

A MODEL FOR E-ASSESSMENT AUTHENTICATION IN DISTANCE LEARNING

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Abstract

Distance learning in developing countries has leapfrogged from second generation to fifth generation to take advantage of electronic and online learning benefits. The ease of accessing the internet and electronic materials has created a form of academic dishonesty referred to as contract cheating. Contract cheating involves a student contracting their coursework to writers in order to submit the purchased assignments as their own work. In developing countries, assignments consultants have sprung up within the vicinity of institutions of higher learning where they offer to undertake original course work assignments on behalf of a student at a given price.

The study aims at detecting this form of academic dishonesty by verifying the authenticity of a student e -assessment by developing an E-assessment Authentication Model (EAM). The EAM uses stylometrics analysis, a form of behavioral biometrics to verify a student e-assessment by undertaking a similarity match between an unknown feature vector against a known enrolled feature vector for a given student e-assessment. Stylometrics analysis uses an unconscious habit and patterns of vocabulary and grammar to verify student e -assessment. Data corpus is obtained from previous eLearning students assignments. The methodology involves the biometric process of enrollment, matching and decision of writing style linguistic dataset of e-learning students. The expected outcome of EAM is to determine the accuracy, widow size and threshold needed to determine an authentic e-assignment from a registered student.

Key words: Distance Learning, E-assessments, contract cheating, stylometrics, behavioral biometrics