Collaborative Learning Platform using Learning Optimized Algorithms

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Aware that the lack of mathematical knowledge and skills is a major problem for the development of a modern, inclusive and informed society, the MathE partnership has developed a tool that is aimed at bridging the gap that moves students away from courses that rely on a mathematical core. The MathE collaborative learning platform offers higher education students a package of scientific and pedagogical resources that allow them to be active agents in their learning pathway, by self-managing their study. The MathE platform is currently being used by a significant number of users, from all over the world, as a tool to support and engage students, ensuring new and creative ways to encourage them to improve their mathematical skills and therefore increasing their confidence and capacities. In order to enhance this platform, a visual representation of the performance of the students is already implemented, based on the recorded performance historic data for each student. This paper contains a literature review about the implementation of data mining techniques in education, followed by a description of the features of the MathE learning system and suggestions of data parameters to support the improvement of the students' performance. Future work includes the application of optimization and learning algorithms so that the MathE platform will have a dynamical structure and act as a virtual tutor for the users.

Understanding health care access in higher education students

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This study aims to evaluate the accessibility to healthcare by the higher education students and its determinants. A cross-sectional study was conducted in April 2018 by applying a questionnaire to 2051 students of the Polytechnic Institute of Bragança. Logistic regression models were used to identify the determinants that affect or hinder access to health care services in the city of Bragança. Among the main outcomes, the female students enrolled 4 to 12 months ago and the students who have chronic illness for those enrolled 13 to 24 months ago were associated with a greater need for access to health care. The nationality was associated with greater need and difficulty in accessing to health care. The inequities found with regard to foreign students should be debated in order to find solutions.