Online Examination Portal

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Abstract: *E-learning in higher education is exponentially increased during the past decade due to its inevitable benefits in critical situations like natural disasters (e.g. COVID-19 pandemic etc.) and war circumstances. The reliable, fair, and seamless execution of online exams in E-learning is highly significant. Particularly, online exams are conducted on E- learning platforms without the physical presence of students and instructors at the same place. This poses several issues like integrity and security during online exams. To address such issues, researchers frequently proposed different techniques and tools. However, a study summarizing and analyzing latest developments, particularly in the area of online examination, is hard to find in the literature. In this article, a Systematic Literature Review (SLR) of online examination is performed to select and analyze 53 studies published during the last five years (i.e. Jan 2016 to July 2020). Subsequently, five leading online exams features targeted in the selected studies are identified. Moreover, underlying development approaches for the implementation of online exams solutions are explored. Furthermore, 16 important techniques / algorithms and 11 datasets are presented. In addition to this, 21 online exams tools proposed in the selected studies are identified. Additionally, 25 leading existing tools used in the selected studies are also presented. Finally, the participation of countries in online exam research is investigated. Key factors for the global adoption of online exams are identified and compared with major online exams features. This facilitates the selection of right online exam system for a particular country on the basis of existing Elearning infrastructure and overall cost. To conclude, the findings of this article provide a solid platform for the researchers and practitioners of the domain to select appropriate features along with underlying development approaches, tools, and techniques for the implementation of a particular online exams solution as per given requirements..*

Keywords: Online Examination, Online Proctoring, Systematic Literature Review, E- Learning, Exam Creation, Analyze Response.

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