AI Chatbot for Student Assessment of Computer Science Courses

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Abstract

Providing undergraduates to the vital link between teaching and research is one of the cornerstones on which successful research-infused teaching and learning can be nurtured. Given that Artificial Intelligence (AI) is nowadays a hot topic worldwide, it is imperative that we connect undergraduate students to computer science research and at the same time to improve undergraduate learning quality and to provide students with innovative and engaging learning experience both within and outside classroom. We propose a novel teaching framework that leverages AI Chatbot software and develop a methodological approach for students to perform self-assessment of their individual learning progress. The Chatbot provides Trivia-like quizzes in-line with the OBTL objectives of the course that students can take in-class and also outside classroom regularly. It also exposes students to this new form of technology that lead to heightened interests in AI. The trivia-like quizzes are gamified with a leaderboard of top scorers that motivates students to learn and also make their attendance in class, a compulsory one since the trivia-like quizzes are released spontaneously, and a fun one. Our preliminary testing on more than 130 students over a semester has been a fruitful one.