

Machine-Actionable Metadata Models

JSONLDschema: a python module for JSON-schemas for JSON-LD

JSON-Schema documenter: a web tool to visualise JSON-schemas



@alegonbel

Alejandra Gonzalez-Beltran, PhD



@agbeltran

Dominique Batista



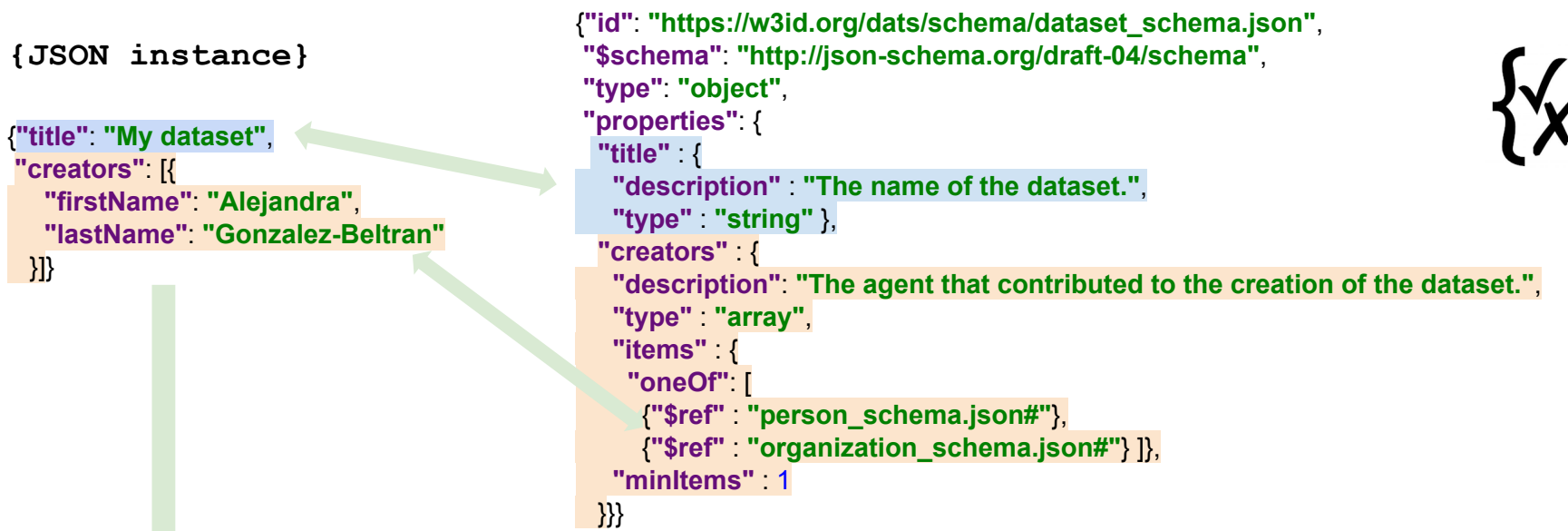
@terazus

RSLondonSouthEast 2019

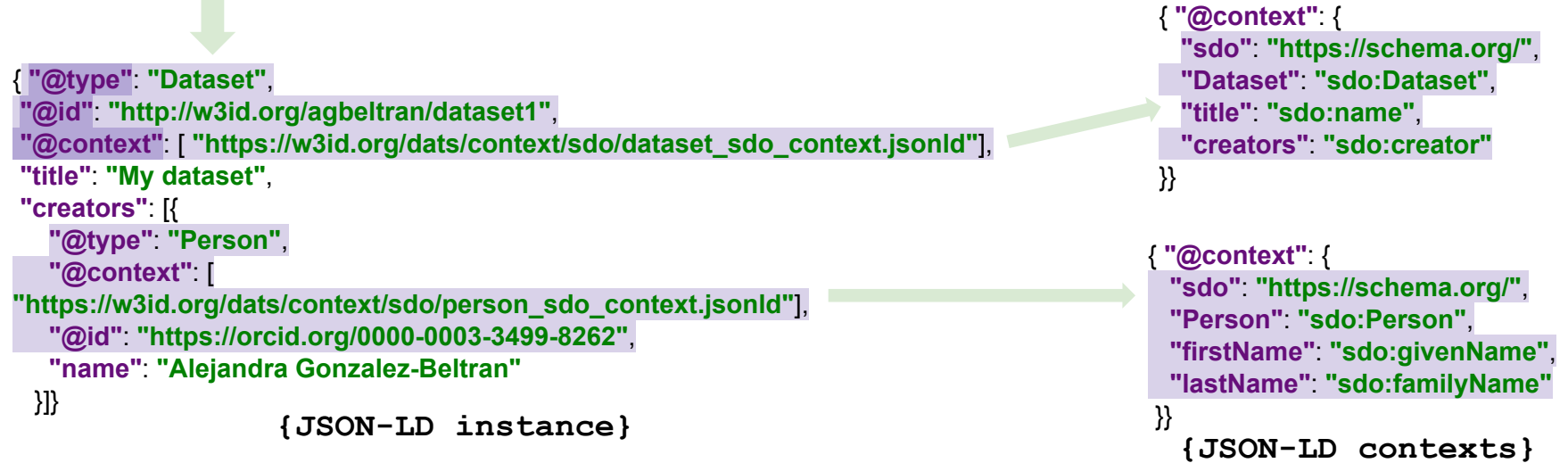
7th February 2019, London, UK



JSON is a popular open-standard file format that can be used to represent instance data as well as schemas describing object constraints (JSON-schemas)



