

AI-Based Proctoring system for online Tests

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Abstract: Recent learning has gained momentum. But there was no proper solution to the academic tests. Some universities have collected assignments, which students may not be able to copy and paste it online, while others have done it use remote proctoring, where the proctor is manually operated keeps looking at student activities. If the way we live to be a new commoner there is a need to find a solution. In this paper, we have proposed a solution to develop an integrated AI system that can help prevent cheating. In trials. The system catches fraudulent activities as well keeps evidence. This program will be secure and inexpensive.

Keywords: remote reading; remote production; the manual proctor; An AI-based integrated program.

INTRODUCTION

Scholars have switched to online mode. This poses a great challenge not only from a learning perspective but also from an exam perspective. Conducting tests without doing wrong is a big task that needs to be solved. In India, the number of internet users has almost doubled in the last 6 years. This has been of benefit to the students as more students can continue their education. This also helped to get the tests into the internet which brought the idea of making the internet to the academic level. Web-based management focuses on the type of computer monitoring using state-of-the-art viewing software. Proctored tests allow invigilators to monitor from a distance. They use video, audio, and various anti-cheating features to maintain test integrity. Doing online proctoring in person at a remote exam is a difficult task as many students cannot be hired at the same time. During manual tests at institutions, the teacher can monitor students physically using all the senses. They can hear sounds, student movements can also easily ensure the smooth conduct of the event. Online tests limit surveillance as the teacher is not actually in the area. A good online proctoring remote system should aid in motion and audio detection.

LITERATURE SURVEY

[1]. This study addresses current issues online testing, which is very important in time the covid19 pandemic. We are focused on academic infidelity associated with online testing. We try to find out the spread of potential e-cheating using case studies as well suggesting preventive measures that may be used. We used an e- cheating intelligence agent as how to find cheating habits online, built into two major modules: the Internet Protocol (IP) detector and behavior detector. I a spy agent monitors student behavior and it has the power to prevent and detect any malicious activity habits. It can be used to assign random multiple-choice questions to the lesson test and compiled with online learning programs to monitor the behavior of students. The proposed method was tested in a variety of ways data sets verify their performance. The results revealed 68% accuracy of deep neural network (DNN); 92% of short-term memory (LSTM); 95% because iDenseLSTM; and, 86% of ongoing neural network (RNN).

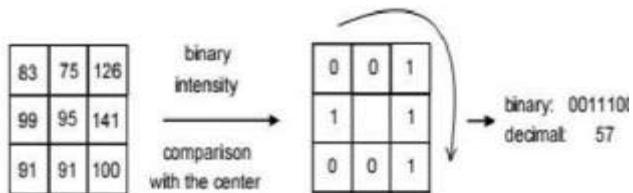
[2]. Online education continues to grow, it brings opportunities and challenges for students and faculty. Another challenge is the concept of academic integrity related to online testing is at risk due to invisible cheating that gives high marks for hypocrisy. To address this concern, proctoring software has been developed to address and prevent academic infidelity. The purpose of this study was to compare online trials results from proctored online trials against unproctored. Test performance of 147 students enrolled in multiple courses the online study sections are compared using the line mixed effects without proctoring.

[3]. Large open internet courses (LOICs) and other forms of remote education continue to grow in popularity and reach. The ability to successfully perform remote online tests is an important factor that puts a limit on the skin of this next phase of education. At present, human processing is a common way of testing, by requiring the examiner to visit the test center, or by monitoring them visually and audibly during tests using a webcam. However, such methods are difficult and costly. In this paper, we introduce a multimedia analytics system that performs automated online testing. The system hardware includes a single web camera, a single wearcam, and a microphone, for the purpose of monitoring the visual and audible environment of the test site. The program includes six basic components that always measure key behavioral strategies: user authentication, text acquisition, voice detection, active window detection, view measurement and phonedetection.

[4]. Performing tests for thousands of people the offline testing process has a few problems, avoiding those problems with the online testing process is a very popular field and made with many security guarantees. Although it fails to control cheating, online tests have not been widely accepted, but online education is accepted and used worldwide without any security issues. Online system education is not a problem and does not interfere with any, with an online test system we need to control a lot of things here our work suggests a secure online test management environment guided by group encryption techniques using remote Monitoring and port control and input. The targeted setting for this online exams is for any subject at any level of study, as well as online university courses with students at various remote locations. A simple solution to the issue of security and cheating on online tests and using an advanced Online Exam (SeCOnE) security management system based on group cryptography with an e-monitoring system. This paper also determines the comparative results of the existing system, as well as the proposed procedures involved in managing

failures.

[5]. Student dishonesty in the form of cheating and cheating among university students has become widespread. This study investigates the role of ethical thinking as the president of risk factors (Fraud Triangle - pressure, opportunity, and rating) on academic infidelity. Data were collected by a survey of 178 accounting students at one public university in Indonesia. The result of the analysis of the square-shaped mathematical model that is part of the structure revealed that pressure, opportunity, and proportion have directly and positively affected academic infidelity. The structure model was also tested in both groups based on the level 1 of behavioral thinking.



(Group 1: people with low moral thinking; Group 2: people with high moral thinking). The results showed that pressure, opportunity, moderation - the model of academic infidelity remained unchanged between groups, new findings contributed to academic infidelity literature and the effects of ethical thinking. The results of this study also suggest that the university should respect academic integrity by creating an environment where academic dishonesty is unacceptable and reducing the likelihood of committing acts of dishonesty because everyone can commit these acts regardless of their behavior.

