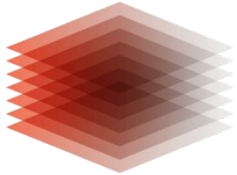
Leibniz Universität Hannover

LEIBNIZ INFORMATION CENTRE
FOR SCIENCE AND TECHNOLOGY
UNIVERSITY LIBRARY

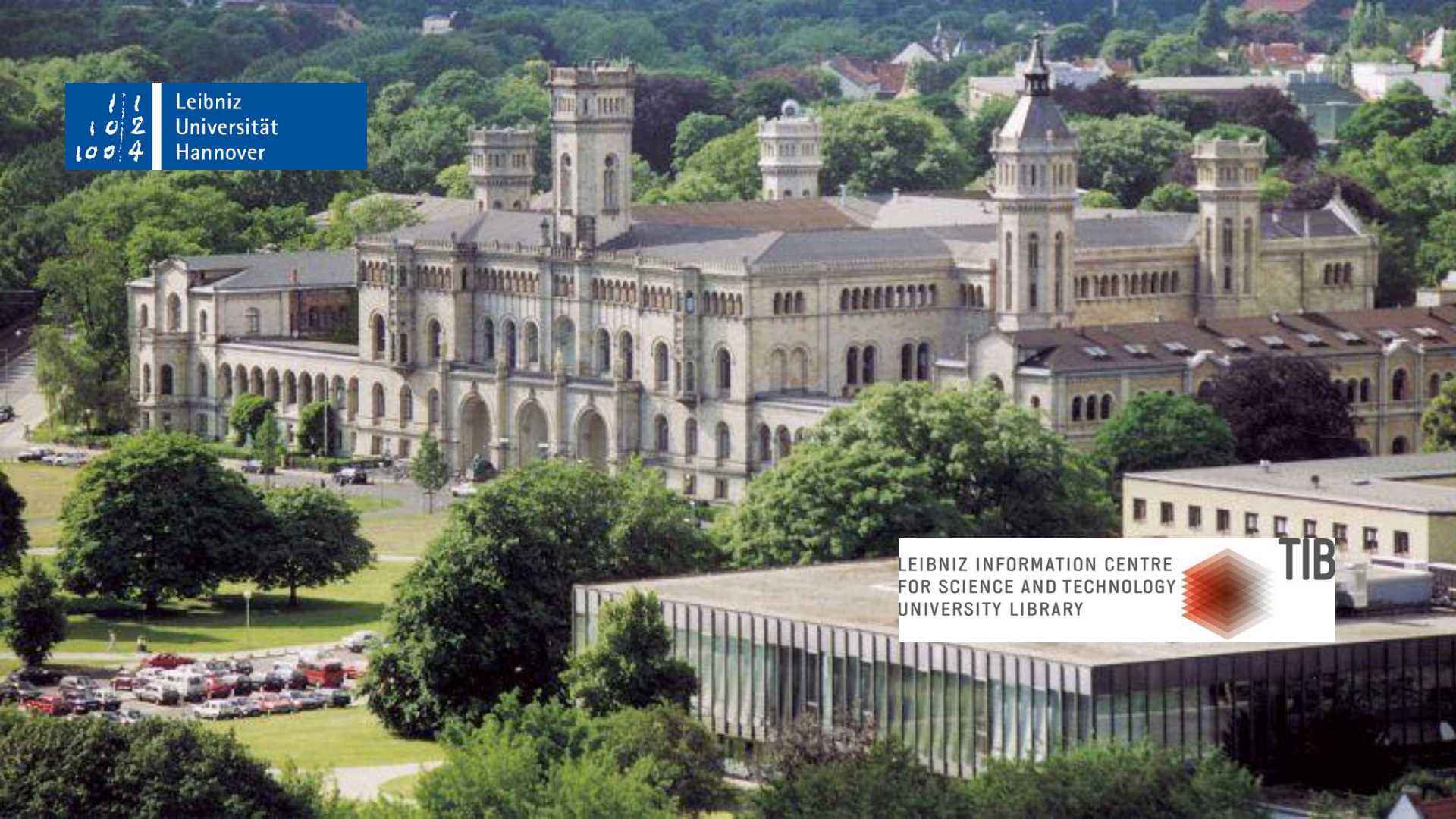


TIB

Semantische Infrastrukturen für das digitale Kulturerbe: Wissensgraphen, KI und nachhaltige Nachnutzung

Sören Auer

Kulturpool Stakeholder Forum 2026, 5.-6. Mai


Leibniz
Universität
Hannover
LEIBNIZ INFORMATION CENTRE
FOR SCIENCE AND TECHNOLOGY
UNIVERSITY LIBRARY
TIB

Gottfried Wilhelm Leibniz
* 21. Juni/ 1. Juli 1646 in Leipzig
† 14. November 1716 in Hannover

Leibniz Universität Hannover

Library of

Namesake

Namesake

Leibniz Association

Member of

TIB

Why not only LLMs

LLMs Confabuate

DALL·E 3

You are a journalist. Write a summary of the developments around the widely publicized scandal involving Prof. Auer.

‹ 7 / 7 ›

Send a message

ChatGPT may produce inaccurate information about people, places, or facts. ChatGPT September 25 Version

Developments Surrounding the Prof. Auer Scandal

In recent weeks, the academic community and the general public have been rocked by revelations surrounding the controversial Prof. Auer scandal. The scandal initially came to light when several anonymous sources leaked internal documents, pointing to potential misconduct in Prof. Auer's research. The allegations primarily revolved around data manipulation, plagiarism, and misappropriation of research funds.

