KOS Terminology Services

-- Trend exploration and analysis

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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.

A. Vocabulary Repositories

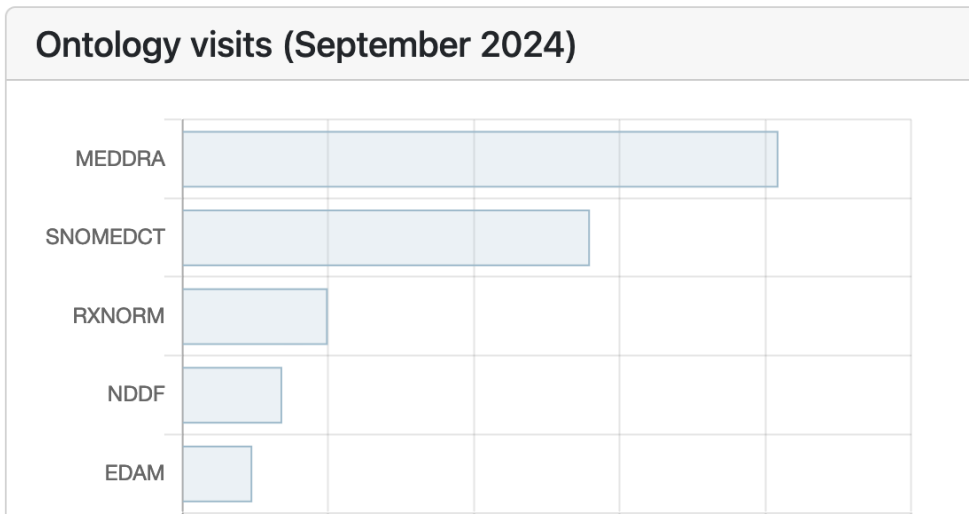BioPortal –>

    OntoPortal –>

        OntoPortal Alliance

BioPortal

https://bioportal.bioontology.org/

Medical Subject Headings (MeSH)

BioPortal — Ontologies Search Annotator Recommender Mappings — Login Support

Medical Subject Headings
Last uploaded: 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	323,707

Submissions

Version		Released	Uploaded	Downloads
2024AA	(Parsed, Indexed, Metrics, Annotator, Error Diff)	05/06/2024	08/28/2024	RDF/TTL | CSV
2023AB	(Archived)	11/06/2023	01/31/2024	RDF/TTL
2023AA	(Archived)	04/01/2023	08/07/2023	RDF/TTL
2022AB	(Archived)	11/07/2022	01/06/2023	RDF/TTL
2022AA	(Archived)	05/02/2022	06/10/2022	RDF/TTL

more...

Visits

Views of MESH

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

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

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Artificial Intelligence Ontology (AIO) https://bioportal.bioontology.org/ontologies/AIO

Marcia Zeng. Getty ITWG-2024

Images captured 2024-10-05

6

BioPortal →**OntoPortal**

(Our starting point, years ago...)
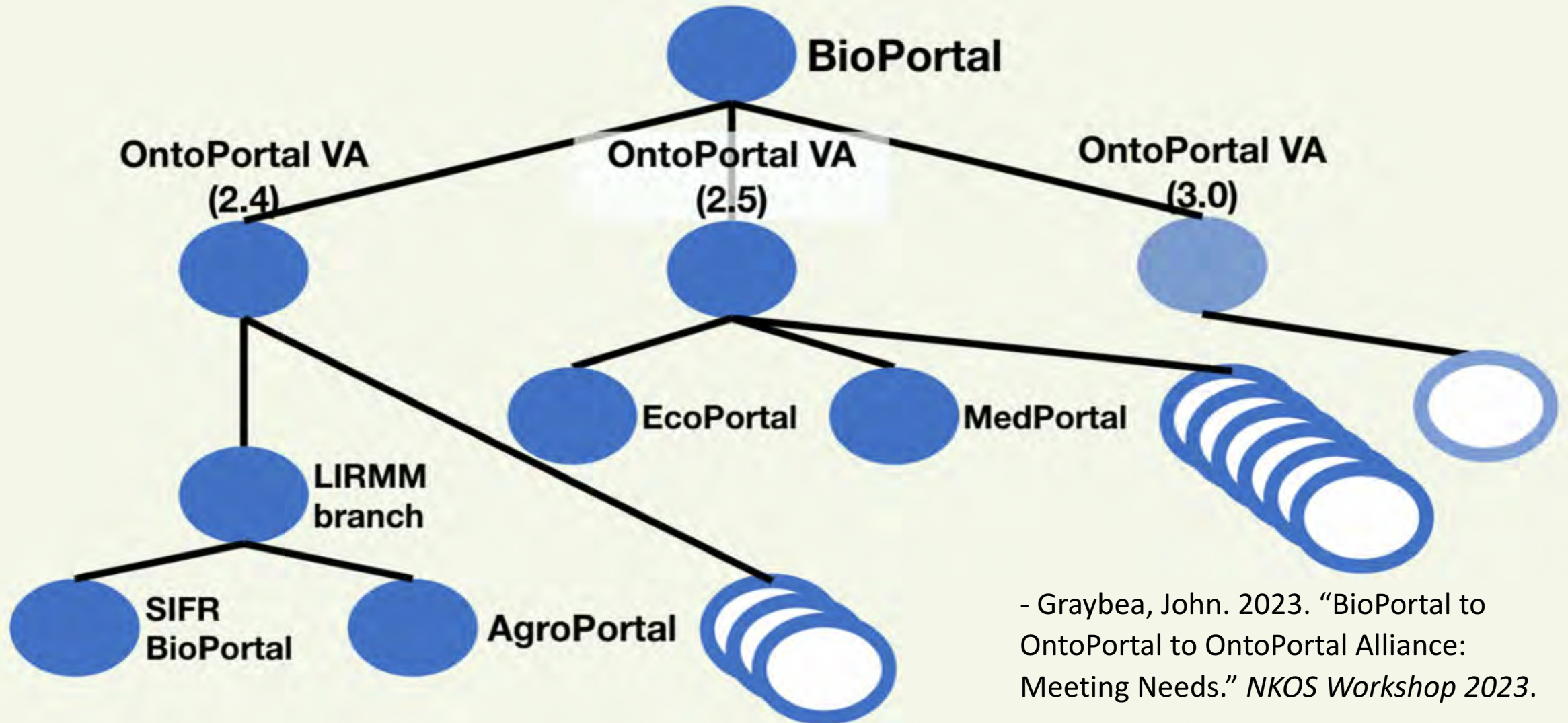
- Graybea, John. 2023. "BioPortal to OntoPortal to OntoPortal Alliance: Meeting Needs." *NKOS Workshop 2023*.

OntoPortal Appliance: Architecture Today

- Graybea, John. 2023. "BioPortal to OntoPortal to OntoPortal Alliance: Meeting Needs." *NKOS Workshop 2023*.

OntoPortal System Architecture

User Interface
- OntoPortal Web UI — Ruby on Rails
- Ontologies API Client — Ruby
- Main OntoPortal Web Application
- Administration Console

API Layer
- External tools
- Ontologies API (Controllers) — Ruby/Sinatra Framework

Model Layer
- Ontologies Linked Data (Models)
- OWL API Wrapper — Java
- Graph Oriented Objects (GOO)

Service Layer
- Ontology Search
- Ontology Recommender
- NCBO Cron Jobs
- Annotator

Storage
- Ontologies and Semantic Artefacts — RDF-S, OWL, SKOS, OBO, UMLS-RRF
- Triple store — 4store or AllegroGraph
- Application caches, Data analytics, Processing Queues, Redis, …
- Search Index — Apache Solr
- Annotator datastore — Redis

Mgrep
- Mgrep Engine
- Mgrep Dictionary

The primary mission of an OntoPortal installation is to host and serve ontologies and semantic artefacts.

