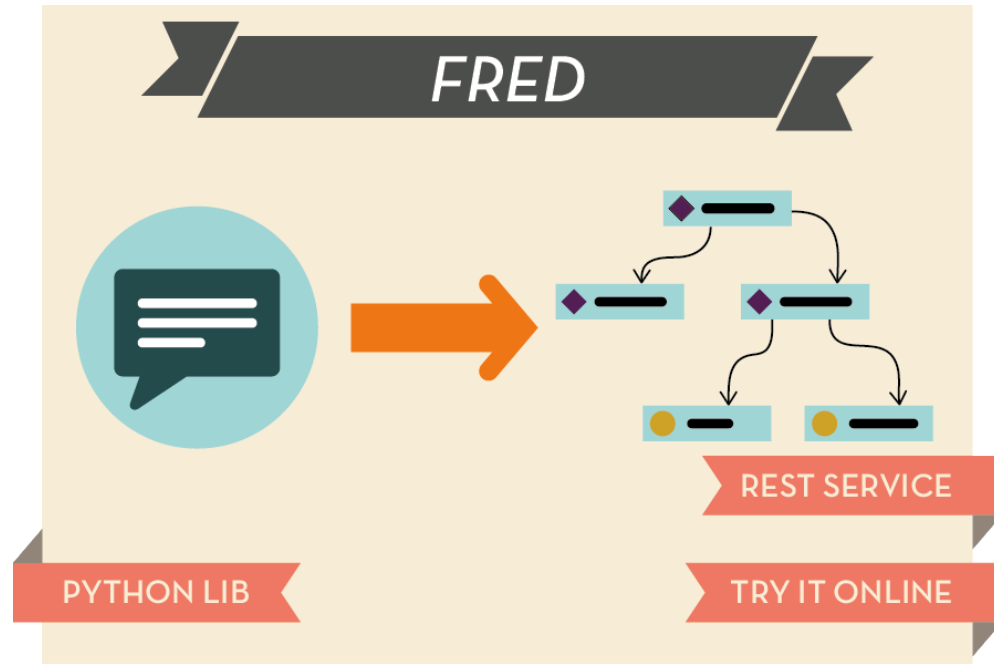


Frame-based Semantic Interoperability

Aldo Gangemi
University of Bologna and ISTC-CNR, Rome



Elenco di ontologie e vocabolari controllati

daf daf-semantics daf-ontopia dcat-ap dcat-ap-it ontology

controlled-vocabularies linked-data

454 commits 12 branches 0 releases 10 contributors CC-BY-4.0

Branch: master New pull request Find File Clone or download

giorgialodi updated ontology Cultural-On version 3.2 in order to implement the fo... Latest commit b4b4381 8 days ago

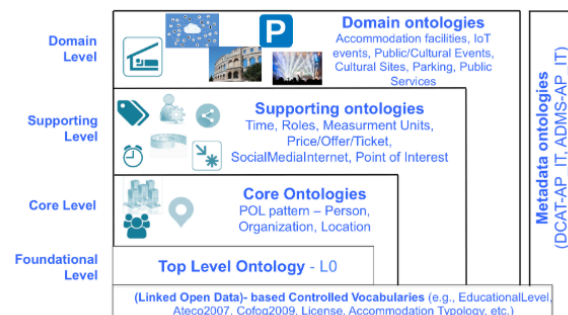
File	Commit Message	Time Ago
Ontologie	updated ontology Cultural-On version 3.2 in order to imple...	8 days ago
Presentazioni	converting URIs into w3id.org/italia/controlled-vocabulary ...	a year ago
VocabolariControllati	fixed italy.ttl	27 days ago
.gitignore	Gitignore.	a year ago
AUTHORS	Update AUTHORS	a year ago
LICENSE.md	Create LICENSE.md	a year ago
OntoPiA.png	updated readme and OntoPiA figure	a year ago
README.md	added README for the Public Contract Ontology; updated ...	10 months ago
pom.xml	added maven descriptor	7 months ago
README.md		

OntoPiA

Ontologie e Vocabolari Controllati

TRANNE DOVE DIVERSAMENTE SPECIFICATO, LE ONTOLOGIE SI INTENDONO ANCORA INSTABILI. NEL CORSO DELLE PRIME SETTIMANE DI MARZO 2018 SE NE STABILIZZERANNO ALCUNE DI SEGUITO ELENCAATE.

Questo è il repository delle ontologie e dei vocabolari controllati sviluppati nell'ambito delle azioni previste dal piano triennale e a supporto del lavoro da svolgere per l'elenco delle basi di dati chiave. Le ontologie create sono tra loro collegate creando una vera e propria network chiamata OntoPiA - a OntoNet system. Le ontologie saranno inserite nel catalogo delle ontologie e vocabolari controllati (si veda la parte daf-semantics e ontonethub per il software relativo al catalogo).



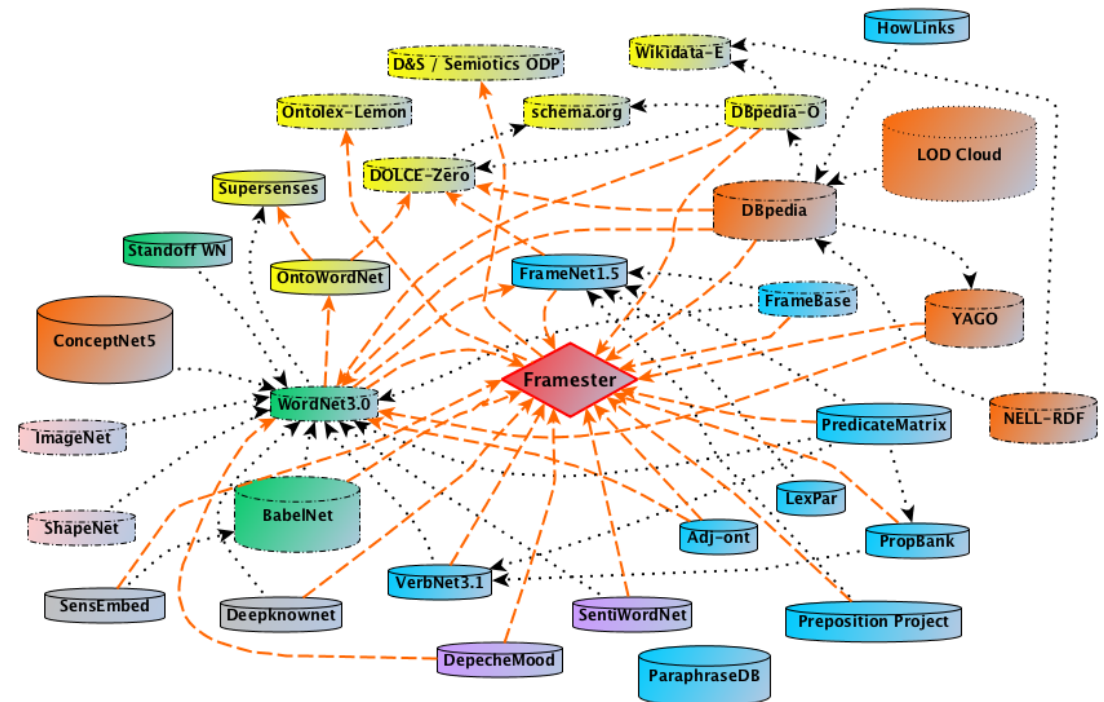
Il repository è suddiviso in due directory:

- Ontologie (Ontologies):** contiene le ontologie OWL, serializzate in RDF/Turtle RDF/XML e JSON-LD. I diagrammi UML delle ontologie sono attualmente in fase di definizione e revisione a seguito dei collegamenti abilitati tra tutte le ontologie. Le ontologie hanno label e commenti sia in inglese (EN), sia in italiano (IT).
- Vocabolari controllati (Controlled Vocabularies):** contiene un elenco dei vocabolari controllati sviluppati anche a supporto delle ontologie.

Il contenuto della directory Ontologie è attualmente il seguente:

Framester

A semiotic hub for knowledge graph interoperability



ARCO

GUIDE

ONTOLOGIES

DATA

EXAMPLES

⌵



ARCHITECTURE OF KNOWLEDGE



Semantic Interoperability

- Ability of computer systems to **exchange data** with **unambiguous, shared meaning** (*Wikipedia*)
- The problem of semantic interoperability, i.e. the difficulty in **integrating resources** that were developed using **different vocabularies** and **different perspectives** on the data. To achieve semantic interoperability, systems must be able to exchange data in such a way that the **precise meaning of the data is readily accessible** and the data itself can be translated by any system into a form that it understands (Heflin&Hendler, 2000)

Meaning?

