

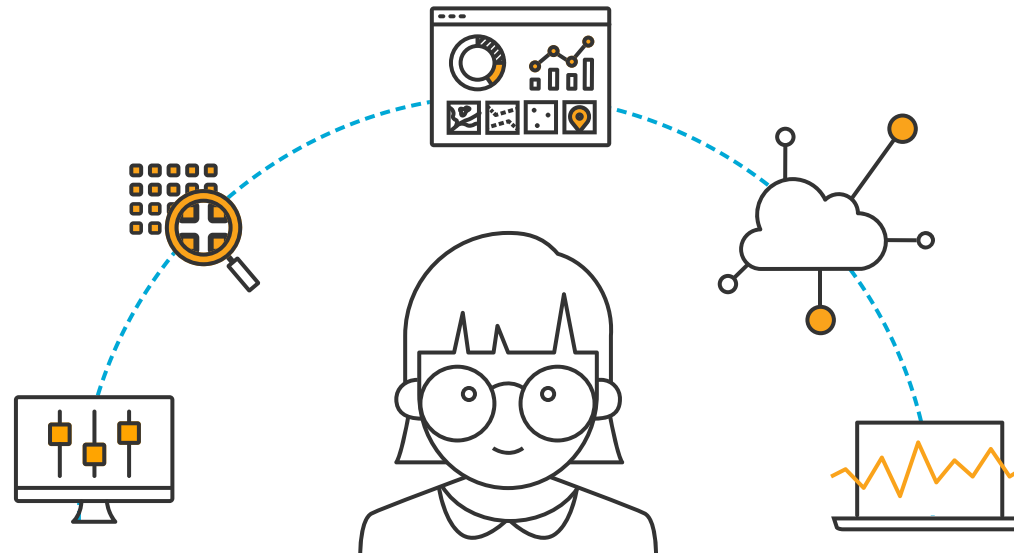
FAIR Metadata in Practice

Data Science in Practice



**Universiteit
Leiden**
The Netherlands

Semantics provide meaning
Metadata provide structure



Ontologies

Formalizing Research

Ontologies

- Based on Controlled Vocabularies
- A set of commonly agreed terms in a domain

Classes

→ Metadata

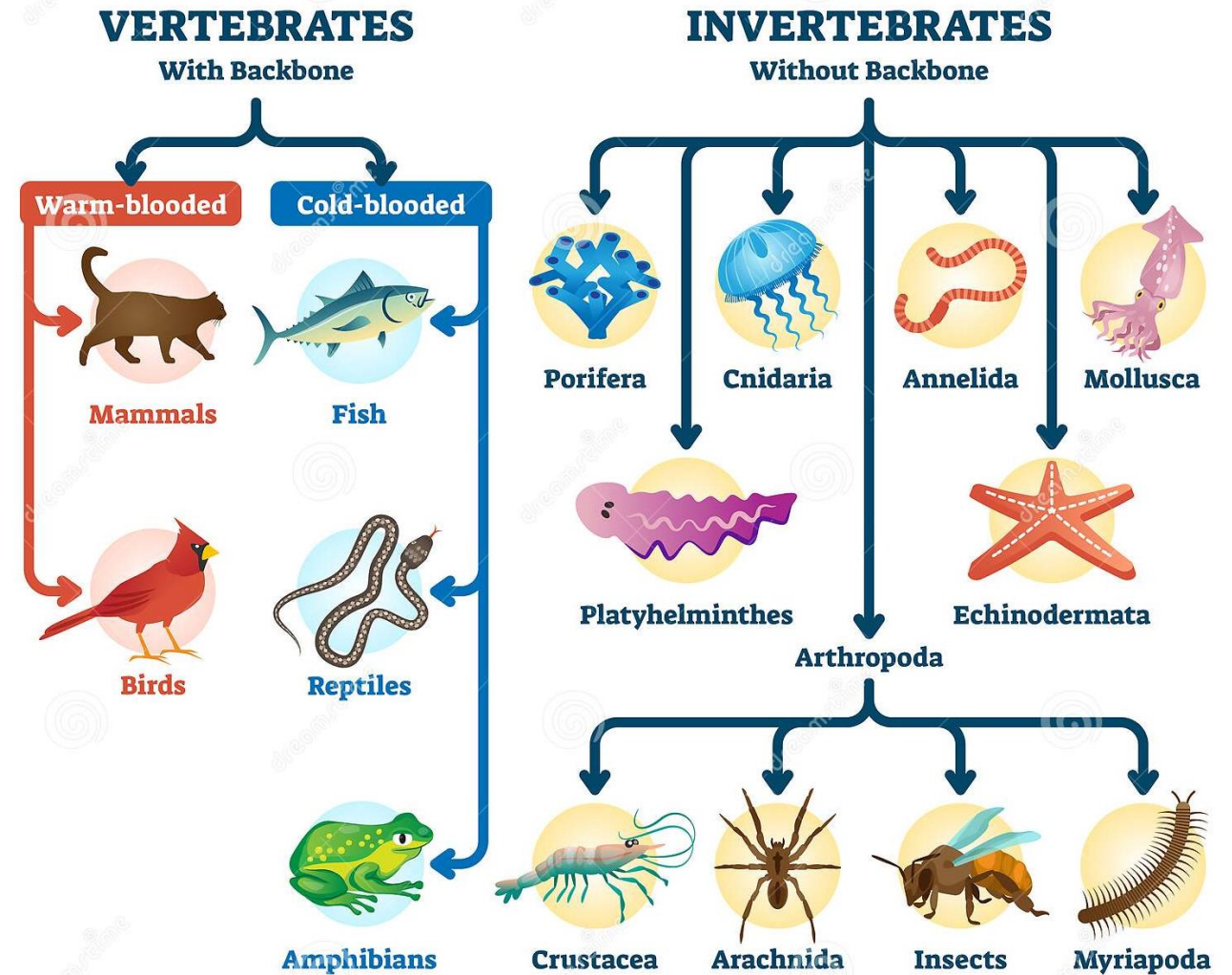
Links

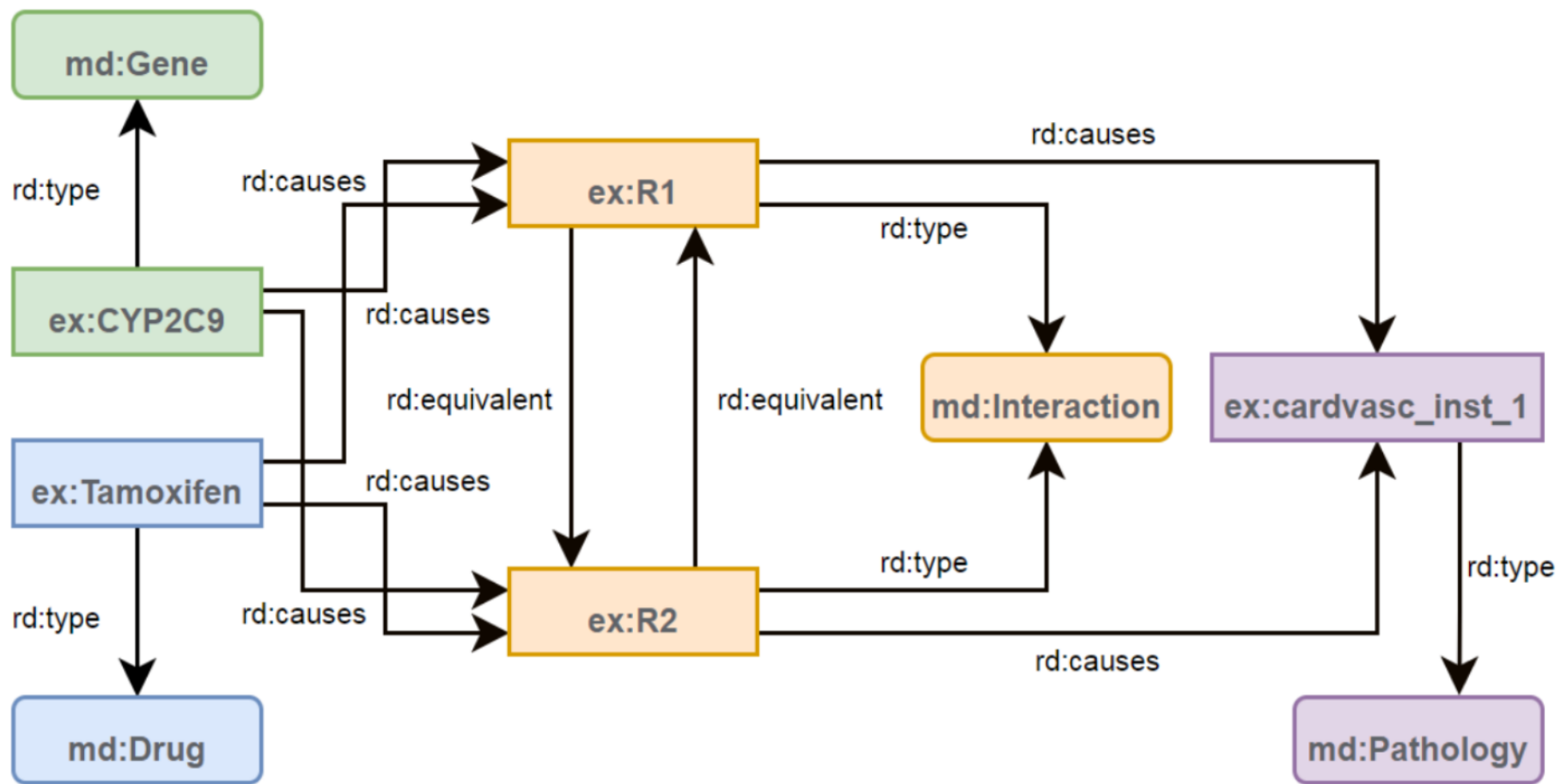
→ Semantics

Instances

→ Data

CLASSIFICATION OF ANIMALS





BioPortal

Interoperable Ontologies

BioPortal

Class Search

Search for a class in multiple ontologies

Include in your search...

- ☐ Property values
- ☐ Obsolete classes
- ☐ Ontology views

Narrow your search to...

- ☐ Exact matches
- ☐ Classes with definitions

Categories

Ontologies

Browse Ontologies

