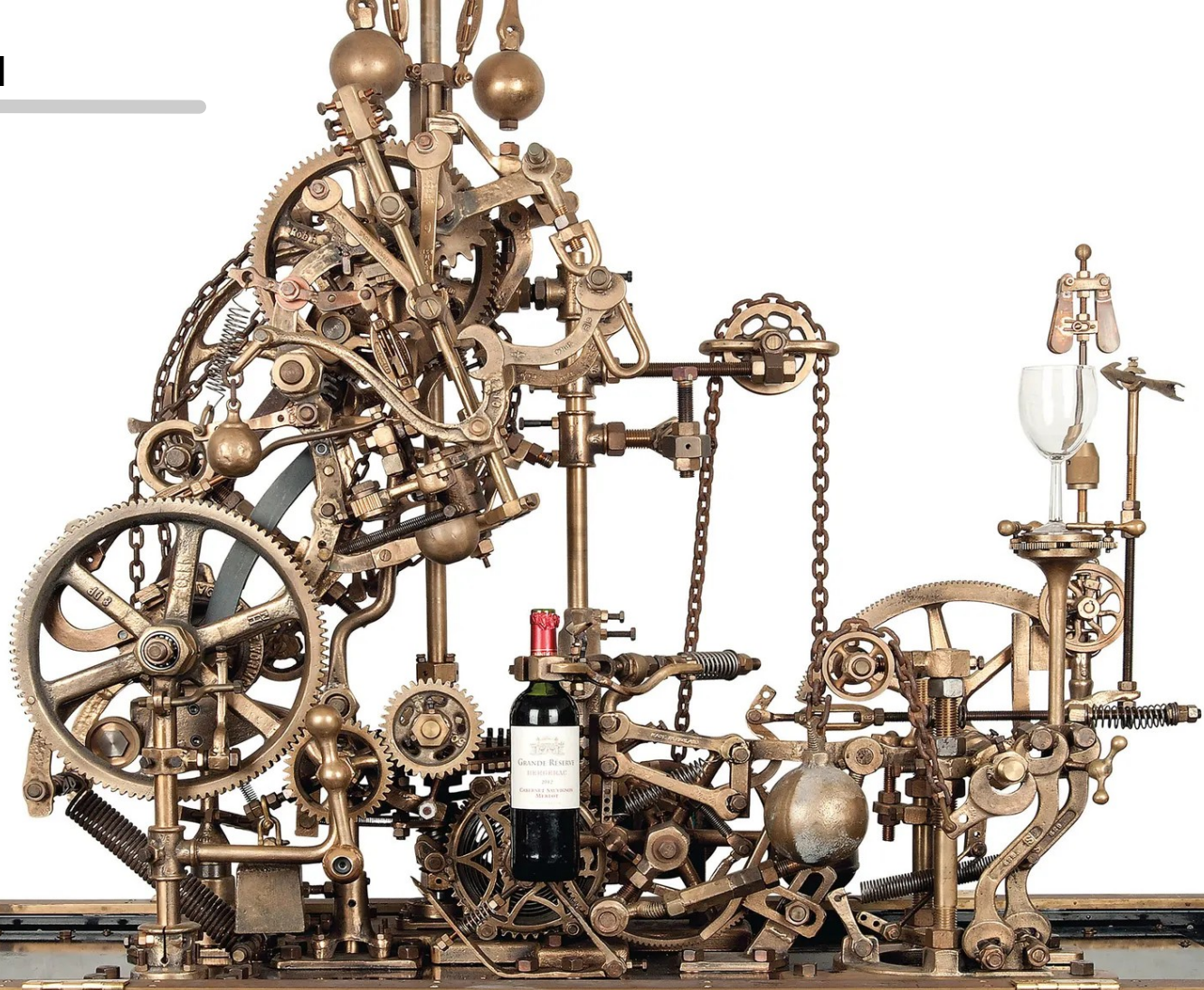


Wikibase4Research

Wikibase for RDM

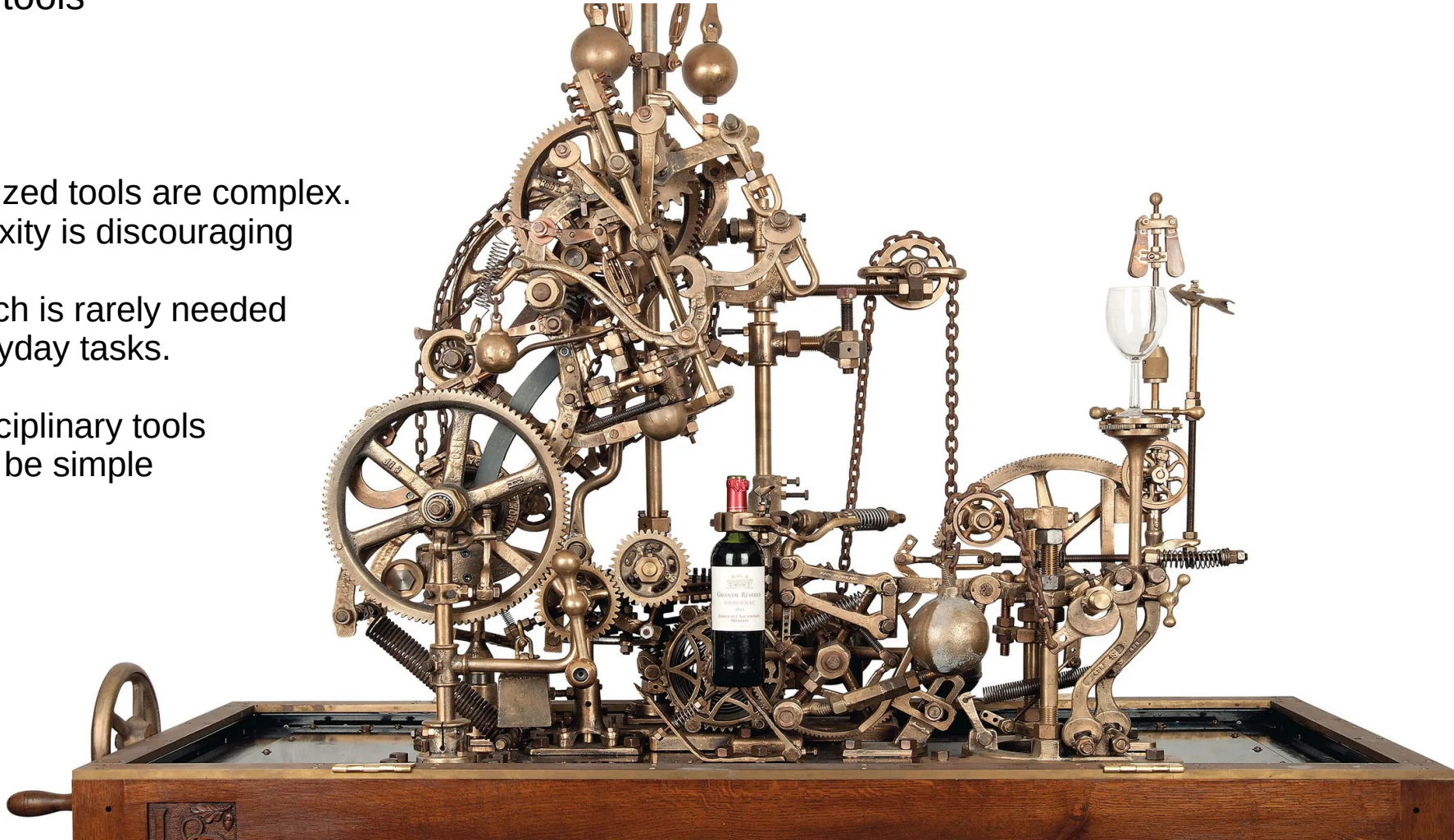
Specialized tools



Wikibase for RDM

Specialized tools

- Specialized tools are complex. Complexity is discouraging
- High-tech is rarely needed for everyday tasks.
- Interdisciplinary tools need to be simple

