Detecting Cheating in Exams Administered on Canvas

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Abstract

In online courses, it is relatively easy for students to collaborate or access unauthorized resources during an exam. Here, we describe scripts that identify students engaged in multiple types of academic misconduct while taking an exam in the Canvas learning environment. We have used these scripts to compile strong evidence of misconduct in a variety of disciplines. While the reports cannot identify all cheating, they automate the process of identifying the students who most likely engaged in some common forms of misconduct. We will share sample reports and describe how these scripts are transforming our ability to address misconduct.

Proposal

With the massive move to online teaching due to the Covid-19 pandemic, instructors at universities and colleges all around the globe were suddenly asked to host lectures as well as examinations online. Cheating during online exams is much easier than with in-person exams. At our institution, we use the Canvas learning management system by Instructure. During exams hosted in Canvas (in the form of a so-called quiz), a log is generated for each student as they take the quiz. It lists when a student is on the Canvas quiz page or stops viewing the page and when they answer what question. From this we can derive useful information about the student's behavior during the quiz. The Canvas quiz logs do not show the access of other Canvas resources; however, Canvas has recently made a stripped-down version of the access data available to instructors. We developed python scripts that can connect the quiz log data to these access data and are able to batch extract these data for each quiz. This allows instructors to more quickly organize the cases of potential misconduct, and sort students based on the likelihood that they engaged in misconduct. We have now pulled the scripts into a web-based application that will analyze the quiz data, facilitating its use for all faculty, rather than faculty that are familiar with python.