ENGINEERING

Online Proctoring's Impact on Students and Student Privacy

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Online proctoring software (OPS) claims to fortify education by attempting to provide a controlled virtual testing environment, ideally reducing the amount of cheating on online assessments; however, scholars, students, and education technology specialists have raised significant concerns about student privacy and algorithmic discrimination in OPS. This study analyzed survey data from 86 Purdue undergraduate students regarding their sentiment and experience using OPS. After providing informed consent, demographic information, and OPS usage, students indicated via 5-point Likert scale to what extent they agreed or disagreed with statements gauging perceptions of identification accuracy, data privacy, knowledge about student data rights, and academic integrity. Participants also could share additional reflections via two free-response questions.

In this study, 58% of participants strongly agreed that OPS consistently verifies their identity correctly. However, of the 16% of participants who reported they strongly agreed

or agreed that they were previously mistakenly flagged for cheating, all identified as either women or genderqueer, raising concerns about possible gender bias. 86% of participants indicated they strongly disagreed with the statement regarding understanding how OPS collects and uses data, yet only 20% somewhat agreed that this was concerning. 55% of participants somewhat disagreed that OPS effectively ensures academic integrity; 81% of students felt stressed when using OPS; and 72% disagreed that instructors offered feasible alternative assessments.

This study's limitations include a participant sample that identified 71% White, 27% Asian, 79% female, and 88% nondisabled. Further research with a larger and more diverse study population can help find if OPS ultimately protects or harms the integrity of institutions, as well as possible changes that could uphold student privacy and address issues of disparate impact.

Research advisor Lindsay Weinberg writes: Tessca Almeida's research has made an important contribution to understandings of how students perceive the degree to which automated proctoring software is acceptable, reliable, fair, or trustworthy. Furthermore, her research helps us imagine solutions to problems of bias, increased test-taker stress, and a lack of provider transparency and accountability."
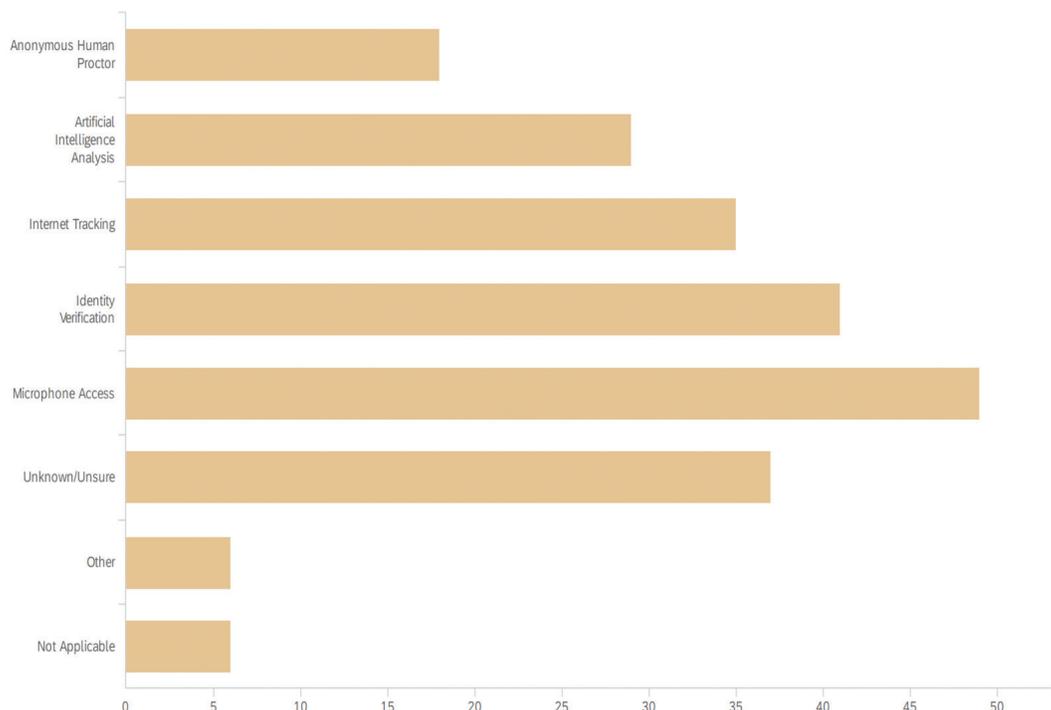
This graphic shows participants' previous experience with online proctoring software's surveillance tools.