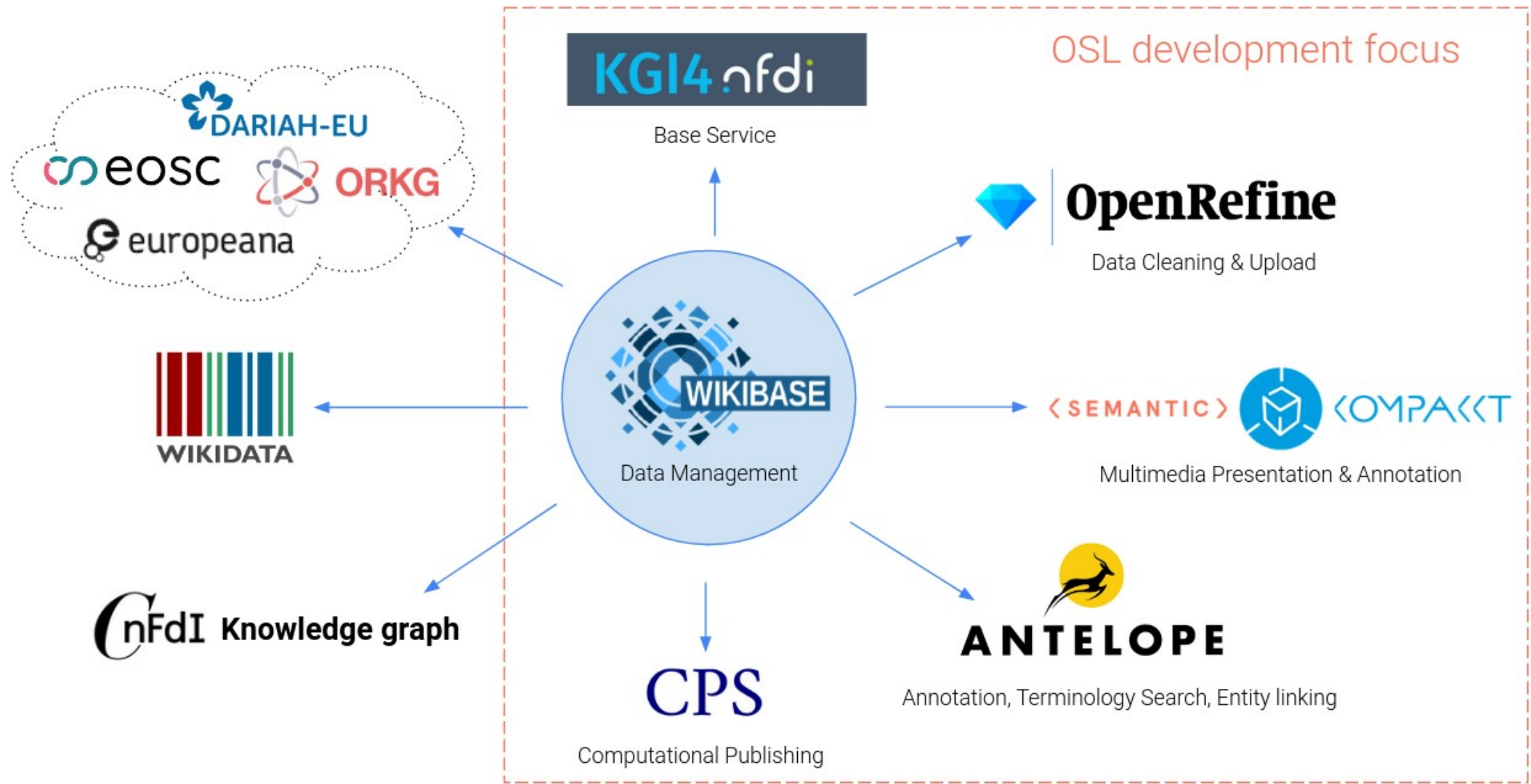




Usability vs. Functionality

- Good tools are fun
- Usability also means: hiding functions
- User interface and workflows are the focus
- Domain-specific solutions instead of a 'jack of all trades'

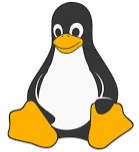




Wikibase4Research

„We just need a database and a simple frontend“

Environment



Linux



Webserver



Framework



MediaWiki

Extensions



Semantic
MediaWiki

Semantic
Wikibase



Mediawiki
Extensions
(1493)

