

The Social Sciences and Humanities (SSH) FAIR Vocabulary Registry

Demo

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Royal Netherlands Academy of Arts and Sciences (KNAW) - Humanities Cluster (HuC)

NKOS WORKSHOP at TPDL
Tampere, September 23, 2025

Liliana Melgar

- Data specialist at the Digital Infrastructure department of the Royal Netherlands Academy of Arts and Sciences (KNAW) - Humanities Cluster (HuC)
- Focus on metadata standards, data modelling, data formats, data interoperability, controlled vocabularies
- Curator of the SSH FAIR vocabulary registry

Also on behalf of:

Menzo Windhouwer

- Lead Engineer Team Structured Data at the Digital Infrastructure department of the KNAW Humanities Cluster (HuC); engineer at research infrastructures: CLARIN, CLARIAH



Kerim Meijer

- Senior software engineer at the Team Structured Data at the Digital Infrastructure department of the KNAW Humanities Cluster (HuC)



In the context of:

SSHOC-NL

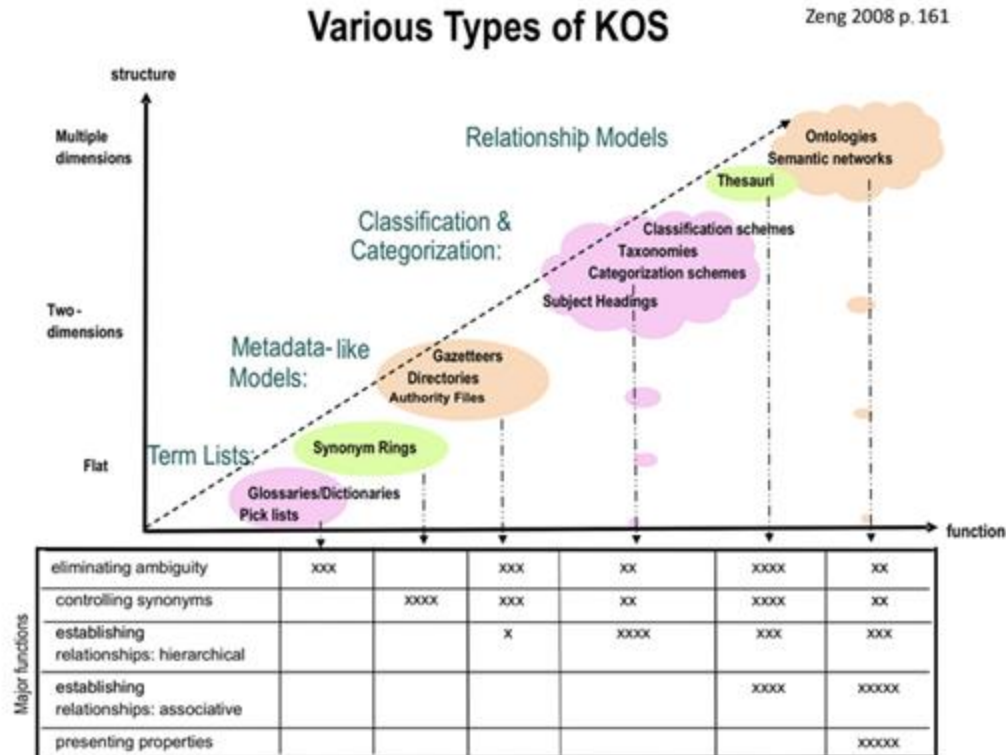
Social Science and Humanities Open Cloud for the Netherlands (SSHOC-NL).

The project aims to enable ground-breaking interdisciplinary research on pressing societal questions.

SSHOC-NL is financed by the Dutch Research Council (NWO) Large-scale Research Infrastructure Grant.



Knowledge Organization Systems (KOS)



Example: European Language Social Science Thesaurus (ELSST) by CESSDA

3,400 concepts covering
the core social science
disciplines

Translated into EU
languages

The screenshot displays the ELSST Thesaurus (Version 5 - 2024) interface. At the top, there is a blue header bar with the title 'ELSST Thesaurus (Version 5 - 2024)' on the left, a 'Content language' dropdown menu set to 'English' in the center, and a 'Search' button on the right. Below the header, the interface is divided into two main sections. The left section contains a vertical list of concepts under the 'Alphabetical' tab, with 'EMPLOYMENT' highlighted. The right section shows the details for the 'EMPLOYMENT' concept, including its preferred term, broader concept, narrower concepts, related concepts, and entry terms.

LABOUR AND EMPLOYMENT > EMPLOYMENT	
PREFERRED TERM	EMPLOYMENT
BROADER CONCEPT	LABOUR AND EMPLOYMENT
NARROWER CONCEPTS	CLANDESTINE EMPLOYMENT EMPLOYMENT ABROAD EMPLOYMENT HISTORY EMPLOYMENT OPPORTUNITIES EMPLOYMENT PROGRAMMES EMPLOYMENT SERVICES HYBRID WORK JOB CHANGING JOB CREATION JOB SHARING JOB VACANCIES MILITARY SERVICE OFFSHORE EMPLOYMENT ON-SITE WORK RESEARCH WORK (show all 22 values)
RELATED CONCEPTS	EMPLOYMENT POLICY RIGHT TO WORK
ENTRY TERMS	JOBS

Banen en lonen op basis van de Polisadministratie

Version 1.0



Centraal Bureau voor de Statistiek, 2024. "Banen en lonen op basis van de Polisadministratie". <https://doi.org/10.5795/4.0601a410807c72a7>. ODISSEI Portal, V1.

Cite Dataset -

Learn about [Data Citation Standards](#)

Contact Owner

Share

Dataset Metrics

Download

Description

In dit databestand zijn kwantitatieve en kwalitatieve gegevens opgenomen over banen en lonen van werknemers bij Nederlandse bedrijven over een bepaald verslagjaar of deel van een verslagjaar. De definitie van "baan" die ten grondslag ligt aan dit bestand is een inkomensverhouding (KVID) in verband met arbeid van een werkgever met een persoon. Een persoon kan per werkgever meerdere inkomensverhoudingen tegelijkertijd hebben. Deze component, waarbij de schudat voor een baan de inkomensverhouding (KVID) is, is beschikbaar vanaf verslagjaar 2010. De poliscomponent is ook beschikbaar voor de verslagjaren 2006 tot en met 2009. Hoofding is de baancode BAANFUAID en is de naam van de baancode FOCKELUUBOUDID. Vanaf 2010 is de baancode BAANFUAID en is de naam van de baancode FOCKELUUBOUDID. Vanaf 2010 is de baancode BAANFUAID en is de naam van de baancode FOCKELUUBOUDID.