- In many cases (a specific database/application, an *ad hoc* integration of datasets), it is purely functional to local requirements
- Engineering know-how: competency questions, reuse of design patterns for modelling, curated alignments of compositional structures (classes, relations, axioms, class constructors, individuals, facts, reification, etc.)

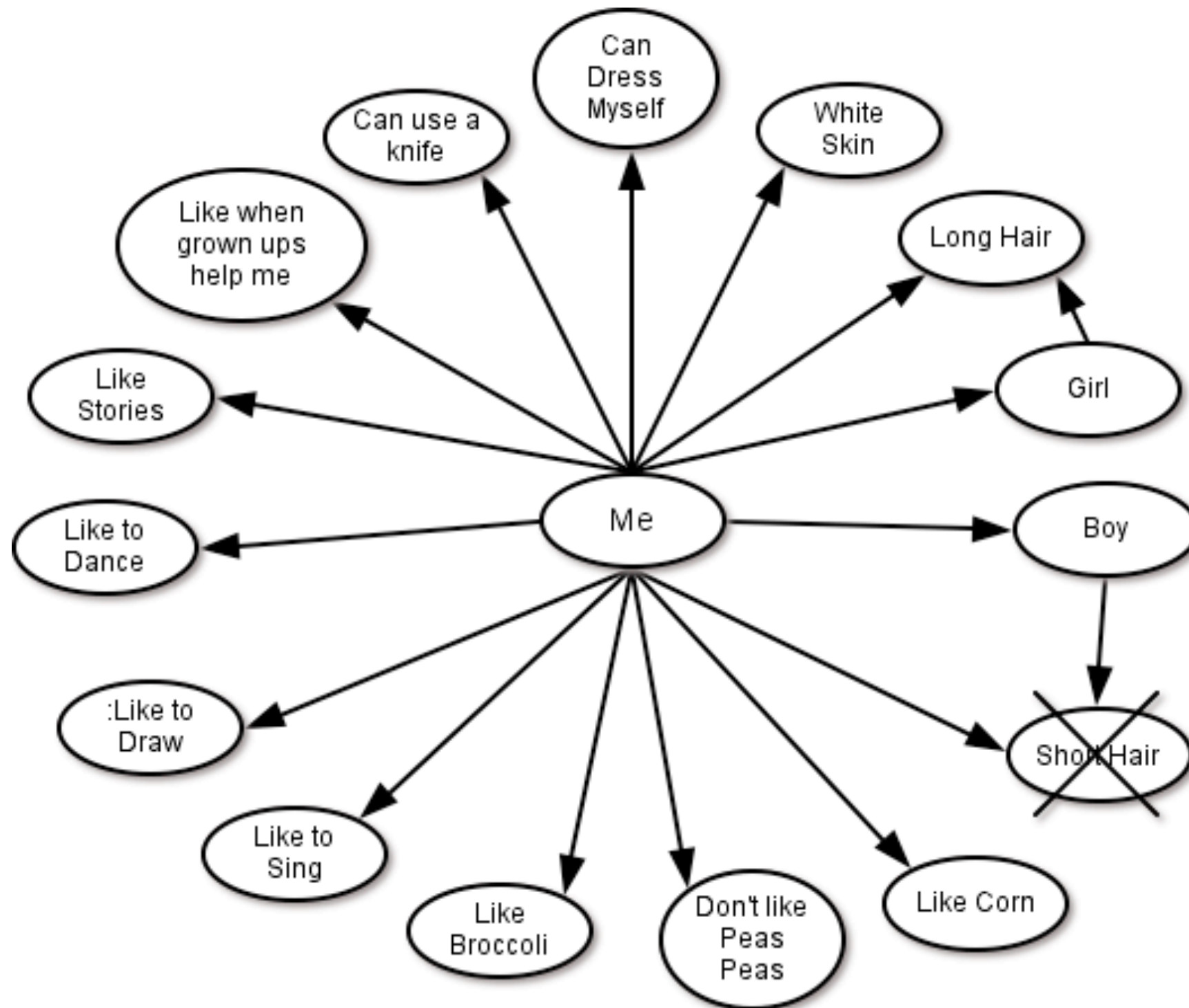
Meaning?

- In many other cases, requirements can be too numerous, complex, unknown, or unpredictable
- Meaning is us, in a context of perceptions, opportunities, expectations, force balancing, and predictions (cf. Barsalou's *simulators*)
- When we are not forced to reason in a bounded context, we resort to different strategies for interpretation: meta-level considerations, a dictionary game, typical usage, corpus embeddings, ...

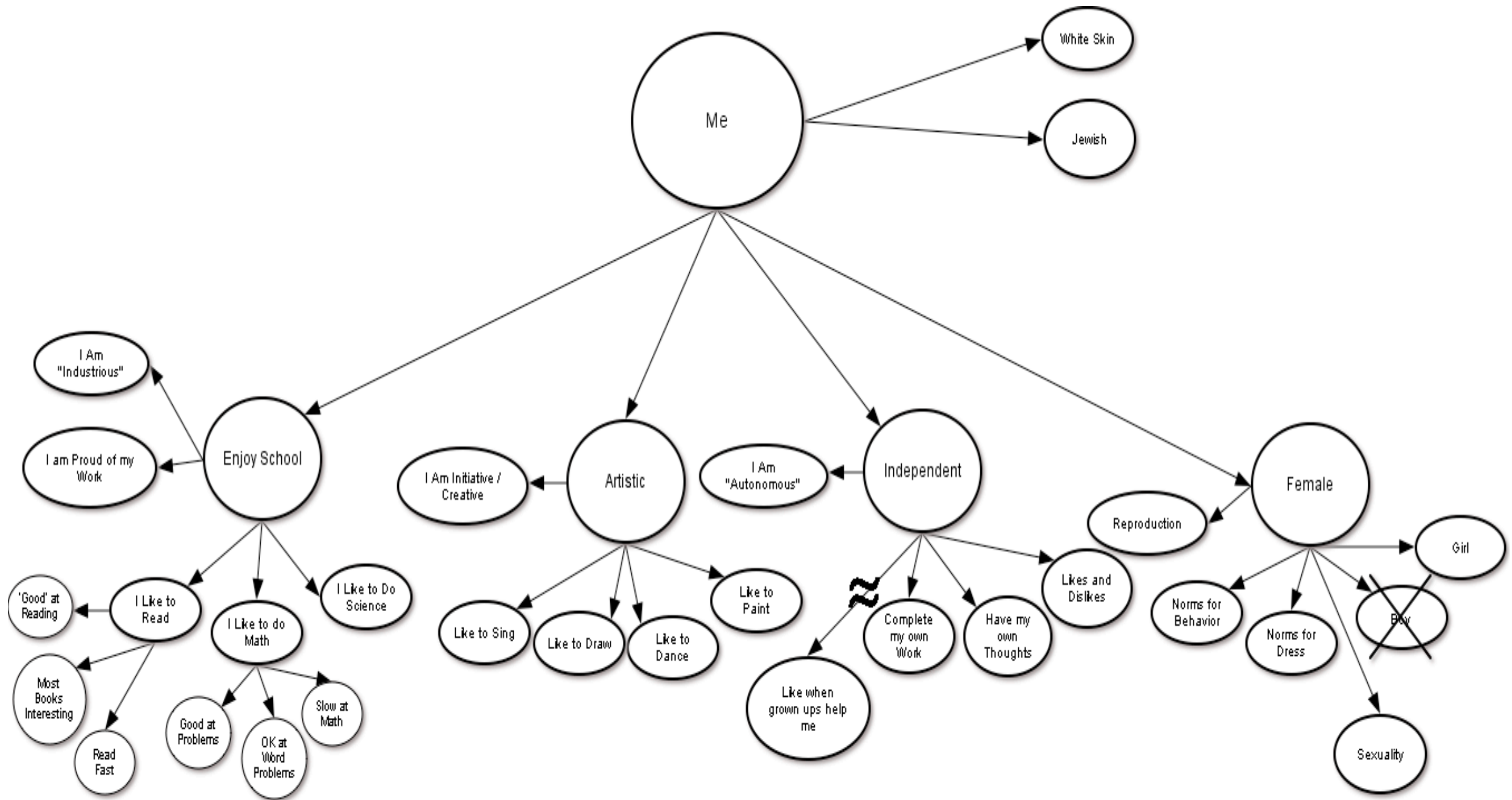
- Is terminological interoperability without finite requirements achievable?

