

TDT 44 – Semantic Web

Obligatory Assignment 2019

Task 1

Build an RDF(S) ontology for games.

Any type of games can be used (digital games, card games, board games, physical games etc.).

Each game is described by some properties.

For example games can belong to different categories (role playing, strategy etc.), the target group may be different for each game (different age groups, different physical requirements etc.), the max. number of players, some games may have different versions or expansion packs. You can use different categorization of games or different properties than it is given as an example here.

Some games may share some of the properties.

Make sure that the ontology captures taxonomic relations and describe commonalities and differences across different games. Also try to model characteristic properties of each game.

Explain the assumptions underlying your ontological choices.

The ontology should not exceed 30 classes and 30 instances. The modeling language should be Turtle or a similar syntax. You can use any modeling software.

Explain every aspect of your ontology.

Task 2

Formulate a SPARQL query that lists all games of a given category and its subcategories.

Use SPARQL to count and list the games that share the same requirements. (e.g. age limit)

We want to know more about the games than what is included in your ontology. Show how SPARQL can combine your ontology with DBpedia to list the publishing dates and the designers of the games.

How can you use SPARQL to find the most similar – as you define it – game to a given game.

Task 3

Discuss the strengths and weaknesses of RDF. Give examples. (max 1 page).