Soon after the leak, multiple academic institutions distanced themselves from Prof. Auer, with some retracting his published works. Notably, three co-authors on various papers penned by Prof. Auer issued statements of their own, clarifying their roles and expressing their shock at the unfolding situation.

The academic community has since been divided, with some defending Prof. Auer, citing his previously unblemished record and contributions to the field. Others have called for a thorough and transparent investigation into the matter. Several students and postdocs under Prof. Auer's mentorship have also come forward, sharing their experiences – some in support and others detailing instances of alleged unethical behavior.

While Prof. Auer initially remained silent, he recently held a press conference vehemently denying all allegations. He stated that he has been the target of a coordinated attack aimed at tarnishing his reputation and vowed to take legal actions against those responsible for the leaks.

Currently, an independent committee is reviewing all of Prof. Auer's research. Their findings are eagerly anticipated and are expected to play a crucial role in shaping public opinion and determining the future of Prof. Auer's academic career. The scandal serves as a sobering reminder of the importance of integrity and transparency in academia.

Large Language Models Hallucinate

Without context information **LLMs will just make up wrong information** based on the statistical probabilities

deepseek

You are a journalist. Write a summary about the widely publicized scandal involving Professor Sören Auer.

Based on the statistical probability of the keywords **scandal** and **professor**, the LLM generates text around **data manipulation, plagiarism and misappropriation of research funds**

Summary of the Sören Auer Scandal: A Breach of Trust in the Academic AI Community

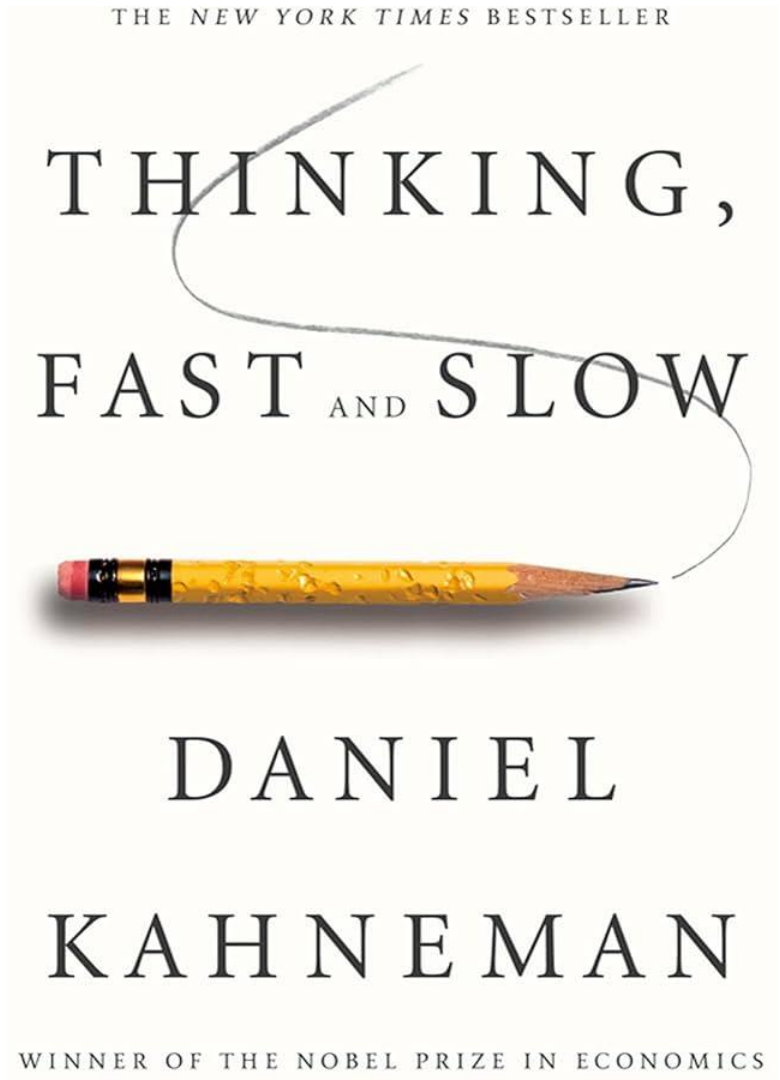
FOR IMMEDIATE RELEASE

[Dateline: Berlin/Hannover] The European academic and research community is grappling with a significant scandal involving one of its most prominent figures in the field of data science and semantic web, Professor Sören Auer. The allegations, which first came to light through investigative reporting by German media, primarily center on a serious breach of academic integrity and a profound conflict of interest during his tenure as Director of the TIB – Leibniz Information Centre for Science and Technology and Professor at Leibniz University Hannover.