- Typically, taxonomies of concepts, not relational entities
 - Effort to find out what is the equivalent concept in another language, or simply its lexical translation
 - Approximation can be relatively harmless in everyday life, it is not when legal, political, and economical issues are at stake
 - The lack of formal axioms is not the real problem: extreme formalisation can even lead to “pushy” solutions
- What lexicographers do is to build definitions, even if typically circular: they provide features (senses, examples, glosses, etc., used for interoperability)
- We need expert-oriented frames, to be eventually formalised in a (semi-)automated way

'Novice' Self-Schema

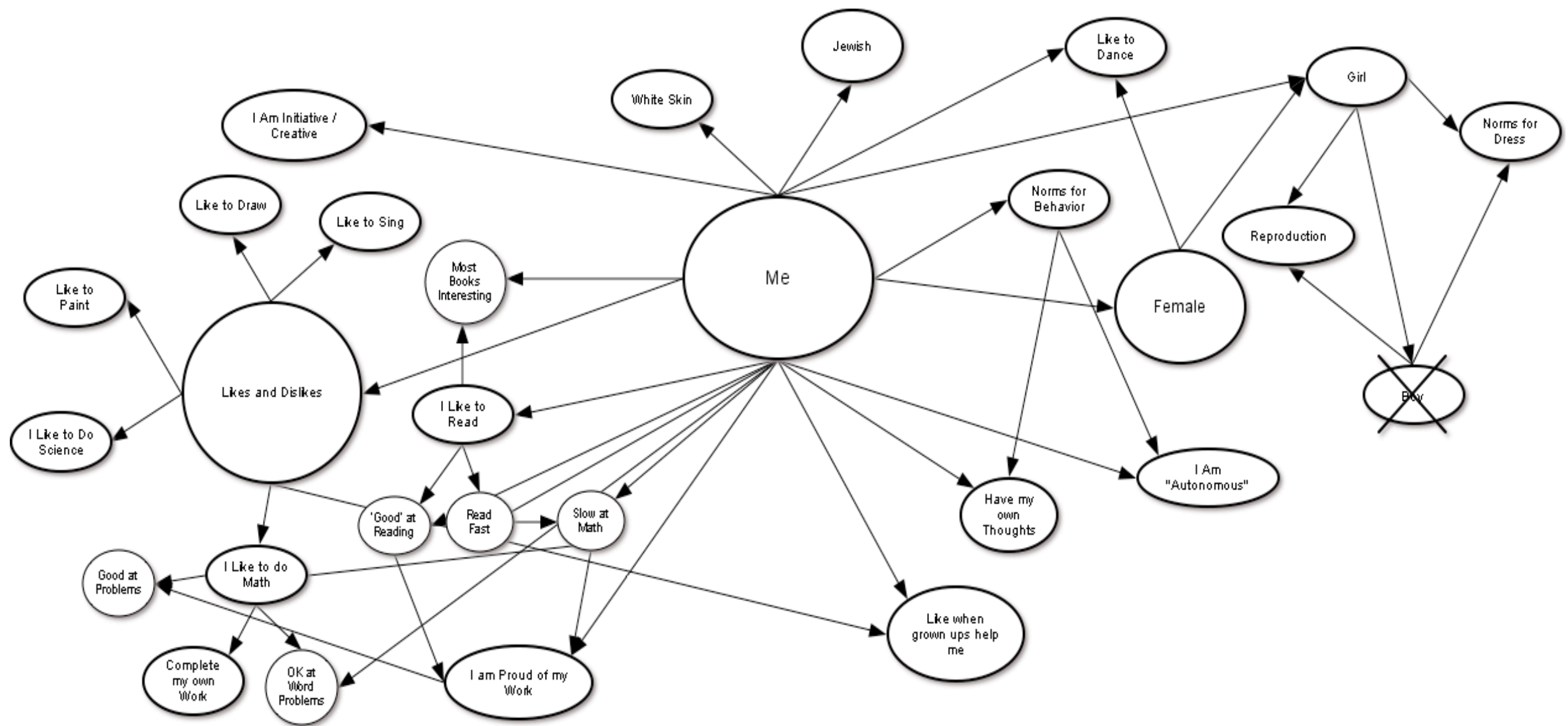


'Expert' Self-Schema



Are you *good* at doing math problems independently?

'Developing Expertise'



Are you *good* at doing math problems independently?

Experts vs. Novices

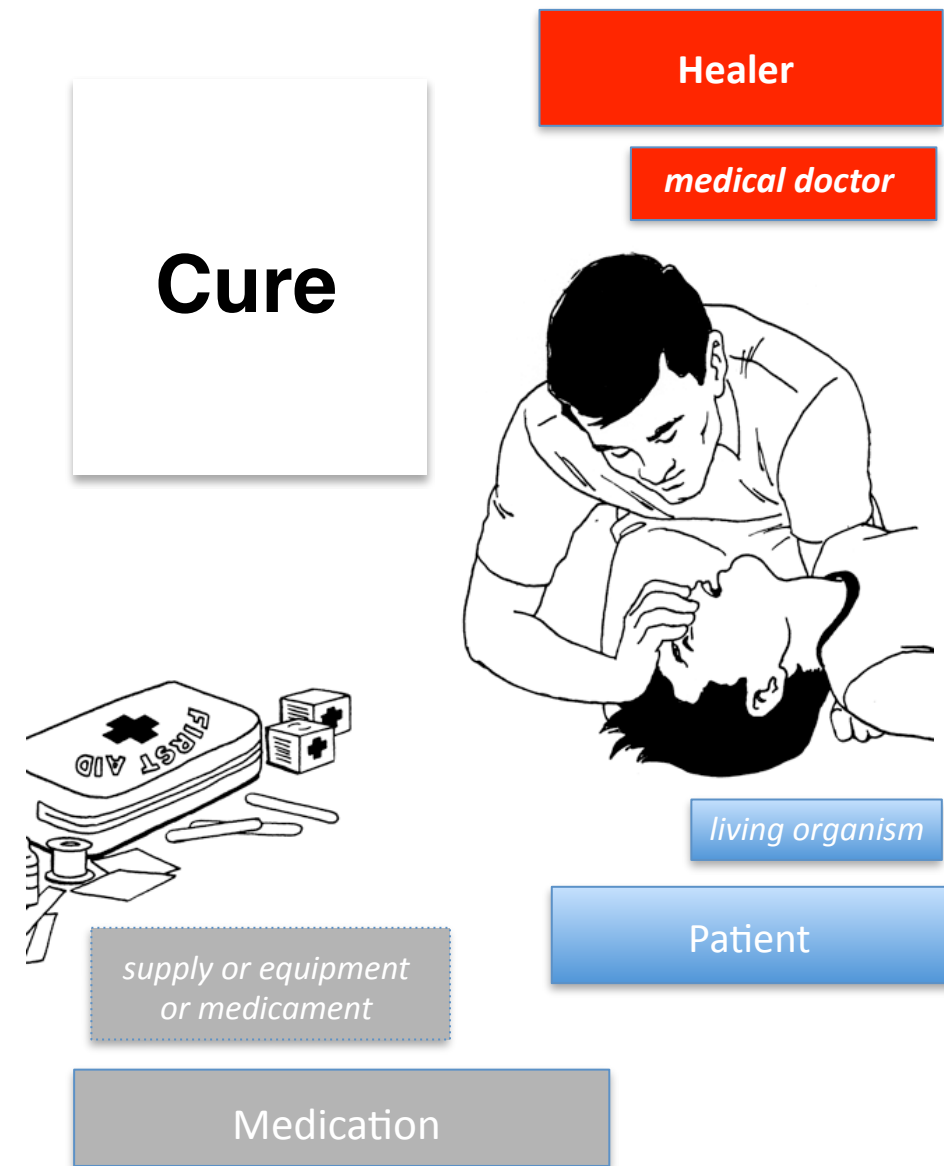
- Larger Schema
- Automated Schema
- Better classified/more accessible schema
- Schemas are interrelated based on solution principle rather than domain
- Pattern recognition

LTM Structure of Knowledge: Schemas

- Development of Expertise
 - Content (# of nodes) in a map
 - Cohesion (# of links) in a map
 - Organization (# of core nodes; refinement of links; procedural/conditional links; structure imposed)
- Experts vs. Novices (Module 1 - Expert Teachers)
 - Experts have elaborate structures organized around “central” or “underlying” principles
 - Experts have extensive conditional knowledge and as a consequence take more time to identify and understand problems as well as recognize patterns
 - Novice schemas may have misconceptions

