Predicting Instructor Performance using Naïve Bayes Classification Algorithm in Data Mining Technique

International Journal of Computer Applications
Foundation of Computer Science (FCS), NY, USA

Volume 179
Number 22

Year of Publication: 2018

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10.5120/ijca2018916409

Abstract

Data mining applications are becoming a more common tool in understanding and solving educational and administrative problems in higher education. Generally, research in educational mining focuses on modeling student’s performance instead of instructors’ performance. One of the common tools to evaluate instructors’ performance is the course evaluation questionnaire to evaluate based on students’ perception. In this study, classification algorithm of Naïve Bayes, K-Means clustering and C5.0 are used to build classifier models. Their performances are compared over a dataset composed of responses of students to a real course evaluation questionnaire and students final examination results using accuracy, precision, recall, and specificity performance metrics. Although all the classifier models show comparably high classification performances, Naïve Bayes classifier is the best with respect to accuracy, precision, and specificity.

References
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Index Terms

Computer Science Algorithms
Keywords

Performance evaluation, students final examination results, C5.0, Naïve Bayes classifier, K-Means Clustering.