Services



OpenRefine



WBJobrunner



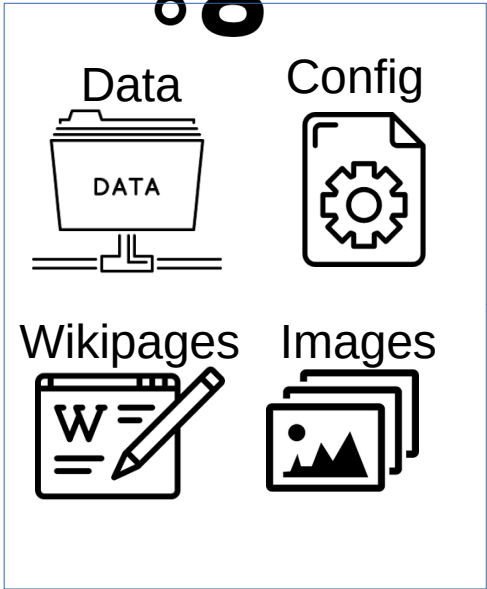
WDQS



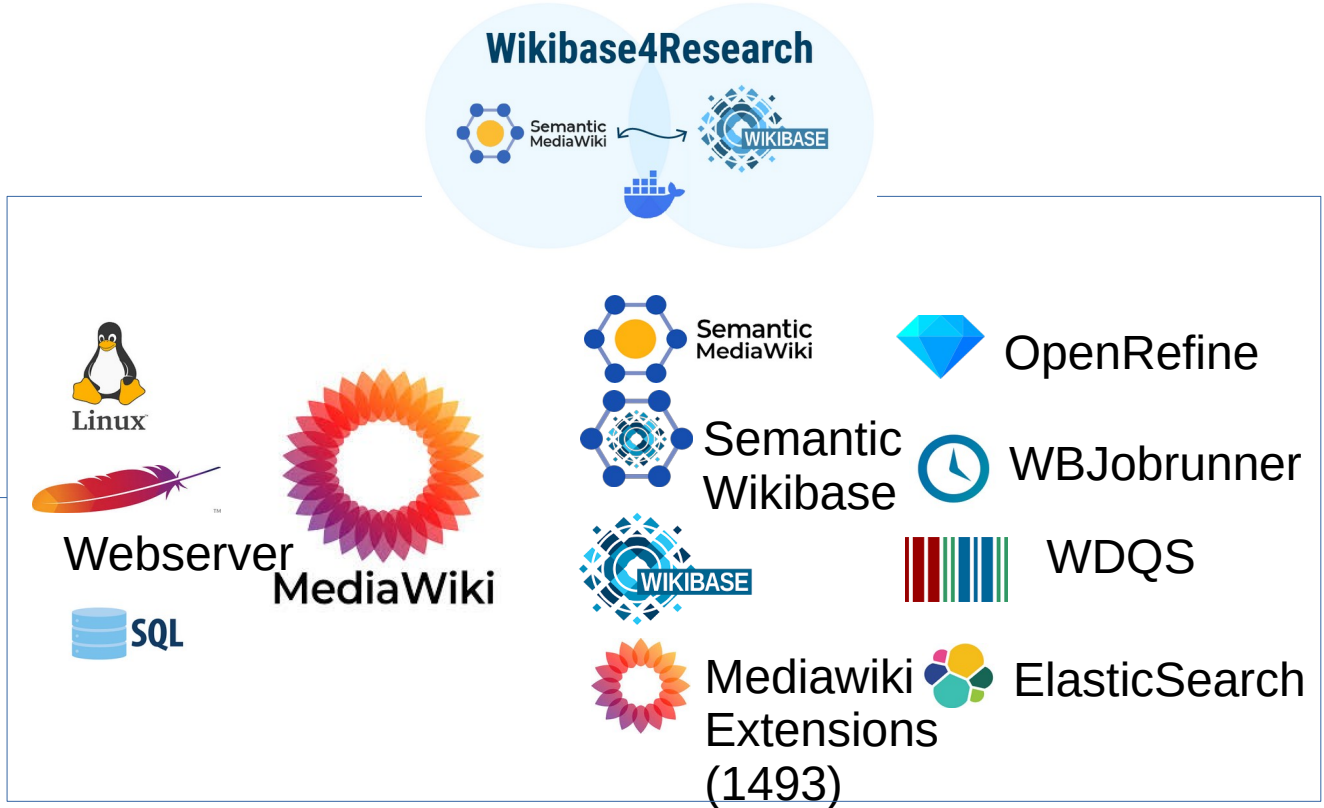
ElasticSearch

Wikibase4Research

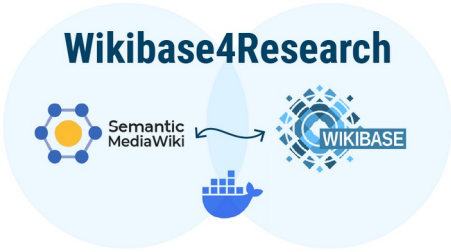
Wikibase4Research



Your project




Your tool




Semantic Wikibase

Wikibase frontend

- DB view on items
- Design not customizable
- No Item Aggregation
- Data view/editing in a single page



Herrenhauszentrum
des Ostseeraums

ÜBER ERGEBNISSE HERRENHÄUSER MENSCHEN VISUALISIERUNGEN 

Plüggentin (Q1000)

main building in the Plüggentin estate in Plüggentin, Mecklenburg-Vorpommern, Germany *English*



