

## Implications of AI usage on forums like Stackoverflow

Following the CoL lesson on September 16th, where I briefly researched the GenAI implications on forums, and the mock interview on October 8th, I decided to further look into the topic to form an opinionated view on the topic.

As in the CoL lessons, I read two papers, with quite contradicting views:

- (Shan & Qiu, 2023)
- (Helic & Tiago, 2025)

And then also looked at Reddit, because Reddit has a lot to say.

The first paper, “Examining the Impact of Generative AI on Users' Voluntary Knowledge Contribution: Evidence from A Natural Experiment on Stack Overflow” explores how GenAI affects the quantity and quality of user answers and how those effects change with experience and intensity of AI use. They're assessing 1,25 million answers from 223.700 users.

The key findings are:

- GenAI increases answer quality
- answers become shorter and more readable
- learning and cognitive effects
- answer quality and robustness checks

AI-assisted users wrote about 17% more answers per day and the average length decreased by a few words. More answers and clearer writing strengthen the positive impact, while the high usage weakens it, due to cognitive overload. AI-assisted answers didn't get more upvotes, in some cases even fewer upvotes, suggesting that human nuance is valued. Results hold after controlling for misclassification and selection bias.

Moderate use encourages learning and productivity, but excessive use causes cognitive strain and lowers contributions. AI changes how humans contribute knowledge online, not replacing them, but reshaping their behaviour.

The second paper, “Stack Overflow Is Not Dead Yet: Crowd Answers Still Matter” analyses Stackoverflow data six months before and six months after ChatGPTs launch, to determine whether the release affected user engagement and content and how the difficulty and length of questions and answers evolved.

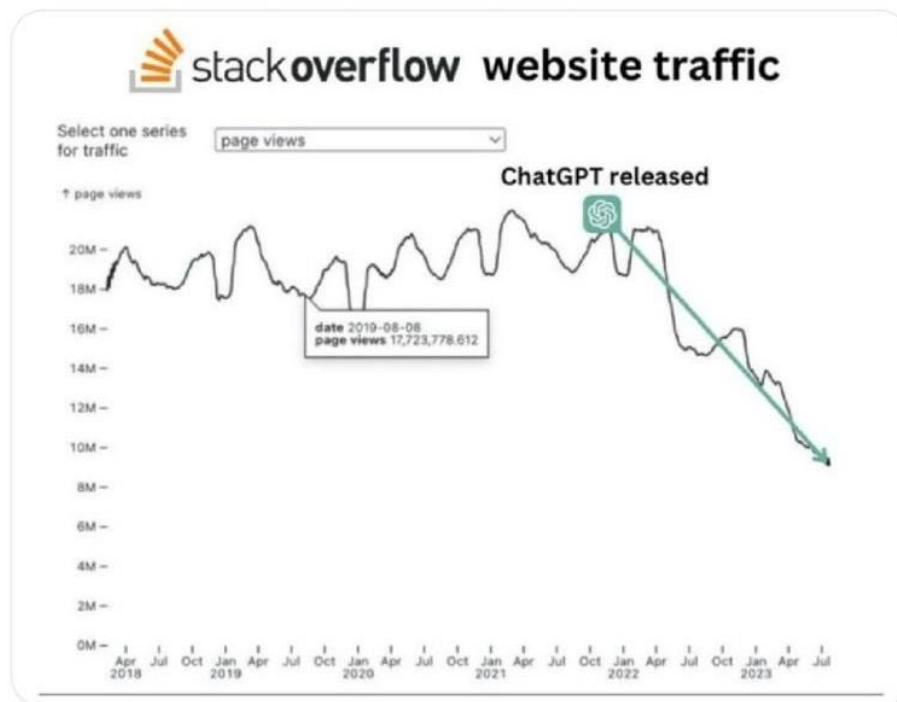
The key findings are:

- decline in activity
- increase in content complexity
- shift in question difficulty
- persistent behavioural change

The number of questions and answers dropped significantly, which accelerated an already downward trend. Both questions and answers became longer, with fewer easy questions and more medium-difficulty questions. The platform now focuses on more complex, discussion-oriented questions.

The interpretation is, that ChatGPT has not “killed” Stackoverflow, but it has changed the platform.

In short, the first paper shows that ChatGPT increases productivity and clarity at user level through learning, though excessive use reduces effectiveness. The second paper views ChatGPT as shifting Stackoverflow’s ecosystem toward higher difficulty, but also quality.



[Image Source](#)

When researching this topic in class, I had the graphic above in mind, as well as a discussion with my fellow classmates in Berlin.

I was only able to find the graphic on reddit again, of course without any sources. The question asked with it was: Will Stackoverflow die? What is your take on this?

A big group of commenters felt that Stackoverflow won't die, but its role is shifting. For many simpler or more common coding issues, developers will now first try tools like ChatGPT. For complex or niche problems, or when wanting multiple perspectives or a discussion, the platform is still really valuable.

Many do believe though, that Stackoverflow needs to evolve, and that it was already “dying” in terms of traffic before the release of ChatGPT. Also, the community and culture are heavily criticised. There are concerns, that with the improvements of LLMs, Stackoverflow might shrink even further.

## References

- Helic, D., & Tiago, S. (2025). *Stack Overflow Is Not Dead Yet: Crowd Answers Still Matter*.
- Shan, G., & Qiu, L. (2023). *Examining the Impact of Generative AI on Users' Voluntary Knowledge Contribution: Evidence from A Natural Experiment on Stack Overflow*. Information Systems Research.