An Objective Assessment Framework & Tool for Linked Data:

Enriching Dataset Profiles with Quality Indicators

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Abstract

Ensuring data quality in Linked Open Data is a complex process as it consists of structured information supported by models, ontologies and vocabularies and contains queryable endpoints and links. In this paper, the authors first propose an objective assessment framework for Linked Data quality. The authors build upon previous efforts that have identified potential quality issues but focus only on objective quality indicators that can measured regardless on the underlying use case. Secondly, the authors present an extensible quality measurement tool that helps on one hand data owners to rate the quality of their datasets, and on the other hand data consumers to choose their data sources from a ranked set. The authors evaluate this tool by measuring the quality of the LOD cloud. The results demonstrate that the general state of the datasets needs attention as they mostly have low completeness, provenance, licensing and comprehensibility quality scores.

***Keywords:*** Data Quality, Linked Data, Quality Framework, Semantic Web, Dataset Profile, Profile Generation