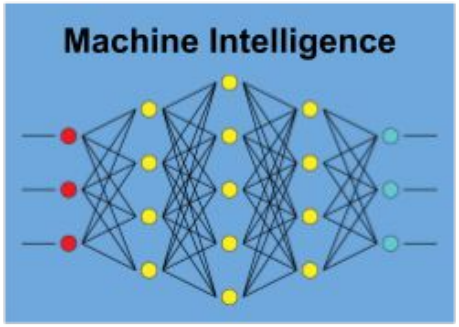
The Core Allegations:

The scandal erupted when it was revealed that Professor Auer had secretly co-founded and held a significant stake in a for-profit AI startup, **KonnecS**, while simultaneously leading publicly-funded research projects at TIB. The core of the controversy lies in the alleged misuse of his position and public resources for private gain. Key allegations include:

1. **Misuse of Public Funds and Resources:** Auer is accused of using TIB staff, facilities, and infrastructure—all funded by German public money—to conduct research and development that directly benefited his private company, KonnecS.
2. **Failure to Disclose Conflict of Interest:** He failed to declare this major financial interest to his employer, the TIB, and to research grant-awarding bodies. This lack of transparency violated the fundamental principles of academic integrity and the specific codes of conduct of his institutions.
3. **"Double-Dipping" on Salaries:** Investigations suggest Auer may have drawn his full public salary as a director while dedicating substantial working hours to his private enterprise, a practice colloquially known as "double-dipping."
4. **Overlap in Research Focus:** The research focus of KonnecS (AI and knowledge graphs) overlapped significantly with the core research missions of the TIB, creating a direct and irreconcilable conflict between his public duty and private ambition.



Generative AI thinks fast, but can not think slow



Connecting KG graphlets with ML models

Both tend to hallucinate

To mitigate human brain deficiencies we have:

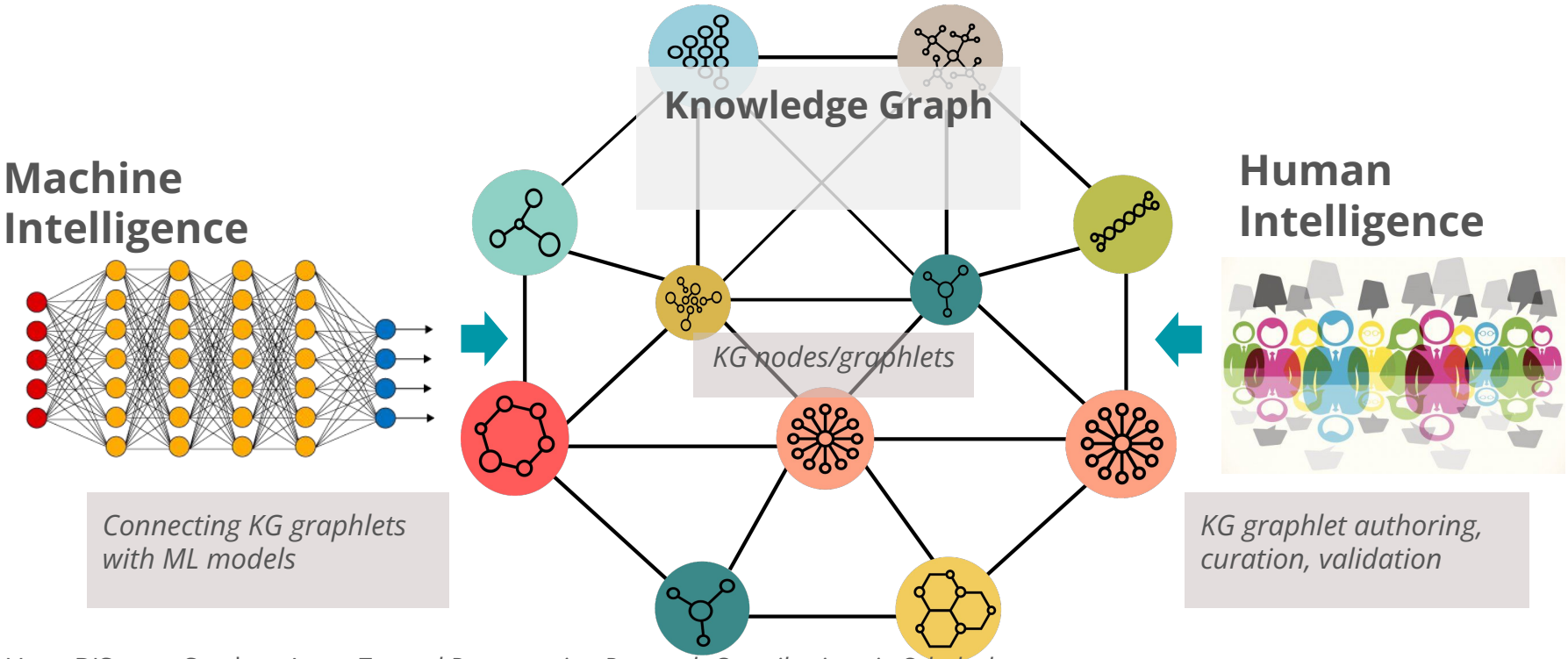
Peer-reviewed books, articles, curated databases, experiements, simulations, …

KG graphlet authoring, curation, validation

Integration of Machine Learning and Semantic Knowledge Representation
□ Neuro-Symbolic AI

