

Design of Dynamic Minimum Support Threshold for Pattern Mining



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Abstract Pattern mining is an interesting and challenging area of research in this digital world. Most of the existing pattern mining approaches are restricted to the specification of minimum support (minsup) threshold parameter. It is a user-defined parameter and hence, the task of specification of minsup parameter is a typical job. Often user has to depend on the domain knowledge of the database to specify the minsup parameter. In reality, most of the databases are available without any domain knowledge. Moreover, the specified minsup threshold remains fixed through the entire mining process. The fact, thus promotes improper specification of minsup parameter that often causes either pattern explosion or pattern missing. To overcome the problem, this paper proposes a dynamic minimum support (dminsup) threshold computational model. The proposed model first divides the entire database into few sub-databases of unequal transactions and thereafter, specifies minsup threshold automatically to each of the sub-databases. Patterns are extracted from each of the

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