

Attribution metadata in Vocabularies

IVOA InterOpNov2025

Semantics

FAIR Semantic Artefacts

- FAIR Principles : Findable, Accessible, Interoperable, Reusable
- FAIR Assessment tools
 - FAIR VAlidator https://foops.linkeddata.es/FAIR_validator.html#
 - FAIR Cook Book <https://faircookbook.elixir-europe.org/content/home.html>
 - FAIR Checker <https://fair-checker.france-bioinformatique.fr/check>
 - Skos-Play <https://skos-play.sparna.fr/skos-testing-tool/>
 - Oops <https://oeg.fi.upm.es/index.php/en/technologies/292-oops/index.html>
 - O'FAIRe <https://github.com/agroportal/fairness>
- How to improve our semantic artefacts FAIRness :
 - Use as much as possible Metadata to describe them
 - MOD Ontology (Metadata for Ontology Description) <https://github.com/FAIR-IMPACT/MOD>

MOD Ontology metadata for attribution and traceability

- **dcterms:Created** (Creation Date) : mandatory
- **dcterms:modified** (Modification Date) : mandatory
- **dcat:contactPoint** (Contact): mandatory
- **dcterms:creator** (Creator): mandatory
- **dcterms:contributor** (Contributor) : recommended
- **dcterms:publisher** (Publisher) : recommended
- **pav:createdWith** (Created with) : Optionnal
- **dcterms:accrualMethod** (Accrual method) : Optionnal
- **dcterms:accrualPolicy** (Accrual Policy): Optionnal
- **dcterms:accrualPeriodicity** (Accrual peridocity): Optionnal
- **dcat:accessURL** (Access URL): mandatory
- **owl:versionIRI** (Version IRI) : mandatory

How to reuse IVOA informations to improve FAIRness

Already in place in our vocabularies:

RDF	IVOA vocabulary
dc:created	timestamp
dc:creator	creators
dc:license	licenseuri
rdfs:label	title
dc:title	title
dc:description	description
ivoasem:vocflavor	flavour

How to reuse IVOA informations to improve FAIRness

RDF	VEP
<code>rdfs:label skos:prefLabel</code>	Label
<code>rdfs:label skos:altLabel</code>	Synonym
<code>rdfs:comment</code>	Description
<code>rdfs:subClassOf skos:broader</code> <code>rdfs:subPropertyOf, etc</code>	Relationships
<code>vann:example</code>	Used-in
<code>mod:knownUsage</code>	Rationale
<code>dcterms:modified</code>	Action: Modification
<code>dcterms:created</code>	Action: Addition
<code>owl:deprecated</code>	Action: Deprecated

Introducing metadata at term level

- The VEP documents contains metadata (attribution, rationale, usage...).
- This should be available in the term metadata
- Example:
 - it took a loooooong time to find what was the meaning of the [geo_app](#) term in RefFrame.
- Now that we are opening up to other communities (helio, planeto), keeping track of this metadata within the record will help in such situations.