

A Theoretical Model for Pattern Extraction in Large Datasets

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Abstract : Pattern extraction has been done in past to extract hidden and interesting patterns from large datasets. Recently, advancements are being made in these techniques by providing the ability of multi-level mining, effective dimension reduction, advanced evaluation and visualization support. This paper focuses on reviewing the current techniques in literature on the basis of these parameters. Literature review suggests that most of the techniques which provide multi-level mining and dimension reduction, do not handle mixed-type data during the process. Patterns are not extracted using advanced algorithms for large datasets. Moreover, the evaluation of patterns is not done using advanced measures which are suited for high-dimensional data. Techniques which provide visualization support are unable to handle a large number of rules in a small space. We present a theoretical model to handle these issues. The implementation of the model is beyond the scope of this paper.

Keywords : association rule mining, data mining, data warehouses, visualization of association rules

Conference Title : ICDM 2018 : International Conference on Data Mining

Conference Location : Dublin, Ireland

Conference Dates : July 23-24, 2018