured after he learned from other users that his own code was turning up in their generated outputs, he said.



Microsoft CEO Satya Nadella speaking about the company's new AI-powered search engine.

PHOTO: JEFFREY DASTIN/REUTERS

Many in white-collar and creative professions also fear that once generative AI advances enough, it will replace them the way robots have replaced factory jobs.

In February, Netflix faced backlash on Twitter after saying it used generative AI to create the background images in a short anime film posted on YouTube that was made as part of a program that experiments with new technology. Critics said the move threatened to take opportunities away from human artists.

Taiki Sakurai, Netflix's director of anime, said the company is committed to supporting human talent.

Publishers including BuzzFeed Inc. and Sports Illustrated publisher Arena Group Holdings, who are testing generative AI to produce articles and content, have said that the tools are intended to assist, not overtake, their staff.

Humans will play the role of providing ideas, "cultural currency" and "inspired prompts," BuzzFeed Chief Executive Jonah Peretti wrote in a memo to employees, reviewed by The Wall Street Journal.

Daron Acemoglu, an economist at the Massachusetts Institute of Technology who studies technological change, said the impact remains to be seen. "ChatGPT's claim to fame is that it sounds more like a human. The more human-like it is, the more it can be substituted in for human tasks," he said.

Surya Ravikumar, vice president of data and strategy at Singapore-based Smartkarma, a financial investment research network, said that the company has drawn a distinction between which content on its platform should and shouldn't be automated.

The firm, which gives subscribers access to independent investment advice, is testing using ChatGPT to generate summaries and tweets of reports, as well as to draft search-engine optimized corporate blog posts on the basics of investing that are posted outside the platform's paywall.

The company won't use AI to write reports from their experts, Mr. Ravikumar said. "That's where the true value of our platform lies. We can't be generating that," he said.

Cynthia Ting, an architect at American firm NBBJ, says she has watched Midjourney spread like wildfire among her peers. She is working with the Hong Kong chapter of the American Institute of Architects to build a think tank that will help architects learn to use generative AI and other technologies.

"In the future, I feel like AI will be our third brain," Ms. Ting said. "We have our left brain and right brain; sometimes we make decisions by logic, sometimes with emotion. Now we'll have an AI brain to provide us information and data analysis. It will help us to make better decisions."

—*Sarah Krouse and Alexandra Bruell contributed to this article.*

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