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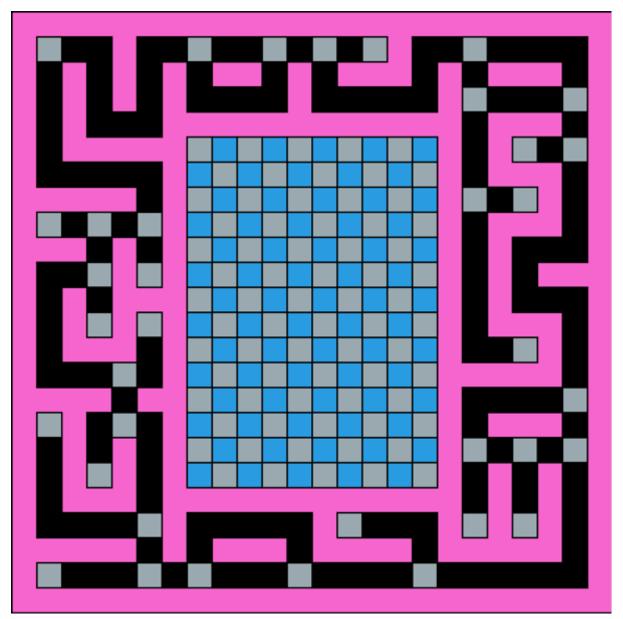
# **OnTech** Artificial Intelligence

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Illustrations by Mathieu Labrecque

# How should I use A.I. chatbots like ChatGPT?



By <u>Kevin</u> <u>Roose</u> Technology Columnist

In today's newsletter, the <u>fourth in our five-part series</u>, I'm going to try to convince you that large language models are already good at a wide variety of tasks — and they're getting smarter every day. In the <u>previous edition of this newsletter</u>, my colleague Cade Metz wrote that A.I. large language models (L.L.M.s) can be erratic and unreliable — giving false information and acting strangely toward users.

I've been using A.I. tools like ChatGPT almost daily for several months now, and I've seen them spit out plenty of wrong answers. (And don't remind me about my <u>creepy encounter with Bing</u>.)

But I've also seen these A.I. programs do amazing things — feats of creativity, flexibility and efficiency that took my breath away. And I worry that in an attempt to tamp down A.I. hype, skeptics are missing what's so groundbreaking — and potentially disruptive — about this technology.

Large language models write poems and screenplays. One of the latest, GPT-4, scored in the 90th percentile on the bar exam and <u>got top scores</u> on a number of Advanced Placement tests,. And the potential productivity gains for workers are enormous. (In <u>one study</u>, programmers who used GitHub Copilot — an L.L.M. for coders — finished a task 56 percent faster than programmers who didn't.)

Here are six things that A.I. is especially good at, right now:

#### Explaining concepts at multiple difficulty levels

For the last few months, I've been using ChatGPT as my personal tutor every time I get curious about a new topic. If it's, say, fractional reserve banking, I'll start by asking ChatGPT to "explain fractional reserve banking at a high school level." (Or, if I'm still confused, "at a middle school level.")

ChatGPT and other A.I. chatbots do well with these types of prompts, using their skills at **natural language processing**, as long as you don't ask about very recent events or extremely obscure topics. Calling on an infinitely patient, zero-cost tutor to guide me through new subjects feels like a superpower. Used properly, <u>they can be amazing teaching tools</u>.

#### Editing and constructive criticism

I still write my columns (including this newsletter) myself. But over the past few months, I've enlisted ChatGPT as my assistant.

When I'm stuck, I often paste in a few sentences and see if it can spark any ideas. If I'm trying to tighten an argument, I'll ask it to poke holes in my reasoning.

I've found that Bing is particularly good for editing, because it can look things up on the internet. (One of my favorite writing hacks is to ask it to read Strunk and White's <u>"The Elements of Style"</u> and suggest edits based on the book's principles.)

You can use similar tricks to use A.I. to improve your emails, cover letters or any other writing you're working on. As a reminder, you should always check the A.I.'s work carefully.

#### Getting creatively unstuck

A.I. can also be a good tool for getting your creative juices flowing. Recently, I was trying to come up with questions to ask a podcast guest. I pasted the guest's bio into ChatGPT and asked it to give me "10 thoughtful, incisive interview questions" for this person. Of the questions it generated, most were pretty good, and I wound up using a few on the show.

Ethan Mollick, a professor at the University of Pennsylvania's Wharton School, recommends using A.I. to overcome writer's block, or get a running start on hard projects. A person who wanted to start a bakery, for example, could ask ChatGPT for a list of all the necessary equipment and permits.

"It is very easy to get distracted from a task by one difficult challenge," Mr. Mollick wrote in a <u>recent blog post</u>. "A.I. provides a way of giving yourself momentum."