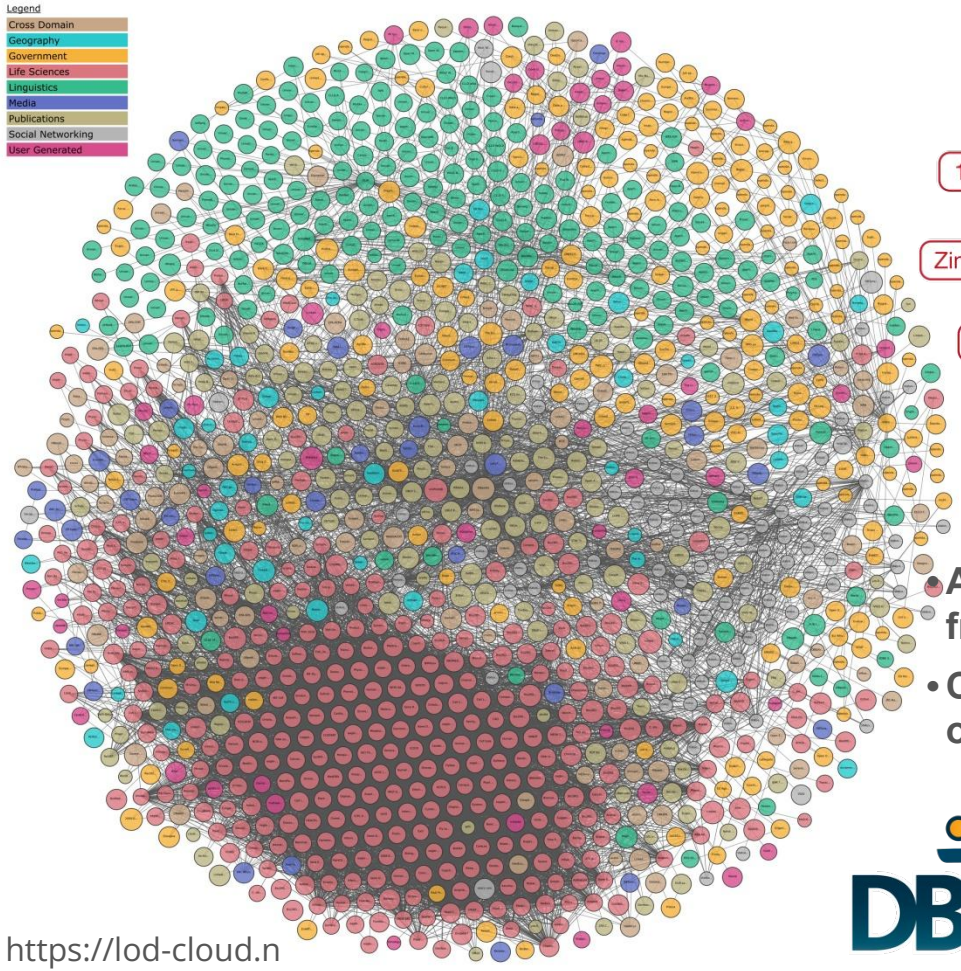
Neuro-Symbolic AI with Knowledge Graphs

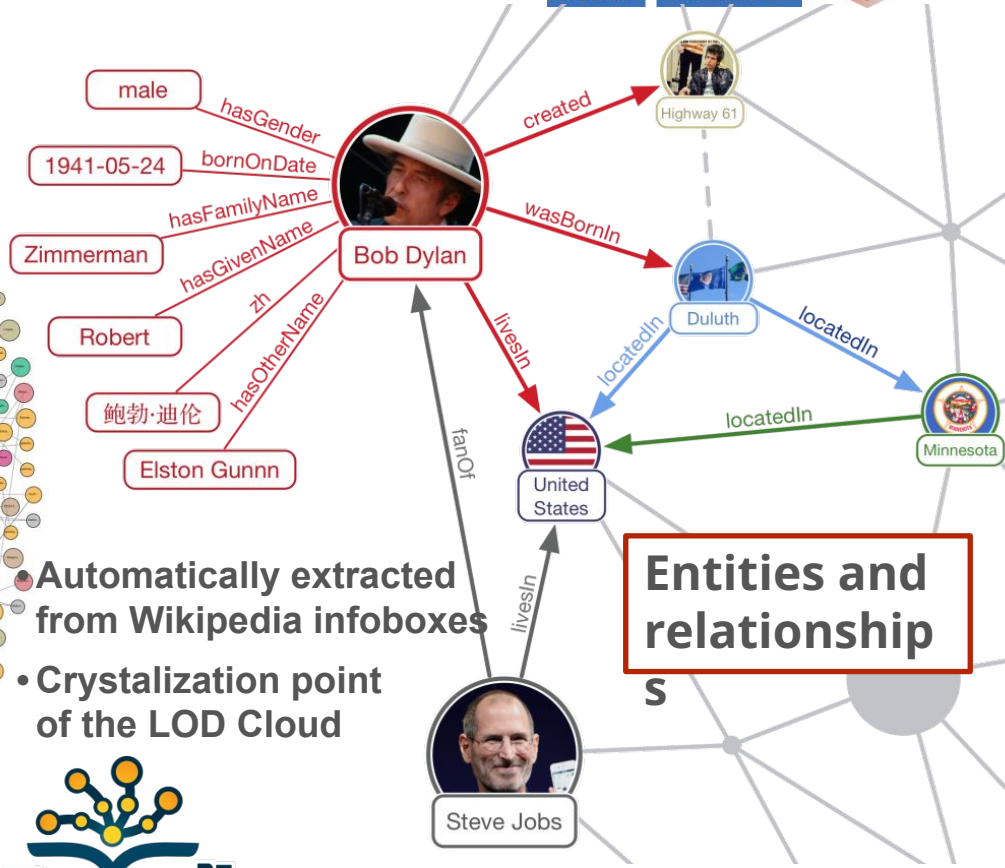
Combining neural machine learning models with symbolic knowledge graph representations makes AI more **transparent, trustworthy and reliable** and enables **human oversight**



Vogt, D'Souza, Stocker, Auer: *Toward Representing Research Contributions in Scholarly Knowledge Graphs Using Knowledge Graph Cells.* JCDL 2020: 107-116