- All
- Unified Medical Language System
- OBO Foundry
- WHO Family of International Classifications
- Clinical and Translational Science Awards
- Cancer Biomedical Informatics Grid
- Bibliographic Materials Group
- Proteomics Standards Initiative
- Biodiversity Information Standards
- Consultative Group on International Agricultural Research

BioPortal

Browse

Browse the library of ontologies

[Submit New Ontology](#)

Entry Type

- ☒ Ontology (716)
- ☐ Ontology View (149)

Uploaded in the Last

Category

- ☐ All Organisms (27)
- ☐ Anatomy (71)
- ☐ Animal Development (13)
- ☐ Animal Gross Anatomy (20)
- ☐ Arabidopsis (2)
- ☐ Biological Process (44)
- ☐ Biomedical Resources (62)

Group

- ☐ BIBLIO (9)
- ☐ BIS (3)
- ☐ CGIAR (1)
- ☐ CTSA (6)

Login Tools Support

Showing 716 of 865 Sort: Popular

Current Procedural Terminology (CPT)

Current Procedural Terminology

Uploaded: 4/6/18

projects 1 classes 13,913

Medical Dictionary for Regulatory Activities (MEDDRA)

Medical Dictionary for Regulatory Activities Terminology (MedDRA)

Uploaded: 4/6/18

notes 1 projects 10 classes 69,660

RxNORM (RXNORM)

RxNorm Vocabulary

Uploaded: 4/6/18

projects 7 classes 114,239

SNOMED CT (SNOMEDCT)

SNOMED Clinical Terms

Uploaded: 4/6/18

notes 2 projects 22 classes 332,416

National Drug Data File (NDDF)

National Drug Data File Plus Source Vocabulary

Browse ontologies. Filter by

- entry type
- date of upload
- category
- group

Search by

- Class
- Category
- Ontology

Narrow search to

- Exact matches
- Classes with definitions

Find all projects using this ontology, accessible through the service.

