**2.2 Integration of Real-time behavior monitoring**

1. **The student, in an attempt to access answers quickly, switches tabs and resorts to copying and pasting answers.**

**Title: Proctoring and Non-proctoring Systems (Foreign, 2022)**

According to the study, academic dishonesty in online courses is a global problem at many universities. The researcher created a system called the Sikoola application. When an examinee opens another web browser or uses the keyboard to search or copy-paste and the proctoring system will block the examinee’s screen while taking the exam, the Sikoola system will alert them. Depending on the test parameters, this warning may occur after 20, 30, or even longer. As long as a notification shows on the screen, the examinee must click the OK button to dismiss the alert. Sikoola includes a camera surveillance feature taking an online exam requires verifying internet networks students can edit their answers; and every question has a color. The question is shown by blue when it is being worked on, by yellow when it has been answered, by green when the examinee has selected the correct answer, and by white when it has not been answered. The researcher's aim in this study is to monitor the students and help them tell the truth at all times throughout examinations.

Link: [Paper\_10-Proctoring\_and\_Non\_proctoring\_Systems-libre.pdf (d1wqtxts1xzle7.cloudfront.net)](https://d1wqtxts1xzle7.cloudfront.net/110709206/Paper_10-Proctoring_and_Non_proctoring_Systems-libre.pdf?1705920549=&response-content-disposition=inline%3B+filename%3DProctoring_and_Non_proctoring_Systems.pdf&Expires=1714816866&Signature=TJZ~oxKiobjixV553RXXryxOghVjD8i8EnnNoaqjYp7EgdThC6VnaEvePmSSPgYfmp3QmXN9TU5QgZ~4qhqo8DkIHfV3DMhlf2uA--5LltOi0WyOcr25keGzn6VJq7L~fMSLtAUN9VufcQCPtzu6LvssR2JUNFeNTfq-u4Y5ulBg5we640trciDhtTV9a~f6kthTbrnAY35h3SHGl5~Jl97i5-9b58-Y1FdSKyRSN-mlSxLzJ8IdemEVCnz4ng44IB~HT0v~NuwZHwr7JRuA68O3JwFLir079~TZUjb-ZZM~nA3FRVniICHfLRImclZMUAa635CL~wMzUHBeTUbDBw__&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA)

Reference: Baso, Y. S. (2022). Proctoring and Non-proctoring Systems. International Journal of Advanced Computer Science and Applications, 13(6).

1. **Title: Automated Proctoring System to Detect Anomalous Behavior in E-learning During Times of Crisis ( Foreign 2023)**

A boom in remote learning has happened recently. However, there has not been a good answer for academic exams. Some institutions use online copy-and-paste assignments, while others use remote proctoring, where a human proctor maintains an eye on students’ activities. There must be a solution as if way we live is to become the new norm. In this essay, we have put out a plan for creating an integrated AI-based system that can aid in discouraging exam cheating. The method recognizes fraud and records the evidence. This technology will be both affordable and secure.

Link: <https://link.springer.com/chapter/10.1007/978-981-99-2058-7_38>

Reference: Tiong LCO, Lee HJJ (2021) E-cheating prevention measures: detection of cheating at online examinations using deep learning approach—a casestudy. J Latex Class Files