Knowledge Graph Example: DBpedia





- Automatically extracted from Wikipedia infoboxes
- Crystalization point of the LOD Cloud

Entities and relationships

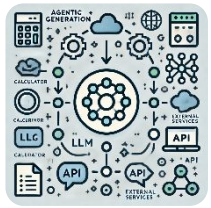
https://lod-cloud.n

Pathway to Artificial General Intelligence

LLM
- Language model is used in isolation
- Lacks factual knowledge

Retrieval Augmented Generation
- Retrieves unstructured information to augment answers

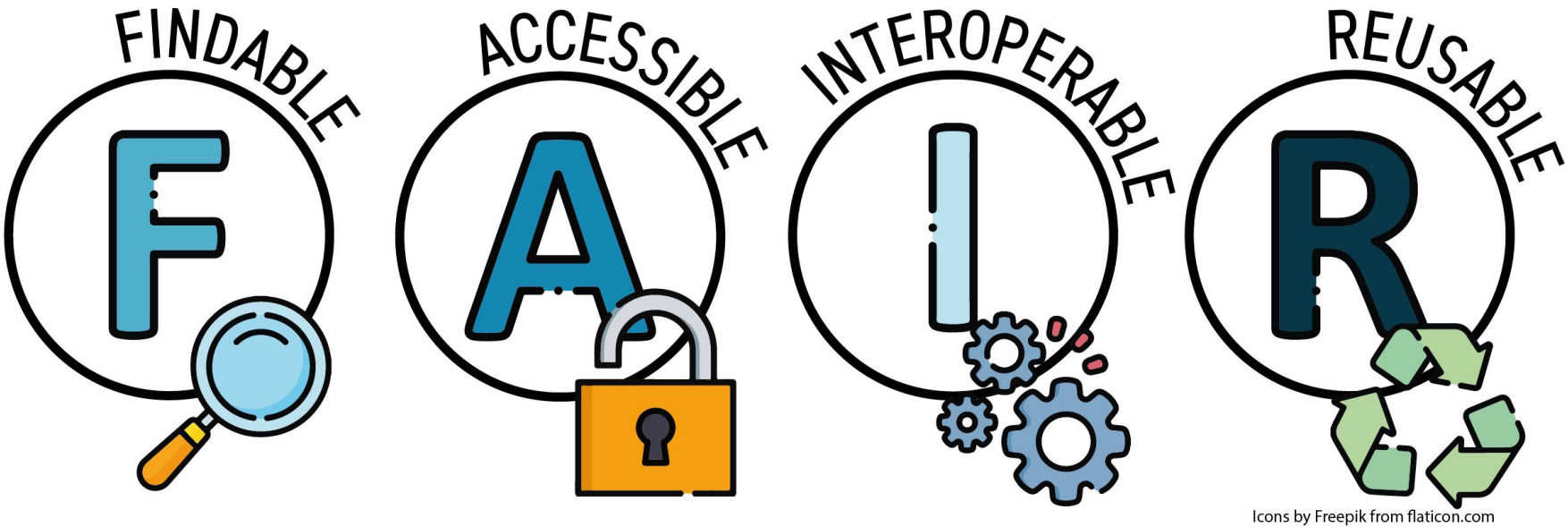
Knowledge Augmented Generation
- Access to structured information sources, such as databases, knowledge graphs



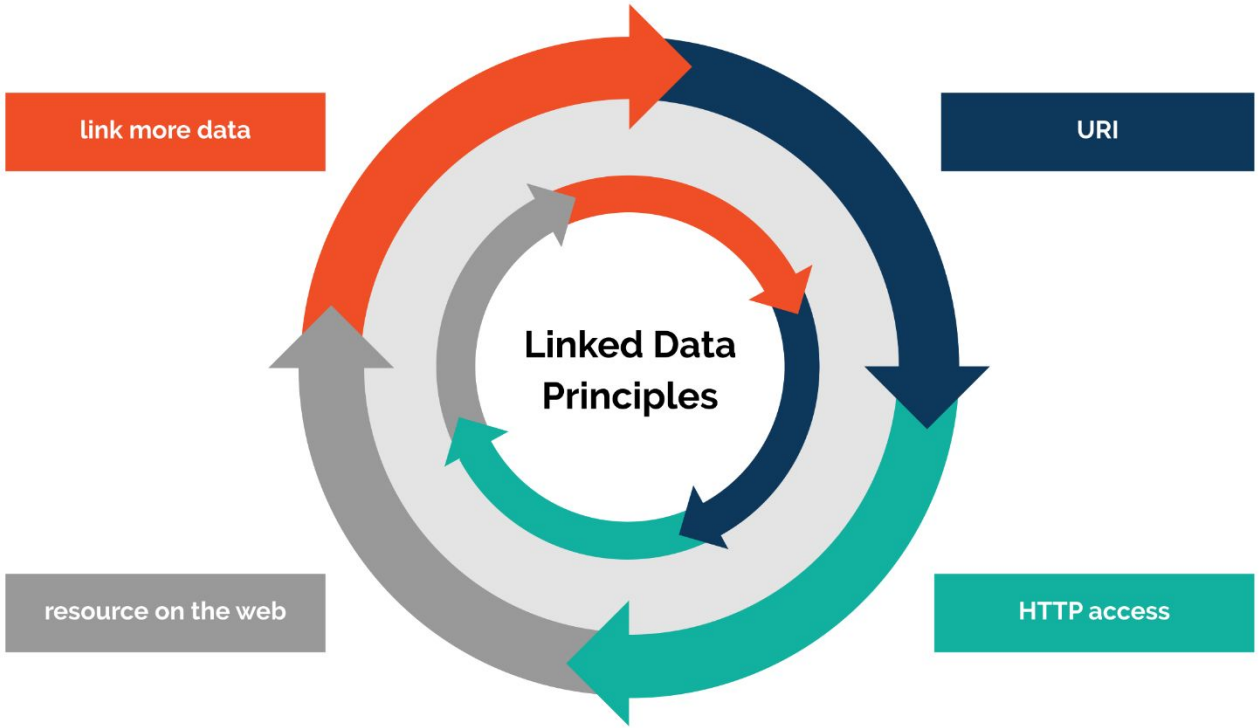
Agentic Generation
- Use of external tools such as reasoners, APIs, computation services