[In weiteren Sprachen](#)
Konfigurieren

Sprache	Bezeichnung	Beschreibung	Auch bekannt als
Deutsch	Plüggentin	Keine Beschreibung vorhanden	
English	Plüggentin	Main building in the Plüggentin estate in Plüggentin, Mecklenburg-Vorpommern, Germany	

[Zuordnungen zu anderen Ontologien](#)

Aussage	URL	
---------	-----	--

Aussagen

instance of <i>English</i>	 Human-Made Object <i>English</i> 0 Fundstellen
Art des Eigentums	 privat 0 Fundstellen

Wikibase4Research

Semantic Wikibase

- Interactive website from DB
- Lots of visualisation modules
- Semantic queries



ÜBER ERGEBNISSE HERRENHÄUSER MENSCHEN VISUALISIERUNGEN

Herrenhäuser durchsuchen



Stola

Forschungsstand



Abfrage ausführen: Häusersuche

Name des Herrenhauses

Besitzer

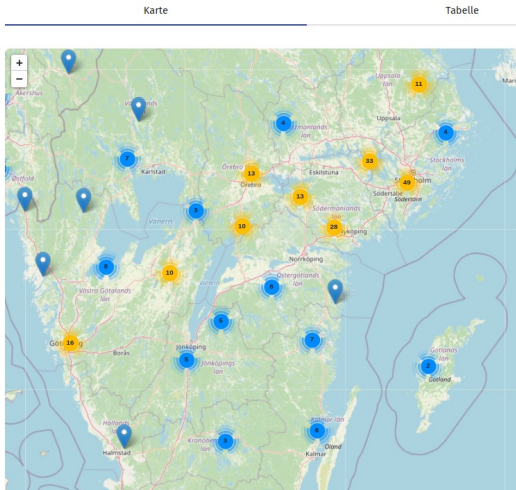
preserved (en), erhalten (de)

Art

Funktion

Land

FILTERN



Besitzende im 18. Jahrhundert Eckdaten

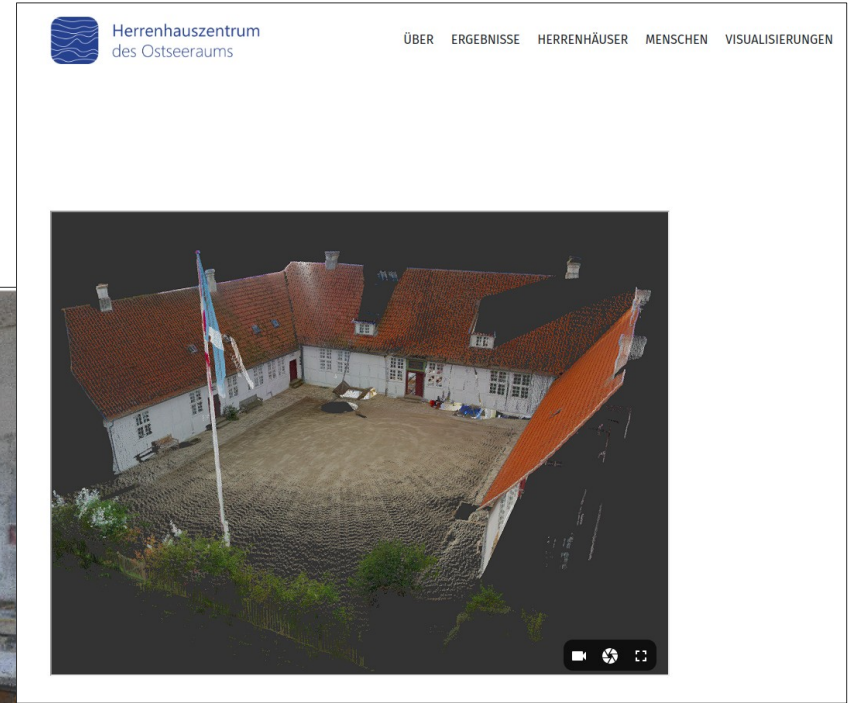
- 1737 Claes Ekeblad the younger (en)
- 1741 Eva de la Gardie (en)
- 1771 Claes Julius Ekeblad (en)
- 1771 Brita Margareta Horn af Ekebyholm (en)

Name: **Stola herrgård (sv), Stola estate (en)**
Baujahr: **1129 ^{JL}**
Ort: **Stola (en)**
Land: **Sweden (en), Schweden (de)**
Zustand: **partly preserved (en)**

Wikibase4Research

Semantic Kompakt

- Semantic annotation of 3D Data
- Interactive viewer / editor
- Wikibase connection
- SMW integration
- Meshdata & pointclouds