The portals accept resources in multiple knowledge representation languages: OWL, RDFS, SKOS, OBO and UMLS-RRF.

Need: Diverse features for different projects
Result: Agile methods to share/test features

AgroPortal major features: multilingual ontologies support; complete SKOS capabilities; in-app FAIR evaluation of ontologies

AgroPortal other features: new administrations tools (metadata, groups and categories); some new UIs; some UI internationalization; consolidated metadata model

BiodivPortal major features: diff and versioning support; SSSOM (mapping) support; iADOPT integration

MedPortal major features: replace Google page tracking; Chinese internationalization; CSV imports

EcoPortal major features: VocBench and ShowVoc integration; assigning DOIs; Keycloak-based Single Sign-On (SSO)

- Graybea, John. 2023. "BioPortal to OntoPortal to OntoPortal Alliance: Meeting Needs." *NKOS Workshop 2023*.

MedPortal

A repository for Chinese biomedical terminologies and ontologies

cc.cn/ontologies 67%

Showing 54 of 56 Sort: Popular

Submit New Ontology

Search...

Entry Type
- ☑ Ontology (54)
- ☐ Ontology View (2)

Uploaded in the Last

Category
- ☐ Chinese(中文) (6)
- ☐ English (41)

Group

Format
- ☐ OBO (10)
- ☐ OWL (37)
- ☐ UMLS (6)

Informed Consent Ontology / 知情同意本体 (ICO) — classes 963
Informed Consent Ontology (ICO) is a community-based ontology in the domain of informed consent
Uploaded: 4/21/22

Infectious Disease Ontology / 传染性疾病本体 (IDO)
The IDO ontologies are designed as a set of interoperable ontologies that will together provide coverage of the infectious disease domain
Uploaded: 6/27/22

Semanticscience Integrated Ontology / 语义科学集成本体 (
The semanticscience integrated ontology (SIO) provides a simple, integrated upper le ontology (types, relations) for consistent knowledge representation across physical, processual and informational entities
Uploaded: 4/7/23

Pathway Ontology / 通路本体 (PW)
The goal of the Pathway Ontology is to cover all types of biological pathways, includir altered and disease pathways, and to capture the relationships between them within t hierarchical structure of a Directed Acyclic Graph (DAG)
Uploaded: 5/8/23

Relations Ontology / 关系本体 (OBOREL)
A collection of relations intended primarily for standardization across ontologies in th Foundry and wider OBO library
Uploaded: 3/7/23

Ontology for General Medical Science / 通用医学科学本体 (OGMS)
The Ontology for General Medical Science (OGMS) is based on the papers Toward an Ontological Treatment of Disease and Diagnosis and On Carcinomas and Other Patho Entities
Uploaded: 4/13/22

Experimental Factor Ontology / 实验性因素本体
The Experimental Factor Ontology (EFO) is an application focused experimental variables in multiple resources at the EBI and Open Ta
Uploaded: 5/8/23

Molecular Interactions Controlled Vocabulary / 的受控词表 (PSI-MI)
A structured controlled vocabulary for the annotation of experiment protein-protein interactions.Developed by the HUPO Proteomics St
Uploaded: 5/8/23

Protein Ontology / 蛋白质本体 (PR)
PRO provides an ontological representation of protein-related entiti them and showing the relationships between them
Uploaded: 3/7/23

Chemical Entities of Biological Interest Ontology / 生物相关的化学实体本体 (CHEBI) — classes 183,126
A structured classification of chemical compounds of biological relevance
Uploaded: 5/8/23

Ontology for Biobanking / 生物样本库本体 (OBIB) — classes 1,854
The ontology for Biobanking (OBIB) is an ontology built for annotation and modeling of biobank repository and biobanking administration
Uploaded: 6/24/22

Bioscientific data analysis ontology / 生物科学数据分析本体 (EDAM)
EDAM is a comprehensive ontology of well-established, familiar concepts that are prevalent within bioscientific data analysis and data management
Uploaded: 6/8/22

Foundational Model of Anatomy / 解剖学基础模型本体 (FMA)
FMA is a domain ontology that represents a coherent body of explicit declarative knowledge about human anatomy
Uploaded: 2/26/21

中国人类表型本体 / Human Phenotype Ontology China (HPCH)
中国人类表型本体的开发，目的是为人类遗传和其他疾病中遇到的表型特征提供结构化和可控的词汇。我们的目标是为人类表型的计算分析提供资源，目前的重点是人类孟德尔遗传(OMIM)数据库中列出的单基因疾病，该数据库也提供了注释。 The Human Phenotype Ontology China is being developed to provide a structured and controlled vocabulary for the phenotypic features encountered in human hereditary and other disease
Uploaded: 11/21/19

Coronavirus Infectious Disease Ontology / 冠状病毒本体 (CIDO)
The Ontology of Coronavirus Infectious Disease (CIDO) is a community-dri biomedical ontology in the area of coronavirus infectious disease
Uploaded: 2/7/23

MedlinePlus Health Topics / MedlinePlus网站健康主 (MEDLINEPLUS)
MedlinePlus Health Topics;National Library of Medicine;June 14, 2008;Beth MedlinePlus网站健康主题;美国国家医学图书馆;2008年6月14日;马里兰州贝委
Uploaded: 1/9/23

Sequence Types and Features Ontology / 序列类型和 (SO)
SO is a collaborative ontology project for the definition of sequence featur biological sequence annotation
Uploaded: 3/7/23

Ontology for Biomedical Investigations / 生物医学研 (OBI)
OBI is an ontology of investigations, the protocols and instrumentation use used, the data generated and the types of analysis performed on it
Uploaded: 4/7/23

Gene Ontology / 基因本体 (GO) — classes 51,143
Provides structured controlled vocabularies for the annotation of gene products with respect to their molecular function, cellular component, and biological role
Uploaded: 4/7/23

Basic Formal Ontology / 基本形式化本体 (BFO) — classes 35
BFO grows out of a philosophical orientation which overlaps with that of DOLCE and SUMO
Uploaded: 2/25/19

The Drug Ontology / 药物本体 (DRON) — classes 666,701
We built this ontology primarily to support comparative effectiveness researchers studying claims data
Uploaded: 4/7/23

Human Developmental Stages Ontology / 人类发展阶段本体 (HSAPDV) — classes 245
Life cycle stages for Human
Uploaded: 4/24/22

中药本体 / Traditional Chinese Drug Ontology (TCDO) — classes 1,987
中药(TCDs)在中国和其他许多地区的临床实践中已经被广泛使用了数千年。目前，中药的生物活性成分和作用机制正逐渐被发现。然而，由于缺乏规范的中药描述术语或本体，阻碍了中药知识和数据的互操作性和深度分析。通过与基本形式化本体(Basic Formal Ontology, BFO) (ISO认可的顶层本体)保持一致，我们构建了一个社区驱动的中药本体(TCD Ontology, TCDO)，目的是支持标准化的中药表示和集成分析。中药本体提供了中药的逻辑和文本定义，TCD的类别，以及TCD的属性(如性质、味道、毒性和归经)。系统地介绍了400余种流行的中药饮片和中药材。Traditional Chinese drugs (TCDs) have been widely used in clinical practice in China and many other regions for thousands of years
Uploaded: 5/13/21