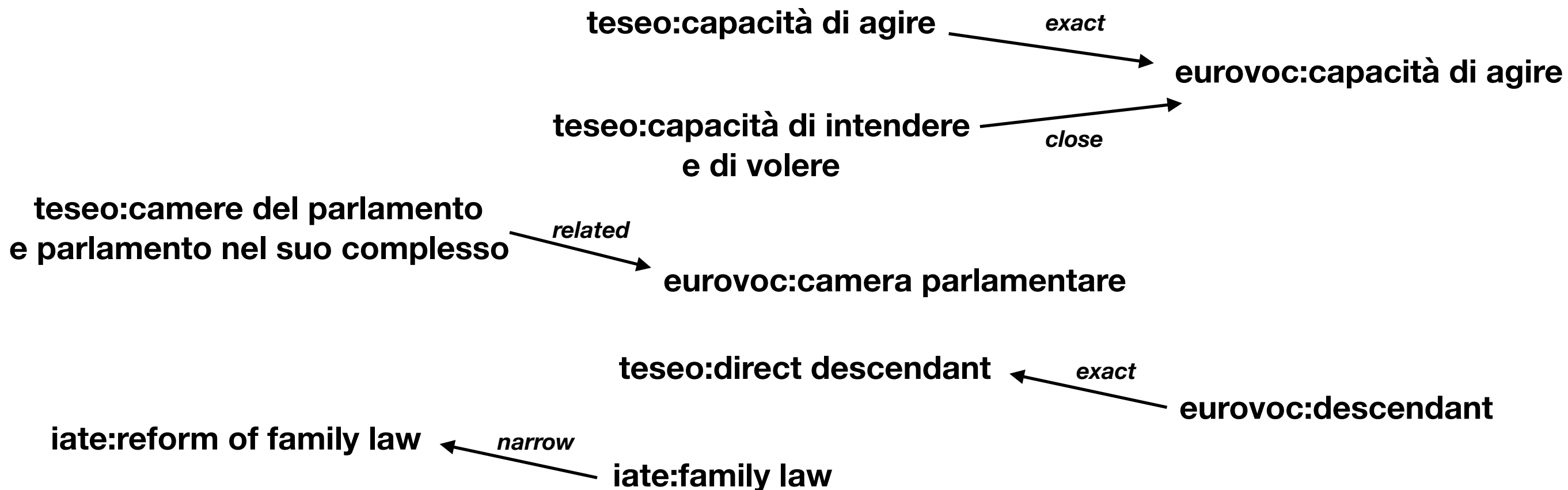
Frames

- Frames originate from
 - schema-like notions in psychology (as a pattern of thought or behaviour that organises categories of information and the relationships among them), cf. Bartlett 1932, Bateson 1972, etc.
 - Fillmore's frames (as a perspectival meaning that cognitively "evokes" a situation from a lexical cue)
 - Minsky's frames (as a representation of a stereotyped situation), reprised in mainstream knowledge representation (KR's frame logic)
- Frames provide (usually general) roles, types, and other constraints that specify the usage context(s) of a class of symbols
- Frame semantics is typically opposed to concept-centred semantics, but current KR (specially *description logics*) has mostly smoothed the difference



Affliction, Body_part, Treatment, Duration, Place, ...

Whats and Whys of matching



- what are we implying by saying *exact*? all intensional / extensional contexts of A are also in B? *close*? some overlap? *broad*? all A in B? *narrow*? all B in A? *related*?
- but why?
- SKOS relations are (explicitly) an approximated annotation of intensional (cognitive) similarity, which may eventually be also considered extensionally
- no formal clue however on the reasons of such a decision (be it manual or automated)
- ... talking about explainability ...

Semantic heterogeneity in data

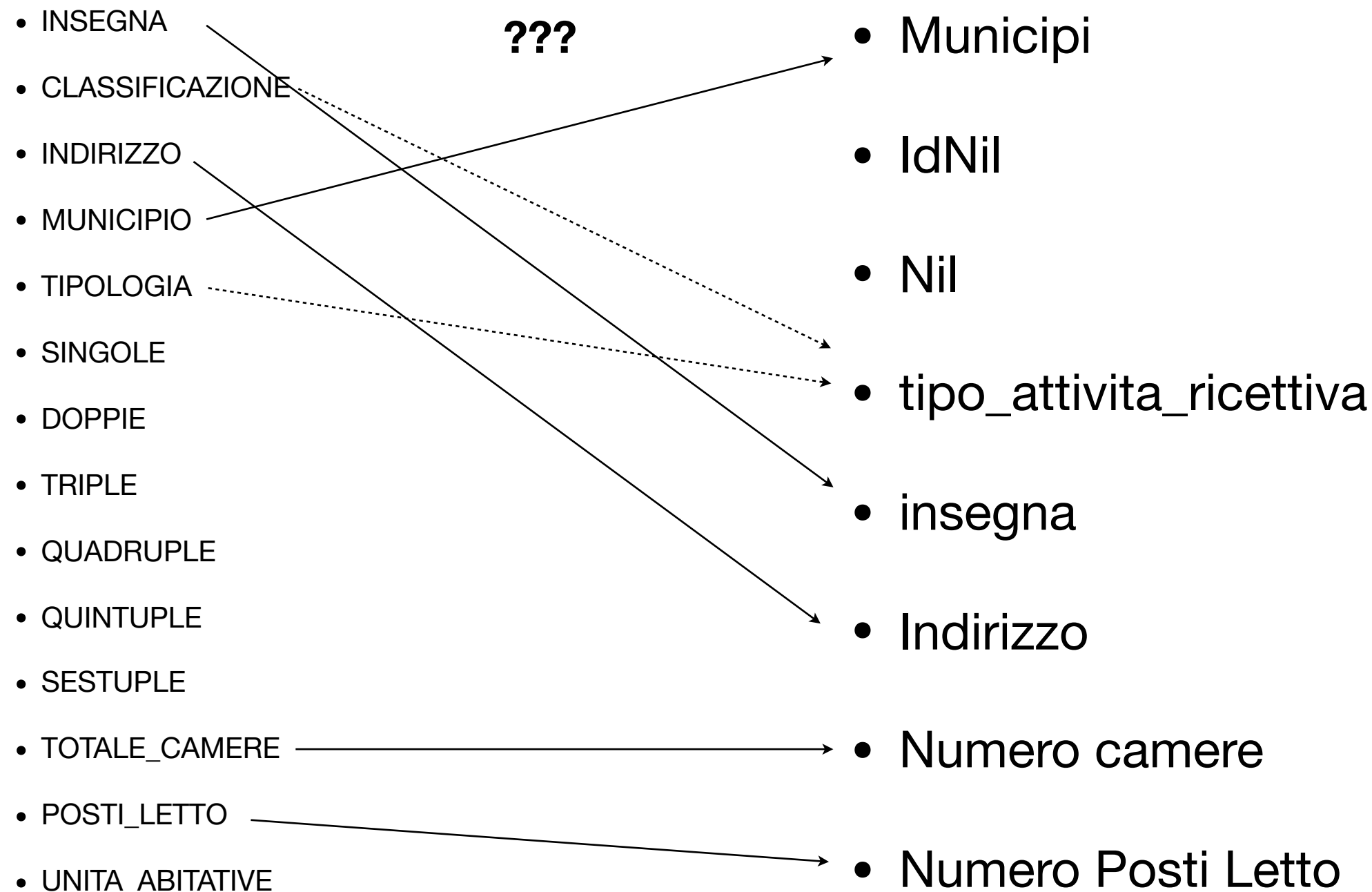
Accommodation schemas: Rome vs Milan

- INSEGNA
- CLASSIFICAZIONE
- INDIRIZZO
- MUNICIPIO
- TIPOLOGIA
- SINGOLE
- DOPPIE
- TRIPLE
- QUADRUPLE
- QUINTUPLE
- SESTUPLE
- TOTALE_CAMERE
- POSTI_LETTO
- UNITA_ABITATIVE

- Municipi
- IdNil
- Nil
- tipo_attivita_ricettiva
- insegna
- Indirizzo
- Numero camere
- Numero Posti Letto

Semantic heterogeneity in data

Accommodation schemas: Rome vs Milan



OntoPiA-UI: available perspectives

Powered by

Accommodation Facilities

IRI: <https://w3id.org/italia/onto/ACCO>

Version IRI: <https://w3id.org/italia/onto/ACCO/0.4>

Current version: Version 0.4 - 31 July 2018 - Fix URI for controlled vocabulary. Stabilized some properties. Added the user rating to the accommodation

Authors: <http://spcdata.digitpa.gov.it/browse/page/Amministrazione/agid>

Publisher: <http://spcdata.digitpa.gov.it/browse/page/Amministrazione/agid>

Imported Ontologies: <https://w3id.org/italia/onto/TI> (visualise it with LODÉ) <https://w3id.org/italia/onto/POI> (visualise it with LODÉ) <https://w3id.org/italia/onto/COV> (visualise it with LODÉ) <https://w3id.org/italia/onto/SM> (visualise it with LODÉ)

