The Concept and Computational Methods for the measuring of Student Disengagement

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ABSTRACT

Student Engagement is a growing concern among academic institutions at all levels as it is increasingly seen as an indicator of the quality of classroom instruction, a desired outcome of schooling and a Key Performance Indicator for any teaching institution. As such indicators of student disengagement and methods to measure them are a widely discussed and debated topic. Though there is a limit to what can be computationally assessed, it is possibly the programmatically analyse various engagement indicators, such as grades, attendance and meeting of deadlines to ascertain students that are more likely to be disengaging, and pass that information onto teaching staff to be actioned.

Figure 1. The solid line on this graph represents the rolling average of a student’s grades, which emphasises peaks and troughs in the overall dataset with more effectiveness than the Cumulative Moving Average (long-dotted line), which shows a steady decline. However by its very nature, more work is required on behalf of the student if their CMA declines than if their Rolling Average declines.