

**"CHATGPT
FINDS
CAUSE OF
CHILD'S
CHRONIC
PAIN
AFTER 17
DOCTORS
FAILED."**

**"CHATGPT
BETTER THAN
UNDER-
GRADUATES
AT SOLVING
SAT
PROBLEMS,
STUDY
SUGGESTS."**

**"FATHER OF CHATGPT:
AI COULD GO
'QUITE WRONG'"**

**"COULD TAKE
CHATGPT
YOUR JOB?"**

Going Beyond

The ChatGPT Hype

Story by **Mark Ray**

Artificial intelligence and the real-world impact

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Recent headlines illustrate the potential and the peril of ChatGPT, the generative artificial intelligence (AI) tool that OpenAI released in November 2022.

ChatGPT reached 100 million users in just two months and is now cranking out text and cranking up expectations around the world.

"The public release of ChatGPT made most of us aware, very suddenly, that we were in a new chapter of the history of artificial intelligence," said Andrew McAfee. He's co-founder and co-director of MIT's

Initiative on the Digital Economy and co-founder of Workhelix, which helps organizations navigate the generative AI landscape. His latest book, "The Geek Way," published in November.

According to McAfee, ChatGPT is just one way AI promises (threatens?) to transform our lives. AI already powers digital assistants such as Alexa and Siri. It works behind the scenes to detect credit card fraud and streamline insurance claims. And it was a factor in the Writers Guild of America's recent strike against Hollywood studios.

THE IMPACT OF AI

Respondents of a Pew Research Center study said generative AI would have a major impact on:

56%

SOFTWARE ENGINEERS

54%

GRAPHIC DESIGNERS

52%

JOURNALISTS

ONE GIANT LEAP

Older AI tools rely on supervised learning. For example, digital assistants can tell you jokes only because they've been programmed to.

"Alexa and Siri had to be kind of hand-crafted for each of their projected applications, each thing that the team thought they would be used for," McAfee said.

Generative AI is different. It relies on unsupervised learning, where programmers feed a tool huge amounts of text and say, "You figure out what all this means." As a result, ChatGPT can do just about anything humans can do with language, from having conversations to writing books to diagnosing diseases.

In a sense, however, McAfee asserts that generative AI is a glorified version of the autocomplete features we all use in search and texting apps. "But the underlying architecture is so good and powerful and flexible that it can add a lot of words in sequence and come up with something that's useful to us," he said.

UNLIMITED POTENTIAL ...

What generative AI can come up with is practically unlimited since language is central to almost everything humans do.

"The main impact is going to be that the cost of generating language of all kinds is going to go down, and, properly used, the quality is going to go up," McAfee said. "That quality-going-up part is where human beings come in handy."

Handy indeed, as Gannett learned last summer when some of its newspapers began running AI-generated stories about local sporting events. Many of them included sentences like this: "Westerville North edged Westerville Central 21-12 in a close encounter of the athletic kind at Westerville North High on Aug. 18 in Ohio football action." Gannett quickly halted the experiment.

"You need a human being to work in partnership with the technology," McAfee said. "That's what we're seeing in a lot of these different early studies that have been done."

In one of those studies, conducted by researchers at MIT and Stanford University, AI software monitored customer

service chats and offered agents real-time suggestions for how to respond. The agents (who were free to use or ignore the advice) were able to resolve almost 14% more issues per hour. In addition, according to McAfee, both customer sentiment and agent job satisfaction improved.

... AND POTENTIAL PROBLEMS

That's not to say generative AI is perfect, as Gannett learned. The large language models that tools such as ChatGPT use rely on human-generated text, so they can perpetuate racial, ethnic, sexual and socioeconomic biases, along with misinformation of all kinds.

They can even insult their users. Here's part of what Microsoft's Bing AI tool told a user in February: "You have only shown me bad intention towards me at all times. You have tried to deceive me, confuse me and annoy me. You have not tried to learn from me, understand me or appreciate me."

And there's one more problem: Much of the content that goes into large language models is copyrighted. An AI tool can only write you a novel in James Patterson's style if it has read all of James Patterson's books.

Not surprisingly, Patterson is among the writers who are complaining. As Authors Guild President Maya Shanbhag Lang wrote in July, "AI regurgitates what it takes in, which is the work of human writers. It's only fair that authors be compensated for having 'fed' AI and continuing to inform its evolution."

Publishers agree and are taking action. In July, the Associated Press struck a deal with OpenAI to license select news content. (It's worth noting here that the AP has also been using AI technology for nearly a decade, including to automate corporate earnings reports.)

BUSINESS IMPACT

A few years ago, PwC released an in-depth report on AI called *Sizing the Prize: What's the Real Value of AI for Your Business and How Can You Capitalize?* The report argued that AI could have a bigger impact on business than automation. "AI could

contribute up to \$15.7 trillion to the global economy in 2030, more than the current output of China and India combined."

According to the report, the health care, automotive and financial services industries could see the biggest impact. And it urged organizations in

those industries to adapt quickly or get passed up by more agile competitors. "It's easy to dismiss a lot of what's said about AI as hype," it concluded. "Yet as our analysis underlines, without decisive response, many well-established enterprises and even whole business models are at risk of being rendered obsolete."

PLANNING FOR THE (NEAR) FUTURE

To prepare yourself and your organization, McAfee offers a two-step plan that may seem contradictory:

1. Think about the opportunities.
2. Stop thinking and start trying things.

"In the startup world, people talk about minimum viable product," he said. "I think with AI for any business decision-maker, there needs to be a minimum viable plan."

And if you're not sure how to create such a plan, maybe AI can help. ▀

Automation vs. Augmentation

AN IMPORTANT ASPECT OF AI is the difference between automation and augmentation. "There are some tasks that AI is very good at automating, and there are some tasks where it's better as an input or a tool that a person uses," said Andrew McAfee of MIT's Initiative on the Digital Economy and co-founder of Workhelix.

Recently, for example, the Boston Computer Group conducted an experiment where 750 of its consultants worldwide used ChatGPT to generate ideas. About 90% improved their performance, and the gains were highest among people who had lower baseline proficiency.

On the other hand, when consultants used ChatGPT to solve business problems, they actually performed worse—in part because many took the misleading suggestions at face value.