[Read full Description](#) [+]

Subject

Social Sciences

Keyword

Werkgelegenheid, Loon, Banen, Socio-economische en ruimtelijke statistieken, Arbeid en lonen, Werkgelegenheid en lonen, Banen en looncompen

License/Data Use Agreement

[Custom Dataset Terms](#)

Vocabularies also used in data repositories (e.g., Dataverse)

Enriched Metadata

Term

ELSSST:

Werkgelegenheid WERKGELEGENHEID <https://eissst.cessda.eu/id/3/aa0ddef6-51fa-4eee-bcb5-2b64c41a4818>

CBS taxonomie:

Arbeid en sociale zekerheid ARBEID EN SOCIALE ZEKERHEID <https://taxonomie.cbs.nl/vocab/id/3840>

CBS begrippen:

Werkgelegenheid WERKGELEGENHEID <https://taxonomie.cbs.nl/vocab/id/20>

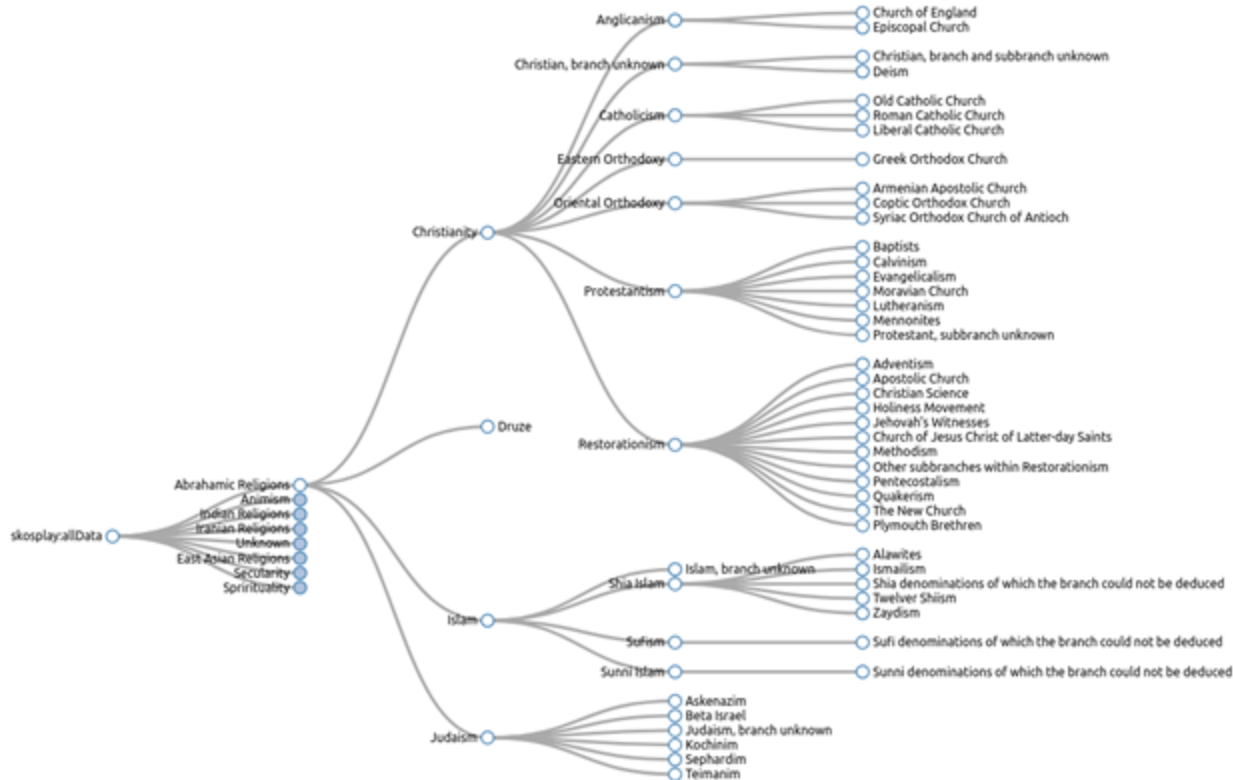
CBS begrippen:

Banen BANEN <https://taxonomie.cbs.nl/vocab/id/22>

Frequency of Use

high

Example (taxonomy of religions)



[Taxonomy of religious denominations](#)

(by Rick Mourits)

Example: Gender, Sex, and Sexual Orientation (GSSO)

Q woman

Advanced Search Random Entry

81 results found for "woman".

Items Per Page: 10

1 2 3 4

woman

A person whose identity is female, based on societal and cultural conceptualizations of being female, usually (but not always) reflected by specific anatomical variations, chromosome combinations, and/or sex hormones.

Your Gender, Se

Q assigned female at birth

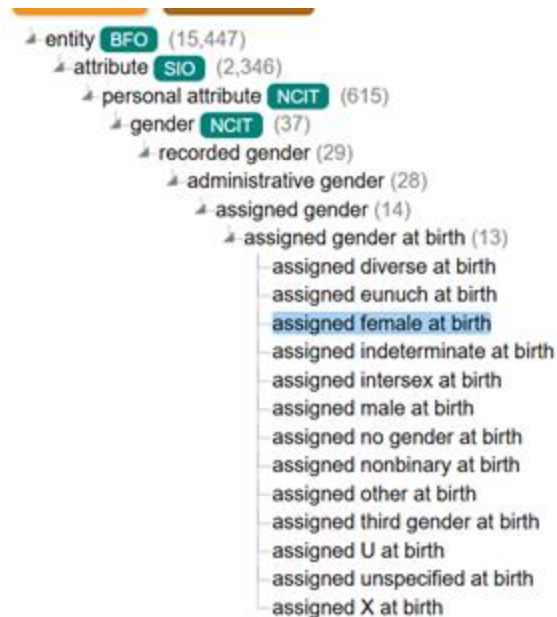
Advanced Search Random Entry

1 results found for "assigned female at birth".

Items Per Page: 10

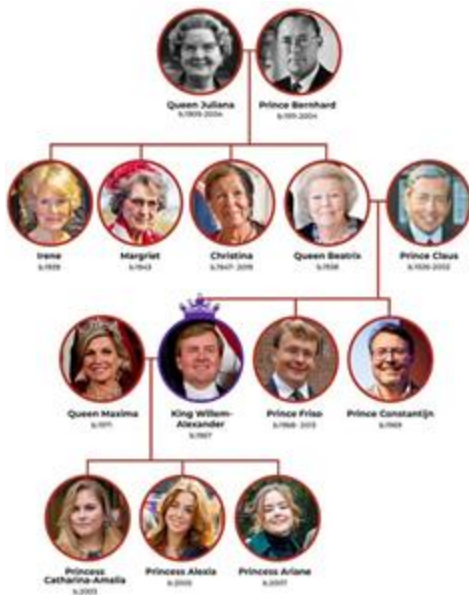
assigned female at birth

An assignment of a female gender shortly after birth.



