URI | Code | File

https://w3id.org/sulo/

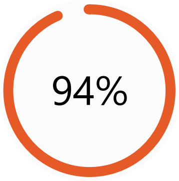
Example: https://w3id.org/example (click here to enter this ontology)

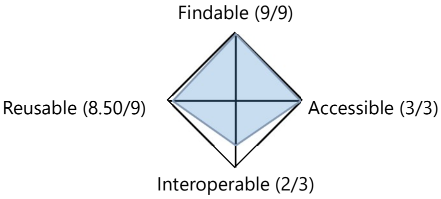
RUN

Title: Simplified Upper Level Ontology

URI: https://w3id.org/sulo/

License: https://creativecommons.org/publicdomain/zero/1.0





Findable

F1: (meta)data are assigned a globally unique and persistent identifier

PURL1: Ontology has a persistent URL

100%

Description: This test verifies if the ontology has a persistent URL. We do so by checking if the ontology URI follows any of the following URI schemes:

- w3id.org
- doi.org
- purl.org (or purl.something.org)
- linked.data.gov.au
- dbpedia.org
- www.w3.org
- perma.cc
- data.europa.eu

Explanation: Ontology URI follows a follows a persistent URI scheme (URI: https://w3id.org/sulo/)

URI1: Ontology URI is resolvable

100%

Description: This test verifies if the ontology URI that was found within the ontology document is resolvable. Note that the ontology URI found in the ontology may be different from the URI used in the assessment. The test will pass if the vocabulary is resolvable in any of the following RDF serializations: RDF/XML, TTL, N-Triples, JSON-LD. The test will fail if no known RDF serialization is returned, or the serialization returned is not among one of the aforementioned.

Explanation: Ontology URL is resolvable in application/rdf+xml

VER1: A version IRI is declared in the ontology metadata

100%

Description: This test verifies whether there is an id for this ontology version, and whether the id is unique (i.e., different from the ontology URI). The test will pass if:

1. The ontology has a versionIRI (owl:versionIRI) and
2. The versionIRI used is different from the ontology URI.

Otherwise the test will fail. The test will also verify whether version information is present (through owl:versionInfo), but this is optional.

Explanation: Version IRI defined, IRI is different from ontology URI. Version info found (0.2.4).

VER2: Ontology version IRI resolves

100%

Description: This test verifies if the version IRI resolves. The test will pass if there is a version IRI for the ontology/vocabulary (detected using owl:versionIRI in the ontology metadata) and whether doing a request to said IRI returns a resource. The test will fail if the resource is not found (404 response) or returns an error.

Explanation: Version IRI resolves

URI2: Consistent ontology IDs are employed

100%

Description: This check verifies if the ontology URI is equal to the ontology ID. The test passes if the ontology URI used to load the ontology document is the same as the ontology id found in the document itself. Otherwise the test will fail.

Explanation: Ontology URI is equal to ontology id

F2: data are described with rich metadata (defined by R1 below)

OM1: Ontology minimum metadata is declared

100%

Description: This check verifies if the following minimum metadata are present in the ontology metadata:

- title: declared using dc:title, dcterms:title or schema:name
- description: declared using dc:abstract, dcterms:abstract, dc:description, dcterms:description, schema:description, rdfs:comment, doap:description, doap:shortdesc or skos:note
- license: declared using dcterms:license, schema:license, doap:license or cc:license.
- version iri: declared using owl:versionIRI
- creator: declared using dc:creator, dcterms:creator, pav:createdBy, pav:authoredBy, schema:creator,

prov:wasAttributedTo or doap:developer
- namespace URI: declared using vann:preferredNamespaceUri

The test will pass if all ontology metadata are present. The test will fail otherwise, indicating the properties that are missing.

Explanation: All the minimum metadata were found!

F3: metadata clearly and explicitly include the identifier of the data it describes

FIND1: Ontology prefix is declared

100%

Description: This check verifies if an ontology prefix is declared in the ontology metadata. The test will pass if a vann:preferredNamespacePrefix is declared. Otherwise, the test will fail.

Explanation: Prefix declaration found in the ontology: sulo

F4: (meta)data are registered or indexed in a searchable resource

FIND2: Ontology prefix is found in prefix.cc or LOV

100%

Description: This test verifies whether the ontology prefix is available in prefix.cc or the Linked Open Vocabularies (LOV) registries. The test will pass if:

1. there is a prefix declared in the assessed ontology,
2. the prefix is found in LOV or prefix.cc
3. if found in LOV or prefix.cc , the namespace URI associated with the prefix is the same as the assessed ontology URI (or preferred namespace URI)

Otherwise, the test will fail.