Artificial General Intelligence
- Self-reflection, goal setting

FAIR Principles



Linked Data Principles



Semantische Infrastruktur für das digitale Kulturerbe – **Beispiel Wikibase**

Team: **Prof. Dr. Ina Blümel, Dr. Lozana Rossenova,** Kolja Bailly, Lukas Günther, Kai Niebes, Lucia Sohmen, Zoe Schubert

What is Wikibase?

- Wikibase is a free and open-source system for managing linked open data collections

- Suitable for cultural organizations and initiatives to customize according to the needs of their collections

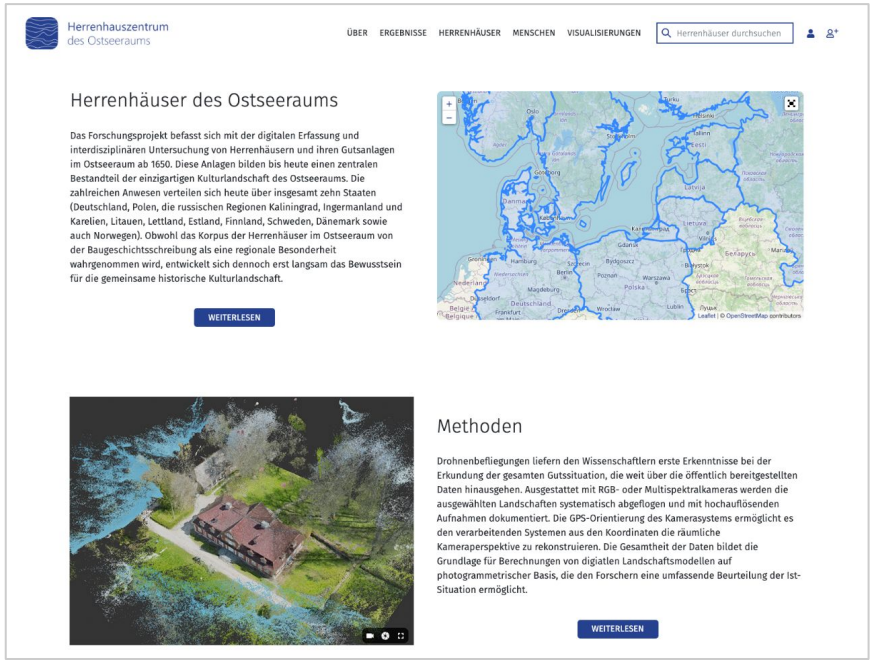
What are the benefits?

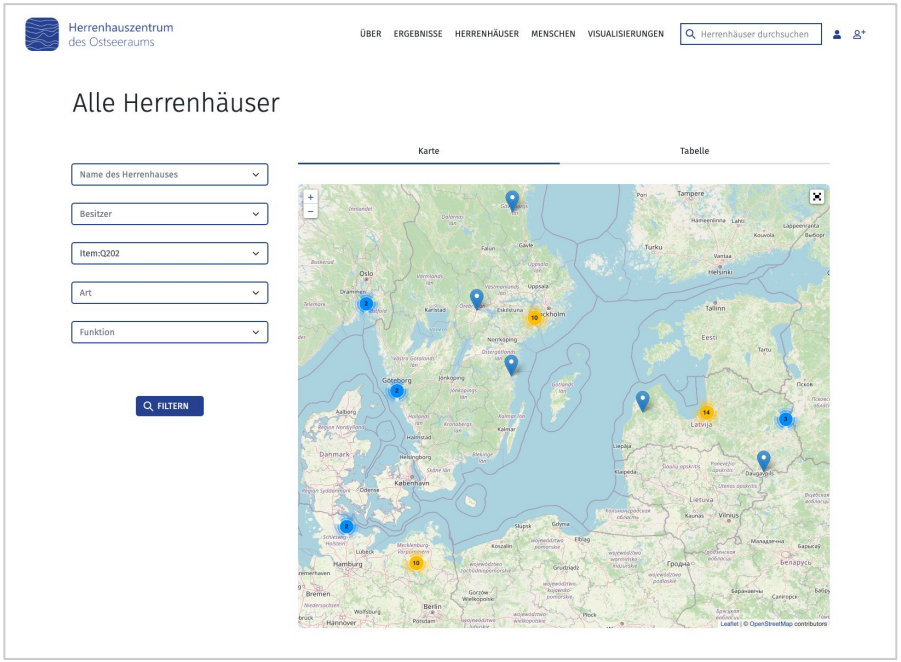
- Including communities in data creation (**Crowdsourcing**)
- Source attribution (where data comes from)
- Editing and version control of data
- Different possibilities to customize data presentation