Example: PersonLink

A Multilingual and Multicultural Ontology Representing Family Relationships

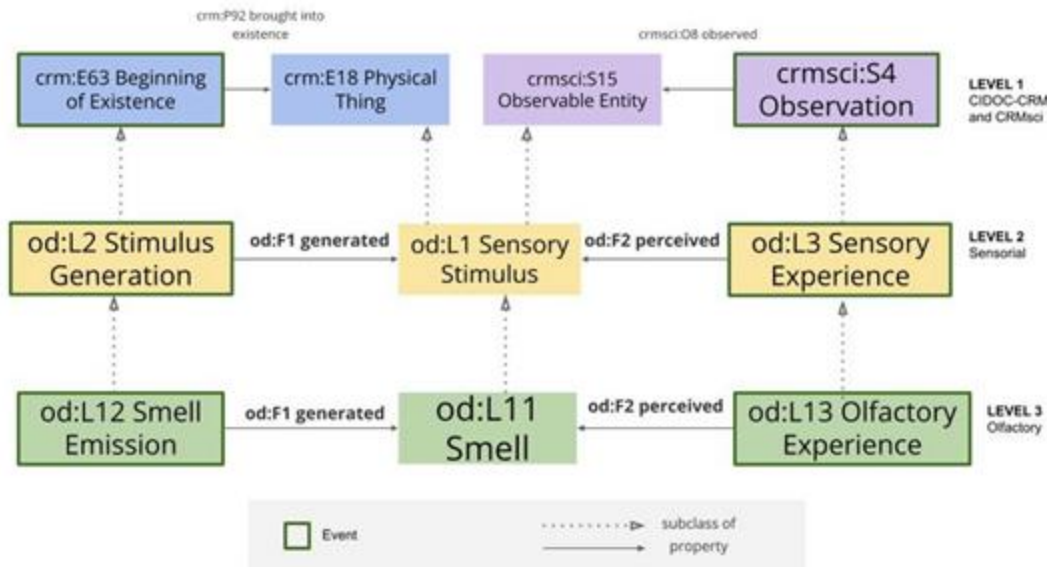


BrotherOf ^{PP}	back to ToC or Object Property ToC
IRI: http://cedric.cnam.fr/isid/ontologies/PersonLink.owl#5.2	
has super-properties SiblingOf^{PP}	
has domain Male⁺	
has range Person⁺	

ChildOf ^{PP}	back to ToC or Object Property ToC
IRI: http://cedric.cnam.fr/isid/ontologies/PersonLink.owl#3.1	
has equivalent properties child of^{PP}	
has super-properties DescendantOf^{PP}	
has sub-properties DaughterOf^{PP} , SonOf^{PP}	

Example: Odeuropa

Example of an ontology produced in a research context



<https://data.odeuropa.eu/ontology/>

Major challenge: lack of interoperability

Mourits et al., 2025 inventoried the vocabulary (schemas) used by bigger data centers in Asia, Europe, and North America.

They found that

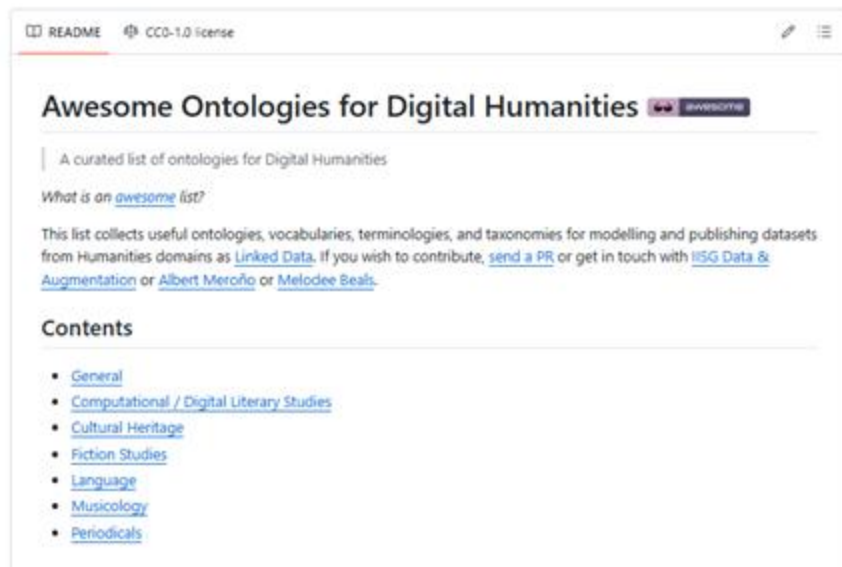
- *“All schemas within historical demography deal with many similar concepts, but have very limited interoperability.”*

And they started harmonizing!

Mourits, R. J., Riswick, T., & Stapel, R. (2025). Common Language for Accessibility, Interoperability, and Reusability in Historical Demography. In B. Steffen (Ed.), *Bridging the Gap Between AI and Reality* (pp. 10–29). Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-73741-1_2

CLAIR-HD (<https://iisg.amsterdam/en/blog/clair-hd>)

Reusing is needed, but: how to find existing vocabularies in SSH?



README CC0-1.0 license

Awesome Ontologies for Digital Humanities

A curated list of ontologies for Digital Humanities

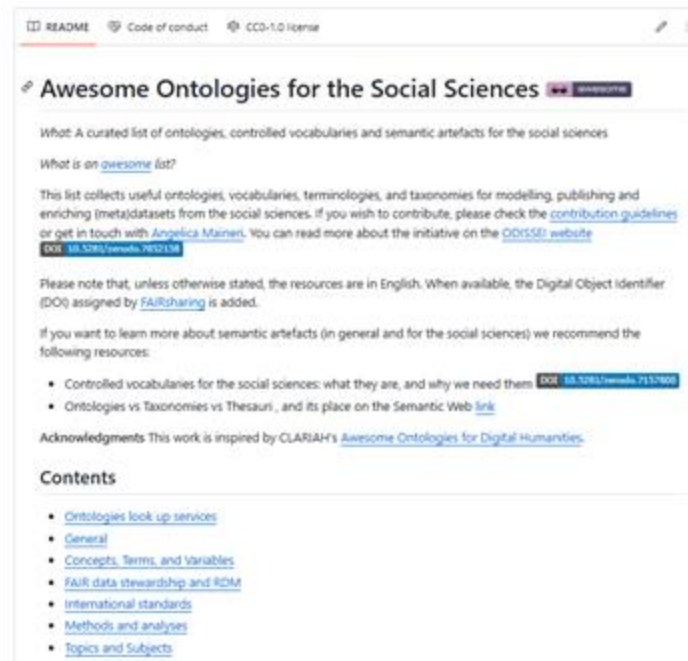
What is an [awesome list](#)?

This list collects useful ontologies, vocabularies, terminologies, and taxonomies for modelling and publishing datasets from Humanities domains as [Linked Data](#). If you wish to contribute, [send a PR](#) or get in touch with [HSG Data & Augmentation](#) or [Albert Meroño](#) or [Melodee Beals](#).

Contents

- [General](#)
- [Computational / Digital Literary Studies](#)
- [Cultural Heritage](#)
- [Fiction Studies](#)
- [Language](#)
- [Musicology](#)
- [Periodicals](#)

<https://github.com/CLARIAH/awesome-humanities-ontologies>



README Code of conduct CC0-1.0 license

Awesome Ontologies for the Social Sciences

What: A curated list of ontologies, controlled vocabularies and semantic artefacts for the social sciences

What is an [awesome list](#)?

