With the rapid growth in AI use, it is inevitable to discuss the fact that it will have a larger role to play in our jobs and careers in the future. With this in mind, it's important to consider now how AI will impact these jobs, will it be good?, will it be bad?? Can AI really replace human workers in the future? These are questions that many ask themselves, myself included. Although I can not say for certain, I have some ideas on ways that AI could incorporate itself into the career I'm studying for, Programming. With programming, there are ways that AI could be beneficial, but there are also ways that it could be considered a problem.

Firstly, it's important to talk about the ways that AI has already been incorporated into programming. Tools like GitHub Pilot, Tebnine, and Amazon CodeWhisperer use AI to suggest whole lines or blocks of code as you type. Another area where AI is showing up is debugging. Some code editors now use AI to spot bugs as you write, suggest fixes, and explain error messages in simpler terms. This can be helpful, especially for beginners who are still learning how to troubleshoot code. Some of these AI tools give smart suggestions while coding that offer ideas to complete or improve your code. Another thing AI helps with currently is auto-completing code as you type, similar to autocorrect, which helps programmers write faster and avoid small mistakes. AI also searches for bugs, like missing semicolons. This may seem like something small, but it's a great help in finding what's causing issues fast.

Something about AI that worries aspiring programmers is the narrative that AI will replace programmers, and with the rise of AI, it's understandable why they may think this way. For example, with AI tools like ChatGPT, people are now able to write programs in a shorter time than a human programmer. There are also applications like SketchAdapt that are being made whose sole purpose is to write code at a cheaper and faster rate than a regular human programmer. Another issue with AI in programming is code quality. AI can generate working code, but it doesn't always write it most efficiently or securely. Programmers have to double check everything, and that can be hard if you don't fully understand what the AI just created. Some programmers also worry about bias and ethics. AI models learn from existing code found online, which may include bad habits, outdated practices, or even biased and insecure code. If developers blindly trust AI suggestions, they might accidentally spread those same problems into their own work.

I think rather than having AI replace human programmers, it should be used to further aid in the coding process. In the future, AI will likely help programmers even more than it does now, making coding faster, easier, and more creative. AI could handle the repetitive part of coding. AI could also help make debugging easier. If AI could find bugs, explain why they happen, and suggest fixes that match a project's style, it could save programmers a lot of time on coding time.

While the rise of AI in programming is controversial for some while exciting for others, it's clear that we can't really get rid of it, and if we can't get rid of it we should try to use it.AI has already started to make coding faster and more efficient through tools that assist with writing, debugging, and improving code. At the same time, it raises valid worries about job security, code quality, and ethical risks. Still, rather than viewing AI as a threat, it makes more sense to see it as a powerful tool that can support and enhance the work of programmers. If used responsibly, AI can take over the repetitive parts of coding and help solve problems more quickly, allowing human developers to focus on creativity, logic, and innovation. The future of programming may not be about humans versus AI, but humans working with AI to build even better software.

Credits:

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