Logic based Pattern Discovery using the Integral Logical Derivative Rule

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Abstract

Problem Statement: To enhance the pattern discovery process, the multi-level propositional process work extends the pattern discovery process with coherent rule generation framework. The multi-level coherent rule structure produce rules coming from diverse levels and determine highest recurrent item sets at inferior level. The propositional logic process formed the multilevel connection rules from logical rules and utilizes bottom-up progressive extending technique. This method develops the effectiveness of rules with minimum support threshold but takes longer time. Approach: To overcome the above issue, we are going to implement a new technique termed Logic based pattern discovery using Integral Logical Derivative Rules (ILDR). This technique is used to efficiently produce the rule with the short span of time. Results: Performance of Integral Logical Derivative Rules technique to discover the logic based pattern is evaluated in terms of execution time, support threshold based on number of items and memory consumption for pattern discovery. Conclusion: Logical based pattern discovery considers the problem of minimum support threshold. An analytical and empirical result shows the lesser execution time with the efficient integral based pattern discovery of our proposed scheme.

Refer
References

- Alex Tze Hiang Sim et. Al., "Logic based pattern discovery," IEEE TRANSACTIONS ON KNOWLEDGE AND DATA ENGINEERING, VOL. 22, NO. 6, JUNE 2010
- Ning Zhong, Yuefeng Li, Sheng-Tang Wu, "Effective Pattern Discovery for Text Mining," IEEE Transactions on Knowledge and Data Engineering, 2012
- Weifeng Su, Jiying Wang, and Frederick H. Lochovsky, "Record Matching over Query Results from Multiple Web Databases," IEEE TRANSACTIONS ON KNOWLEDGE AND DATA ENGINEERING, VOL. 22, NO. 4, 2010
- Feng Qian, Qinming He, Kevin Chiew, Jiangfeng He, "Spatial co-location pattern discovery without thresholds," Knowledge and Information Systems, Volume 33, Issue 2, pp 419-445, November 2012

Index Terms

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**Keywords**

Pattern discovery  Derivative rules  Integral based pattern  support threshold  data mining

mining methods