A Privacy Preserving Data Mining Technique for Preventing Data Discloser and Leakage

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Abstract

The data is an essential element in any business domain, discloser or leakage of sensitive and private data to others can create a number of social and financial issues. In this context the data mining is shifting towards the privacy preserving data mining. In different real world conditions the end data owner submitted their private and confidential data to a business domain. But due to cretin requirements of business intelligence and marketing research the data discloser is required. In these conditions the discloser or leakage of the actual data owner’s data can create various issues. In this context the proposed work is intended to work with the privacy preserving data mining environment to preserve the data privacy. The proposed data model consists of the three main contributions first designing the noise based data transformation approach. Secondly the data model help to prevent the data discloser to another party. Third the technique by which the data publishing and it’s utility in other public domain becomes feasible. Therefore the proposed work introduces a lightweight privacy preserving data model that combines data from different data sources. Include the regulated noise to entire dataset to modify the values. Process the data using data mining model for finding combined data based decisions and help
to publish the data for other marketing and research purposed without disclosing the actual data values. The implementation of the proposed technique is given using JAVA technology and their performance is measured. The obtained results demonstrate the proposed work is helpful for the PPDM based data processing and publishing.

References

7. Han, Jiawei, Jian Pei, and Micheline Kamber, Data mining: concepts and techniques, Elsevier, 2011.

Index Terms

Computer Science                Data Mining
Keywords

Data mining, privacy preserving data mining, decision making, data publishing, data discloser and effects