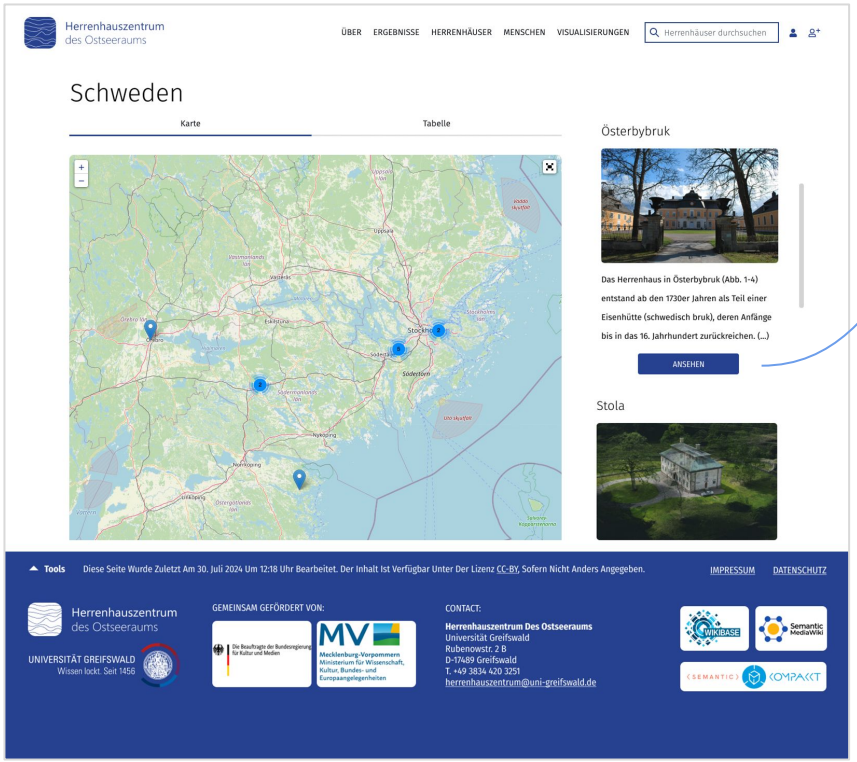
Example applications

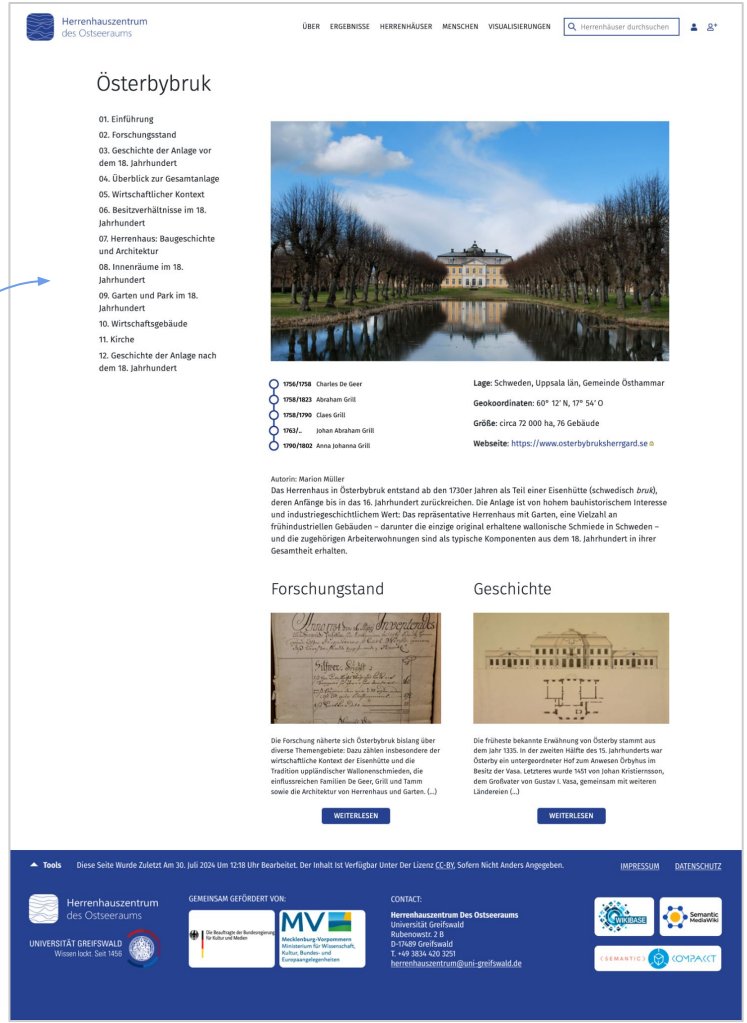
Custom frontend developments – SMW integration – Herrenhäuser des Ostseeraums