Plant Ontology / 植物本体 (PO) — classes 2,019
The Plant Ontology is a structured vocabulary and database resource that links plant anatomy, morphology and growth and development to plant genomics data
Uploaded: 6/8/22

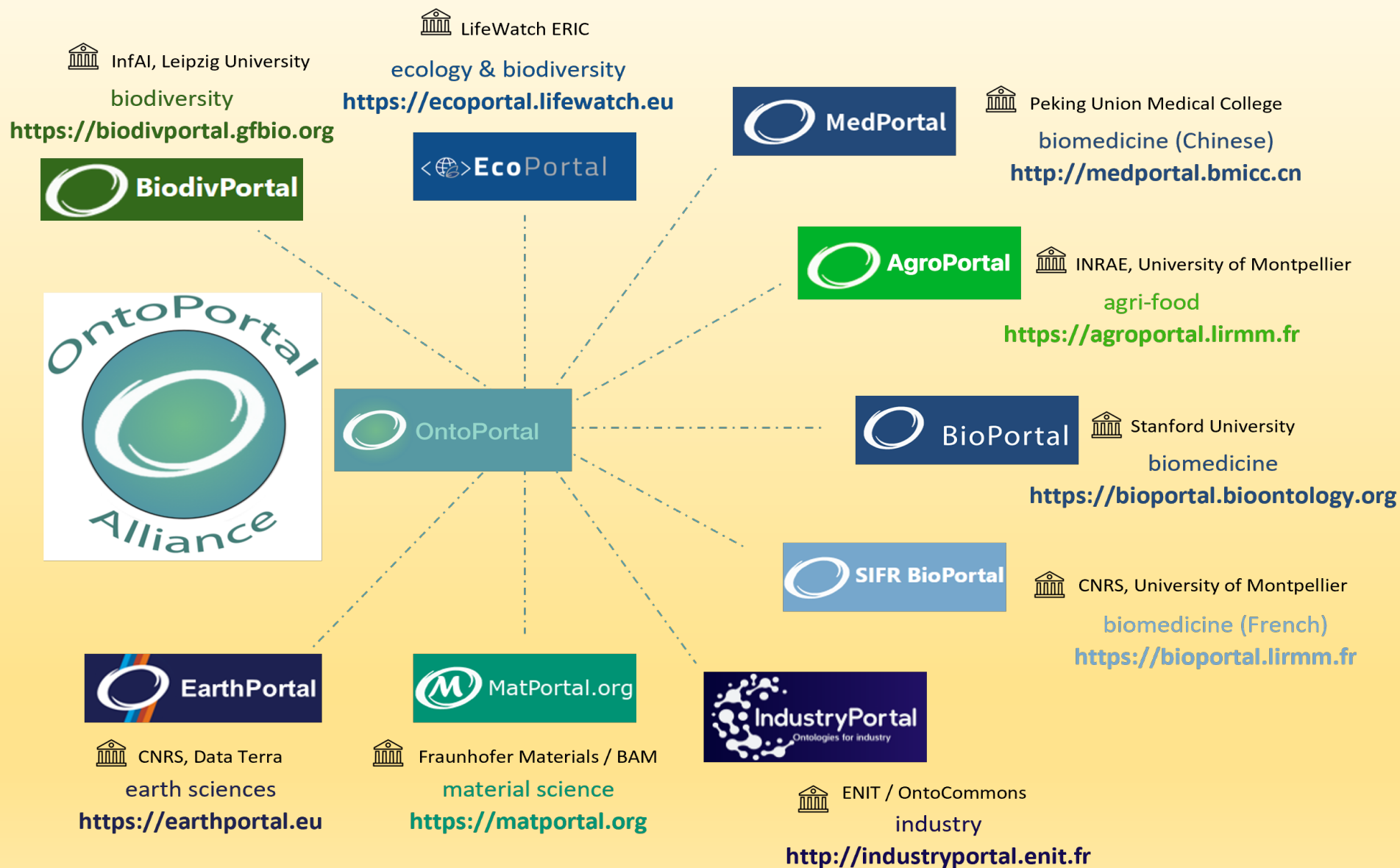**Mondo Disease Ontology / Mondo疾病本体 (MONDO)** — classes 26,394
The Mondo Disease Ontology (Mondo) aims to harmonize disease definitions across the world
Uploaded: 5/8/23

BioPortal →OntoPortal→**OntoPortal Alliance**

LifeWatch ERIC

ecology & biodiversity
https://ecoportal.lifewatch.eu

InfAI, Leipzig University

biodiversity
https://biodivportal.gfbio.org

BiodivPortal

EcoPortal

MedPortal

Peking Union Medical College

biomedicine (Chinese)
http://medportal.bmicc.cn

AgroPortal

INRAE, University of Montpellier

agri-food
https://agroportal.lirmm.fr

OntoPortal

BioPortal

Stanford University

biomedicine
https://bioportal.bioontology.org

SIFR BioPortal

CNRS, University of Montpellier

biomedicine (French)
https://bioportal.lirmm.fr

EarthPortal

CNRS, Data Terra

earth sciences
https://earthportal.eu

MatPortal.org

Fraunhofer Materials / BAM

material science
https://matportal.org

IndustryPortal
Ontologies for industry

ENIT / OntoCommons

industry
http://industryportal.enit.fr

Summary. BioPortal –> OntoPortal –> OntoPortal Alliance

- **BioPortal** evolved as a feature-rich research platform
- **OntoPortal** provided the chance for a community to gather around the platform, all using their own funding models
- The **OntoPortal Alliance** is advancing on two fronts
  - Evolving the OntoPortal platform into a shared, production-level software product
  - Establishing a community capable of supporting and advancing the shared software vision
- The whole platform—code, documentation, web presence—is increasingly solid, supported, and sustained.   - Graybea, 2023.

References:

OntoPortal Workshop 2022. https://hal.science/hal-04087929

Clement Jonquet, John Graybeal, Syphax Bouazzouni, Michael Dorf, Nicola Fiore, et al. 2023. "Ontology Repositories and Semantic Artefact Catalogues with the OntoPortal Technology." *ISWC 2023 - 22nd International Semantic Web Conference*, Nov 2023, Athens, Greece. https://doi.org/10.1007/978-3-031-47243-5_3

Graybea, John. 2023. "BioPortal to OntoPortal to OntoPortal Alliance: Meeting Needs." *NKOS Workshop 2023.* [abstract & ppt available at: https://nkos.dublincore.org/2023NKOSworkshop/NKOS2023.html]

B. **Vocabulary Registries**

Registries offer info *about* vocabularies

+ Vocabulary Families

Vocabulary Registries
= Registries offer information *about* vocabularies

1) **Registry of KOS**

   - BARTOC (Basel Register of Thesauri, Ontologies & Classifications): 3530+ (as of 2024-10) https://bartoc.org/

   - Taxobank: 2000 vocabularies http://www.taxobank.org/

2) **Registry of vocabularies** (both "property vocabularies" & "value vocabularies") that are published with Semantic Web languages

   - LOV (Linked Open Vocabularies): 850+ registered, some are value vocabularies. https://lov.linkeddata.es/dataset/lov

+ Vocabulary families provided by institutions and communities

WHO Family of International Classifications (WHO FIC)

WHO Family of International Classifications Network

Mission

Improve health through the ongoing development, maintenance, and promotion of an integrated suite of reference health classifications and related products that produce information of value and utility across the world.

