

عنوان مقاله:

A Method for Optimizing Maintenance and Querying Ontology-based Linked Data

محل انتشار:

مجله بین المللی پیشرفت در علوم کامپیوتر, دوره 4, شماره 6 (سال: 1394)

تعداد صفحات اصل مقاله: 8

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خلاصه مقاله:

At present, emerged technologies such as Resource Description Framework (RDF) are used to describe information in the semantic web. RDF triples are the basic components of linked data, which build the whole structure of the semantic web. Alongside the semantic web development, RDF data are also growing in scope and volume rapidly. As a result, the size of TBoxes and also A-Boxes in linked data-related ontologies is undergoing a great change. The scale of ontology-based linked data requires efficient structures for storing and also querying on these data. This paper proposes a method based on relational databases for storing ontology-based linked data. This method achieves shorter query response time and more accuracy comparing other known RDF storage methods such as schema-oblivious, schema-aware and hybrid methods. To evaluate the results, DBpedia infobox ontology and dataset has been used.

کلمات کلیدی:

Linked Data, Ontology, Relational Database, Resource Description Framework, Indexing

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