JSON-LD extends JSON to support linked data (a network of standards-based machine readable data on the web)



Toolbox for machine actionable and FAIR metadata models



automated model documentation & visualization



JSONschema-documenter web application



Overlap between MIACA and dats checklists

Select another comparison: **dats vs miaca**

	MIACA	dats
sdo:CreativeWork	MIACA (Minimum Information about a Cellular Assay) schema	MIACME (Minimum Information about a Cell Migration Experiments) schema
sdo:Person	MIACA Source - corresponding to a person and their organization	MIACME person schema. A human being.
sdo:addressCountry	country	✗
sdo:email	email	email
sdo:identifier	ID	identifier
sdo:name	name	✗

automated comparison visualization



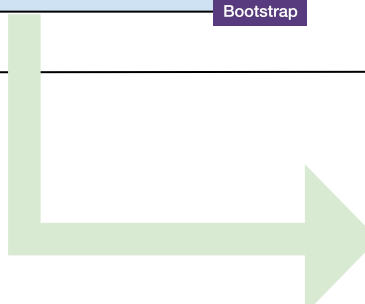
JSONschema-view-comparison web application



Support for **metadata integration**



JSON-LD instance files



JSONLDschema python module



automated ...

- ...templates for instance creation
- ...validation (schemas and instances)
- ...comparison of metadata models
- ...combination of metadata models

JSON-schema for JSON-LD



Syntax

Actionable and modular representation of metadata models

Semantics



JSON-LD context files



@agbeltran @alegonbel



<https://github.com/FAIRsharing/jsonldschema>

Functionality to with deal JSON schemas for JSON-LD

Edit

json-schema json-ld validation semantic-differences Manage topics

521 commits 9 branches 0 releases 2 contributors BSD-3-Clause

Branch: master New pull request Create new file Upload files Find file Clone or download

This branch is 203 commits ahead, 3 commits behind agbeltran:master. Pull request Compare

agbeltran Update README.md Latest commit 1ae273b 13 minutes ago

README.md

build passing coverage 85% docs passing

Utility code for metadata models expressed with JSON-schema for JSON-LD instances.

Functionality included:

- validation of JSON schemas and JSON-LD instances
- comparison between JSON schemas
- conversion of a generic json-schema, into a CEDAR schema

jsonldschema latest

Search docs

1. Utilities for semantic comparison of JSON-LD-schemas
2. Utilities for preparing functions input
3. Utilities to validate JSON-schemas and instances
4. CEDAR utilities
5. API CLIENT

Rollbar

<https://jsonldschema.readthedocs.io>

Docs » Welcome to jsonldschema's documentation! Edit on GitHub

Welcome to jsonldschema's documentation!

- 1. Utilities for semantic comparison of JSON-LD-schemas
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Indices and tables

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Schema Metadata

- **Schema version (\$schema)** : <http://json-schema.org/draft-04/schema>
- **id** : https://w3id.org/dats/schema/study_schema.json
- **title**: DATS study schema
- **description**: Process to acquire data on a sample and attempt to draw conclusions about the population the sample has been selected from, executing a plan and design.
- **type**: object
- **additionalProperties**: false
- **required** : name

Schema Fields

@context Description: The JSON-LD context Expected types (any number of types from below):	@id Description: The JSON-LD identifier Expected type : uri	@type Description: The JSON-LD type Expected value(s) : <ul style="list-style-type: none">• Study Expected type : string
identifier Description: The identifier of the study. Cardinality: (0 ... 1) Expected type: identifier_info_schema	alternateIdentifiers Description: Alternate identifiers for the activity. Cardinality: (0 ... n) Expected type: alternate_identifier_info_schema	relatedIdentifiers Description: Related identifiers for the activity. Cardinality: (0 ... n) Expected type: related_identifier_info_schema
name Description: The name of the study, usually one sentence or short paragraph. Cardinality: (0 ... 1) Expected type : string	description Description: A textual narrative comprised of one or more statements describing the study. Cardinality: (0 ... 1) Expected type : string	types Description: The types of study (e.g. intervention or observation or meta-analysis or clinical trials, or behavioural study, or the study design). Cardinality: (0 ... n) Expected type: annotation_schema

Semantic Value:
<https://schema.org/name>

🔗 Source Code:

<https://tinyurl.com/schemaCode>

Test it yourself:

<https://tinyurl.com/schemaDoc>



Next steps:

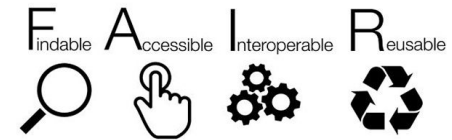
- Migrate resolvers to server
- Enable OLS for label loading
- Validate Schemas
- Support for latest json-schema spec



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Team is funded by



Susanna-Assunta Sansone, PhD
Associate Professor, Associate Director



Philippe Rocca-Serra, PhD
Senior Research Lecturer



Alejandra Gonzalez-Beltran, PhD
Research Lecturer



Peter McQuilton, PhD
Knowledge Engineer



Allyson Lister, PhD
Knowledge Engineer



Massimiliano Izzo, PhD
Research Software Engineer



Milo Thurston, DPhil
Research Software Engineer



Ramon Granell
Research Software and Knowledge Engineer



Delphine Dauga, PhD
Biocurator Contractor



Dominique Batista
Research Software and Knowledge Engineer



Melanie Adekale, PhD
Biocurator Contractor



Research Software Engineer