PLOS Thesaurus

Summary Classes Properties Notes Mappings Widgets Edit ontology information Add submission

Jump To:

Details Visualization Notes (0) Class Mappings (0)

Biology and life sciences

- [-] Agriculture
 - [-] Agricultural biotechnology
 - Genetically modified foods
 - Marker-assisted selection
 - [-] Agricultural economics
 - Marketing cartels
 - Output ceilings
 - [-] Agricultural methods
 - [-] Agricultural production
 - [-] Agricultural soil science
 - [-] Agrochemicals
 - [-] Agroecology
 - [-] Agronomy
 - [-] Animal management
 - [-] Animal products
 - [-] Aquaculture
 - [-] Crop science
 - [-] Farms
 - [-] Fisheries
 - [-] Forestry
 - [-] Fungiculture
 - [-] Livestock
 - [-] Pest control
 - [-] Pests
- [-] Anatomy
- [-] Astrobiology
- [-] Behavior

Preferred Name	Biology and life sciences
ID	http://localhost/plosthes.2017-1#3625
alpha	Biology and life sciences
homepage	http://journals.plos.org/plosone/browse/biology
	Evolutionary biology
	Taxonomy
	Marine biology
	Plant science
	Bioacoustics
	Neuroscience
	Paleontology
	Agriculture
	Toxicology
	Biomechanics
	Physiology
	Zoology
	Bioethics
	Microbiology
	Nutrition
	Radioecology

National Cancer Institute Thesaurus

Last uploaded: May 24, 2021



Summary Classes Properties Notes Mappings Widgets

Jump to:

- Abnormal Cell
- Activity**
- Action
- Administrative Activity
- Behavior
- Clinical or Research Activity
- Educational Activity
- Handling
- Physical Activity
- Technique
- Volunteer Activity
- Anatomic Structure, System, or Substance
- Biochemical Pathway
- Biological Process
- Chemotherapy Regimen or Agent Combination
- Conceptual Entity
- Diagnostic or Prognostic Factor
- Disease, Disorder or Finding
- Drug, Food, Chemical or Biomedical Material
- Experimental Organism Anatomical Concept
- Experimental Organism Diagnosis
- Gene
- Gene Product
- Manufactured Object
- Molecular Abnormality
- Organism
- Property or Attribute
- Retired Concept

Details Visualization Notes (0) Class Mappings (95)

Preferred Name	Activity
Synonyms	General activity Activity
Definitions	An active process; excludes processes and mechanisms which fulfill biological functions.
ID	http://ncicb.nci.nih.gov/xml/owl/EVS/Thesaurus.owl#C43431
ALT_DEFINITION	Any action that can, in the context of a study, experiment, post-marketing investigation, or disease registry, be defined, planned, scheduled or performed. EXAMPLE(S): Administrative activities such as subject registration or informed consent Clinical activities such as surgical procedure, laboratory test, administration of a drug OTHER NAME(S): NOTE(S): Any action that can, in the context of a study or a post-marketing investigation, be defined, planned, scheduled or performed. EXAMPLE(S): surgical procedure, laboratory test, administration of a drug.
code	C43431
Concept_In_Subset	BRIDG Class Terminology MD Anderson Symptom Inventory – Head and Neck BRIDG Terminology
Contributing_Source	BRIDG
DEFINITION	An active process; excludes processes and mechanisms which fulfill biological functions.
FULL_SYN	General activity Activity
label	Activity
Legacy Concept Name	Activity
Preferred_Name	Activity
prefixIRI	Thesaurus:C43431
Semantic_Type	Activity
UMLS_CUI	C0441655
subClassOf	http://www.w3.org/2002/07/owl#Thing
disjointWith	Manufactured Object Disease, Disorder or Finding

