

Evaluation of the UNESCO Institute for Statistics (UIS) RDF Data Sets

Thomas Bosch¹, Benjamin Zapilko¹, Joachim Wackerow¹, and Kai Eckert²

¹ GESIS – Leibniz Institute for the Social Sciences, Germany
`{firstname.lastname}@gesis.org`,

² University of Mannheim, Germany
`kai@informatik.uni-mannheim.de`

Abstract. Evaluation of the UNESCO Institute for Statistics (UIS) RDF Data Sets

Keywords: RDF Validation, RDF Constraints, DDI-RDF Discovery Vocabulary, Disco, RDF Data Cube Vocabulary, Linked Data, Semantic Web

1 Data Model Consistency

	Constraints										
Data Sets											
	<i>DATA-MODEL-CONSISTENCY-01</i>	<i>DATA-MODEL-CONSISTENCY-02</i>	<i>DATA-MODEL-CONSISTENCY-03</i>	<i>DATA-MODEL-CONSISTENCY-04</i>	<i>DATA-MODEL-CONSISTENCY-05</i>	<i>DATA-MODEL-CONSISTENCY-06</i>	<i>DATA-MODEL-CONSISTENCY-07</i>	<i>DATA-MODEL-CONSISTENCY-08</i>	<i>DATA-MODEL-CONSISTENCY-09</i>	<i>DATA-MODEL-CONSISTENCY-10 (!)</i>	<i>DATA-MODEL-CONSISTENCY-11</i>
<i>http://uis.270a.info/sparql</i>	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓

Table 1: Evaluation of *http://uis.270a.info/sparql*

	Constraints										
Data Sets	DATA-MODEL-CONSISTENCY-01	DATA-MODEL-CONSISTENCY-02	DATA-MODEL-CONSISTENCY-03	DATA-MODEL-CONSISTENCY-04	DATA-MODEL-CONSISTENCY-05	DATA-MODEL-CONSISTENCY-06	DATA-MODEL-CONSISTENCY-07	DATA-MODEL-CONSISTENCY-08	DATA-MODEL-CONSISTENCY-09	DATA-MODEL-CONSISTENCY-10 (!)	DATA-MODEL-CONSISTENCY-11
<i>EDULIT_DS</i>	✓	✓	✓	✓	✗	✓	✓	✓	✓	-	✓
<i>SCN_DS</i>	✓	✓	✓	✓	✗	✓	✓	✓	✓	-	✓
<i>DEMO_DS</i>	✓	✓	✓	✓	✗	✓	✓	✓	✓	-	✓
<i>CUL_DS</i>	✓	✓	✓	✓	✗	✓	✓	✓	✓	-	✓
<i>CAIDS</i>	✓	✓	✓	✓	✗	✓	✓	✓	✓	-	✓

Table 2: Evaluation of <http://uis.270a.info/sparql>

Data Sets

2 Existential Quantifications

Data Sets	Constraints			
	<i>EXISTENTIAL-QUANTIFICATIONS-01</i>			
	<i>EXISTENTIAL-QUANTIFICATIONS-02</i>			
	<i>EXISTENTIAL-QUANTIFICATIONS-03</i>			
	<i>EXISTENTIAL-QUANTIFICATIONS-04</i>			
<i>http://wis.270a.info/sparql</i>	✓	✓	✓	✓

Table 3: Evaluation of *http://wis.270a.info/sparql*

3 Cardinality Restrictions

Data Sets	Constraints		
http://uis.270a.info/sparql 118	<i>MINIMUM-QUALIFIED-CARDINALITY-RESTRICTIONS-02</i>	✓	✓
http://uis.270a.info/sparql	<i>MAXIMUM-QUALIFIED-CARDINALITY-RESTRICTIONS-01</i>	✓	✓
http://uis.270a.info/sparql	<i>EXACT-UNQUALIFIED-CARDINALITY-RESTRICTIONS-01</i>	✓	✓
http://uis.270a.info/sparql	<i>EXACT-QUALIFIED-CARDINALITY-RESTRICTIONS-02</i>	✓	✓

Table 4: Evaluation of <http://uis.270a.info/sparql>

Data Sets	Constraints
	<i>MAXIMUM-QUALIFIED-CARDINALITY-RESTRICTIONS-01</i>
<i>EDULIT_DS</i>	✓
<i>SCN_DS</i>	✓
<i>DEMO_DS</i>	✓
<i>CUL_DS</i>	✓
<i>CAI_DS</i>	✓

Table 5: Evaluation of *http://uis.270a.info/sparql*

Data Sets

4 Structure

Data Sets	Constraints	
	<i>STRUCTURE-01</i>	<i>STRUCTURE-02</i>
<i>http://wis.270a.info/sparql</i>	✓	✓

Table 6: Evaluation of *http://wis.270a.info/sparql*

5 Further Constraints