Presenting a Hiding Algorithm for Improving Privacy Preserving in Association Rule Mining

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Abstract

Association rules mining is one of data mining techniques to extract useful patterns in the framework of the law. The major problem of this technique on a database of sensitive information is disclosed to the security and privacy risks. One of the most effective solutions for maintaining privacy in data mining techniques to hide a lot of elements sensitive (sensitive frequent patterns) reserved. In this study, an algorithm to hide the sensitive rules based on the rules and techniques to support the reduction of turbulence is presented. The proposed algorithm is to select the most appropriate transaction for changes, consider the degree of overlap between their response elements. Critical element in choosing transactions to correct the Frequency sensitive elements in the sensitive patterns and frequency patterns insensitive response elements in the balance. The proposed algorithm with algorithms ADSRRC, SIF-IDF and SL-HS dense and non-dense on four databases are implemented. Since the implementation of the proposed method compared with other algorithms reduced. Also, the number of missing rules changes the rules of the bogus transactions and the proposed algorithm is more efficient than other algorithms.

References
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- T. -P. Hong and K. -T. Yang, "Several heuristic approaches to privvacy preserving data mining," department of computer science and information engineering national university of koashiuang. 2010.
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Index Terms

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Keywords
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