Explanation: Prefix declaration found with correct namespace (in prefix.cc)

FIND3: Ontology found in community registry

100%

Description: This test verifies if the ontology can be found in a public registry like the Linked Open Vocabularies (LOV) public registry. The test will pass if the assessed ontology URI is found in the list of vocabularies returned by LOV. Alternatively, if there is a schema:includedInDataCatalog annotation, the test will pass. The test will fail otherwise.

Explanation: Otology is included in a data catalog.

Accessible

A1: (meta)data are retrievable by their identifier using a standardized communications protocol

CN1: Ontology has content negotiation for RDF in RDF/XML,

100%

TTL, NTriples or JSON-LD serializations

Description: This test verifies whether HTML and an RDF representation is available for the target vocabulary by doing content negotiation on the ontology URI. The test will pass if the vocabulary is available in HTML and in any of the following RDF serializations:

- RDF/XML (application/rdf+xml),
- TTL (text/turtle),
- N-Triples (text/n3),
- JSON-LD (application/ld+json)

The test will fail if no HTML is returned, if no known RDF serialization is returned, or the serialization returned is not among one of the aforementioned.

Explanation: Ontology available in: HTML, RDF

A2: metadata are accessible, even when the data are no longer available

FIND_3_BIS: Ontology metadata are accessible, even when the ontology is not 100%

Description: Metadata are accessible even when the ontology is no longer available. Since the metadata is usually included in the ontology, this test verifies if the ontology can be found in the Linked Open Vocabularies (LOV) public registry. The test will pass if the assessed ontology/vocabulary URI is found in the LOV list of vocabularies. Alternatively, if there is a schema:includedInDataCatalog annotation, the test will pass. The test will fail otherwise.

Explanation: Otology is included in a data catalog.

A1.1: the protocol is open, free, and universally implementable

HTTP1: Ontology uses an open protocol 100%

Description: This check verifies if the ontology uses an open protocol (HTTP or HTTPS). The test will pass if the ontology URI starts with http or https. It will fail otherwise.

Explanation: The ontology uses an open protocol

Interoperable

I1: (meta)data use a formal, accessible, shared, and broadly applicable language for knowledge representation

RDF1: Ontology is available in RDF (TTL, N3, RDF/XML or JSON-LD) 100%

Description: This test verifies if the ontology has a valid RDF serialization (TTL, N3, RDF/XML or JSON-LD are supported). The test will fail if no RDF serialization could be loaded for analysis (e.g., the ontology has typos that prevent its parsing). The test uses the OWLAPI to load ontologies or vocabularies.

Explanation: Ontology available in RDF

I2: (meta)data use vocabularies that follow FAIR principles

VOC1: Ontology reuses existing vocabularies for metadata annotations

100%

Description: This test verifies if the ontology reuses other vocabularies for declaring metadata terms (see tests OM1... OM5). The test will pass if metadata annotations using properties from any of the following vocabularies are used:

- Dublin Core (dc, dcterms)
- Schema.org (schema)
- Vocabulary for annotating vocabulary descriptions (vann)
- W3C Provenance standard (prov)
- Bibliographic Ontology (bibo)
- Provenance, Authoring and Versioning (pav)
- Firend of a friend (foaf)
- Description of a project (doap)
- Metadata vocabulary for ontology descriptions (mod)
- Web Ontology Language (owl)
- Resource description framework schema (rdfs)

The test will also return the vocabularies that were found. If none are found, the test will fail.

Explanation: Ontology reuses existing vocabularies for declaring metadata.

Imported/Reused URIs:

- http://purl.org/dc/elements/1.1/
- http://purl.org/dc/terms/
- http://purl.org/pav/
- http://purl.org/vocab/vann/
- http://www.w3.org/2000/01/rdf-schema#
- http://www.w3.org/2002/07/owl#
- http://xmlns.com/foaf/0.1/
- https://schema.org/
- https://w3id.org/mod#

VOC2: Ontology imports or reuses well established vocabularies

0%

Description: This test verifies if the ontology imports/extends other vocabularies (besides RDF, OWL and RDFS). The test will pass if other vocabularies are imported (owl:imports), or if classes, properties or data properties outside the ontology URI or namespace URI are used. The test wil fail if no terms are reused.

Explanation: Could not find any imported/reused vocabularies

Reusable

R1: meta(data) are richly described with a plurality of accurate and relevant attributes

DOC1: Ontology has HTML documentation

100%

Description: This test verifies if the ontology has an HTML documentation. The test will attempt to download an HTML representation using the ontology URI, with content negotiation

Explanation: Ontology available in HTML

OM2: Ontology declares recommended metadata

100%

Description: This test verifies if the following recommended metadata are present in the ontology metadata:

- Namespace prefix: declared using vann:preferredNamespacePrefix
- Version info: declared using owl:versionInfo or schema:schemaVersion
- Creation date: declared using dcterms:created, schema:dateCreated, doap:created, prov:generatedAtTime or pav:createdOn
- Citation: declared using dcterms:bibliographicCitation
- Contributor (optional): declared using dc:contributor, dcterms:contributor, schema:contributor, doap:documenter, doap:maintainer, doap:helper, doap:translator or pav:contributedBy.