Other visualisation: [Ontology source](#)

Abstract

This is the ontology of the Italian application profile for Accomodation Facilities

Table of Content

- Classes
- Object Properties
- Data Properties
- Named Individuals
- Annotation Properties

- LODE: Ontology documentation



lodview

Organizzazione

<https://w3id.org/italia/onto/COV/Organization>

ENTITÀ DI TIPO: **Class**

rdfs:comment	EN II Questa è la classe che rappresenta un'organizzazione, sia essa pubblica che privata, tipicamente registrata all'interno di un registro pubblico (e.g., indice della PA per le pubbliche amministrazioni, registro imprese per le organizzazioni private). Esempio "Agenzia per l'Italia Digitale", "Comune di Bologna", "TELECOM ITALIA SPA O TIM S.P.A."
rdfs:label	EN II Organizzazione
owl:versionInfo	EN II stabile
rdf:type	owl:Class
rdfs:isDefinedBy	< http://dati.gov.it/onto/covapit >

LODVIEW: Exploring OntoPiA



Virtuoso SPARQL Query Editor

[About](#) | [Namespace Prefixes](#) | [Inference rules](#)

Default Data Set Name (Graph IRI)

Query Text

```
SELECT DISTINCT ?concept
WHERE {
  [] a ?concept
}
LIMIT 100
```

Sponging:

Results Format:

Execution timeout: milliseconds (values less than 1000 are ignored)

Options: ☒ Strict checking of void variables

(The result can only be sent back to browser, not saved on the server; see [details](#))

Copyright © 2018 [OpenLink Software](#)
Virtuoso version 07.20.32.15 on Linux (x86_64-pc-linux-gnu), Single Server Edition

SPARQL: Querying



WebVOWL

CPV-AP-IT - Core Person Vocabulary Italian Application Profile - Person Ontology

<https://w3id.org/italia/onto/10>

Version: Versione 0.6 - corretto URI per TimeIndetectedEvent

Author(s): <http://spcdata.digitpa.gov.it/browse/page/Amministrazione/agid>

Language:

Description
This is the ontology of the Italian application profile for Persons

Metadata

Statistics

Selection Details

VOWL: Visual OWL





ArCo Release v.1.0

ARCO

GUIDE

ONTOLOGIES

DATA

EXAMPLES



ONTOLOGIES



ArCo ontology



Core ontology



Denotative description



Catalogue & catalogue records



Cultural events & exhibitions



Locations & geometry



Context description



ARCHITECTURE OF KNOWLEDGE



Consiglio Nazionale
delle Ricerche



Istituto Centrale
per il Catalogo
e la Documentazione

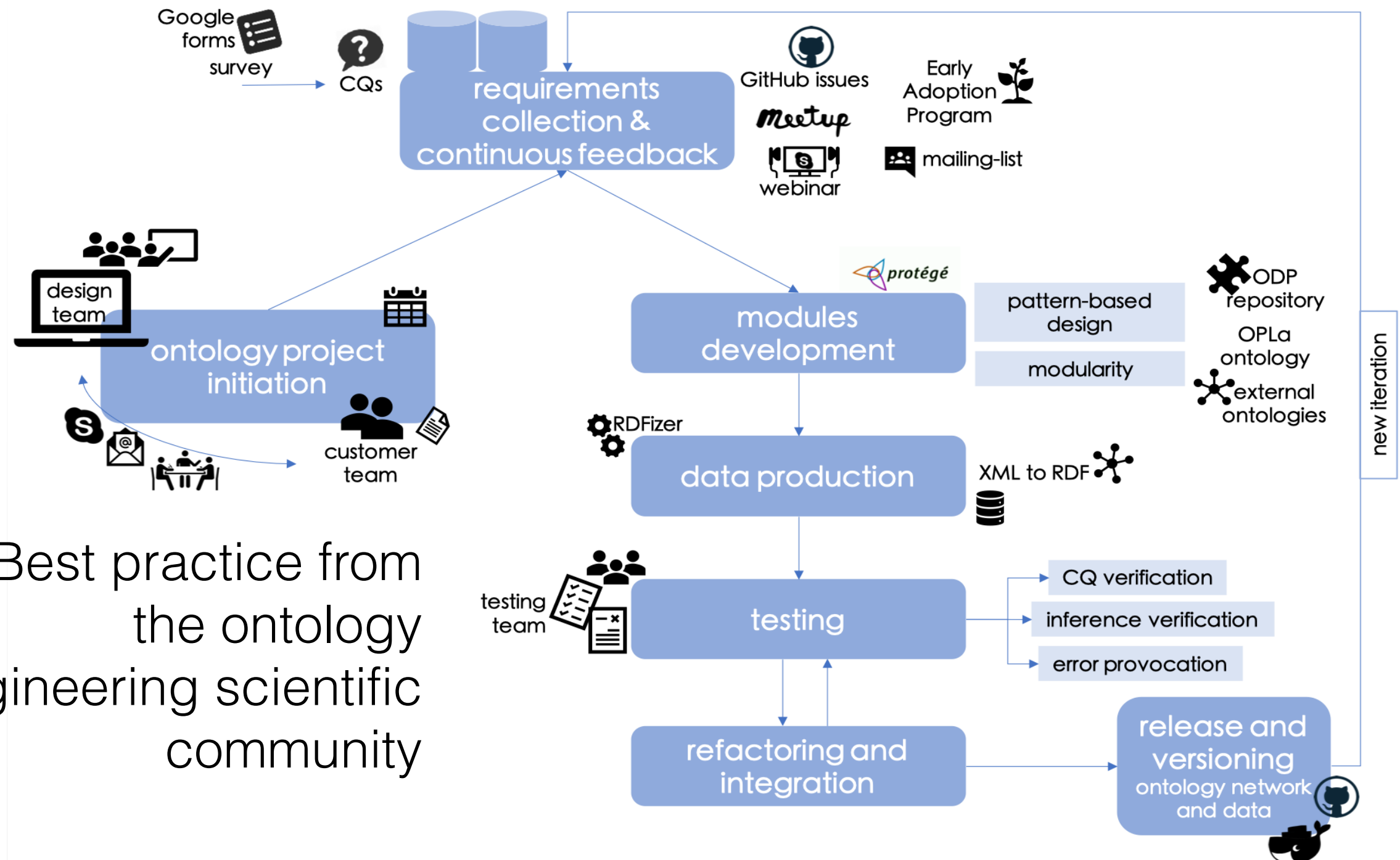


<https://w3id.org/arco>



The eXtreme Design Methodology

XD application and implementation in ArCo as real case



Best practice from
the ontology
engineering scientific
community

- If we compare machine translation and lexical matching results ...
 - Often, machine translation with sufficient context works better
 - Why so? Probably compositionality, which externalises context, and statistical correspondences in parallel corpora help a lot with that
- Still, MT cannot solve data and entity problems alone, let alone schemas and awareness of associations between concepts, entities, frames, etc
- Cf e.g. paraphrases, abstractive summarisation, complex coreference, text-data linkage

- La capacità di agire è l'attitudine del soggetto a compiere atti che incidano nella propria sfera giuridica. Si acquista con la maggiore età.
- The ability to act is the subject's ability to perform acts that affect his own legal sphere. You buy with the age of majority.



BabelNet

- Dictionary
- Images
- Translations
- Sources
- Categories
- Other forms

capacità di agire

ITALIAN

ENGLISH

TRANSLATE

[PREFERENCES](#)

Italian

English

Arabic

Chinese

French

German

Greek

Hebrew

Hindi

[all preferred languages](#)

bn:15244565n • NOUN • Concept • Updated on 2019/04/19 •
Categories: Diritto civile, Diritto di famiglia, Diritto italiano, Diritto privato...

IT **Capacità di agire** • **Capacità d'agire**

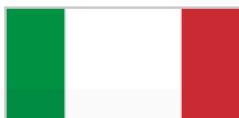
EN **No term available**

La capacità di agire, nell'ordinamento giuridico italiano, indica l'idoneità del soggetto a porre validamente in essere atti idonei ad incidere sulle posizioni giuridiche soggettive di cui è titolare.

Wikipedia

IT La capacità di agire, nell'ordinamento giuridico italiano, indica l'idoneità del soggetto a porre validamente in essere atti idonei ad incidere sulle posizioni giuridiche soggettive di cui è titolare.

[EXPLORE NETWORK](#)



- The ability to act is a set of “action” skills, such as having good standards of judgment, coping skills, communication skills, management skills, etc., which enable you to take suitable actions leading to a balance of critical elements (relationships, environment, etc.) in relation to the desired results.
- La capacità di agire è un insieme di abilità di "azione", come avere buoni standard di giudizio, capacità di coping, abilità comunicative, abilità di gestione, ecc., Che ti permettono di intraprendere azioni appropriate portando ad un equilibrio di elementi critici (relazioni, ambiente, ecc.) in relazione ai risultati desiderati.