CEDAR

Center for Expanded Data Annotation and Retrieval

Project Cedar

Project Cedar

CEDAR

Study Template

Template Creator

Add Element

RESULT VALUE

DATA FILE

STUDY ASSAY

FACTOR VALUE

STUDY TIME

MORE ELEMENTS

Add Item

ALL ITEMS

Enter Field Title

Study Title

Enter Field Description (Help Text)

The title of the study

Required

Advanced

Cardinality

+

×

You have not added any field or value classes

FIELDS

Search

study title

Start Over

Ontology Tree

Clinical Study

Post-Study Analysis

Scientific Investigation

Patient Population

Study Support

IRB Oversight

IRB Renewal

IRB Approval

IRB Number

Risk Assessment

Study Title

IRB Review

IRB Expiration

Class Details

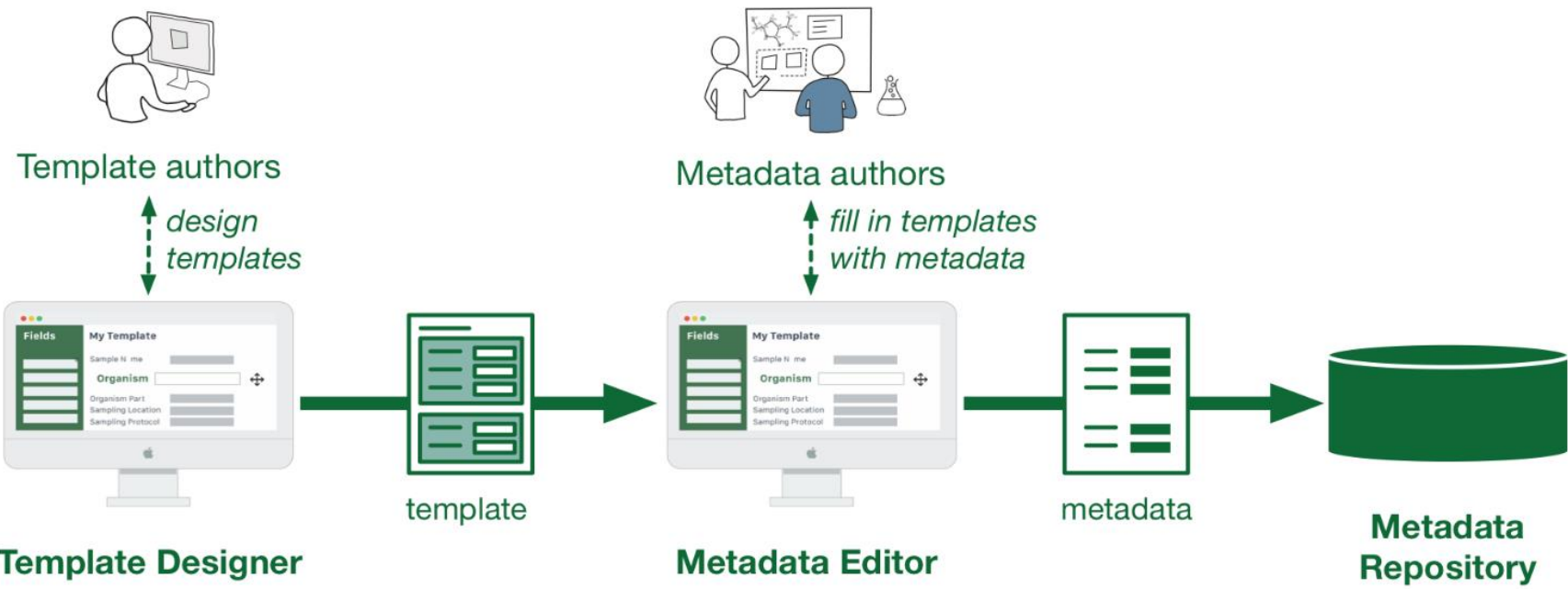
Ontology Details

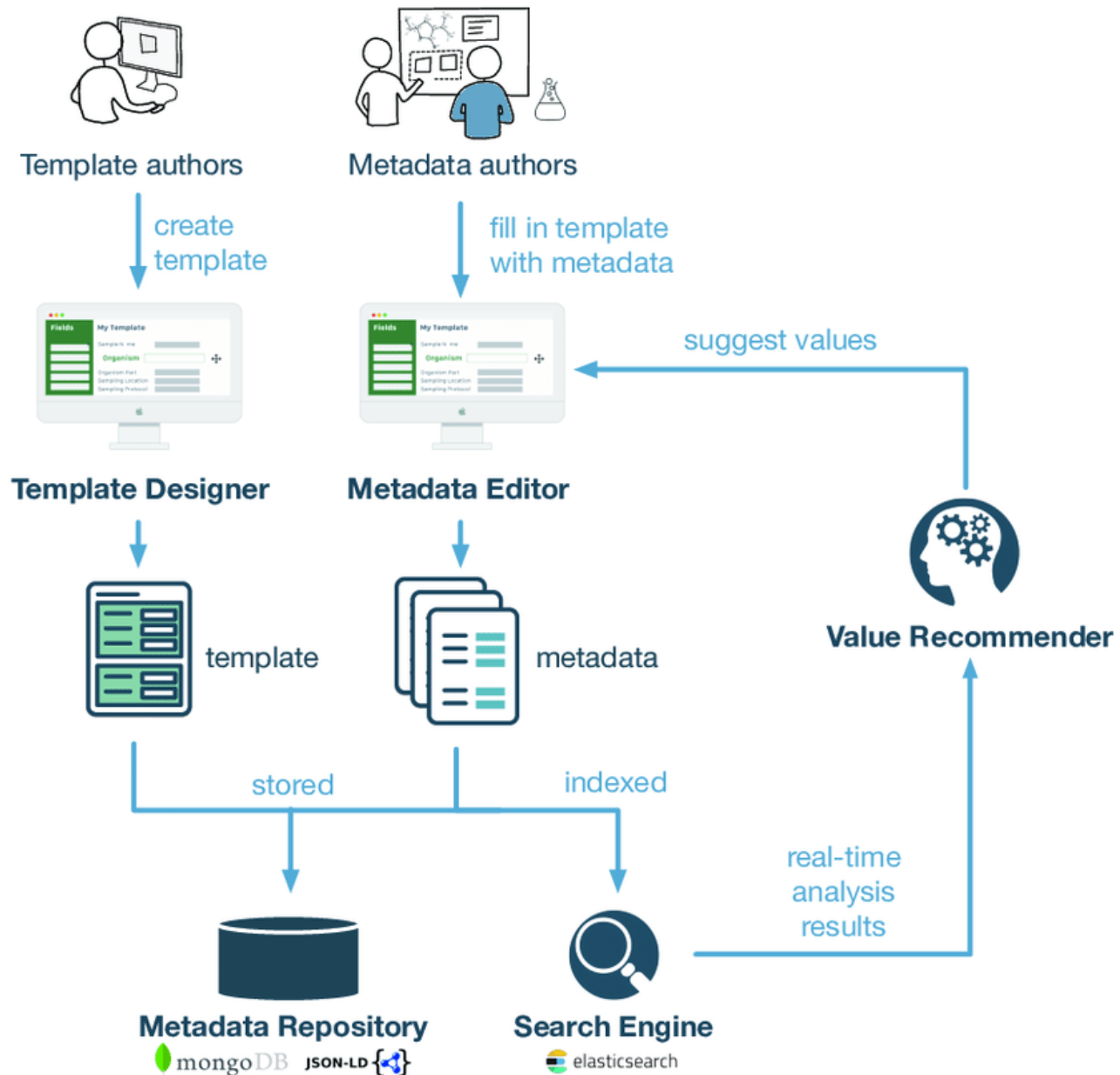
NAME	CLINICAL STUDY ONTOLOGY
Acronym	CSO
@id	http://data.bioontology.org/ontologies/CSO
Description	Ontology to describe general clinical studies.
# of Classes	37

