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Let $\epsilon = 0$

CS116 is an imperative programming course taught online using Python at the University of Waterloo. Since 2025, advances in generative artificial intelligence have reached a point where questions that were previously assigned as homework in CS116 can now be completely solved using these tools. This has created several pressing issues related to student motivation and what the role of homework should be in this new age of intelligence.

In this talk, we present the history of the course, changes in student motivation and some of the approaches we have taken to encourage students to engage meaningfully with course content despite the ubiquity of generative artificial intelligence tools. We will also discuss how the course has been adapted to respond to this significant change as well as the pedagogical considerations that have guided these decisions about whether, where and how these tools should be integrated into teaching and learning.

Computer science, mathematics and statistics face a shared challenge. We conclude by dedicating time to discussing whether some of the competencies previously developed in this course remain fundamental and relevant in a world where generative artificial intelligence can solve many of the problems previously assigned to students as well as some of the opportunities this disruptive technology can bring to our classrooms.