Validating statistical index data represented in RDF using SPARQL queries

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Abstract

In this position paper we describe an approach to validate statistical data representing index computations in RDF using SPARQL queries.

1 Introduction

Publishing statistical data is a promising domain where linked data approaches con offer a numer of advantages.

TODO: a paragraph about linked data and RDF

The SPARQL [2] query language has been a successful technology to increase the adoption RDF. The current SPARQL 1.1 [1] has added new expressivity levels.

TODO: Talk about index data in general TODO: Talk a little bit about the web index project, link to our publication

TODO: Add an overview of our approach...

2 Example data and Index computation process

TODO: A small screen capture

3 Data Model and Computex Ontology

TODO: Talk about the Computex ontology of statistical computations

4 Validating using SPARQL queries

TODO: Using CONSTRUCT instead of ASK improves error messages

Show some queries.

5 Expressivity limits of SPARQL queries

z-scores needs srqt

ranking need better XPath functions

average growth

6 Conclusions and Future Work

Using SPARQL queries to validate and compute index data seems a promising use case for linked data applications.

TODO: Future work

TODO: Automatic index computation TODO: Performance and real time updating of index computations TODO: Visualization of computed values

References

[1] S. Harris and A. Seaborne. SPARQL 1.1 query language. http://www.w3.org/TR/sparql11-query/, 2013.

[2] E. Prud'hommeaux and A. Seaborne. SPARQL query language for RDF. http://www.w3.org/TR/rdf-sparql-query/, 2008.