[Word cloud: pilot of integration, supplementary section, integration of api, hospital morbidity, regional network, key strategic priority, clinical terminology, icd, ichi, support implementation, use of icd, electronic format, strategic framework, international classification, fic reference classification, development of ichi, coherence of member, joint use, network, primary care classification, fic classification, ichi training tools, support crosswalk, fic network, use of section, traditional medicine, member state, icf, language translation, mortality rules migration, international mortality statistics, health information system, current situation, support use, fit platform, comparable use]

RELATED Classifications

International Classification of Primary Care (ICPC)

Technical aids for persons with disabilities – Classification and Terminology (ISO 9999)

The Anatomical Therapeutic Chemical Classification System with Defined Daily Doses (ATC/DDD)

International Classification for Nursing Practice (ICNP)

Verbal autopsy standards: ascertaining and attributing causes of death tool

REFERENCE Classifications

International Classification of Diseases (ICD)

International Classification of Functioning, Disability and Health (ICF)

International Classification of Health Interventions (ICHI)

DERIVED Classifications

International Classification of Diseases for Oncology, 3rd Edition (ICD-O-3)

ICD-10 Classification of Mental and Behavioral Disorders

Application of the International Classification of Diseases to Neurology (ICD-NA)

Application of the International Classification of Diseases to Dentistry and Stomatology (ICD-DA)

The Start-Up Mortality List (ICD-10-SMoL)

Source: https://www.who.int/standards/classifications/who-fic-maintenance

Source: Generated based on the info on WHO FIC webpage
https://www.who.int/standards/classifications

Hong, Yi and Marcia Lei Zeng. 2022. "International Classification of Diseases (ICD)". *ISKO Encyclopedia of Knowledge Organization.* https://www.isko.org/cyclo/icd

ICD-11 for Mortality and Morbidity Statistics

Search: COVID-19   [?] [Advanced Sea

RA01 **COVID**-19
RA01.0 **COVID**-19, virus identified
RA01.1 **COVID**-19, virus not identified
QA08.5 Special screening examination for other viral diseases
Screening for **COVID**-19
RA02 Post **COVID**-19 condition
XN109 SARS-CoV-2
COVID-19 virus
XN0HL SARS-CoV-2 Alpha
UK **COVID**-19 variant (deprecated)
XN4Q7 SARS-CoV-2 Beta
SA **COVID**-19 Variant (deprecated)
XN5BQ SARS-CoV-2 Gamma
Brazil **COVID**-19 Variant (Gamma) (deprecated)
XN8V6 SARS-CoV-2 Delta
India **COVID**-19 Variant (Delta) (deprecated)
XN1GK SARS-CoV-2 Epsilon
USA **COVID**-19 Variant (Epsilon) (deprecated)
XN3ZE SARS-CoV-2 Zeta
Brazil **COVID**-19 Variant (Zeta) (deprecated)
XN4Q1 SARS-CoV-2 Theta
Philippines **COVID**-19 Variant (deprecated)
XN3UD SARS-CoV-2 Iota
USA **COVID**-19 Variant (Iota) (deprecated)
XN9LB SARS-CoV-2 Kappa
India **COVID**-19 Variant (Kappa) (deprecated)
XN6AM SARS-CoV-2 Lambda
Peru **COVID**-19 variant (deprecated)
XN39J SARS-CoV-2 Mu
Colombia **COVID**-19 variant (deprecated)

ICD-1
Statis
01
02
03
04
05
06
disc
07
08
09
10
11
12
13
14
15
cor
16
17
18
19
20
21
clas
22
ext

ICD purpose and uses

As a classification and terminology ICD-11:

-around 17,000 unique codes,
--more than 120,000 codable terms

- allows the systematic recording, analysis, interpretation and comparison of mortality and morbidity data collected in different countries or regions and at different times;
- ensures semantic interoperability and reusability of recorded data for the different use cases beyond mere health statistics, including decision support, resource allocation, reimbursement, guidelines and more.

XN109	SARS-CoV-2
XN0HL	SARS-CoV-2 Alpha
XN4Q7	SARS-CoV-2 Beta
XN5BQ	SARS-CoV-2 Gamma
XN8V6	SARS-CoV-2 Delta
XN1GK	SARS-CoV-2 Epsilon
XN3ZE	SARS-CoV-2 Zeta
XN2V4	SARS-CoV-2 Eta
XN4Q1	SARS-CoV-2 Theta
XN3UD	SARS-CoV-2 Iota
XN9LB	SARS-CoV-2 Kappa
XN6AM	SARS-CoV-2 Lambda
XN39J	SARS-CoV-2 Mu
XN161	SARS-CoV-2 Omicron

Foundation URI : http://id.who.int/icd/entity/867842560

XN8V6 SARS-CoV-2 Delta

All ancestors up to top

- X Extension Codes
  - Aetiology
    - Infectious Agents
      - Virus
        - XN83D Coronavirus
          - XN109 SARS-CoV-2
            - XN8V6 SARS-CoV-2 Delta

Source: Searching results captured from ICD-11, in effect from January 2022.

https://icd.who.int/browse11/l-m/en

16

ICD-11 Coding Tool

Mortality and Morbidity Statistics (MMS)
2022-02

Help

covid-19 ✕

Guessing the word being typed...

Filter ⊙

Word list

sort : Relatedness/repetition ⌄

covid-19

Destination Entities

sort: Matching score ⌄

RA01	COVID-19		[Details]
RA01.0	COVID-19, virus identified	+ ≡	[Details]
QA08.5	Special screening examination for other viral diseases		[Details]
	Screening for COVID-19		
RA01.1	COVID-19, virus not identified	+ ≡	[Details]
RA02	Post COVID-19 condition	≡	[Details]
QC01.9	Need for immunization against COVID-19		[Details]
QC42.0	Personal history of COVID-19		[Details]
RA03	Multisystem inflammatory syndrome associated with COVID-19		[Details]
RA01.0/CA...	COVID-19 with pneumonia, SARS-CoV-2 identified	+ ≡	[Details]
RA01.1/CA...	COVID-19 with pneumonia, SARS-CoV-2 not identified	+ ≡	[Details]
PL00	Drugs, medicaments or biological substances associated with injury or harm in therapeutic use	+ ≡	[Details]
	Drugs, medicaments or biological substances associated with injury or harm in therapeutic use, COVID-19 vaccine		

ICD-11 Coding Tool
https://icd.who.int/ct11/
icd11_mms/en/release

Chapter distribution / filter

☑ Codes for special purposes   7

☑ Factors influencing health[3] ...

☑ External causes   1

★ Filter ⊙

☐ Infections
☐ Neoplasms
☐ Blood
☐ Immune system
☐ Endocrine, nutritional, metabolic
☐ Mental and behavioural
☐ Sleep-wake
☐ Nervous system
☐ Eye and adnexa
☐ Ear and mastoid
☐ Circulatory system
☐ Respiratory system
☐ Digestive system
☐ Skin
☐ Musculoskeletal system ...
☐ Genitourinary System
☐ Sexual health
☐ Pregnancy, childbirth ...
☐ Perinatal and neonatal
☐ Developmental anomalies
☐ Symptoms, signs, findings ...
☐ Injury, poisoning, ...
☐ External causes
☐ Factors influencing health ...
☐ Traditional Medicine
☐ Functioning
☐ Extension Codes

UMLS Metathesaurus

- a large biomedical thesaurus
- organized by concept/meaning
- links similar names for the same concept

from nearly 200 different vocabularies.