Wikibase4Research

Data federation

- Mapping data to federated db
- Decision support tools
- Bulk data processing



Herrenhauszentrum des Ostseeraums

ÜBER ERGEBNISSE HERRENHÄUSER MENSCHEN VISUALISIERUNGEN

Menschen

Besitzer von Herrenhäusern mit Daten des Eigentums

item	itemLabel	estate	estateLabel	date
Q5922	Abraham Grill	Q5287	Österbybruk estate	1758/1823
Q6113	Adrian Bernhard von Borcke	Q5404	Stargordt estate	1717/1741
Q6643	Anders Hansson	Q4817	Stola estate	/1543
Q6551	Anna Christoffersdotter	Q4817	Stola estate	1600/1648
Q5925	Anna Johanna Grill	Q5287	Österbybruk estate	1790/1802
Q5956	Anne Marie Gris	Q6376	Fossesholm estate	1710/1760
Q6277	Arthur Wilhelm Otterström	Q4817	Stola estate	1908/1916
Q6398	Bernt Aviker	Q3743	Halslund estate	1774/1778
Q6178	Brita Claesdotter Uggla	Q4817	Stola estate	1648/1651
Q6248	Brita Margareta Horn af Ekelyholm	Q4817	Stola estate	1771/1791
Q6454	Carl Adolf von Plessen	Q3796	Gunderslevholm estate	1758/1803
Q6454	Carl Adolf von Plessen	Q3796	Gunderslevholm estate	1725/1758

Föderierte Abfrage nach Personen aus der Herrenhauszentrum-Datenbank mit entsprechenden Einträgen in Wikidata und Factgrid, einschließlich Bildern und Factgrid IDs

A grid of ten portrait images of historical figures. Each image is accompanied by a Wikidata ID (Q...) and a FactGrid ID (Q...). The figures are: 1. Adem Horn (Q177603), 2. Pehr Hilleström (Q177401), 3. Adolph Fredrik Barnekow (Q509674), 4. Adolph Fredrik of Sweden (Q509674), 5. Gustaf Lundberg (Q509674), 6. Adolf Ludvig Piper (Q178447), 7. Adrienne Lafajette (Q147341), 8. Alexander Pope (Q76445), 9. Alexander Roslin (Q833488), 10. Anastasie de Mottet de Lafajette (Q100597), 11. Anders Johan von Höpken (Q176442).



Terminology search + results visualization and export

TERMINOLOGY SEARCH ENTITY LINKING IMAGE RECOGNITION

Type the term you want to search for (single word or phrase):

SELECT TERMINOLOGY SOURCES

- WIKIDATA
- WIKIDATA + DBpedia
- ICONCLASS
- GND (Gemeinsame Normdatei)
- TIB Terminology Service

SETTINGS

- Allow class duplicates

SEARCH **RESET**

GRAPH TABLE

Entity linking with possibility for user-defined dictionary

TERMINOLOGY SEARCH **ENTITY LINKING** IMAGE RECOGNITION

Type the text you want to run entity linking on (single words or whole sentences):

SELECT DICTIONARY:

CUSTOM PREDEFINED

LIST OF ENTITIES SIMPLE DICTIONARY EXTENDED DICTIONARY

```
{
  "entity1": {
    "label": "choreographer", "patterns": [ "pina bausch" ], "kb_id": "entity1", "kb_url": "entity1_url"
  }
}
```

SETTINGS:

Similarity radius: wide ——— narrow

- Allow class duplicates

SEARCH **RESET**

Image recognition support for entity linking via iArt

TERMINOLOGY SEARCH ENTITY LINKING **IMAGE RECOGNITION**

Durchsuchen... ahne_30035221_44_0000_601.webp

Optional image description:

SELECT DICTIONARY:

