

Uncovered user engagement pattern in LMS During COVID-19 pandemic using temporal visualization matrix

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ABSTRACT

Movement Controlled Order (MCO) during COVID-19 pandemic causing global higher education to intensify the use of online learning to keep student engage with their study. While many institutions of higher learning plan for blended learning approach instead of full online, this sudden shift to full online causing bottleneck performance of Learning Management System (LMS). Therefore, the aim of this paper is to study the pattern of user engagement in LMS during pandemic. The case used in this study is LMS from Universiti Malaysia Pahang. Quantitative method has been chosen as a research method in this study where user interaction data from the LMS log is been used for engagement analysis. By combining the context of user engagement, we create temporal visualization matrix to gain the insight of user engagement pattern in LMS. Our findings show that both student and instructor are still highly engaged in LMS even after midnight. This insight is useful and significant for the institution (1) to deploy effective Quality of Service (QoS) of LMS operation and (2) to design a policies related to quality assurance during pandemic by addressing the wellbeing aspect of student and instructor.

KEYWORDS

COVID-19; Moodle; Temporal analysis; User engagement

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