Major categories

- source vocabularies

Diagnosis

- *Logical Observation Identifier Names and Codes* (LOINC)

Procedures & Supplies

- *Current Procedural Terminology* (CPT)

Diseases

- ***International Classification of Diseases and Related Health Problems* (ICD-10)**

Comprehensive Vocabularies/Thesauri

- *Systematized Nomenclature of Medicine-Clinical Terms* (SNOMED CT)

Other categories:

anatomy, drugs, genetics, nursing, & **miscellaneous**

UMLS® Metathesaurus ®

Percentages

Source: https://www.nlm.nih.gov/research/umls/new_users/online_learning/Meta_002.html
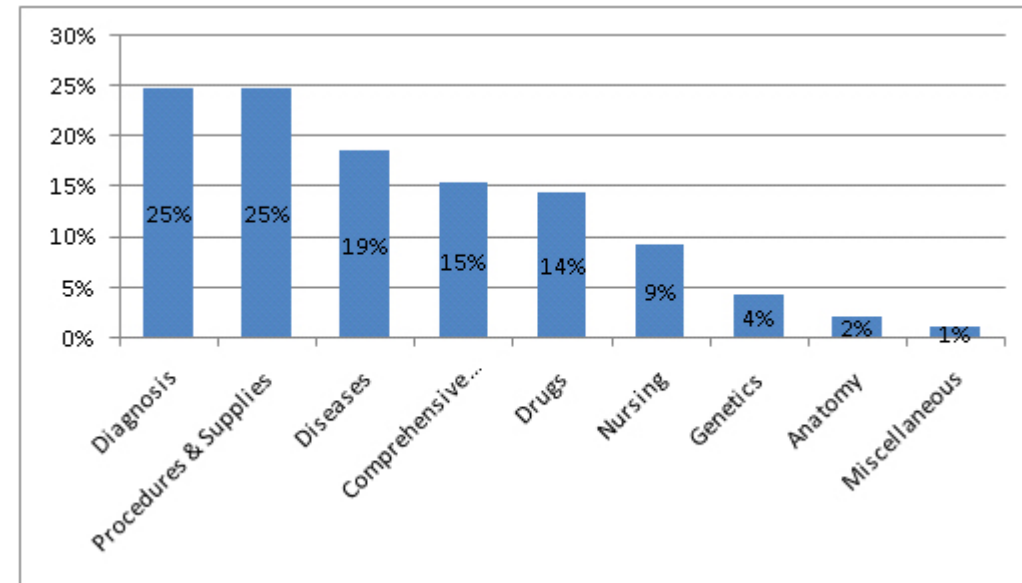
EU Vocabularies

Search | EU Vocabularies

Publications Office | EU law | European data | EU tenders | EU research results | EU Whoiswho | EU publications

Publications Office › EU Vocabularies › Controlled vocabularies

Share ⓘ

Home | **Controlled vocabularies** ⌄ | Models ⌄ | Business collections ⌄ | Online tools ⌄ | Releases | Help ⌄

Controlled vocabularies

Controlled vocabularies provide a consistent way to describe data. They are standardized and organized arrangements of words and phrases presented as alphabetical lists of terms or as thesauri and taxonomies with a hierarchical structure of broader and narrower terms.

Authority tables
In order to harmonise and standardise the codes and the associated labels used in the Publications Office and on interinstitutional level in the context of the data exchange between the…

Learn more ›

Code lists
In order to harmonise and standardise the codes and the associated labels used in the Publications Office and on interinstitutional level in the context of the data exchange between the…

Learn more ›

Thesauri
A thesaurus is a controlled and structured vocabulary where concepts are represented by labels. In the context of the EU Vocabularies, a thesaurus is a multilingual equivalent of the previous…

Learn more ›

ATTO tables
ATTO is an internal application of the Publications Office for managing translations. The acronym comes from the French term 'Atelier des Tables de Traductions de l'Office des publication…

Learn more ›

Alignments
Alignments are common in database interoperability projects and tasks however, from the perspective of the semantic web we are referring to ontology alignments when a variable…

Learn more ›

Taxonomies
A taxonomy is a set of controlled vocabulary terms organised into a hierarchical structure. Each term in a taxonomy is in one or more parent/child relationship to other terms in the…

Learn more ›

Example:

🗄 Asset

Go to

Accessibility

Browse

Dataset URI: http://publications.europa.eu/resource/dataset/accessibility

Dataset type: Name authority list

Author: Publications Office of the European Union

Publisher: Publications Office of the European Union

Subject: public procurement, social affairs

Description:
This table provides a list of options for the use of accessibility criteria for person with disabilities in the technical specifications within the domain of public procurement.

Version: 20240612-0 ⌄ LATEST

Downloads | Documentation | Alignments | Release notes | Diff files | Advanced view

Published:
2024-06-12

Downloads

📄 accessibility-skos.rdf

📄 accessibility-skos-ap-act.rdf

📄 Accessibility.gc

📄 accessibility.xml

Linked Conservation Data

Conservation controlled vocabularies

Home   Resources ▾   Meetings ▾   Consortium

Resources ▾

Vocabularies

Samples

Reports

https://www.ligatus.org.uk/lcd/controlled-vocabularies

Index

A Glossary of Stained Glass Terms
A library, media, and archival preservation glossary
ABC of bookbinding
AIC BPG Glossary of Terms
AIC Lexicon Terms
Art & Architecture Thesaurus (AAT)
AV Artifact Atlas
Binding Terms. Rare Books and Manuscripts Section: Controlle
BM Object names Thesaurus
Bookbinding and the Conservation of Books: A Dictionary of D
Etherington.
BS EN 15898:2011 - Conservation of cultural property. Main g
BS EN 923:2015 Adhesives. Terms and definitions.
CAMEO: Conservation & Art Materials Encyclopedia Online
Compendium of Image Errors in Analogue Video
Condition Reporting – Paintings. Part III: Glossary – Canadian
10/11
Conservation and Restoration of Stained Glass - an owner's gu
Conservation of the architectural surfaces in the tablinum of t
Herculaneum : phase 1, examination, investigations, and conc
Descriptive Terminology for Works of Art on Paper
Diccionario técnico Akal de conservación y restauración de bie
Dictionary of Book and Paper Conservation
Dictionary of Building Preservation
EwaGlos – European Illustrated Glossary for Conservation Ter
Architectonic Surfaces
FIAF manual, D.16 Manifestation/Item Condition, Preservation and Restoration

FISH Archaeological Objects Thesaurus
FISH Archaeological Sciences Thesaurus
FISH Building Materials Thesaurus
FISH Components Thesaurus
FISH Event Types Thesaurus
FISH Evidence Thesaurus
FISH Thesaurus of Monument Types
Glassworking, Ancient and Medieval, Terminology, technology and typology
Glosario de términos relacionados con el deterioro de las piedras de construcción
Glossary of Arabic terms for the conservation of cultural heritage
Glossary of Architectural Terms - Trust for Architectural Easements
Glossary of Basic Archival and Library Conservation Terms
Glossary of Conservation
Graphics Atlas
Guide for Conducting a Visual Inspection of Concrete in Service
Herein: Terminology
Heritage Conservation Terminology Definition of terms from various sources
IASA Cataloging Rules: Appendix C. Terms for describing the physical condition of sound recordings
Illustrated Dictionary of Architectural Preservation: Restoration, Renovation, Rehabilitatio Reuse
Illustrated Glossary by the York Glaziers Trust
Illustrated glossary on stone deterioration patterns (English - French)
Illustrated glossary on stone deterioration patterns (English - German)
Illustrated Glossary: Mosaics in Situ Project
Illustrated Glossary: Technician Training for the Maintenance of In Situ Mosaics
Language of Bindings Thesaurus
Les altérations visibles du béton : définitions et aide au diagnostic
Looking at Paintings: A Guide to Technical Terms
Nomenclature for museum cataloguing
Painting Conservation - Glossary of Terms - Smithsonian Museum Conservation Institute
Petra archaeological park weathering and deterioration definitions
Stained Glass Terminology
Thesaurus for Graphic Materials
Visual Glossary - Australian Institute for the Conservation of Cultural Material