CUSTOM PREDEFINED

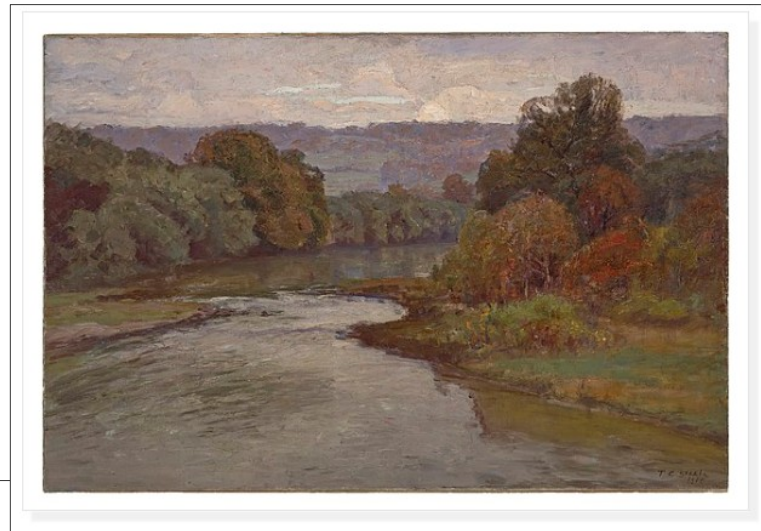
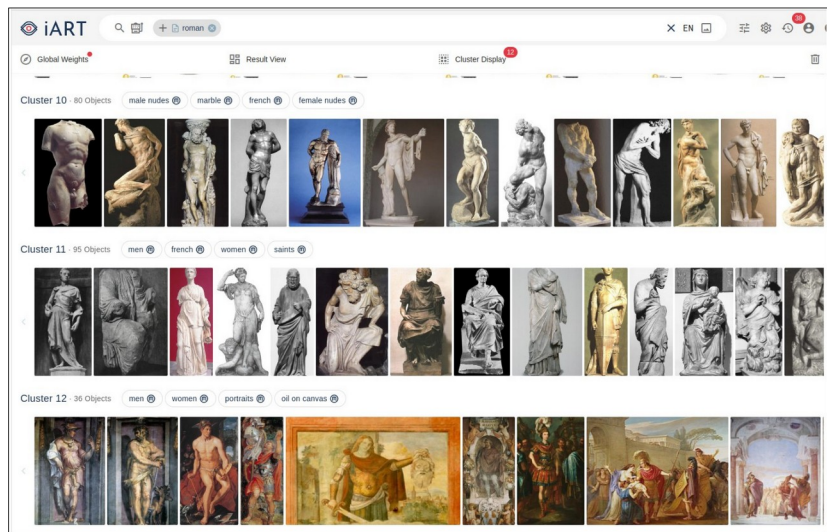
LIST OF ENTITIES SIMPLE DICTIONARY EXTENDED DICTIONARY

"performers", "Pina Bausch", "stage", "cacti"

Wikibase4Research

ANTELOPE – Image recognition

- iART functionality included
- Image/Text classification
- Supports custom terminologies



Entity

Similarity Score

23F44: autumn landscape; landscape symbolizing autumn (the four seasons of the year)

0.759

23L41: landscape symbolizing October

0.746

23L42: landscape symbolizing November

0.745

24A720: 'Equinottio dell'autunno' (Ripa)

0.744

23D44: autumn, fall, 'Autumnus'; 'Autunno' (Ripa)