This list collects useful ontologies, vocabularies, terminologies, and taxonomies for modelling, publishing and enriching (meta)datasets from the social sciences. If you wish to contribute, please check the [contribution guidelines](#) or get in touch with [Angelica Maineri](#). You can read more about the initiative on the [ODISEO website](#) [DOI: 10.5281/zenodo.7157805](#)

Please note that, unless otherwise stated, the resources are in English. When available, the Digital Object Identifier (DOI) assigned by [FAIRsharing](#) is added.

If you want to learn more about semantic artefacts (in general and for the social sciences) we recommend the following resources:

- Controlled vocabularies for the social sciences: what they are, and why we need them [DOI: 10.5281/zenodo.7157805](#)
- Ontologies vs Taxonomies vs Thesauri, and its place on the Semantic Web [link](#)

Acknowledgments This work is inspired by CLARIAH's [Awesome Ontologies for Digital Humanities](#).

Contents

- [Ontologies look up services](#)
- [General](#)
- [Concepts, Terms, and Variables](#)
- [FAIR data stewardship and RDM](#)
- [International standards](#)
- [Methods and analyses](#)
- [Topics and Subjects](#)

<https://github.com/FAIR-Expertise-Hub/awesome-ontologies-social-sciences>

FAIR principles

In 2016, the '[FAIR Guiding Principles for scientific data management and stewardship](#)' were published in *Scientific Data*, a Nature journal.

- The authors intended to provide guidelines to improve the **F**indability, **A**ccessibility, **I**nteroperability, and **R**euse of digital assets.
- The principles emphasise *machine-actionability* (i.e., the capacity of computational systems to find, access, interoperate, and reuse data with none or minimal human intervention)

Still what is FAIR and what that means from a technical perspective is still heavily debated and under construction (in the EU). Nothing is set yet, but there is progress in:

- community specific (implementation) strategies (FIPs, e.g. [CLARIN & ODISSEI](#))
- [OSTrails.eu](#)

Interoperable & vocabularies

- I2: (Meta)data use vocabularies that follow the FAIR principles

When we are describing data or metadata, we often use **vocabularies** that provide the terms or concepts that are adequate to represent their content. However, if we use vocabularies in our data or metadata, *we should make sure that they are also FAIR in their own right so that others, humans or machines, can find, access, interoperate and reuse them.* The controlled vocabulary used to describe datasets needs to be documented and resolvable using globally unique and persistent identifiers. This documentation needs to be easily findable and accessible by anyone who uses the dataset.

FAIR assessments, FAIR implementation profiles (FIPs)

What is your FIP?

Check out the FIP mini-questionnaire which will lead you through the creation of your own FAIR Implementation Profile:

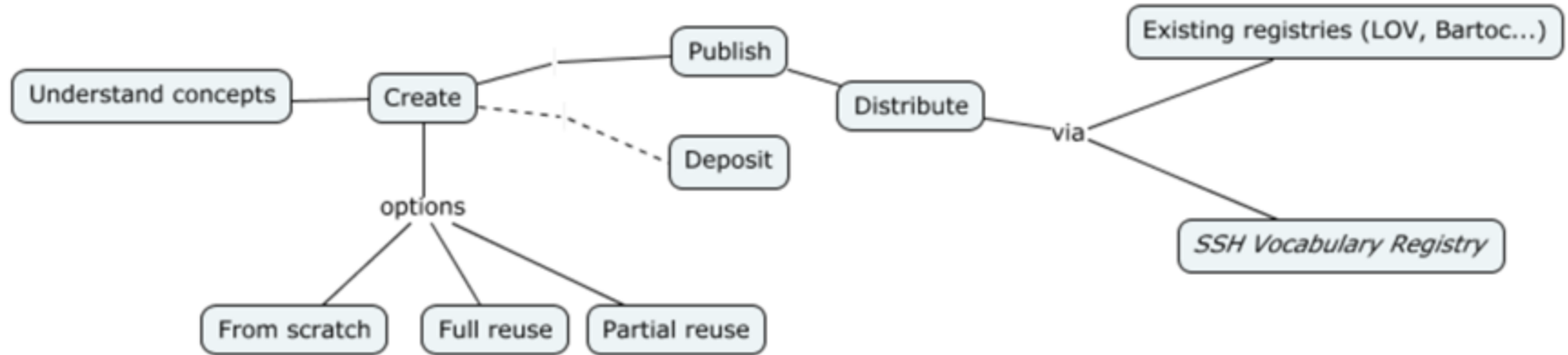
<https://bit.ly/yourFIP> or download the questionnaire in **PDF**.

FAIR principle	Question	FAIR enabling resource types	Your answers
F1	What globally unique, persistent, resolvable identifiers do you use for metadata records?	Identifier type	e.g. PURL, DOI
F1	What globally unique, persistent, resolvable identifiers do you use for datasets?	Identifier type	
F2	Which metadata schemas do you use for findability?	Metadata schema	
F3	What is the technology that links the persistent identifiers of your data to the metadata description?	Metadata-Data linking mechanism	
F4	In which search engines are your metadata records indexed?	Search engines	
F4	In which search engines are your datasets indexed?	Search engines	
A1.1	Which standardized communication protocol do you use for metadata records?	Communication protocol	
A1.1	Which standardized communication protocol do you use for datasets?	Communication protocol	
A1.2	Which authentication & authorisation technique do you use for metadata records?	Authentication & authorisation technique	
A1.2	Which authentication & authorisation technique do you use for datasets?	Authentication & authorisation technique	
A2	Which metadata longevity plan do you use?	Metadata longevity	
I1	Which knowledge representation languages (allowing machine interoperation) do you use for metadata records?	Knowledge representation language	
I1	Which knowledge representation languages (allowing machine interoperation) do you use for datasets?	Knowledge representation language	
I2	Which structured vocabularies do you use to annotate your metadata records?	Structured vocabularies	
I2	Which structured vocabularies do you use to encode your datasets?	Structured vocabularies	
I3	Which models, schema(s) do you use for your metadata records?	Metadata schema	
I3	Which models, schema(s) do you use for your datasets?	Data schema	
R1.1	Which usage license do you use for your metadata records?	Data usage license	
R1.1	Which usage license do you use for your datasets?	Data usage license	
R1.2	Which metadata schemas do you use for describing the provenance of your metadata records?	Provenance model	
R1.2	Which metadata schemas do you use for describing the provenance of your datasets?	Provenance model	

FAIR (limitations)

- are semantic artifacts only limited to the Linked Data domain?
 - we (will) have lot of (legacy) data that is valuable and should be available in a FAIR manner
 - also these have semantic artefacts, e.g. XSD
 - FAIR tends to have a RDF/LD focus, but needs to go beyond that

Challenge for end-user: vocabulary workflows



Solution for curators (GLAM sector)

The screenshot displays the 'network of terms' website. At the top left is the logo, a stylized sunburst icon followed by the text 'network of terms'. At the top right are links for 'Frequently asked questions' and 'Taal'. The main heading in the center reads 'Searching shared thesauri, classification systems, and reference lists'. Below this heading are four categories of users: 'for managers of heritage collections', 'for administrators of terminology sources', 'for terminology source providers', and 'for heritage software developers'. A search interface is shown below, with two tabs: 'Search terms' (selected) and 'Look up term'. The 'Search terms' tab contains a 'Search words' field with the placeholder text 'For example: Rembrandt, Amsterdam or painting', a 'Terminology sources' dropdown menu with the text 'Select one or more terminology sources', and a link 'Or consult the list of terminology sources'. A dark blue 'Search' button is positioned at the bottom of the search form.

