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Abstract

The development of ontologies involves continuous but relatively small modifications. Even after a number of changes, ontology and its previous versions usually share most of their axioms. For large and complex ontologies this may require a few minutes, or even a few hours. Cognitive on a Web scale becomes increasingly stimulating because of the large volume of data involved and the complexity of the task. Full re-reasoning over the entire dataset at every update is too time-consuming to be practical. Semantic information has been reduced by using Hadoop framework with simple machine learning algorithm. Each level of mapping and reducing is based on k-means clustering technique. Large set of information can be constructing or modified with the help of simple pattern based grouping. Dynamically grouping dependencies can be made based on attributes. Clustered values have got modifications like addition. At the end user query has been retrieved with the help of grouped items. The system has been assessed on the BTC benchmark and the results show that this method outperforms related ones in nearly all aspects.

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Index Terms

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Keywords

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