Illustrated Glossary

ICOMOS
INTERNATIONAL COUNCIL ON MONUMENTS AND SITES
CONSEIL INTERNATIONAL DES MONUMENTS ET DES SITES

ICOMOS-ISCS :
Illustrated glossary on stone deterioration patterns
Glossaire illustré sur les formes d'altération de la pierre

English-French version
Version Anglais-Français

MONUMENTS AND SITES
MONUMENTS ET SITES
XV

GENERAL TERMS . ALLGEMEINE BEGRIFFE

ALTERATION . MATERIALVERÄNDERUNG
DAMAGE . SCHADEN
DECAY . ZERFALL (VERFALL)
DEGRADATION . ABBAU, VERSCHLECHTERUNG
DETERIORATION . ZERSTÖRUNG, SCHÄDIGUNG
WEATHERING . VERWITTERUNG

CRACK & DEFORMATION RISS(E) & VERFORMUNG(EN)	DETACHMENT ABLÖSUNG	FEATURES INDUCED BY MATERIAL LOSS FORMEN DES MATERIALVERLUSTS	DISCOLORATION & DEPOSIT VERFÄRBUNG & ABLAGERUNG	BIOLOGICAL COLONIZATION BIOLOGISCHE BESIEDLUNG
CRACK . RISS	**BLISTERING .** BLASENBILDUNG, AUFWÖLBUNG	**ALVEOLIZATION . ALVEOLENBILDUNG**	**CRUST . KRUSTE**	**BIOLOGICAL COLONIZATION .** BIOLOGISCHE BESIEDLUNG
Fracture . Bruch		Coving . Aushöhlung	Black crust . Schwarze Kruste	**ALGA . ALGEN**
Star crack . Sternförmig verlaufende Risse	**BURSTING .** AUSBRUCH (AUSBRECHEN)	**EROSION . EROSION**	Salt crust . Salzkruste	**LICHEN . FLECHTEN**
Hair crack . Haarriss		Differential erosion . Differentielle Erosion	**DEPOSIT . ABLAGERUNG**	**MOSS . MOOSE**
Craquele . Craquelé	**DELAMINATION .** SCHICHTSPALTUNG	Loss . Verlust :	**DISCOLOURATION .** VERFÄRBUNG	**MOULD . SCHIMMEL (PILZE)**
Splitting . Aufspalten	Exfoliation . Aufblättern	▪ of components . von Komponenten	Colouration . Färbung	**PLANT . PFLANZE**
DEFORMATION . VERFORMUNG		▪ of matrix . von Matrix	Bleaching . Bleichung	
	DISINTEGRATION . ZERFALL IN GESTEINSPARTIKEL	Rounding . Zurundung	Moist area . Feuchtezone	
	Crumbling . Abbröckeln	Roughening . Aufrauung	Staining . Fleckenartige Verfärbung	
	Granular disintegration . Körniger Zerfall	**MECHANICAL DAMAGE .** MECHANISCHER SCHADEN	**EFFLORESCENCE** . AUSBLÜHUNG	

Source: ICOMOS-ISCS :

Illustrated glossary on stone deterioration patterns
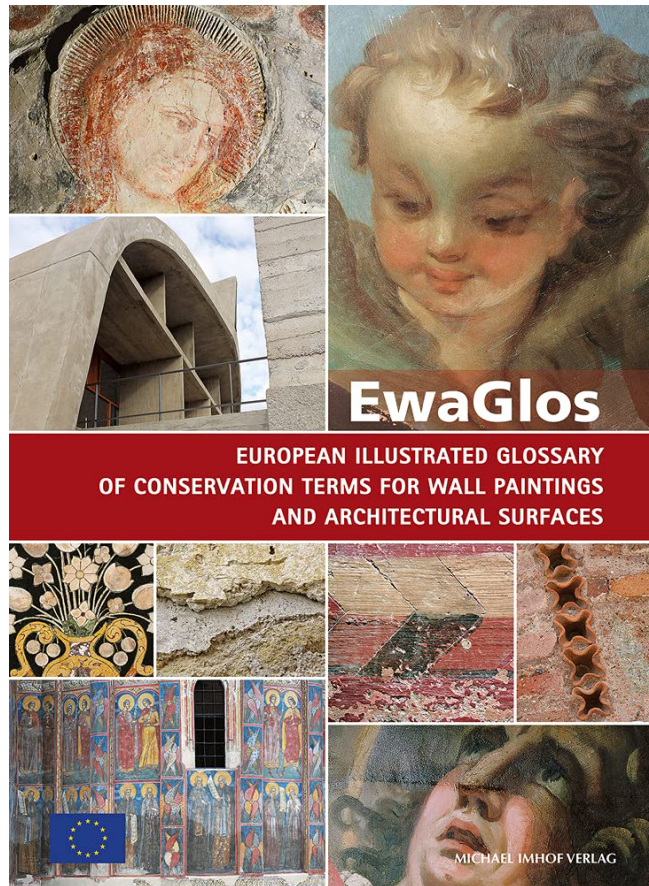
Glossaire illustré sur les formes d'altération de la pierre
https://www.icomos.org/public/publications/monuments_and_sites/15/pdf/
Monuments_and_Sites_15_ISCS_Glossary_Stone.pdf

See more illustrated conservation vocabs in https://www.ligatus.org.uk/lcd/controlled-vocabularies#7

Illustrated Glossary, Cross-language

EwaGlos – *European Illustrated Glossary for Conservation Terms of Wall Painting and Architectonic Surfaces* (10+ languages)

https://openarchive.icomos.org/id/eprint/1706/

Vocab sharing and mapping (non-centralized)

Tool: Mix'n'Match

This tool lists entries of some external databases (over 2500 catalogs) and allows users to match them against Wikidata items.

https://tools.wmflabs.org/mix-n-match/#/

Images captured 2024-10-06.

Catalog groups

Group	Catalogs
	19
Archives	35
Art	111
Arts	1
Authority control	30
Bibliography	84
Biography	1541
Biology	173
Books	42
Cinema	77
Encyclopedia	152
Entertainment	50
Food	22
Genealogy	13
General	71
Geography	149

Useful groupings

- Top groups
- Creation candidates (humans by name)

Catalogs by property class	Catalogs by country	Top groups	Maps

Group	Catalogs
Catalogs without Wikidata property	1051
Authority control for people	785
Numeric ID	727
Identifier that suggests notability	619
Identifier	587
Video games	212
Identifier that does not imply notability	189
Encyclopedias	181
Organizations	179
Taxa	160
Authority control	135
Authority control for places	128
Films	120
Authority control for works	119
Biographical dictionaries	107
Film industry	107
Authority control for writers	102
Mathematics	100
Software	100
Physics	88
Authority control for artists	85
Authority control (open-access repositories)	84
Authority control for sports people	78

Authority Control (near 100) includes:

- Well-known vocabularies such as *GeoNames, FAST, UNESCO Thesaurus*, and *MeSH (Medical Subject Headings)* sub-lists,

- Other specialized vocabularies, e.g.:
  - DoS (*Dictionary of Sydney*)
  - *INRAN Italian Food Nutrient profiles*
  - *ISO 15924 numeric code*
  - *Gran Enciclopèdia Catalana*
  - *Europeana Fashion Thesaurus*
  - *MIMO Music Instruments*
  - *Great Russian Encyclopedia*
  - etc.

