Don't Use A.I. to Cheat in School. It's Better for Studying.

Generative A.I. tools can annotate long documents, make flashcards, and produce practice quizzes.



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Hello! We're back with another bonus edition of On Tech: A.I., a pop-up newsletter that teaches you about artificial intelligence, how it works and how to use it.

Last week, I went over how to turn your chatbot into a life coach. Let's now shift into an area where many have been experimenting with A.I. since last year: education.

Generative A.I.'s specialty is language — guessing which word comes next — and students quickly realized that they could use ChatGPT and other chatbots to write essays. That created an awkward situation in many classrooms. It turns out, it's easy to get caught cheating with generative A.I. because it is prone to making stuff up, a phenomena known as "hallucinating."

But generative A.I. can also be used as a study assistant. Some tools make highlights in long research papers and even answer questions about the material. Others can assemble study aids, like quizzes and flashcards.

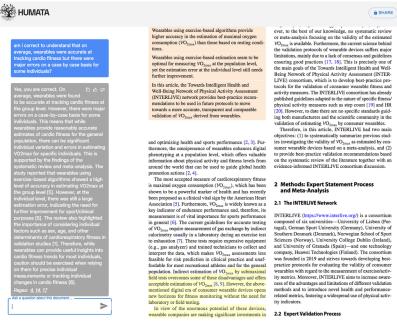
One warning to keep in mind: When studying, it's paramount that the information is correct, and to get the most accurate results, you should direct A.I. tools to focus on information from trusted sources rather than pull data from across the web. I'll go over how to do that below.

Research

First, let's explore one of the most daunting studying tasks: reading and annotating long papers. Some A.I. tools, such as Humata.AI, Wordtune Read and various plug-ins inside ChatGPT, act as research assistants that will summarize documents for you.

I prefer Humata. AI because it answers your questions and shows highlights directly inside the source material, which allows you to double check for accuracy.

On the Humata.AI website, I uploaded a PDF of a scientific research paper on the accuracy of smartwatches in tracking cardio fitness. Then I clicked the "Ask" button and asked it how Garmin watches performed in the study. It scrolled down to the relevant part of the document mentioning Garmin, made highlights and answered my question.



 $\label{thm:condition} Humata. AI\ responds\ to\ questions\ and\ makes\ relevant\ highlights\ inside\ documents.\ Brian\ X.\ Chen$

Most interesting to me was when I asked the bot whether my understanding of the paper was correct — that on average, wearable devices like Garmins and Fitbits tracked cardio fitness fairly accurately, but there were some individuals whose results were very wrong. "Yes, you are correct," the bot responded. It followed up with a summary of the study and listed the page numbers where this conclusion was

mentioned.

Studying

Generative A.I. can also help with rote memorization. While any chatbot will generate flashcards or quizzes if you paste in the information that you're studying, I decided to use ChatGPT because it includes plug-ins that generate study aids that pull from specific web articles or documents.

(Only subscribers who pay \$20 a month for ChatGPT Plus can use plug-ins. We explained how to use them in a previous newsletter.)

I wanted ChatGPT to create flashcards for me to learn Chinese vocabulary words. To do this, I installed two plug-ins: Link Reader, which let me tell the bot to use data from a specific website, and MetaMentor, a plug-in that automatically generates flashcards.

In the ChatGPT dashboard, I selected both plug-ins. Then, I wrote this prompt:

Act as a tutor. I am a native English speaker learning Chinese. Take the vocabulary words and phrases from this link and create a set of flashcards for each: https://preply.com/en/blog/basic-chinese-words/

About five minutes later, the bot responded with a link where I could download the flashcards. They were exactly what I asked for.

Next, I wanted my tutor to quiz me. I told ChatGPT that I was studying for the written exam to get my motorcycle license in California. Again, using the Link Reader plug-in, I pasted a link to the California D.M.V.'s latest motorcycle handbook (an important step because traffic laws vary between states and rules are occasionally updated) and asked for a multiple-choice quiz.

The bot processed the information inside the handbook and produced a quiz, asking me five questions at a time.

Finally, to test my grasp of the subject, I directed ChatGPT to ask me questions without presenting multiple-choice answers. The bot adapted accordingly, and I aced the quiz.

I would have loved having these tools when I was in school. And probably would have earned better grades with them as study companions.

What's next?

Next week, in the final installment of this how-to newsletter, we'll take everything we've learned and apply it to enriching the time we spend with our families.

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