A Framework for Incremental Mining of Interesting Temporal Association Rules

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Abstract

Association rules are an important problem in data mining. Massively increasing volume of data with temporal dependencies in real life databases has motivated researchers to design novel and incremental algorithms for temporal association rules mining.

In this paper, an incremental association rules mining algorithm is proposed that integrates interestingness criterion during the process of building the model called SUMA. One of the main features of the proposed framework is to capture the user background knowledge, which is monotonically augmented. The incremental model that reflects the changing data over the time and the user beliefs is attractive in order to make the overall KDD process more effective and efficient. The proposed framework is implemented and experimented with some public datasets and found the results quite promising.

References
19. Cheung, D. W., Ng, V.T., Tam, B.W.: Maintenance of Discovered Knowledge: A case in Multi-level Association Rules, Proc. 2nd International Conference on Knowledge Discovery and


Index Terms

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Keywords

Knowledge discovery in databases (KDD), Data mining, Incremental Association rules, Temporal association rule, Domain knowledge, Interestingness, Novelty measure.