BabelNet

ability to act

ENGLISH

ITALIAN

TRANSLATE

 [PREFERENCES](#)

No result found for **ability to act** in BabelNet.



[ABOUT](#)
[NEWS](#)
[PUBLICATIONS](#)

BabelNet has received funding from the European Research Council (ERC) under grant agreement No. 259234. Concept and design by [Roberto Navigli](#). **BabelNet** and its **API** are licensed under a [Creative Commons Attribution-Non Commercial-Share Alike 3.0 License](#). BabelNet is now a self-sustained project with [Babelscape](#) as its commercial support arm, thanks to which the project will be continued and improved over time.



You are using **BabelNet live** ■



- In United States and Canadian law, competence concerns the mental capacity of an individual to participate in legal proceedings or transactions, and the mental condition a person must have to be responsible for his or her decisions or acts.
- Nelle leggi degli Stati Uniti e del Canada, la competenza riguarda la capacità mentale di un individuo di partecipare a procedimenti o transazioni legali, e la condizione mentale di una persona deve essere responsabile delle sue decisioni o azioni.



Babelfy

[LOG IN](#) [REGISTER](#)

Competence concerns the mental capacity of an individual to participate in legal proceedings or transactions, and the mental condition a person must have to be responsible for his or her decisions or acts

Enable partial matches: ☒

ENGLISH

BABELFY!

[PREFERENCES](#)

English

Arabic

Chinese

French

German

Greek

Hebrew

Hindi

Italian

Japanese

Russian

[expanded view](#) | [compact view](#)

Concepts ☒ Named Entities ☐

Competence concerns the mental capacity of an individual to participate in legal proceedings or transactions , and the mental condition a person must have to be responsible for his or her decisions or acts

competence
The quality of being adequately or well qualified physically and intellectually

bear on
Be relevant to

Mental Capacity Act 2005
The Mental Capacity Act 2005 is an Act of the Parliament of the United Kingdom applying to England and Wales.
capacity
The power to learn or retain knowledge; in law, the ability to understand the facts and significance of your behavior
mental
Of or relating to the mind


individual
Characteristic of or meant for a single person or thing


participate
Share in something


proceeding
(law) the institution of a sequence of steps by which legal judgments are invoked

proceeding
(law) the institution of a sequence of steps by which legal judgments are invoked
legal
Of or relating to jurisprudence

IEEE Transactions on Magnetics
IEEE
Transactions on Magnetics is a peer-reviewed scientific journal that covers research on the basic physics of magnetism, magnetic materials, applied magnetics, magnetic devices, and magnetic data storage.

psychological state
(psychology) a mental condition in which the qualities of a state are relatively constant even though the state itself may be dynamic

Adolf Hitler
German Nazi dictator during World War II (1889-1945)
mental
Of or relating to the mind


person
A human being

responsible
Worthy of or requiring responsibility or trust; or held accountable

Family Health Care Decisions Act
The Family Health Care Decisions Act is a statute adopted in New York state in 2010 that had been pending before the legislature since 1994.

Mental Health Act 2007
The Mental Health Act 2007 is an Act of the Parliament of the United Kingdom.



Babelfy

[LOG IN](#) [REGISTER](#)

La competenza riguarda la capacità mentale di un individuo di partecipare a procedimenti o transazioni legali, e la condizione mentale di una persona deve essere responsabile delle sue decisioni o azioni.

Enable partial matches: ☒

ITALIAN

BABELFY!

[PREFERENCES](#)

English

Arabic

Chinese

French

German

Greek

Hebrew

Hindi

Italian

[all preferred languages](#)

[expanded view](#) | [compact view](#)

Concepts ☒ Named Entities ☐

La **competenza** **riguarda** la **capacità mentale** di un **individuo** di **partecipare** a **procedimenti** o **transazioni** **legali**, e la **condizione mentale** di una **persona** **deve** essere **responsabile** delle sue **decisioni** o **azioni**.

competence

The quality of being adequately or well qualified physically and intellectually

bear on

Be relevant to



intelligence

The ability to comprehend; to understand and profit from experience

capacity

The power to learn or retain knowledge; in law, the ability to understand the facts and significance of your behavior

mental

Involving the mind or an intellectual process

individual

A single organism

participate

Share in something



proceeding

(law) the institution of a sequence of steps by which legal judgments are invoked

Transazione

Nell'ordinamento civile italiano la transazione è il contratto con il quale le parti, facendosi reciproche concessioni, pongono fine ad una lite già incominciata o prevengono una lite che potrà sorgere tra di loro.

legal

Relating to or characteristic of the profession of law

psychological state

(psychology) a mental condition in which the qualities of a state are relatively constant even though the state itself may be dynamic

condition

A state at a particular time

mental

Involving the mind or an intellectual process



person

A human being

have

Be confronted with

responsible

Worthy of or requiring responsibility or trust; or held accountable

decision making

The cognitive process of reaching a decision

action

Something done (usually as opposed to something said)

- La competenza, in diritto, indica la sfera di poteri e facoltà attribuita ad un determinato soggetto, sia esso un organo o una persona fisica.
- The competence, in law, indicates the sphere of powers and faculties attributed to a specific subject, be it a body or a natural person.



LOG IN REGISTER

La competenza, in diritto, indica la sfera di poteri e facoltà attribuita ad un determinato soggetto, sia esso un organo o una persona fisica.

Enable partial matches: ☒

ITALIAN

BABELFY!

PREFERENCES

English

Arabic

Chinese

French

German

Greek

Hebrew

Hindi

Italian

Japanese

Russian

Spanish

expanded view | compact view

Concepts ☒ Named Entities ☐

La **competenza**, in **diritto**, indica la **sfera** di **poteri** e **facoltà** attribuita ad un **determinato** **soggetto**, sia esso un **organo** o una **persona fisica**.

competence

The quality of being adequately or well qualified physically and intellectually



law

The collection of rules imposed by authority

area

A particular environment or walk of life



Enabling Act of 1933

The Enabling Act was a 1933 amendment to the Weimar Constitution that gave the German Cabinet -- in effect, Chancellor Adolf Hitler -- the power to enact laws without the involvement of the Reichstag.

IT Facoltà

IT La facoltà è la situazione giuridica soggettiva del soggetto di diritto che può tenere un determinato comportamento consentito dalla norma.

certain

Definite but not specified or identified

IT Soggetto di diritto

IT Il soggetto di diritto è, nel diritto, un essere o entità che in un determinato ordinamento giuridico può essere parte di rapporti giuridici ed è quindi destinatario delle norme dello stesso ordinamento.

IT Organo

IT Organo di una persona giuridica è la persona fisica o l'insieme di persone fisiche che agisce per essa, compiendo atti giuridici.

Natural person

In jurisprudence, a natural person is a real human being, as opposed to a legal person, which may be a private or public organization.



person

A human being

physical

Involving the body as distinguished from the mind or spirit



[LOG IN](#) [REGISTER](#)

The competence, in law, indicates the sphere of powers and faculties attributed to a specific subject, be it a body or a natural person.

Enable partial matches: ☒

ENGLISH

BABELFY!

[PREFERENCES](#)

English

Arabic

Chinese

French

German

Greek

Hebrew

Hindi

Italian

Japanese

Russian

[+ all preferred languages](#)

[expanded view](#) | [compact view](#)

Concepts ☒ Named Entities ☐

competence, in law, indicates the sphere of powers and faculties attributed to a specific subject, be it a body or a natural person.

competence

The quality of being adequately or well qualified physically and intellectually



law

The collection of rules imposed by authority



point

Indicate a place, direction, person, or thing; either spatially or figuratively



sphere of influence

The geographical area in which one nation is very influential



power

Possession of controlling influence



faculty

The body of teachers and administrators at a school

ascribe

Attribute or credit to

specific

(sometimes followed by `to') applying to or characterized by or distinguishing something particular or special or unique



subjectivism

(philosophy) the doctrine that knowledge and value are dependent on and limited by your subjective experience

body

A group of persons associated by some common tie or occupation and regarded as an entity

Natural person

In jurisprudence, a natural person is a real human being, as opposed to a legal person, which may be a private or public organization.