network of terms

Frequently asked questions ▼ Taal ▼

Searching shared thesauri, classification systems, and reference lists

for managers of heritage collections for administrators of terminology sources for terminology source providers for heritage software developers

Search terms Look up term

Search words For example: Rembrandt, Amsterdam or painting

Terminology sources Select one or more terminology sources ▼

Or consult the [list of terminology sources](#)

Search

Existing vocabulary (semantic artifacts) registries

- [Linked Open Vocabularies](#)
- [Bartoc.org](#)
- Ontoportal Alliance
- [FAIRsharing.eu](#)
- Limitations
 - Not all do common Apis
 - Not all do caching
 - Registries are general or per scientific domain, but not for SSH
- We need(ed) one registry for SSH



Trend exploration and analysis

Aggregate portal services

- provide support for
searching, sharing, mapping,
visualizing, and analyzing
a large repository of ontologies,
vocabularies, terminologies, and
annotations.

Individual KOS-based services

- support
indexing, searching, and the exploration of an
extended vocabulary
and as a knowledge resource in its own right.

The KOS lifecycle encompassed
by such services includes

- creation,
- transformation,
- mediation,
- migration,
- exchange,
- integration, and
- aggregation.

Medical Subject Headings (MeSH)

BioPortal Ontologies Search Annotator Recommender Mappings Login Support

Medical Subject Headings

Last updated: August 28, 2024

Summary **Classes** Properties Notes Mappings Widgets

Details

Acronym	MESH
Visibility	Public
Description	Medical Subject Headings (MeSH), National Library of Medicine, 2011
Status	Production
Format	UMLS
Contact	NLM Customer Service, custserv@nlm.nih.gov
Categories	Health
Groups	Unified Medical Language System
License Information	This ontology is made available via the UMLS. Users of all UMLS ontologies must abide by the terms of the UMLS license .

Metrics

Classes	354,396
Individuals	0
Properties	37
Maximum depth	16
Maximum number of children	118
Average number of children	4
Classes with a single child	3,554
Classes with more than 25 children	169
Classes with no definition	323,767

Submissions

Version	Released	Uploaded	Downloads
2024AA (Parsed, Indexed, Metrics, Annotator, Error SQL)	05/06/2024	08/28/2024	RDF/ITIL CSV
2023AB (archived)	11/06/2023	01/31/2024	RDF/ITIL
2023AA (archived)	04/01/2023	08/01/2023	RDF/ITIL
2022AB (archived)	11/01/2022	01/06/2023	RDF/ITIL
2022AA (archived)	05/02/2022	06/10/2022	RDF/ITIL

Views of MESH

[Thesaurus Biomedical Français/Anglais \(French translation of MeSH\)](#)
[Thesaurus Biomedical Français/Anglais \(French translation of the Medical Subject Headings\)](#)

Visits



more...

Projects using MESH

ARRS GoldMiner
Biomedical Semantic QA
Cell line ontology
DisGeNET-RDF
eagle-i
Epidemic Marketplace
Kino
Lexigram
Neuronal Morphologies and Species Metadata Classification System
Plant Ontology
PubChem
Retrospective Analytics System
Semantic Indexing of French Biomedical Data Resources
Socrates MD
The Ontological Discovery Environment

<http://bioportal.bioontology.org/ontologies/MESH>

2024-10-05 data

Images captured 2024-10-05.

Marcia Zeng, Getty ITWG-2024

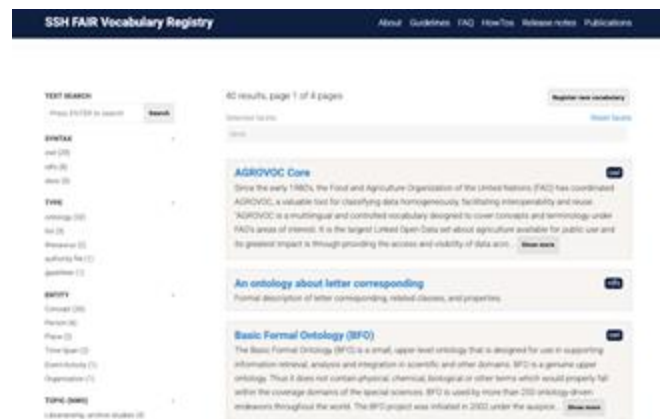
5

Distributing vocabularies via the The SSH Vocabulary Registry

FAIR vocabulary registry & recommender

Production version launched at DH Benelux (June, 2025) <https://registry.vocabs.clariah.nl/>

- Development started during CLARIAH-Core project (2022)
- Currently 41 vocabularies only
 - But ca. 200 are in review
 - Initially, it included most vocabularies from two curated lists:
 - [Awesome Ontologies for Digital Humanities](#) (ca. 40 vocabs)
 - [YALC: a registry of Linked Open Datasets](#) (ca. 126 vocabs)
- Some are highly FAIR-compliant, some are reference only



Vocabularies in the SSH FAIR Vocabulary Registry

- Vocabulary metadata is stored in XML (using a CMDI profile)
 - <https://www.clarin.eu/content/cmdr-component-metadata-infrastructure>
- Not all vocabularies are FAIR
- We have been working on:
 - Selecting most relevant ones
 - Adding more metadata
 - and creating/adapting the vocabulary metadata using existing vocabularies (e.g., VOID, DCAT, MOD)
 - Testing download / Improving workers

The search and browsing interface

The screenshot displays the SSH FAIR Vocabulary Registry interface. At the top, a dark blue header contains the site name and navigation links. The left sidebar provides filters for text search, syntax, type, entity, and topic. The main content area shows search results with callouts pointing to specific elements like the query box, filters, result list, and result snippets.

SSH FAIR Vocabulary Registry

About Guidelines **FAQ** HowTos Release notes Publications

TEXT SEARCH Query box

Press ENTER to search

SYNTAX

- owl (29)
- rdfs (8)
- skos (3)

Filters/Facets

TYPE

- ontology (32)
- list (3)
- thesaurus (2)
- authority file (1)
- gazetteer (1)

ENTITY

- Concept (26)
- Person (6)
- Place (2)
- Time-Span (2)
- Event-Activity (1)
- Organisation (1)

TOPIC (NWO)

- Librarianship, archive studies (4)
- Linguistics (4)
- History (3)

40 results, page 1 of 4 pages

Selected facets: None

AGROVOC Core owl

Since the early 1980's, the Food and Agriculture Organization of the United Nations (FAO) has coordinated AGROVOC, a valuable tool for classifying data homogeneously, facilitating interoperability and reuse. AGROVOC is a multilingual and controlled vocabulary designed to cover concepts and terminology under FAO's areas of interest. It is the largest Linked Open Data set about agriculture available for public use and its greatest impact is through providing the access and visibility of data across... Show more

An ontology about letter corresponding rdfs

Formal description of letter corresponding, related classes, and properties.