0.741

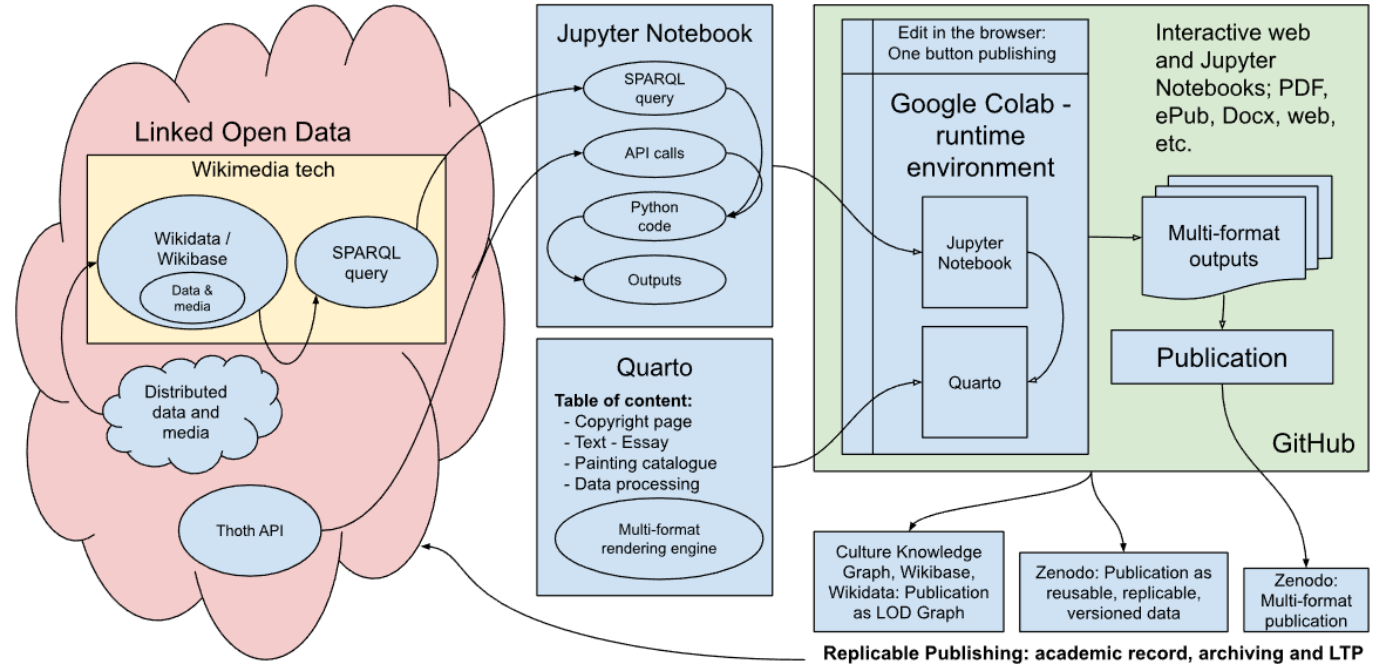
23L33: landscape symbolizing September

0.737

CPS

Computational publishing service

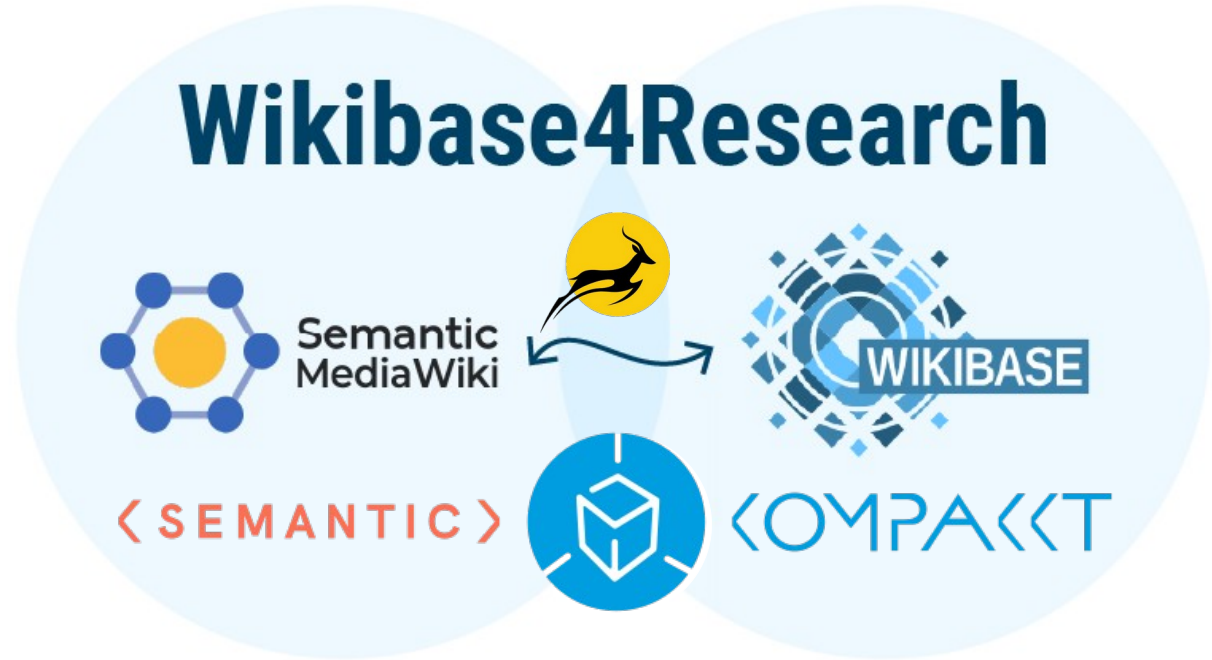
Use jupyter notebooks to
publish directly from wikibase



Wikibase4Research

Outlook

- Seamless Integration between Wikibase / ANTELOPE
- Integration of TS4NFDI
- Customizable AI Models
- Chatbot and LLM integration
- 3D image recognition in semantic kompakt



Wikibase4Research

<https://gitlab.com/nfdi4culture/wikibase4research/wikibase4research>

ANTELOPE

<https://service.tib.eu/annotation>

Computational publishing service

<https://gitlab.com/nfdi4culture/computational-publishing-service>