Abstract

Data Mining techniques and algorithms have been used on a large scale in almost all the sectors which range from computer science, manufacturing industry, and healthcare industry. A recently introduced concept of academic analytics uses the data mining algorithms on the educational data of students and gives certain insights about the expected performances of the students, expected retention rate of students and percentage of resources properly utilized. These results also help administrators in decision making and answering certain questions like whether the faculty v/s student's ratio is giving satisfactory results or there is a change needed in the teaching methodology. Educational Data Mining is also another upcoming field and is an allied field of Academic analytics, but it focuses on the data mining algorithm outputs being given back to the faculties in order to properly assess the student's performance. Educational data mining basically helps the tutors modify their teaching strategies if the results with the current teaching model are not satisfactory. This paper basically is a study of certain research experiments which aim to apply data mining algorithms to educational data and contribute to the field of Academic analytics and Educational Data Mining.

References
- Kannan Govindarajan, Thamarai Selvi Somasundaram, Vivekanandan S Kumar, Kinshuk, Continuous Clustering in Big Data Learning Analytics in Proceedings IEEE Fifth International Conference on Technology for Education.
- Charoula Angeli, Nicos Valanides Using educational data mining methods to assess field-dependent and field-independent learners' complex problem solving in Springer Association for Educational Communications and Technology
- S. Anupama Kumar and Vijayalakshmi M. N, Mining of Student Academic Evaluation Records in Higher Education in Proceedings of International conference on recent advances in computing and Software Systems
- Reshma Desai, Academic Analytics in Customer Relationship Management Perspective using Data Mining in Proceedings of International Conference in Recent Trends in Information Technology and Computer Science
- Rainer Knauf, Kinshuk, Kouhei Takada, and Yoshitaka Sakurai, Takashi Kawabe, Setsuo Tsuruta, Personalized and Adaptive Curriculum Optimization Based on a Performance Correlation Analysis in Proceedings of IEEE 2012 Eighth International Conference on Signal Image Technology and Internet Based Systems
- Rainer Knauf, Yoshitaka Sakurai, Kouhei Takada, and Setsuo Tsuruta, A Case Study on Using Personalized Data Mining for University Curricula in Proceedings of 2012 IEEE International Conference on Systems, Man, and Cybernetics
- Fangming Guo and hua Song, Research and Application of Data-Mining Technique in Timetable Scheduling in Proceedings of Computer Engineering and Technology (ICCET), 2nd
A Study of Application of Data Mining and Analytics in Education Domain

- Sérgio André Ferreira and António Andrade, Academic Analytics: Mapping the Genome of the University in Proceedings of IEEE Revista Iberoamericana de tecnologias Del aprendizaje.

Index Terms

Computer Science
Information Sciences

Keywords
Academic Analytics  Educational Data Mining  Learning Analytics  Classification.