An Efficient Maintenance Algorithm of Generalized Association Rules for Record Modification

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Abstract

In this paper, an algorithm is proposed based on the concept of prelarge itemsets to maintain discovered generalized association rules for record modification. A pre-large itemset is not truly large, but promises to be large in the future. A lower and an upper support threshold are used to realize this concept. The two userspecified support thresholds make the pre-large itemsets act as a gap to avoid small itemsets becoming large in the updated database when transactions are modified. The proposed algorithm doesn't need to rescan the original database until a number of records have been modified.

Keyword: data mining, generalized association rule, taxonomy, large itemset, pre-large itemset, record modification