Investigation of Web Users Behavior for Determination of Best Patterns using Hybrid Genetic Association Mining Algorithm

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Abstract

The web users are increased day by day and everyone has anticipated to attaining the correct web data at minimum duration. A lot of related data are available in the web sites based on the user’s requirements, retrieving the correct data is a tricky task. The valuable information about the web site visitors’ behavior is collected from the web server which contains huge web log data. Web sites are enhanced by analyzing web log data based on the user anticipation. Association rule mining is a data mining technique to extract potentially useful rules from the web log data. The proposed technique also applied to extract association rules but few adaptations for improving the interestingness of association rules. Dynamic Programming, Weighted Apriori and Genetic Algorithm are hybridized to extract the potential information from the huge log data. A set of pruning process is carried out to reduce the rule set size and to remove the non interesting rules. The main objective of this work is to find the best rule for improving the user interaction and also to enhance the website designs as per the user’s requirements. The generated rules are compared the quality with respect to four objective performance measures such as Support, Confidence, Correlation and Lift. The performances of traditional Apriori algorithm and Hybrid Genetic Weighted Association mining algorithms are compared and the best one is proposed.

Keywords: Weighted Apriori, Dynamic programming, Pruning Rules, Genetic Algorithm (GA).
References


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