What Makes a Great MOOC? An Interdisciplinary Analysis of Student Retention in Online Courses

Completed Research Paper

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Abstract

Massive Open Online Courses (MOOCs) have experienced rapid expansion and gained significant popularity among students and educators. Although the broad acceptance of MOOCs, there is still a long way to go in terms of satisfaction of students' needs, as witnessed in the extremely high drop-out rates. Working toward improving MOOCs, we employ the Grounded Theory Method (GTM) in a quantitative study and explore this new phenomenon. In particular, we present a novel analysis using a real-world data set with user-generated online reviews, where we both identify the student, course, platform, and university characteristics that affect student retention and estimate their relative effect. In the conducted analysis, we integrate econometric, text mining, opinion mining, and machine learning techniques, building both explanatory and predictive models, toward a more complete analysis. This study also provides actionable insights for MOOCs and education, in general, and contributes to the related literature discovering new findings.

Keywords: Massive Open Online Courses, MOOCs, online learning, student retention, grounded theory method, econometric analysis, choice models, text mining, opinion mining, predictive modeling, user-generated content, user satisfaction, utility