natural

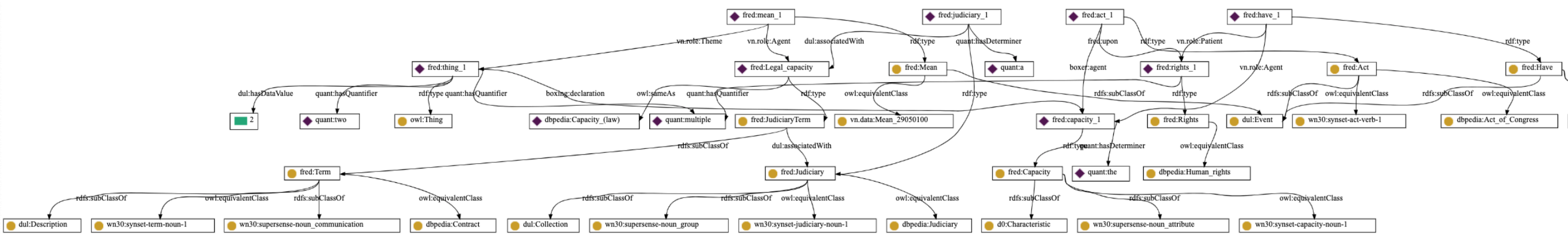
In accordance with nature; relating to or concerning nature



person

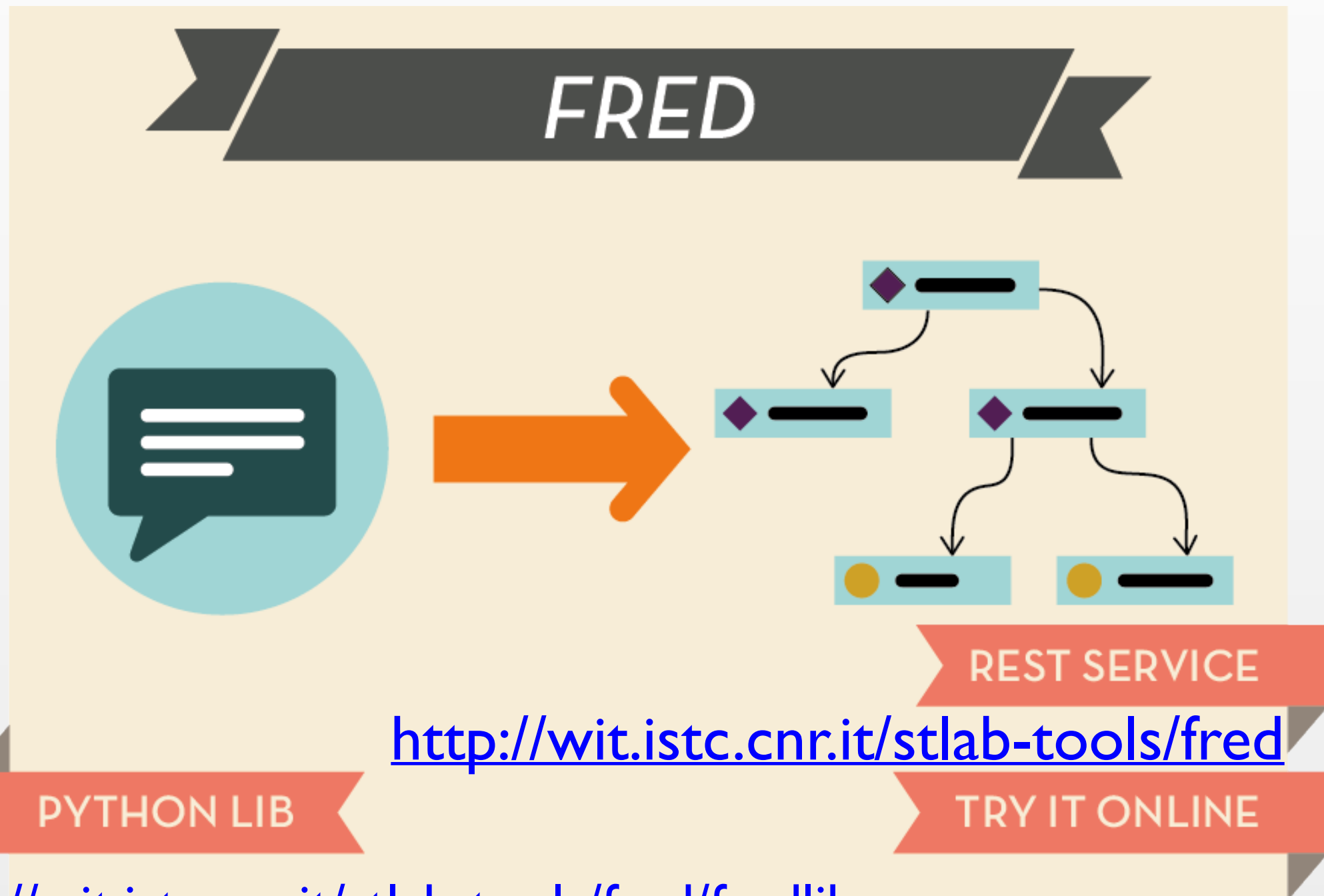
A human being

- “Legal capacity” is a judiciary term that means two things: the capacity to have rights and the capacity to act upon those rights.
- "Capacità giuridica" è un termine giudiziario che significa due cose: la capacità di avere diritti e la capacità di agire su tali diritti.





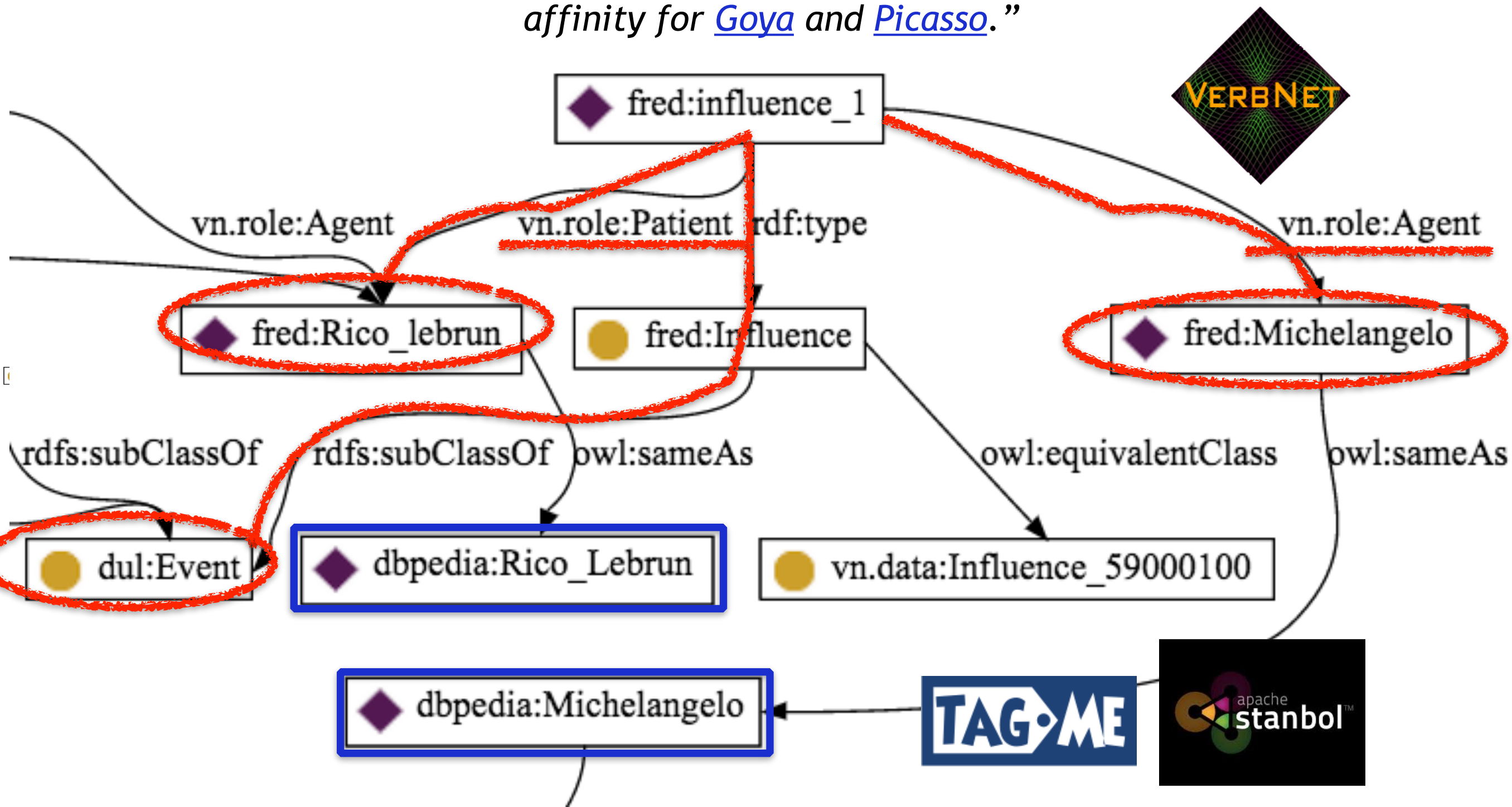
FRED: SW machine reader



<http://wit.istc.cnr.it/stlab-tools/fred/fredlib>

Frame-based formal representation

“[Rico Lebrun](#) taught [visual arts](#) at the [Chouinard Art Institute](#) and at the [Disney Studios](#). He was influenced by [Michelangelo](#) and maintained a lifelong affinity for [Goya](#) and [Picasso](#).”



