Name of student : TARCIN Audrey

Name of your Level 1: Shai NAKACHE

Title: Programming Is Hard – Or at Least It Used to Be: Educational Opportunities and Challenges of AI Code Generation

Keywords specific to the paper: AI Code Generation Tools,Programming teaching Opportunities and Challenges, Ethical issues, Plagiarism, AI code generation tools

The paper discusses the various AI tools, their code generators and the impact that produces on programming teaching. We talk about opportunities and challenges that can solve problems that students face, but also the disadvantages of its excessive use such as ethical problems, plagiarism and the importance of teachers to master these tools.

It deals with the large number of ia code generator tools like OpenAI Codex, DeepMind AlphaCode and Amazon CodeWhisperer and their impact on teaching. They have the ability to generate code in various programming languages and their potential to standardize coding for students. They are also able to make teaching more interesting and rewarding. Teachers must adapt quickly to these educational tools. It also explains Codex features such as how to code, generate code using APIs, or troubleshoot programming problems.

This article also discusses the opportunities and challenges presented by these technological tools. They can solve specific problems such as examples of illustrative solutions, propose different approaches to coding, code revisions and various learning resources in the form of exercises. AI would improve learning, assessment approaches and redirect programming teaching to a higher algorithm.

The paper highlights the challenges of AI-generated code, ethical issues, and the risk of getting used to this technology.
He indicates as an example:
a simplification of the algorithm to have the best results, the resolution of traditional problems in the teaching of programming, the non-respect of academic conduct and teaching, the allocation of information or the reuse of the code, sustainability challenges, excessive reliance on automatically generated code. The teachers invite students to reflect on this abuse of AI tools in their school programs.

AI Model used:
Codex (OpenAI)
AlphaCode (DeepMind)
CodeWhisperer (Amazon)