Rainer Scheuchenpflug
Alexander Hörnlein

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. No potential user requested the analysis in following exams. Individualized data and comparison of error patterns identified (4+4+2) + (3) + (2+2) + (2) +(0) + (2)= 21 cheaters in 12 statistics exams with 2283 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.

Students rarely cheat in online exams

and instructors seem to count on that

0.92% cheaters in online-exams

Number of participants (y-axis: 0, 50, 100, 150, 200, 250)

Stat1 Stat2 | Stat1 Stat2 | Stat1 Stat2 | Stat1 Stat2 | Stat1 Stat2 | Stat1 Stat2
SS20 | WS20/21 | SS21 | WS21/22 | SS22 | WS22/23

▨ honest   ■ cheaters

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

Messy section

[How to run online exams](link) student info

Logfile: normal typing

Logfile: copy-paste

Individual data and error patterns

instructor workload: ~260 hrs

Post facto: What happens to cheaters?

Online-exam: Breakoutroom

lecture-hall-exams

More or less cheating possible?