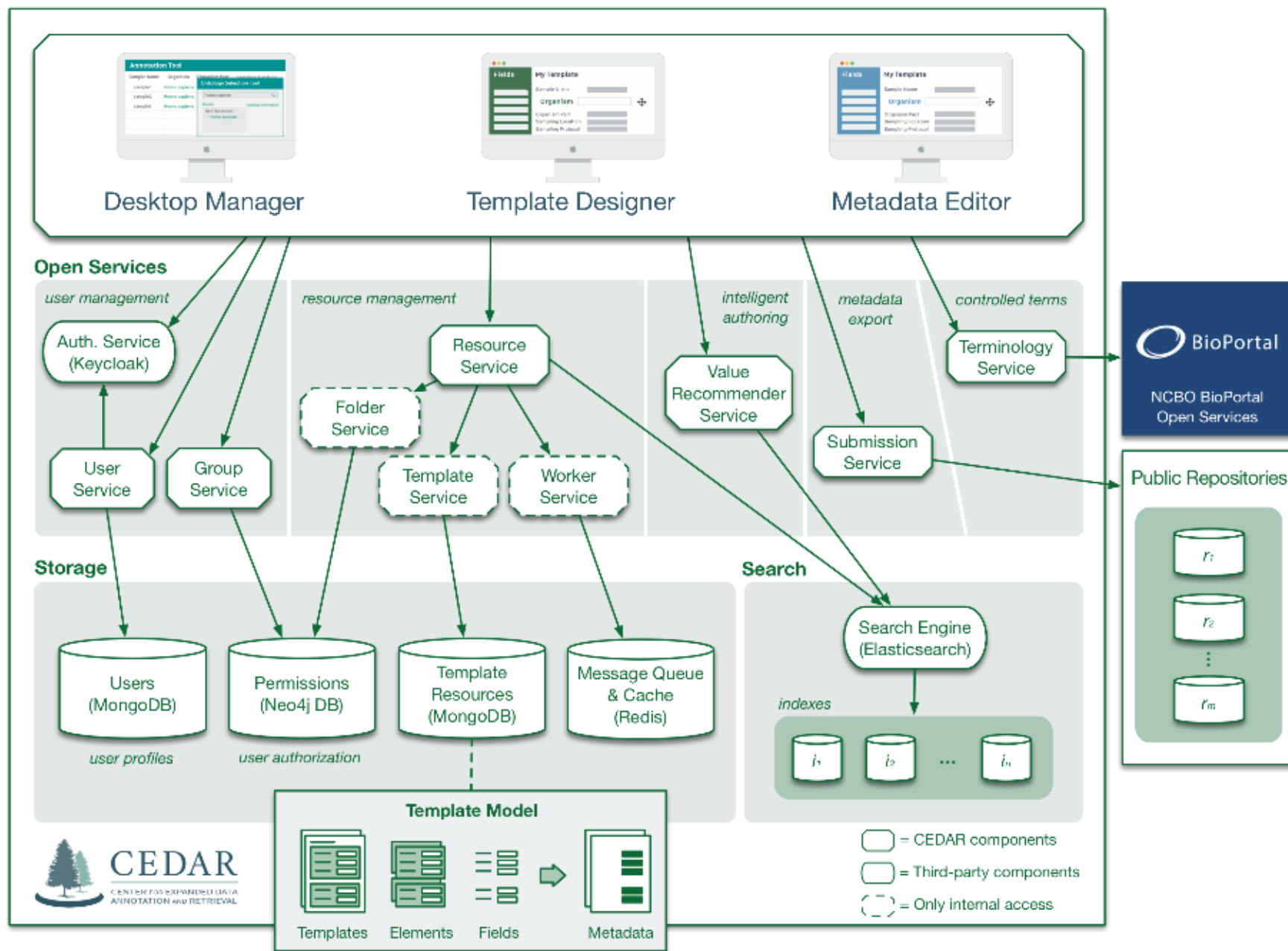
ADD STUDY TITLE

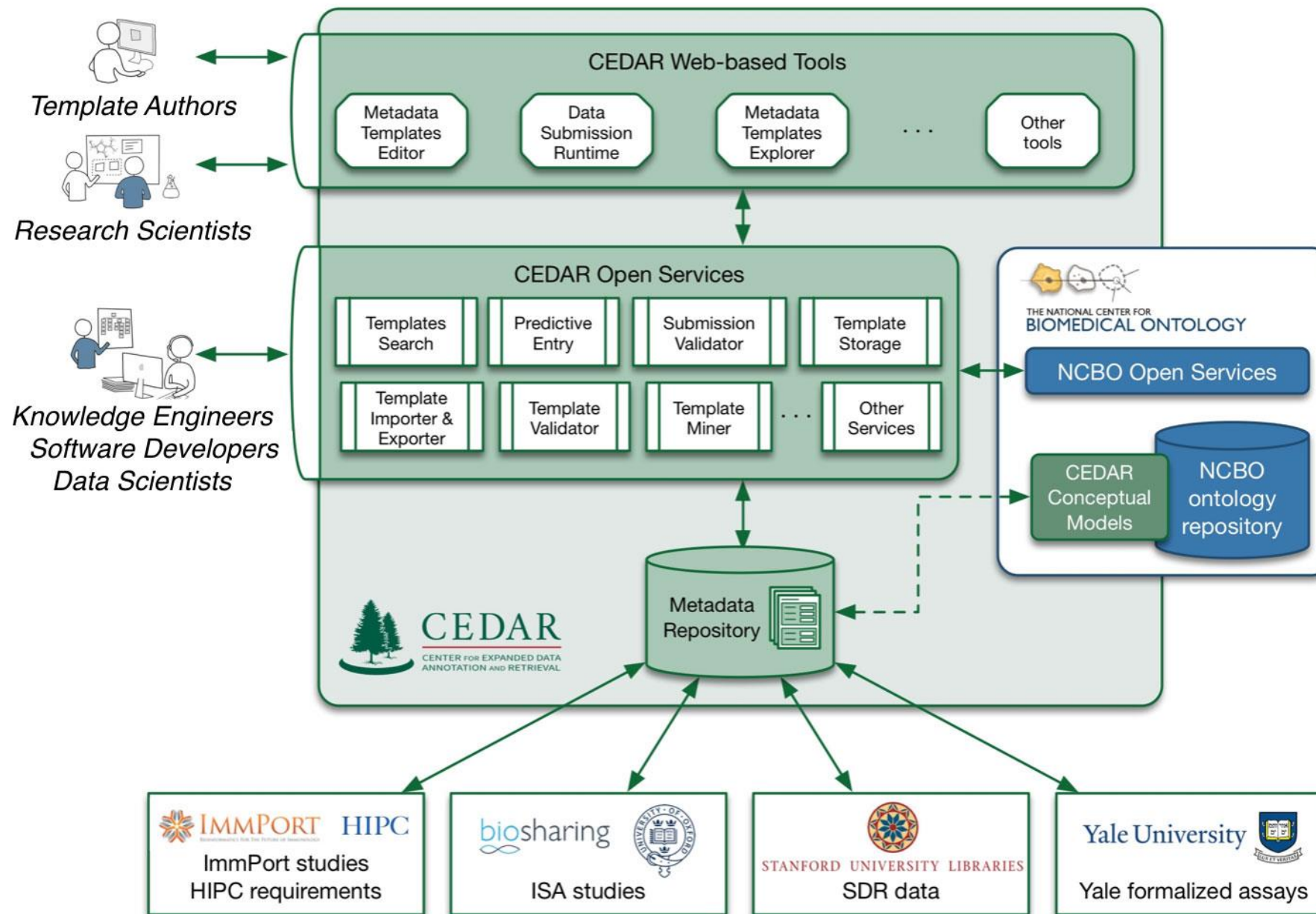


CEDAR Workbench









Data Science in Practice



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