Linguistic-Factual Knowledge Graphs

- Linguistic-Factual Knowledge Graphs are an integration of ontologies, factual data, and linguistic resources
- Framester is such a graph, based on a formal *frame semantics*
- <https://github.com/framester/Framester/wiki/Framester-Documentation>

WordNet-RDF

```
wn30instances:synset-anti-G_suit-noun-1
```

```
wn30schema:containsWordSense
```

```
wn30instances:wordsense-anti-G_suit-noun-1 ,
```

```
wn30instances:wordsense-G_suit-noun-1 ;
```

```
wn30schema:gloss "worn by fliers and astronauts to  
counteract the forces of gravity and acceleration" .
```

FrameNet-RDF

```
frame:Clothing rdf:type fn15schema:Frame ;  
  rdfs:subClassOf frame:Artifact ;  
  fn15schema:isUsedBy frame:Clothing_parts ;  
  skos:closeMatch wn30instances:synset-kilt-noun-1 , bn:s00034507n ;  
  fn15schema:hasFrameElement fe:Garment.clothing , fe:Material.clothing, fe:Style.clothing,  
  fe:Wearer.clothing, fe:Body_location.clothing, fe:Creator.clothing, fe:Name.clothing,  
  fe:Subregion.clothing, fe:Time_of_creation.clothing, fe:Use.clothing, fe:Descriptor.clothing  
vndata:Cloak_90800000 skos:closeMatch frame:Clothing .  
frame:Artifact fn15schema:isInheritedBy frame:Clothing .  
predmatrix:cloak.01.21 pmschema:13_FN_FRAME frame:Clothing .
```

BabelNet2Framester

- bn:s00004603n lemon:isReferenceOf
bn:G_suit_EN/s00004603n .
- bn:G_suit_EN/s00004603n owl:sameAs
wn30instances:wordsense-G_suit-noun-1 .
- bn:s00004603n fschema:isUnaryProjectionOf
frame:Clothing , ... ,

Anti-G suit, G suit

Worn by fliers and astronauts to counteract the forces of gravity and acceleration

42
pictures

77.05%
Popularity
Percentile

 Wordnet
IDs

 Numbers in brackets: (the number of synsets in the subtree).

ImageNet 2011 Fall Release (32326)

- plant, flora, plant life (4486)
- geological formation, formation (17)
- natural object (1112)
- sport, athletics (176)
- artifact, artefact (10504)
 - instrumentality, instrumentation
 - structure, construction (1405)
 - paving, pavement, paving material
 - creation (650)
 - sheet, flat solid (115)
 - layer, bed (13)
 - facility (4)
 - lemon, stinker (0)
 - fabric, cloth, material, textile (2)
 - covering (1013)
 - thumb (0)
 - imbrication, overlapping, lap
 - finger (0)
 - folder (2)
 - upholstery (0)
 - artificial skin (0)
 - mask (2)
 - cover plate (0)
 - paddle box, paddle-box (0)
 - chafing gear (0)
 - hood, exhaust hood (1)
 - cloak (0)
 - canopy (0)
 - flap (14)
 - wrapping, wrap, wrapper (11)

Treemap Visualization

Images of the Synset

Downloads

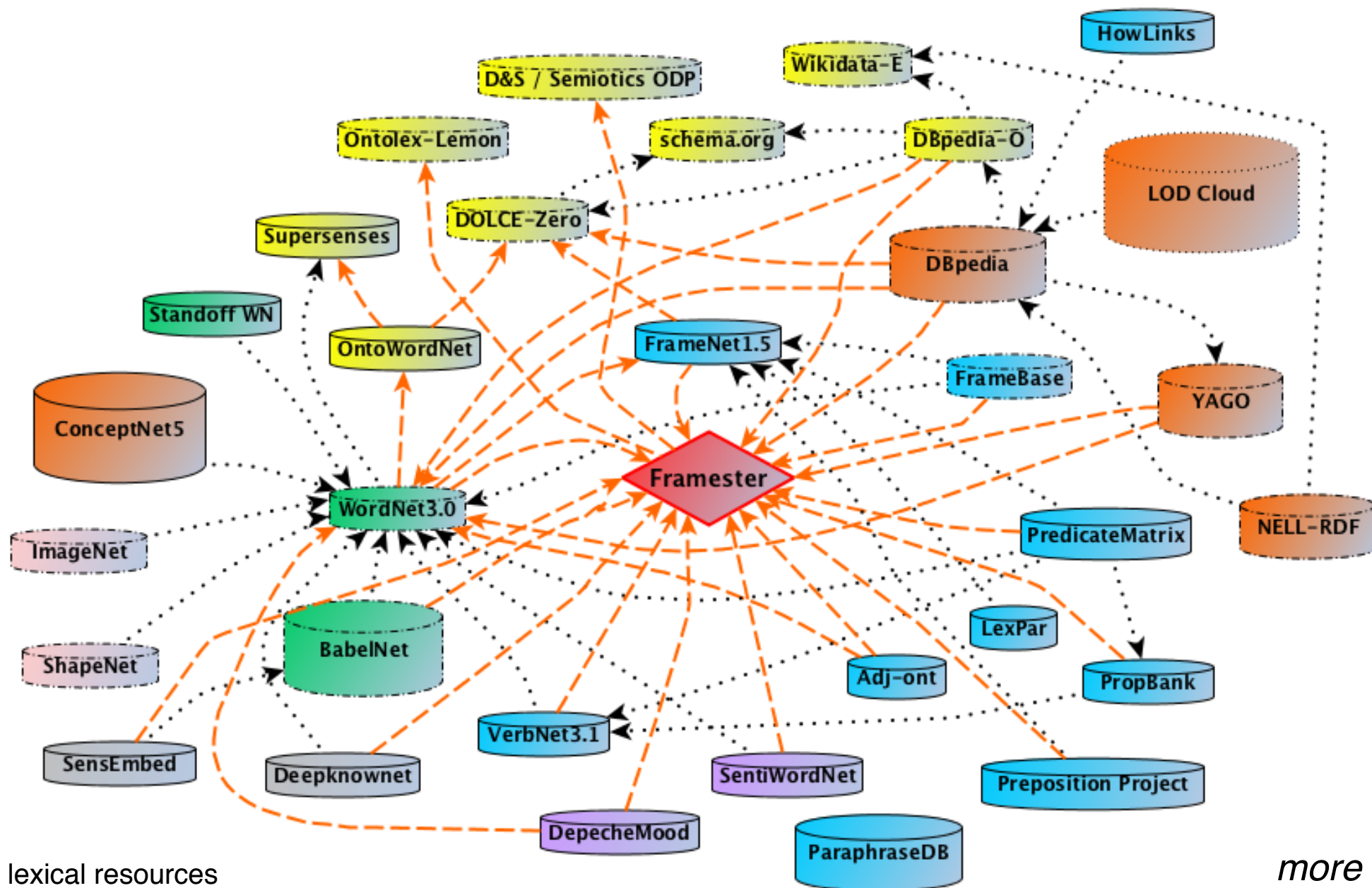


*Images of children synsets are not included. All images shown are thumbnails. Images may be subject to copyright.

Prev 1 2 Next

◀ Framester

A semiotic hub for knowledge graph interoperability



*more stuff is being
added and linked*

Compositionality

- While we could arrive at isolated frame alignments across languages, there is still another level of interoperability, which such resources do not address: the compositional usage of terms
- Let's consider the legal domain: “servizio militare femminile” can have one frame that is stable across languages: military role played by: female (specialisation of “servizio militare”), however, in different countries legislations may vary in how such frame is operationalised, perceived, gets statistical significance, etc. This depends on the overall dependencies existing within legislative and cultural “frame systems”
- Similarly with Senato, responsabilità civile, capacità di intendere e di volere (vs. agire), etc.

- A valuable challenge for the EU would be to give room to such differences, and use them to the benefit of the ultimate goal: social interoperability
- A consequence of knowledge technologies and AI: explainability implies (at least some) complexity