

Analyzing Students' Behavior in a MOOC Course: A Process-Oriented Approach

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Abstract

Massive Open Online Courses (MOOCs), are one of the most disruptive trends along the last 12 years. This is evidenced by the number of students enrolled since their emergence with over 101 million people taking one of the more than 11,400 MOOCs available. However, the approval rate of students in these types of courses is only about 5%. This has led to a great deal of interest among researchers in studying students' behavior in these types of courses. The aim of this article is to explore the behavior of students in a MOOC. Specifically, to study students learning sequences and extract their behavioral patterns in the different study sessions. To reach the goal, using process mining techniques, process models of $N = 1,550$ students enrolled in a MOOC in Coursera were obtained. As a result, two groups of students were classified according to their study sessions, where differences were found both in the students' interactions with the MOOC resources and in the way the lessons were approached on a weekly basis. In addition, students who passed the course repeated the assessments several times until they passed, without returning to review a video-lecture in advance. The results of this work contribute to extend the knowledge about students' behavior in online environments.

Keywords

MOOC Study sessions Learning strategies Process mining Learning analytics

Coursera

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Notes

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