[6]. To demonstrate and maintain academic integrity, some institutions require professional supervision in online exams. However, production can be very expensive. Student costs may include fees at testing centers, the cost of purchasing a Remote Proctor, the time to obtain an accredited proctor, and the effort required to cover the test time. Institutional costs include salaries for employees to control the production process, manufacturer authorization, maintenance of testing facilities, and potential loss of registration and revenue as not all institutions require manufacturers in online testing. This paper examines the regulatory issues associated with online exams and asserts that the total cost of proteins in online exams (time and money for both students and institution) exceeds the potential benefits. The authors propose an inexpensive, non-proctor method to promote academic credibility, using eight control procedures that enable faculty to increase complexity and thus reduce the chances of cheating by students.

$$\text{Intensity} = 0.2989 * \text{red} + 0.5870 * \text{green} + 0.1140 * \text{blue}$$

[7]. Massive Open Online Courses (MOOCs) make it possible for everyone to receive a quality education. However, current MOOC creators are unable to provide an effective, economical, and measurable way to obtain cheat tests, which would be required for any certificate. In this paper, we propose a Massive Open Online Proctoring (MOOP) framework, which incorporates both automated and collaborative methods to detect cheating behavior in online testing. The MOOP framework consists of three main components: Automated Cheat Detector (ACD), Peer Cheat Detector (PCD), and Final Review Committee (FRC). ACD uses webcam video or other sensors to monitor readers and automatically detect suspicious cheating behavior. Unidentified cases were then sent to the PCD, where students reviewed a webcam video flagged to confirm suspicious behavior. Finally, a list of suspicious fraudulent acts is sent to the FRC to make a final decision to punish. Our study shows that ACD and PCD can detect the use of cheating sheet with good accuracy and can reduce the number of human resources needed to employ MOOCs by cheating. Students scored points, on average, 17 low points [95% CI: 14, 20].

[8]. Many online services depend on the integrity of their users, even if these users have strong motivation to behave dishonestly. Draws on both different online tests. In some cases, this study measures the prevalence of cheating and explores two different ways to prevent it. Our first test investigates cheating behavior in two online trials that took 632 students in India. Our second study examines dishonest behavior in Mechanical Turk with online activity with a total of 2,378 participants. Using precise measurements that do not depend on reporting, we find significant cheating values in both areas. We assure you that codes of conduct —despite frequent use of large online open courses (MOOCs) - lead to only a small and insignificant reduction of online cheating behavior. To overcome these challenges, we propose a new intervention: a stern warning of potential consequences of cheating. It shows that the warning leads to a significant reduction (approximately double) in cheating, consistent throughout all tests. We also show people 'cheating links in Mechanical Turk. Our findings improve understanding of online cheating, and suggest that replacing traditional code of warnings with warnings can be a simple and effective way to prevent cheating on online courses and online labor markets.

[9]. Online education helps students and institutions around the world to discover a wide range of knowledge base. This type of learning and teaching is growing rapidly, Testing and doing proctoring online courses has become a major bottleneck for the spread of those learning programs. Personal surveillance is a common form of testing and evaluation where the examiner needs to be in the test area or needs to monitor the test site visually and audibly with a webcam. In our proposed system, we introduce an automated, experimental test solution that does not require human involvement. The system integrates all inputs to process and evaluate a variety of events, behaviors and patterns often associated with cheating. By combining continuous personal verification with automatic detection of wrongdoing or suspicious student actions, the program provides a free, online, fully-fledged, interactive, proctoring system that can be accessed by testers and administrators in a truly effective solution to a common online test problem.

Proctoring.

[10]. Online education continues to grow, bringing with it opportunities and challenges for students and faculty. Another challenge is the perception that academic integrity related to online testing is compromised by unreasonable cheating that results in higher grades. To address this concern, proctoring software has been developed to address and prevent academic dishonesty. The purpose of this study was to compare the results of online tests from online proctored and unproctored tests. The test performance of 147 students enrolled in several online study classes was compared using almost half and half-mixed models for non- performing students and the residue required for the use of online activity software. Students scored points, on average, 17 low points [95% CI: 14, 20] and spent very little time on online testing that used proctoring software against unauthorized tests. Significant distance difference and the use of different time occurred in different tests, in both phases of the same lesson where some students used the test software and others did not use it. It discusses the implications and suggestions for incorporating strategic interventions to address integrity, addressing various test scores, and verifying student knowledge in online classes.

CONCLUSION

By referring to the papers provided above we can conclude by saying that there are many aspects of text fragmentation, image processing and predictable analysis of its subsequent use. There are many methods and methods that can be used to differentiate and predict such as DNN, RNN and many more. The models discussed in the papers above usually resolve image separation only and interact with the use of separate proctoring data. For this reason there should be a system that can take text fragmentation, image acquisition, voice detection and determine the fluctuations in subject matter growth and the frequency of detection of malfunction overtime to predict readers. It must be feasible, produce relevant images with high levels of fraud and must provide accurate results.

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This study was conducted to obtain information on the various strategies and methods that could be used to predict the inaccuracies that could be detected in the test. This study is for educational purposes.

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