Basic Formal Ontology (BFO) owl

The Basic Formal Ontology (BFO) is a small, upper level ontology that is designed for use in supporting information retrieval, analysis and integration in scientific and other domains. BFO is a genuine upper ontology. Thus it does not contain physical, chemical, biological or other terms which would properly fall within the coverage domains of the special sciences. BFO is used by more than 250 ontology-driven endeavors throughout the world. The BFO project was initiated in 2002 under the auspice... Show more

Brick: A uniform metadata schema for buildings rdfs

Menu / Static pages

Suggest new vocabulary

Register new vocabulary

Reset facets

Result list

Result snippet

Detailed page per vocabulary

AGROVOC Core

Get vocabulary (saved by registry)

Get cached vocabulary

Go to homepage

Get vocabulary (live)

Get vocabulary

Vocab. title

External link vocabulary homepage

Return to previous page

Automatic summary

Description

Summary

Reviews

Versions:

2025-02 Feb 9, 2025

2023-10 Oct 4, 2023

Version switcher

General description

Since the early 1980's, the Food and Agriculture Organization of the United Nations (FAO) has coordinated AGROVOC, a valuable tool for classifying data homogeneously, facilitating interoperability and reuse.

"AGROVOC is a multilingual and controlled vocabulary designed to cover concepts and terminology under FAO's areas of interest. It is the largest Linked Open Data set about agriculture available for public use and its greatest impact is through providing the access and visibility of data across domains and languages.

AGROVOC provides a way to organize knowledge for subsequent data retrieval and consists of a structured collection of concepts, terms, definitions and relationships. Concepts represent anything in food and agriculture, such as maize, hunger, aquaculture, value chains or forestry; these concepts are used to unambiguously identify resources, allowing standardized indexing processes to make searching more efficient. Each AGROVOC concept also has terms used to express it in various languages, known as lexicalizations. Today, AGROVOC consists of more than 41 000 concepts and 1 157 000 terms in up to 41 languages.

Over recent years, AGROVOC has evolved to become a valued information resource worldwide with considerable use." (<https://data.apps.fao.org/catalog/organization/about/agrovoc>)

Namespace	http://aims.fao.org/aos/agrovoc	Creators	https://viaf.org/en/viaf/148396178
Type	owl Concept thesaurus	Maintainers	https://viaf.org/en/viaf/148396178
Topics	Environmental science Agriculture		
Date issued	Jan 1, 1970 01:33		
Languages	ara spa rus fra eng zho		
License	Creative Commons Attribution 3.0 IGO		
Registries	YALC Bartoc		

Other vocabulary metadata

Mentions of responsibility

Other registries where the vocabulary appears

Vocabularies for vocabulary description

DCAT (and DC terms) -> Data Catalog Vocabulary

VOAF -> Vocabulary of a Friend

VANN -> A vocabulary for annotating vocabulary descriptions

REV -> RDF Review Vocabulary

PAV -> Provenance, Authoring and Versioning

Schema.org

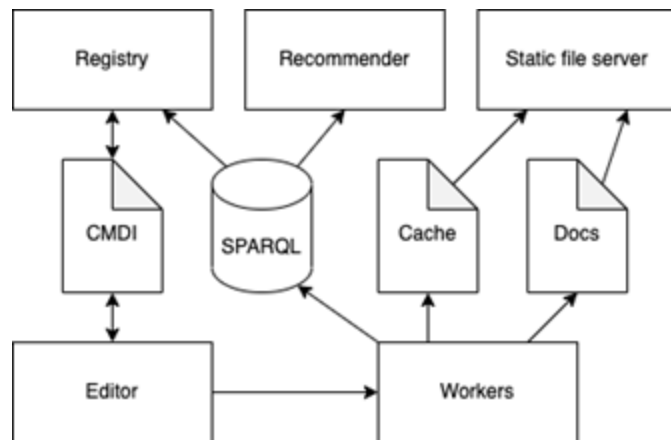
VoID -> Vocabulary of Interlinked Datasets

MOD -> Metadata for Ontology Description and publication (Ontoportal)

Basic approach

- the registry is metadata only, i.e., all vocabs "live" somewhere else ... has an owner/home outside of the registry ... unless it "died" then we have still a cache
- we add common APIs as far as possible, e.g., SKOSMOS for SKOS, SPARQL for any RDF-based vocab
- the registry is for more than just vocabularies, but for any semantic artifacts, i.e. including schema's models, ontologies, etc. (this is a main difference with Termennetwerk)
- as not all datasets will become LD, we also want to cater for semantic artifacts for other data representations like XML or CSV
- as there are unlimited ways a homepage for a vocab might look and lead to a download of the actual vocab, there is still a lot manual/semi-automatic labour going on, and, as many other similar registries do, we have to revisit the vocabulary from time to time to curate our entry ... we're working to make this move to automatic more and more ...

FAIR vocabulary registry & recommender (architecture overview)



Repositories:

- <https://github.com/CLARIAH/vocab-workers>
- <https://github.com/CLARIAH/vocab-registry>
- <https://github.com/CLARIAH/vocab-registry-editor>
- <https://github.com/CLARIAH/vocab-registry-docs>
- (vocabulary recommender temporarily in development in private Gitlab)

Recent paper:

Meijer, K. and Windhouwer, M. (2024). The CLARIAH FAIR Vocabulary Registry. CLARIN Annual Conference Proceedings, page 154. https://www.clarin.eu/sites/default/files/CLARIN2024_ConferenceProceedings_final.pdf

Guidelines and HowTos

SSH FAIR Vocabulary Registry

[About](#) **[Guidelines](#)** [FAQ](#) [HowTos](#) [Release notes](#)

[Concepts](#) [Software](#) [Standards](#) [Creation](#) [Reuse](#) [Publication](#) [Example workflow 1](#)

SSH FAIR Vocabularies Guidelines

Just the start of a collaborative effort!

Roadmap

Current work in progress:

- Inventorizing & adding existing vocabularies in SS and Humanities
- **Making the vocabulary metadata schema also FAIR**
- Defining workflows (accepting/rejecting suggested vocabs, curation)
- User evaluation
- Documentation pages / Guidelines

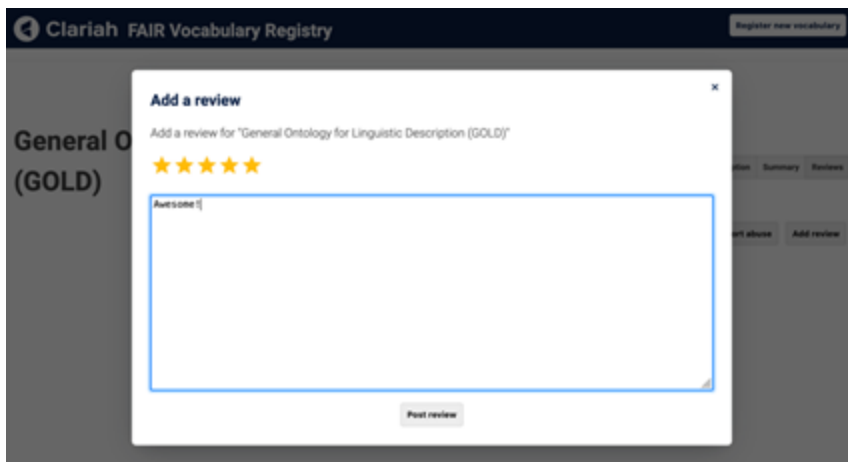
Future development ([public roadmap in progress](#)):

