



## A Survey on Advanced Online Proctoring

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### ABSTRACT

In the past one to two years the education industry is growing with a great force. To make the students more productive most of the schools and colleges are coming with various hardware resources as well as software resources. During COVID-19 pandemic most of the organizations have conducted various meetings especially the assessments for the freshers online. It is difficult to identify whether the person taking the assessment in online mode is legit or not. This is where Online Proctoring comes into picture. Online Proctoring Services which are part of assessment are also growing with a rapid pace. Artificial Intelligence based Proctoring Systems also called as AIPS have taken the market by storm. Online Proctoring Systems also called as OPS, in general, makes use of various online tools to maintain the goodness of the assessment.

There are various parameters that need to be considered while developing Artificial Intelligence based Proctoring Systems. This paper systematically reviews existing AI and non-AI-based proctoring systems. Through the systematic search on IEEE, 49 paper were listed out from the year 2013 to 2022. We mainly focused on the existing architecture of Artificial Intelligence based Online Proctoring, parameters that need to be considered while developing AIPS, trends on how it is evolving, major issues in AIPS and What will be the future of AIPS. Based on our analysis we pointed-out that the security issues that are associated with the AI-based Online Proctoring Systems are multiplying. Major issues that can be considered while developing AIPS and OPS include Security concerns, Privacy concerns, Ethical concerns, Cost, Usage of technology and many more.

The most reasonable conclusion we can reach in the present is that the usage of the AIPS and OPS is mainly based on the trust on the tool or software. To the best of our knowledge, we can say that there is no proof of analysis on how to make online proctoring more secure. Our research moreover, addresses the issues in AIPS in human and technological aspect. It also lists out various key points and new technologies that have been recently introduced while making significant impact on online education and Online Proctoring Systems in the mere future.

### **Keywords:**

Artificial Intelligence, Online Proctoring, Online assessment.

## **INTRODUCTION**

Academics have shifted to online mode. This poses a major challenge not only from a learning point-of-view but also from the perspective of examinations. Conducting examinations without any wrongdoing is a major task to be solved. In India, the number of internet users has nearly doubled in the past 6 years. This proved to be a boon for academics as many students could continue their education. This also facilitated examinations to go online which brought the concept of online monitoring at the academic level. Web based administering implies to a computerized type of invigilation utilizing cutting edge observing software. A proctored exam allows the invigilators to invigilate remotely. They use video, audio, and various anti cheating features to maintain the exam's credibility. Manual online proctoring in the distant examination is a difficult task as many students cannot be invigilated at the same time. During manually proctored exams at the centers, a teacher can physically monitor students using all the senses. They can notice the sounds, movements of students and can easily ensure smooth conduct of the event. Online examinations restrict supervision as the teacher is not physically present at the location. A good remote online proctoring system should facilitate movement and sound detection.

## **LITERATURE SURVEY**

The web-based swindling climate of distance training has acquired foothold in the previous decade. With a couple of basic keystrokes, understudies can understand a wide cluster of online administrations for recruit to compose research papers, complete schoolwork tasks, or induct for the benefit of the understudy on record to take the whole online course. While foundations in advanced education have considered online to be as a vehicle to expand understudy enrolments adding to their primary concern, the quantity of Internet swindling organizations to help scholarly immorality has additionally expanded quickly. Difficulties managing scholarly deceit in the online region have gotten more widespread, leaving personnel and school overseers in conflict, how to forestall such conduct in both conventional and online classes. In paper [1] This paper was planned to give a reasonable correlation of highlights of internet delegating frameworks right now in activity as of this date. A program should also make a significant effort to establish rules and policies for test security and make sure that examinees and others are aware of them. It should provide clear and public information about how and where infractions and attempts to compromise the integrity of a test can be reported, including anonymous channels. Data collected need to be secured against hacking and theft. In paper [4] The motivation behind this examination was to think about online test results from administered versus not delegate online tests. Test execution of one hundred forty seven understudies tried out various segments of an online course was contrasted utilizing direct blended impacts models and almost a large portion of the understudies having no delegating and the rest of to utilize internet administering programming. Understudies scored on normal seventeen focuses lower and utilized altogether less time in online tests that utilized administering programming versus non-delegated tests. Huge evaluation difference and diverse time use happened on various tests, both across and inside segments of similar course where a some of understudies utilized test delegating test proctoring software and others did not.

## **CONCLUSION**

There is a high demand for AI proctored systems as online proctoring has a lot of demand these days. It is possible to create an AI proctoring system with high accuracy. Logging fraudulent activity is important to handle disputes. Making a proctoring system that

is mobile compatible is the need of the hour as most students don't have computers. Through this project, we will try to show that online proctoring is the future, and using online proctoring cheating in exams can be reduced drastically.

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