#### **Rehearsing for real-world tasks**

I've also been using ChatGPT and other A.I. apps as a kind of rehearsal for offline tasks I find unpleasant or hard.

When I had to have a difficult conversation with a friend, I asked ChatGPT to take part in a role-playing exercise. "Pretend you're my friend, and react the way you think my friend might react," I told it. I then held a mock version of the conversation. It didn't make the real conversation painless, but I felt more confident knowing I'd already practiced with a chatbot.

Of course, A.I. chatbots can't replace human friendships. But they can be a kind of on-demand sounding board, offering us basic feedback and advice without judgment.

#### SparkNotes for everything

One of the most powerful abilities of A.I. language models is quickly summarizing large amounts of text.

I've used A.I. programs to "read" long articles for me, and summarize dense academic papers. Usually they get the broad strokes right, even if some of the details are missing.

This power really shines when you combine it with other A.I. abilities, like transcribing audio and video recordings. Suddenly it becomes possible to condense a two-hour podcast into bullet points, or get a concise summary of a work meeting *while you're still in the meeting*.

If you're bored of reading this newsletter, you could ask ChatGPT or Bing to summarize the rest of it for you, or to rewrite it as a jaunty limerick. I promise I won't be offended.

#### Coding, even if you don't code

People are already using A.I. to write code, whether or not they know any programming languages.

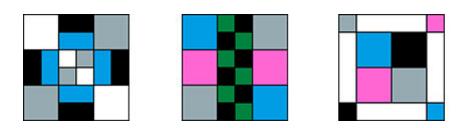
These models weren't designed to write software. But when they were trained on vast amounts of internet text, including the contents of coding sites like GitHub and Stack Overflow, they learned how to code — a phenomenon known as **emergent behavior.** Now, if you type in a prompt like "Build me a Chrome extension that translates the text of any website to pirate-speak," you might get back the code for <u>an app that actually works</u>.

In the past few months, social media has been full of examples of <u>astonished</u> <u>people</u> who are using A.I. tools to build <u>websites and apps</u> faster than any human could — at a tiny fraction of the cost.

#### What's next?

All of this raises some pretty obvious questions about the future, such as: If L.L.M.s are helping nonwriters write well, and noncoders code well, what other kinds of powers will they unlock? And how many jobs will these new A.I. abilities eliminate?

Tomorrow, Cade will be back to wrap up this series with a look at where all of this progress may be headed.



# Your homework

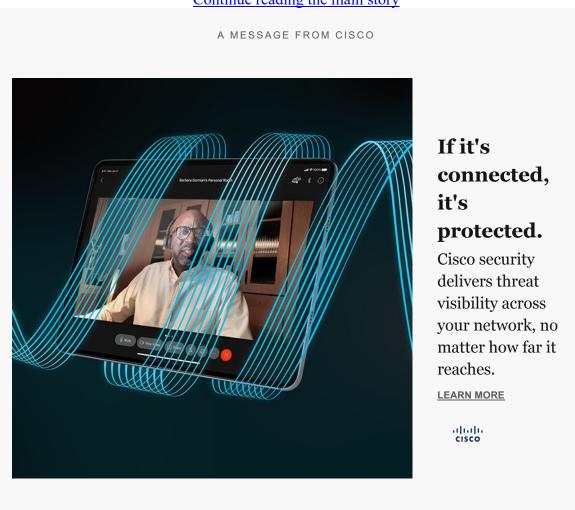
What other chatbot skills can you discover?

Think of a task that takes up a lot of your daily brainpower, like a tedious chore from work, or coming up with a weekly dinner plan to feed your family. Then work with a chatbot to see how well it can perform.

(Last week, The Times <u>spoke with people who use ChatGPT</u> to have more productive conversations with their teenagers, concoct imaginative bedtime

stories and draft love letters to their spouses. And Hard Fork, the Times podcast I co-host, featured stories from listeners who are using A.I. to negotiate their rent, understand medical results and affirm their gender identity.)

As always, share your best, worst and most interesting results in the comments <u>here.</u>



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### Quiz

#### Question 1 of 3

What was Kevin's experience using A.I. tools like ChatGPT?

- <u>They were never helpful in any situation.</u>
- <u>They were consistently perfect.</u>
- <u>They produced some wrong answers but also demonstrated impressive</u> <u>abilities.</u>

Start the quiz by choosing your answer.

# Glossary

**Natural language processing:** Techniques used by large language models to understand and generate human language, including text classification and sentiment analysis. These methods often use a combination of machine learning algorithms, statistical models and linguistic rules.

**Emergent behavior:** Unexpected or unintended abilities in a large language model, enabled by the model's learning patterns and rules from its training data. For example, L.L.M.s that are trained on programming and coding sites can write new code. Other examples include creative abilities like composing poetry, music and fictional stories.