The test will pass if all the recommended metadata properties are available in the ontology metadata (using any of the vocabularies listed above). The test will also check if contributor is present, but with no penalty (as not all ontologies have a contributor).

Explanation: All recommended metadata found!

OM3: Ontology declares detailed metadata

50%

Description: This test verifies if the ontology includes the following detailed metadata:

- Digital Object Identifier (DOI): declared using bibo:doi, schema:identifier (if a doi is provided) or dcterms:identifier (if a doi is provided)
- publisher: declared using dc:publisher, dcterms:publisher or schema:publisher
- logo: declared using foaf:logo or schema:logo
- status: declared using bibo:status or mod:status
- source: declared using dcterms:source or prov:hadOriginalSource
- issued date: declared using dcterms:issued
- previous version (optional): declared using dc:replaces, dcterms:replaces, prov:wasRevisionOf, owl:priorVersion or pav:previousVersion
- backward compatibility (optional): declared using owl:backwardCompatibleWith
- modified date (optional): declared using dcterms:modified or schema:dateModified

The test will pass if all the detailed metadata properties are available in the ontology metadata (using any of the vocabularies listed above). The test will also check if previosu version, backward compatibility and modified date are present, but with no penalty (as not all ontologies have a previous version).

Explanation: The following metadata was not found: doi, logo, source. Warning: The following OPTIONAL detailed metadata could not be found: previous version, backwards compatibility. Please consider adding them if appropriate.

VOC3: Ontology documentation: all terms have labels

100%

Description: This test verifies the extent to which all ontology terms have labels. The test will pass if all classes, properties and data properties have either an rdfs:label or skos:prefLabel. For skos vocabularies, only the skos:Concepts are assessed. Otherwise, the test will fail, indicating the level of completeness found (i.e., percentage of documented terms)

Explanation: Labels found for all ontology terms (36 terms found)

VOC4: Ontology documentation: all terms have definitions

100%

Description: This check verifies whether all ontology terms have descriptions. The test will pass if all classes, properties and data properties have at least one rdfs:comment, skos:definition or obo:IAO_0000118 annotation. For skos vocabularies, only the skos:Concepts are assessed.

The test will fail otherwise, showing the level of completeness obtained (i.e. the percentage of documented terms).

Explanation: Descriptions found for all ontology terms (36 terms found)

R1.1: (meta)data are released with a clear and accessible data usage license

OM4_1: Ontology has a license available

100%

Description: This test verifies if a license (or rights) are associated with the ontology. The test will pass if a license is declared using any of the following properties: dcterms:license, schema:license, doap:license or cc:license.

If a license is not found, but rights are declared (using dc:rights, dcterms:rights or dcterms:accessRights), the test will pass as well.

Otherwise, the test will fail (i.e., no license or rights are declared).

Explanation: A license was found https://creativecommons.org/publicdomain/zero/1.0

OM4_2: Ontology license is resolvable

100%

Description: This test verifies if the ontology license is resolvable. The test will pass if the license available in the ontology metadata resolves to a resource. The test will fail if no license is declared (OM4.1), if the license is not a URI/URL, or if the response when requesting is 404 or an error.

Explanation: License could be resolved

R1.2: (meta)data are associated with detailed provenance

OM5_1: Ontology declares basic provenance metadata

100%

Description: This check verifies if basic provenance metadata is available for the ontology:

- creator: declared using dc:creator, dcterms:creator, pav:createdBy, pav:authoredBy, schema:creator or doap:developer
- creation date: declared using dcterms:created, schema:dateCreated, doap:created, prov:generatedAtTime or pav:createdOn
- contributor (optional): declared using dc:contributor, dcterms:contributor, schema:contributor, doap:documenter, doap:maintainer, doap:helper, doap:translator or pav:contributedBy.
- previous version (optional): declared using dc:replaces, dcterms:replaces, prov:wasRevisionOf, owl:priorVersion, pav:previousVersion

The test will pass if creator and creation date are present. The test will fail otherwise, indicating the properties that are missing.

Explanation: All basic provenance metadata found!. Warning: The following OPTIONAL provenance metadata could not be found: previous version. Please consider adding them if appropriate.

OM5_2: Ontology declares detailed provenance metadata

100%

Description: This check verifies if detailed provenance information is available for the ontology:

- issued date: declared using dcterms:issued, dcterms:submitted or schema:datePublished
- publisher: declared using dc:publisher, dcterms:publisher or schema:publisher

The test will pass if both metadata fields are present. The test will fail otherwise, indicating the properties that are missing.

Explanation: All detailed provenance metadata found!

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