Evaluation of String based Ontology Alignment Technique

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Abstract

To connect the semantic space between various related ontologies, computer scientists and specialists in the field of Semantic Web have suggested and executed different ontology matching systems. In any case, these strategies have a great space for improvement and continuous research should be done to get better results in terms of precision, recall and F-measure for the purpose of aligning ontologies. This work analysed various string similarity metrics for the task of ontology alignment whose definitions are taken from two libraries that are Alignment API and secondstring library. These metrics are used to align different ontologies provided with Alignment API package and then evaluated the performance of these metrics with regard to precision, recall and F-measure. Further, different ontology alignment systems are studied which used string similarity metrics in combination of structural similarity metrics and linguistic similarity metrics. The role of string similarity metrics is analysed and found that Jaccard in combination with TF/IDF similarity metric works good as well as ngram also works better.
References

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Index Terms

Computer Science Information Sciences

Keywords

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