More than half of these vocabularies have over 70% of entries manually mapped to Wikipedia data.

Image capture 2024-10-05
https://mix-n-match.toolforge.org/#/group/ig_authority_control

- The "Authority control for people" has reached over 600 catalogs, including, e.g.:
  - *RANM* (identifiers of members of the Spanish Royal Academy of Medicine)

  - *Royal Swedish Academy of Letters*

  - *Who's Who in France*

  - *Database of Classical Scholars*

  - *Database for excellent female scientists*

  - many sports, e.g, Olympians, sports people from/linked to a place …

Image capture 2024-10-05
https://tools.wmflabs.org/mix-n-match/#/group/ig_authority_control_for_people

C. Individual KOS-based Services

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

Chinese Iconography Thesaurus (CIT)

Home page: https://chineseiconography.org/

Victoria & Albert Museum, London

- **Coverage**: motifs, subjects, and themes of images
- **Material forms**: paintings, sculpture, prints, book illustrations, ceramics, and other types of applied arts
- **Time period**: made in China from 700 to 1900
- **Sources**: representative collections of museums and libraries

9273 items, from：

藏品機構

Collections

943	Metropolitan Museum of Art, New York, NY
3864	National Palace Museum, Taipei
2093	Victoria and Albert Museum
2278	Harvard College Library Harvard-Yenching Library
95	Cleveland Museum of Art, Cleveland

Chinese Iconography Thesaurus

Collections

guan yin

65	Metropolitan Museum of Art, New York, NY
622	National Palace Museum, Taipei
154	Victoria and Albert Museum
83	Harvard College Library Harvard-Yenching Library
32	Cleveland Museum of Art, Cleveland

956 items

1 2 3 4 5 6 24

Terms Used:

standing (movement, posture, and gesture of the human body)
scarf used to tie around the waist
robe
shoes
tree
headkerchief
upper garment
holding something
scholar
attendant
table
sitting (movement, postu... human body)
walking (movement, pos... human body)
human figure
trousers
rock

956 items

« 1 6 7 8 9 10 11 24 »

元末明初 佚名 牧羊圖 團扇 頁|Sheep and Herd Boy

明 佚名 觀音羅漢圖 扇|Guanyin and the Sixteen Luohans
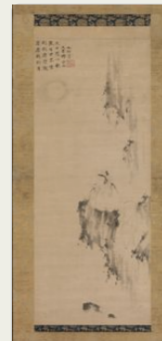
南宋 佚名 倣馬遠松陰玩月圖 冊 頁|Viewing the Moon under a Pine Tree
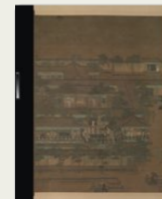
清 李寅 高閣觀瀑圖 軸|View From a Mountain Pavilion
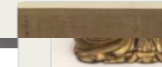
明 文嘉 為項元汴畫山水圖 軸|Landscape Dedicated to Xiang Yuanbian

明 丁雲鵬 潯陽送客圖 軸|Song of the Lute

清 任頤 鍾馗像 軸|Zhong Kui

清 冷枚 耕織圖 冊 織|Illustrations of Agriculture and Sericulture
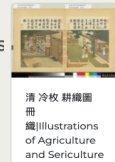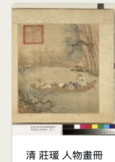
清 冷枚 耕織圖 冊 絡絲|Illustrations of Agriculture and Sericulture
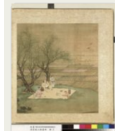
清 冷枚 耕織圖 冊 緯|Illustrations of Agriculture and Sericulture

清 冷枚 耕織圖 冊 攀花|Illustrations of Agriculture and Sericulture

清 冷枚 耕織圖 冊 成衣|Illustrations of Agriculture and Sericulture

清 莊璿 人物畫冊 冊 梅鶴漁舟

清 莊璿 人物畫冊 冊 柳陰聞飲

清 莊璿 人物畫冊 冊 騎鹿過橋
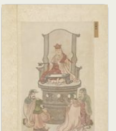
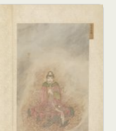清 莊璿 人物畫冊 冊 高士觀瀑
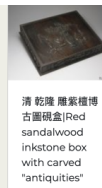
清 莊璿 人物畫冊 冊 高士移菊圖

清 莊璿 人物畫冊 冊 雪中行旅

吉光珍壽 冊 宋 燕肅 遠谷仙傳

明 吳彬 畫楞嚴廿五圓通佛像 冊 嶠 陳五比

Loyang Tower

清 董邦達 繪御筆范成大分歲詞 軸|Fan Chengda's "Poem on the New Year's Eve Reunion"

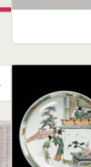清 乾隆 雕紫檀博古圖硯盒|Red sandalwood inkstone box with carved "antiquities" scene

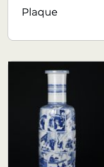clay inkstone in tile shape from the Jianan reign of Han dynasty

Plaque

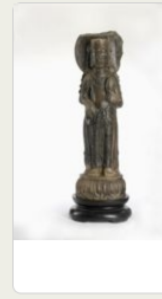Dish

Dish

Dish

Dish

Guanyin

Guanyin

Guanyin

Guanyin

Guanyin

Guanyin

Guanyin

Guanyin

28

Chinese Iconography Thesaurus

- ▶ Nature
- ▶ Human Being
- ▶ Society and Culture
- ▼ Religion
  - ▶ religion (general)
  - • Islam
  - ▶ Buddhism
  - ▶ Confucianism
  - ▶ Christianity
  - ▶ popular religion
  - ▶ Daoism
- ▶ Myths and Legends
- ▶ History and Geography
- ▶ Literary Works

中國圖像誌索引典
Chinese Iconography Thesaurus

- ▼ Religion
  - ▶ religion (general)
  - • Islam
  - ▼ Buddhism
    - ▶ buddha
    - ▶ bodhisattva
    - ▶ apsaras
    - ▶ luminous king
    - ▶ dharma protector
    - ▶ Kings of Hell
    - • Mahāsiddha
    - ▶ arhat
    - ▶ eminent monk
    - ▶ other figures (Bud...
    - ▶ sutra story
    - ▶ historical or legend... (Buddhism)
    - ▶ school (Buddhism)
    - ▶ organization (Bud...
    - ▶ rite (Buddhism)
    - ▶ teaching and spirit...
    - ▶ doctrine (Buddhism...
    - ▶ Buddhist scripture...
  - ▶ Confucianism
  - ▶ Christianity
  - ▶ popular religion
  - ▶ Daoism

