ABSTRACT

With the introduction of the semantic web and its standardization as the third generation of the Web, has brought together more human attention than ever. Also the amount of semantic web data is constantly growing day by day. These semantic web data are a rich source of useful knowledge for feeding data mining techniques. Semantic web data have some complexities, such as the heterogeneous structure of the data, the lack of exactly defined transactions, the existence of typed relationships between entities etc. Association rule mining which is the data mining technique helps to find interesting rules based on frequent item-sets and also tries to fulfil complex applications by discovering and composing available services automatically and precisely, it is indispensable to develop an underlying model and the corresponding measure for semantic associations among given Web services. We thus propose a method that takes into consideration the complex nature of semantic web data and, without end-user involvement and any data conversion to traditional forms, mines association rules directly from semantic web datasets at the instance level. Here we assume that data is been stored in triple format (Subject, Predicate, and Object) in a single dataset. Thus for evaluation purposes the method will be applied to a drugs dataset and will show the ability of the proposed algorithm for mining ARs from semantic web data without end-user involvement.

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