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Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)

Volume 11722 LNCS, 2019, Pages 40-54

14th European Conference on Technology Enhanced Learning, EC-TEL 2019; Delft; Netherlands; 16 September 2019 through 19 September 2019; Code 231759

Analyzing Learners' Behavior Beyond the MOOC: An Exploratory Study (Conference Paper)

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Abstract

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Moreno-Marcos, P.M. , Pong, T.-C. , Munoz-Merino, P.J.

Analysis of the Factors Influencing Learners' Performance Prediction with Learning Analytics

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Most of literature on massive open online courses (MOOCs) have focused on describing and predicting learner's behavior with course trace data. However, little is known on the external resources beyond the MOOC they use to shape their learning experience, and how these interactions relate with their success in the course. This paper presents the results of an exploratory study that analyzes data from 572 learners in 4 MOOCs to understand (1) what the learners' activities beyond the MOOC are, and (2) how they relate with their course performance. We analyzed frequencies of the students' individual activities in and beyond the MOOC, and the transitions between these activities. Then, we analyzed the time spent on outside the MOOC content as well as the nature of this content. Finally, we predict which transitions better predict final learners' grades. The results show that we can predict accurately students' grades of the course using only internal-course fine-grained data of student's interactions with video-lectures and exams combined with trace data of interactions with content outside the MOOCs. Also, data shows that learners spent 75% of their time on the MOOC, but go frequently to other content, mainly social networking sites, mail boxes and search engines. © 2019, Springer Nature Switzerland AG.

SciVal Topic Prominence ⓘ

Topic: Course | Education | Completion rates

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Author keywords

Exploratory study | Learning Analytics | Massive Open Online Courses | MOOCs

Indexed keywords

Engineering controlled terms:

Curricula | Engineering education | Forecasting | Search engines | Students

Engineering uncontrolled terms

Course performance | Exploratory studies | External resources | Learning Analytics | Learning experiences | Massive open online course | MOOCs | Social networking sites

Funding details

Funding sponsor	Funding number	Acronym
Fondo Nacional de Desarrollo Científico, Tecnológico y de Innovación Tecnológica	11150231	FONDECYT
	586120-EPP-1-2017-1-ES-EPPKA2-CBHE-JP	
	2016/21160081	
	2017/21170467	
European Commission See opportunities by EC ↗		EC

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This work was supported by FONDECYT (11150231), University of Costa Rica (UCR), CONICYT Doctorado Nacional 2017/21170467, and CONICYT Doctorado Nacional 2016/21160081, the project "Análisis del aprendizaje para el estudio de estrategias de aprendizaje autorregulado en un contexto de aprendizaje híbrido-DIUC XVIII 2019 54" financiado por la Dirección de Investigación de la Universidad de Cuenca (DIUC), Cuenca-Ecuador, and the LALA project (grant no. 586120-EPP-1-2017-1-ES-EPPKA2-CBHE-JP). This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission and the Agency cannot be held responsible for any use which may be made of the information contained therein.

ISSN: 03029743

ISBN: 978-303029735-0

Source Type: Book series

Original language: English

DOI: 10.1007/978-3-030-29736-7_4

Document Type: Conference Paper

Volume Editors: Scheffel M.,Broisin J.,Pammer-Schindler V.,Ioannou A.,Schneider J.

Publisher: Springer Verlag

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