- Browser/website technical and usability improvements
- Continue developing the **vocabulary recommender**
- Implement APIs (OpenRefine, Lenticular Lens)
- Work on specificities for non-RDF vocabularies
- Integrate to INEO portal
- Integrate FAIR assessment scores for vocabularies

FAIR vocabulary recommender (in the roadmap)

<https://recommender.vocabs.dev.clariah.nl/>

- scoring of a vocab to be based on:
 - Automatically checks on whether a vocabulary exists in other registries (e.g., Bartoc or LOV)
 - Registry gets user reviews (stars and comments)
 - Recommender Processes these inputs and give recommendations
 - Also recommendations based on user-provided csv (schema)



Key points

Key points

- Controlled vocabularies are an essential part (and/or product) of research work, but finding, reusing and sharing doesn't happen often.
- FAIR-ness of vocabularies in SSH is far from ideal.
- The SSH FAIR Vocabulary Registry aims to fill in these gaps: collecting, describing & facilitating reuse, and providing guidelines to researchers to encourage FAIR-ness of vocabularies from the creation stage.

Use and contribute to SSH FAIR Vocabulary Registry

<https://registry.vocabs.clariah.nl/>

- Suggesting new vocabularies to add

- Participating of (user) evaluation

SSH FAIR Vocabulary Registry

[About](#) [Guidelines](#) [FAQ](#) [HowTos](#) [Release notes](#) [Publications](#)

TEXT SEARCH

40 results, page 1 of 4 pages

Register new vocabulary



edu.nl/ykctd

- Contributing content or questions to the Guidelines

extra

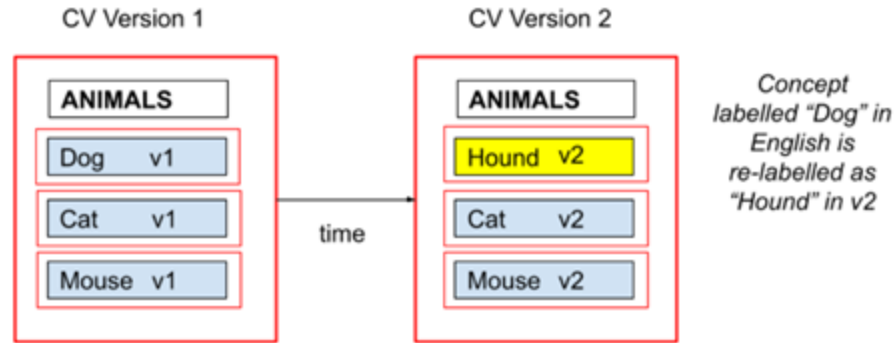


Figure 3b
Versioning Propagated
UPWARDS

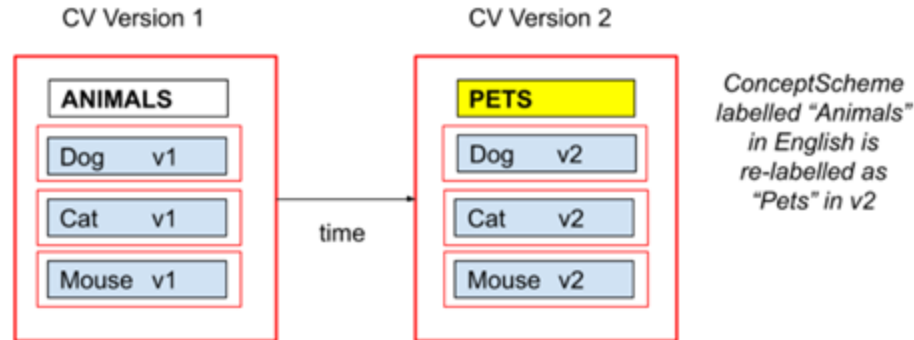
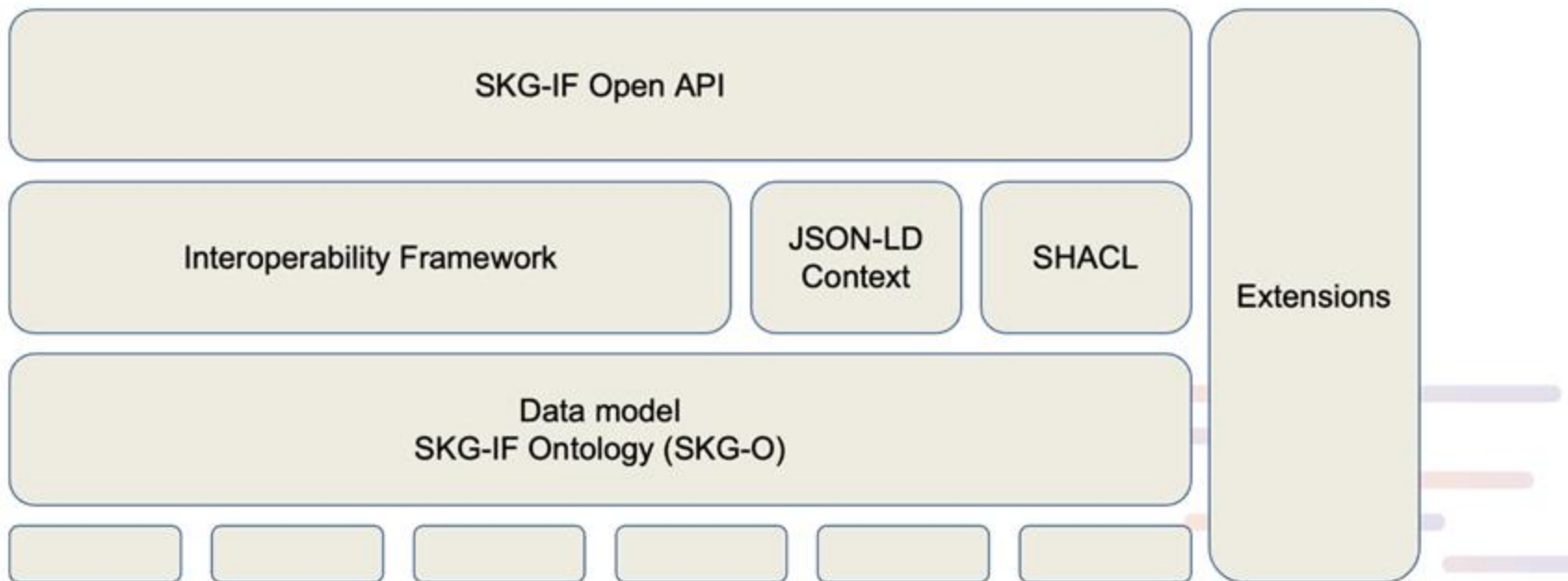
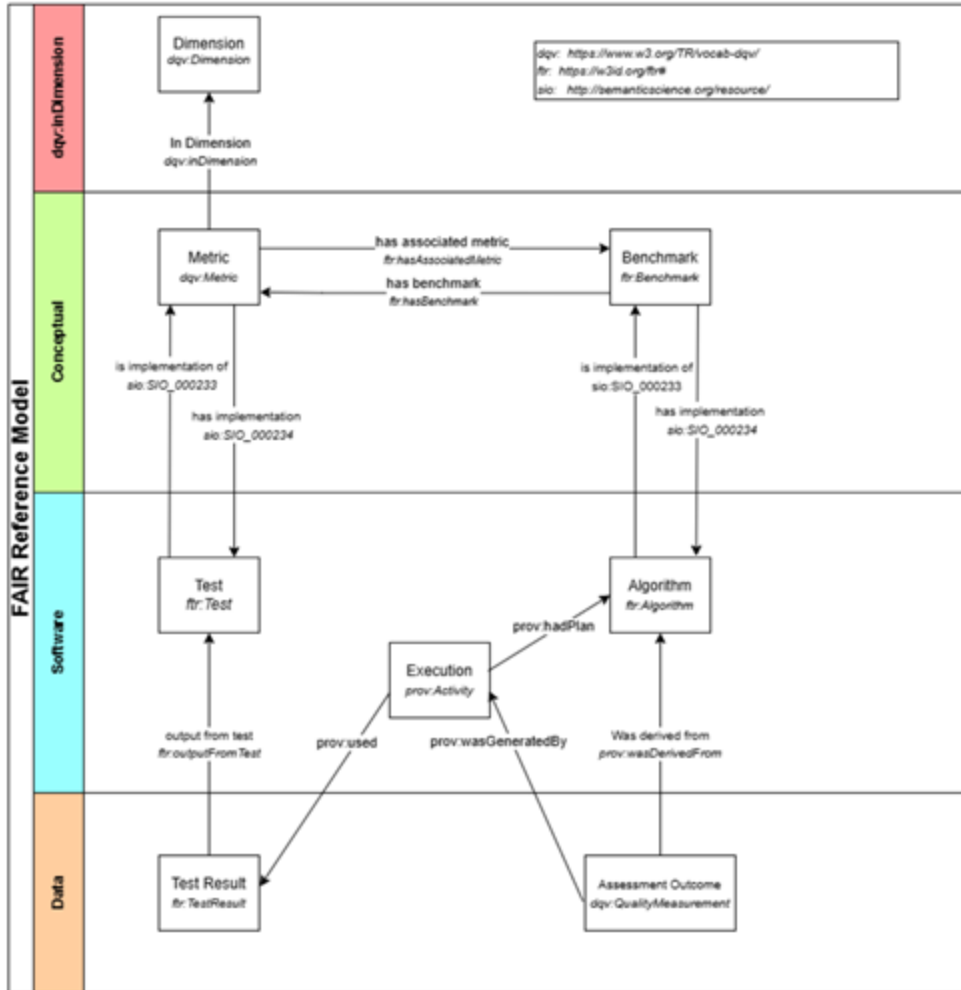


