SPQCE SPARQL Index for Efficient Autocompletion

Kasjen Kramer Renata Dividino Gerd Gröner WeST - Institute for Web Science and Technologies University of Koblenz-Landau

Introduction

The linked data cloud is mainly accessible in two ways: SPARQL queries and direct RDF requests. Querying linked data on the Web using SPARQL is different to querying (relational) databases. First, linked data connect various data sources with heterogeneous data. Second, the schema and type statements are often unknown to the user or even missing in the data source. Thus, querying linked data means to pose queries on various data sources without information about the vocabulary and structure of the data. In order to assist users when writing SPARQL queries, we show SPACE, a tool to support autocompletion of SPARQL queries. SPACE aims at enhancing usability of SPARQL query writing by providing suggestions of different possible query formulations to the user.



Method

We explore query logs available from SPARQL endpoints. These queries reveal how resources are related and they reflect the user interests on resources and their relationships. Our tool takes as input SPARQL query logs and builds an index structure for efficient and fast computation of query suggestions.

PREFIX foaf: <http://xmlns.com/foaf/0.1/> SELECT ?person ?email FROM <http://dig.csail.mit.edu/timbl/foaf.rdf> WHERE { {?person foaf:name "John Doen".} PREFIX foaf: <http://xmlns.com/foaf/0.1/> SELECT ?person ?email FROM <http://dig.csail.mit.edu/timbl/foaf.rdf> WHERE { {?person foaf:name "John Doen".}







To demonstrate SPACE, we use available query logs from the USEWOD Data Challenge 2013.

http://west.uni-koblenz.de/Research/systems/SPACE

	SPF	ACE BETA	
SELECT *			
FROM			
WHERE {			
?s < htt			
http://www.w3.org/19	999/02/22-rdf-syntax	k-ns#type	
http://www.w3.org/20)00/01/rdf-schema#s	subClassOf	
http://www.w3.org/20)04/02/skos/core#pre	efLabel	
http://www.w3.org/20)00/01/rdf-schema#la	label	
http://bioportal.bioon	tology.org/metadata/	/def/id	
http://bioportal.bioon	ology.org/metadata/	/def/hasDataGraph	
http://www.w3.org/20)00/01/rdf-schema#d	definition	





