

JSKOS

knowledge organization systems in JSON

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Knowledge Organization Systems

- ▶ thesauri, classifications, taxonomies, subject-headings...
- ▶ controlled vocabularies
- ▶ “lightweight ontologies”

Simple Knowledge Organization System (SKOS)

- ▶ RDF ontology to express knowledge organization systems
- ▶ widely used in the Linked Open Data cloud

RDF

- ▶ model (graph)
- ▶ philosophy (open world assumption)
- ▶ technology (parser, store & query processor)

☹ *difficult to use in web applications*

JSON

- ▶ model (arrays, objects, strings...)
- ▶ technology (JavaScript)

😊 *easy to use in web applications*

JSON-LD

- ▶ JSON with minimal restrictions
- ▶ can be mapped to RDF with a context definition

☹ *open world assumption*

☹ *no unique JSON format for given RDF data*

JSKOS

- ▶ JSON format for knowledge organization systems
- ▶ use case: web applications and JSON APIs
- ▶ demo implementation ng-skos in AngularJS
- ▶ specified at <http://gbv.github.io/jskos/>

Example

```
{  
  "uri": "http://dewey.info/class/641.5/",  
  "notation": ["641.5"],  
  "inScheme": "http://dewey.info/",  
  "prefLabel": {  
    "en": "Cooking",  
    "de": "Kochen"  
  },  
  "broader": [ {  
    "uri": "http://dewey.info/class/641/e23/",  
    "notation": ["641"]  
  } ]  
}
```


Concepts in JSKOS

...

Concept Schemes in JSKOS

...

Mappings in JSKOS

...

open / closed world statements

open world: *unknown*

no narrower key

closed world: *explicit negation/existence*

"narrower": false

"narrower": []

"narrower": true

☺ *good for incomplete data (e.g. async loading)*

JSKOS and JSON-LD

- ▶ context definition for JSKOS exists
- ▶ closed world statements must first be removed

JSKOS + context definition \rightarrow SKOS/RDF

JSKOS and SKOS/RDF

- ▶ SKOS
 - ▶ no closed world statements
- ▶ JSKOS
 - ▶ no notation datatypes
 - ▶ no concept collections (yet?)
 - ▶ ...

☹^{zzz} *some missing features may be added*

Summary

...

`http://gbv.github.io/jskos`

ng-skos

...