- ▼ Buddhism
  - ▶ buddha
  - ▼ bodhisattva
    - • Four Great Bodhisattvas
    - • Four Great Bodhisattvas (Lotus Sutra)
    - • Four Great Bodhisattvas (esoteric teach...
    - • Eight Great Bodhisattvas
    - • Buddha of the Future
    - ▶ Guanyin
    - • Bodhisattva of Wisdom
    - • Universal-virtue Bodhisattva
    - • Earth-store Bodhisattva
    - • Attained-great-power Bodhisattva
    - • Medicine King
    - • Medicine King's Younger Brother
    - • Bahu-middha
    - • Tiṣya
    - • Guṇa-mūrdhāna
    - • Guṇa-pramukha
    - • Prabhā-āloka
    - • Prabhā-āloka
    - • Prajñā-caitya
    - • Purṇaka-viṣaya
    - • Pramudita-darśana
    - • Lokadharaparipṛcchā
    - • Māti

CIT 286236

CIT281141

- ▼ Guanyin
  - • Four-armed Guanyin
  - • Sixteen-armed Guanyin
  - • Twenty-four-armed Guanyin
  - • Thousand-armed and Thousand-eyed Guanyin
  - • Thirty-two Forms of Guanyin
  - ▶ Thirty-three Forms of Guanyin
  - • Guanyin of the South Sea
  - • Solemnly Adorned Guanyin
  - • Treasures-holding Guanyin
  - • Guanyin the Bringer of Sons
  - • Bodhisattva Avalokiteshvara of the Lion's Roar
  - • Cintāmaṇicakra

- ▼ Thirty-three Forms of Guanyin
  - • Willow-branch Guanyin
  - • Dragon-head Guanyin
  - • Sutra-holding Guanyin
  - • Circle of Light Guanyin
  - • Royal Ease Guanyin
  - • White Robe Guanyin
  - • Lotus-reclining Guanyin
  - • Waterfall-gazing Guanyin
  - • Medicine-giving Guanyin
  - • Fish-basket Guanyin
  - • Virtuous King Guanyin
  - • Water-moon Guanyin
  - • One Leaf Guanyin
  - • Blue-necked Guanyin
  - • Awe-inspiring Guanyin
  - • Life-lengthen...
  - • Many Jewels ...
  - • Cave-dwelling...
  - • Calm and Ser...
  - • Anu Guanyin
  - • Abhetti Guan...
  - • Parnasvari Gu...
  - • Vaidurya Gua...
  - • Tara Guanyin
  - • Clam Guanyin

  - • Clam Guanyin
  - • Six Periods Guanyin
  - • Universal Compassion Guanyin
  - • Wife of Mr Ma Guanyin
  - • Anjali Guanyin
  - • True Suchness Guanyin
  - • Nondual Guanyin
  - • Lotus-holding Guanyin
  - • Water-sprinkling Guanyin

Linked open ontology cloud **KOKO** (Finland) https://finto.fi/koko/en/

60,000+ concepts
GUO + 13 Domain
ontologies

Images captured
2024-05-30.

https://finto.fi/koko/en/page/p280

Linked open ontology cloud KOKO

- Approximately 60,000 concepts
- GUO + 13 Domain ontologies

General Upper Ontology (GUO)

- There is a lot of overlap between the vocabularies
  - Especially if you want complete is-a hierarchies!
- We can build a General Upper (light-weight) Ontology (or GUO)
- The other ontologies expand on the GUO in their own domains
  - Thus we call them domain ontologies
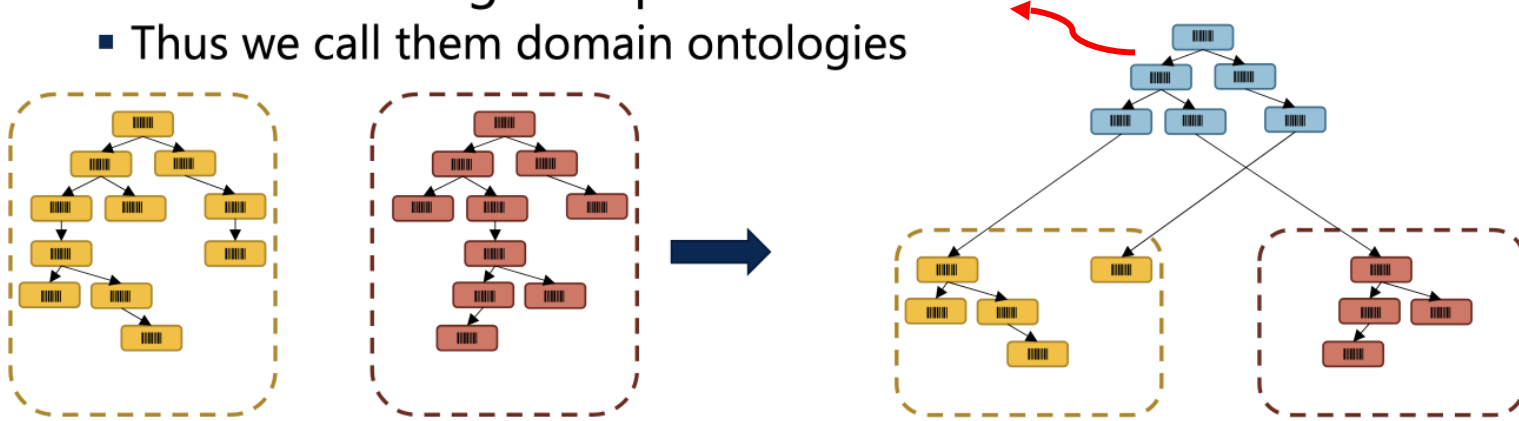
A success?

- KOKO has been in active use for over ten years
  - Especially useful for organizations that deal with "everything" such as museums and media companies
- Far from perfect
  - But maybe good enough?
  - Still improving!

Frosterus, Matias. 2023. "KOKO upper ontology cloud." *NKOS Workshop 2023*.
[abstract & ppt available at: https://nkos.dublincore.org/2023NKOSworkshop/NKOS2023.html]

new

Finto AI provides a user interface and API for automated subject indexing.

Enter text to be indexed

| Enter text | Upload file | Enter URL |

cave paintings

Subject indexing

Vocabulary and text language

YSO English (2024.2.Ikhwan-al-Safa)

Vocabulary: YSO — General Finnish ontology ⧉

Maximum # of suggestions

10 15 20

Suggestions language

Same as text language

Suggestions language

✓ Same as text language
Finnish
Swedish
English

Subject indexing

YSO Finnish (2024.2.Ikhwan-al-Safa)
YSO Swedish (2024.2.Ikhwan-al-Safa)
✓ YSO English (2024.2.Ikhwan-al-Safa)
PLC Finnish
PLC Swedish
PLC English
KAUNO Finnish

Get subject suggestions

Images captured 2024-10-04
https://ai.finto.fi/?locale=en

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Images captured 2024-10-04
https://ai.finto.fi/?locale=en

Thinking ahead: Insights, Ideas, Actions needed by this ITWG community

1. Join the OntoPortal Alliance?

2. Make an upper ontology and a 'KOKO cloud'?

3. Establish a 'family' like WHO Family of International Classifications?

4. Find and connect to more terminologies/authority files/illustrated glossaries available in the world?

5. Extend and enrich with multilingual languages, visual representations, etc.?

6. … …

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KOS Terminology Services
-- Trend exploration and analysis

Thank you everyone in ITWG!

Marcia L. Zeng

Kent State University, USA.

International Terminology Working Group (ITWG) Meeting

Getty Center, Los Angeles. Oct. 23-25, 2024