Detecting cheaters and plagiarism in online exams - techniques and data

Students rarely cheat in online exams and instructors seem to count on that

1.7% Cheaters in online statistics exams

INTRO
We developed techniques to detect cheating and plagiarism in online exams. And did not find many cheaters.

METHODS
Logfile analysis of text answers (edits per second) identifies copy-pasting text from the internet/other users. Further edits to disguise the plagiarism are made transparent. Individualized data sets in statistics exams lead to individualized correct solutions. Identical solutions are an indicator of cheating.

RESULTS
Logfile analysis was available for 8 exams in WS20; singular suspicious activities were detected in 6 exams, but ignored by 5 instructors/exams. In SS21 none of 11 potential users requested the analysis. Individualized data and comparison of error patterns identified $4+4+2+3+2+2=17$ cheaters in 6 statistics exams with 993 participants.

DISCUSSION
The methods can only detect specific cheating behavior/ work only for a subclass of tasks/questions. Even if available, most instructors do not use the methods and prefer to ignore the problem. Cheating rates cannot be compared to traditional exams due to missing data. But still: There is no evidence of massive cheating in online exams.

https://go.uni-wuerzburg.de/mvwji
casetrain@uni-wuerzburg.de
@CaseTrain