



# Coursepilot

## Article Summary

Connecting the dots: AI is eating the web that enabled it

### Synopsis

Wheeler's article from Brookings primarily covers the effects that the popularization of LLM chatbots like OpenAI's ChatGPT, Google's Gemini, and Anthropic's Claude is having on traffic on the internet, and its implications. He starts by listing a few notable findings from recent research, including how it is able to provide a full answers to user queries most of the time, how many ChatGPT users have started using it as an alternative to Google search, and how traffic to the web from search engines will be diminished by a factor of 25% by 2026. These stats demonstrate how disruptive of a product these LLMs are and how companies that rely on search engine traffic, most notably Google, will need to respond to this decrease as this decrease in traffic directly correlates with a decrease in revenue from advertisements. Wheeler goes on to explain how the internet started as a largely decentralized set of websites, how hubs like Facebook and Google began to centralize information, and how LLMs are digesting internet information and are starting to create a future where users queries could be succinctly answered from a chatbot interface. He then explains how these new AI companies also threaten commercial websites that monetize the amount of traffic they get by running ads. He also draws a connection to how digital media had a detrimental effect on the amount of printed media being circulated, and created a new paradigm of proprietary websites. Several lawsuits have been filed against OpenAI and Microsoft including ones from the New York Times and other newspaper publishers on the basis that they have spent billions gathering data and that these chatbots that use the property of the publishers to train draw users away from the sources themselves. However, this sentiment is not ubiquitous amongst all media companies, with The Associated Press, News Corp, The Atlantic, and Vox media entering into contracting agreements with OpenAI for use of their content. The CEO of News Corp says that the agreement between them and OpenAI is reportedly \$250 million over 5 years. As AI is reshaping the ways that people are getting their information, it is evident that a large shift is occurring in the monetary dynamics of the internet, and that commercial websites will need to find ways to adapt to the new landscape.

### Thoughts on how this might apply to Software Engineering projects

Reading this article made us reflect on our own experience developing software during the rise of AI. We realized that we had shifted from looking up error messages and solutions to problems on Google and clicking through the available Stack Overflow links to copying the error message into some LLM such as ChatGPT or Claude. In fact, I can't even remember the last

problem I looked at on Stack Overflow. For me, this switch wasn't even something I had thought about, as using AI had naturally become such a big part of my workflow. This process is especially isolated and accelerated with the use of tools such as Copilot and Cursor, which automatically autocomplete your code using AI without you even having to leave the editor. I personally think that AI can be a great tool for accelerating your workflow through brainstorming, error solving, and providing a baseline solution to a problem. I think that at least for software development, you still need someone who is adept at programming and understands what the AI is outputting for things to come together fully and work well, and so I see it as an accelerator rather than a replacement. I think if you were to blindly take the output of ChatGPT and use it in your project or submit for an assignment, especially as a beginner, it could inhibit your learning.

Also, having experience in the corporate world, chatbots and AI features in code editors are heavily encouraged in the workplace. Because of data concerns, many companies are required to use and train their own custom models, however their purposes are identical to those models that are externally available, like ChatGPT, Gemini, or Claude. In corporate settings, codebases can be so large that it becomes incredibly difficult to memorize every little component that you might need to call upon in your code or documentation. In this sense, code autocomplete and chatbots are able to provide answers with reasoning that aligns with and keeps your specific codebase in mind making them even more powerful as tools for work when properly trained. The point still stands that the person using AI must still have a pre existing foundation and knowledge to have been able to do the work themselves, because code must be reviewed before entering a codebase. The big efficiency improvement lies in skipping the parsing of search results. Considering that the company being referenced here that is encouraging this is Google, the owner of the leading search engine, should speak to AI's ability. Where productivity is money, it makes sense that corporations are beginning to encourage AI.

## **Considerations for the future**

The article mentions a potential replacement of search engines by AI, as less people are using search engines and AI models are providing accurate answers more and more consistently. While I think that this is true to some extent, what is missing from these AI models is current information and the reputability of certain sources. For example, you may feel more inclined to trust an article by a reputable news source on a current event than something generated by ChatGPT.

To the contrary, large language models do have the ability to be used to present updated information accurately if used in combination with existing information retrieval systems, like many pre existing APIs that are updated live. A weather person could be emulated by using an LLM to extract and describe a weather API response using natural language. This text response could furthermore be played using a text-to-speech model. By itself, something like ChatGPT is unreliable for current information, but its reasoning capabilities are strong enough to consider using if the model is given prior context.