Figure 4b
Versioning Propagated
DOWNWARDS

SKG-IF Overview

<https://zenodo.org/records/15309838>





<https://zenodo.org/records/14794901>

reuse

- RDFS and beyond add reasoning capabilities
 - range <- prop -> domain
 - using the prop has impact on the subject and/or object
 - ...
- reusing an ontology also takes over inference
- mixing & matching multiple ontologies might lead to incompatible inferences
- still try to reuse as much as possible ;-)

<http://workingontologist.org/>

Firefox File Edit View History Bookmarks Tools Window Help

http://localhost:7200/repository/create/graphdb

Create GraphDB repository

Repository ID*

Repository description

☐ Read-only

Inference and Ruleset

Sets of axioms and rules, which are used to infer new facts from the existing ones.

Ruleset

- No inference
- RDFS (Optimized)
- RDFS
- ✓ RDFS-Plus (Optimized)**
- OWL-Horst (Optimized)
- OWL-Horst
- OWL2-QL (Optimized)
- OWL2-QL
- OWL-Max (Optimized)
- OWL-Max
- OWL2-RL (Optimized)
- OWL2-RL

[Custom ruleset...](#)

Indexing

Entity ID size ☒ 32-bit ☐ 40-bit

☐ Enable context index

☒ Enable predicate list index

☐ Enable full-text search (FTS) index

FTS indexes to build (comma delimited)

FTS index for xsd:string literals

Repository GLOBALISE

Location: Local

Type: Graphdb

Access: Read/write

Total statements: 49,355

Explicit: 49,181

Inferred: 174

Expansion ratio (total/explicit): 1.00

GraphDB

- Import
- Explore
- SPARQL
- Monitor
- Setup**
- Repositories
- Users and Access
- ACL Management
- My Settings
- Connectors
- Cluster
- Plugins
- Namespaces
- Autocomplete
- RDF Rank

Publish vocabularies: handson

- [github pages](#)
- [skosplay](#)
- [skosmos](#)

List of concepts to place in the taxonomy:

<https://lod.nal.usda.gov/nalt/en/page/29712>

squashes

vegetables

zucchini

winter squashes

summer squash

courgette

NALT Full Content English Q

Hierarchy

- vegetable oil
- vegetable pulp
- vegetables
 - asparagus spears
 - bamboo shoots
 - Brussels sprouts
 - cardoons
 - celery
 - cucumbers
 - edible fungi
 - eggplants
 - fennel
 - green beans
 - green leafy vegetables
 - inflorescence vegetables
 - leeks
 - microgreens
 - okra
 - onions
 - peppers
 - pumpkins
 - rhubarb
 - root vegetables
 - sprouts (food)
 - squashes
 - winter squashes
 - zucchini**
 - sweetcorn
 - tomatillos
 - tomatoes
- yerba mate
- biobased products
- biodegradable products
- brand name products
- byproducts

Plant Production, Gardening / plant products / vegetable products / vegetables / squashes / zucchini [show all 7 paths]

Fields of Study / plant products / vegetable products / vegetables / squashes / zucchini

Animals, Livestock, One Health / plant products / vegetable products / vegetables / squashes / zucchini

Fields of Study / plant products / vegetable products / vegetables / squashes / zucchini

PREFERRED TERM	zucchini
TYPE	Product
BROADER CONCEPT	squashes
SYNONYMS	courgettes summer squash
IS PRODUCT OF	Cucurbita pepo
IN OTHER LANGUAGES	calabacitas Spanish calabochin
URI	https://lod.nal.usda.gov/nalt/29712
DOWNLOAD THIS CONCEPT:	RDF/XML Turtle JSON-LD Created 1/19/06, last modified 9/5/17
EXACTLY MATCHING CONCEPTS	http://id.agrisemantics.org/gac/C12554 id.agrisemantics.org http://id.cabi.org/cabt/70502 id.cabi.org marrows aims.fao.org

Coffee/tea break