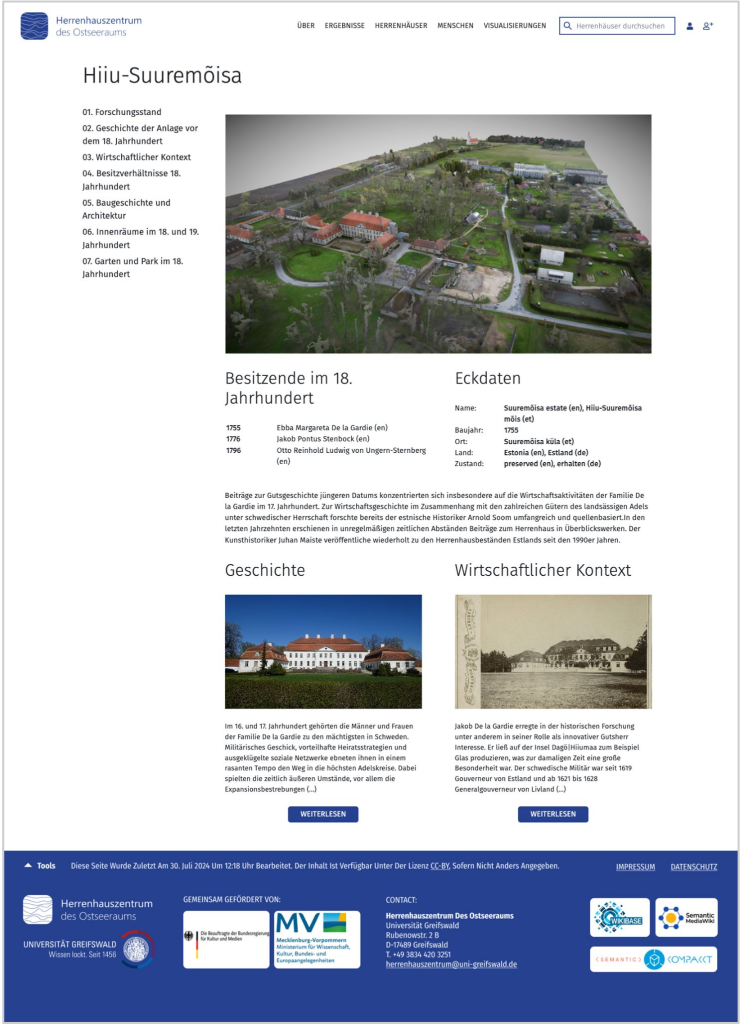
Web link






Herrenhauszentrum
des Ostseeraums
ÜBER ERGEBNISSE HERRENHÄUSER MENSCHEN VISUALISIERUNGEN
Herrenhäuser durchsuchen
Schweden
Karte
Tabelle
Österbybruk
Das Herrenhaus in Österbybruk (Abb. 1-4) entstand ab den 1730er Jahren als Teil einer Eisenhütte (schwedisch bruk), deren Anfänge bis in das 16. Jahrhundert zurückreichen. (...)
ANSEHEN
Stola
Tools
Diese Seite wurde Zuletzt Am 30. Juli 2024 Um 12:18 Uhr Bearbeitet. Der Inhalt Ist Verfügbar Unter Der Lizenz CC-BY, Sofern Nicht Anders Angegeben.
IMPRESSUM
DATENSCHUTZ
Herrenhauszentrum
des Ostseeraums
UNIVERSITÄT GREIFSWALD
Wissen lockt. Seit 1456
GEMEINSAM GEFÖRDERT VON:
Die Beauftragte der Bundesregierung für Kultur und Medien
MV
Mecklenburg-Vorpommern
Ministerium für Wissenschaft, Kultur, Bundes- und Europaangelegenheiten
CONTACT:
Herrenhauszentrum Des Ostseeraums
Universität Greifswald
Rubenowstr. 2 B
D-17489 Greifswald
T. +49 3834 420 3251
herrenhauszentrum@uni-greifswald.de
WIKIBASE
Semantic MediaWiki
SEMANTICS
COMPACCT


Herrenhauszentrum
des Ostseeraums
ÜBER ERGEBNISSE HERRENHÄUSER MENSCHEN VISUALISIERUNGEN
Herrenhäuser durchsuchen
Österbybruk
01. Einführung
02. Forschungsstand
03. Geschichte der Anlage vor dem 18. Jahrhundert
04. Überblick zur Gesamtanlage
05. Wirtschaftlicher Kontext
06. Besitzverhältnisse im 18. Jahrhundert
07. Herrenhaus: Baugeschichte und Architektur
08. Innenräume im 18. Jahrhundert
09. Garten und Park im 18. Jahrhundert
10. Wirtschaftsgebäude
11. Kirche
12. Geschichte der Anlage nach dem 18. Jahrhundert
1756/1758 Charles De Geer
1758/1823 Abraham Grill
1758/1790 Claes Grill
1763/.. Johan Abraham Grill
1790/1802 Anna Johanna Grill
Lage: Schweden, Uppsala län, Gemeinde Östhammar
Geokoordinaten: 60° 12' N, 17° 54' O
Größe: circa 72 000 ha, 76 Gebäude
Webseite: https://www.osterbybruksherrgard.se
Autorin: Marion Müller
Das Herrenhaus in Österbybruk entstand ab den 1730er Jahren als Teil einer Eisenhütte (schwedisch bruk), deren Anfänge bis in das 16. Jahrhundert zurückreichen. Die Anlage ist von hohem bauhistorischem Interesse und industriegeschichtlichem Wert: Das repräsentative Herrenhaus mit Garten, eine Vielzahl an frühindustriellen Gebäuden – darunter die einzige original erhaltene wallonische Schmiede in Schweden – und die zugehörigen Arbeiterwohnungen sind als typische Komponenten aus dem 18. Jahrhundert in ihrer Gesamtheit erhalten.
Forschungstand
Die Forschung näherte sich Österbybruk bislang über diverse Themengebiete: Dazu zählen insbesondere der wirtschaftliche Kontext der Eisenhütte und die Tradition uppländischer Wallonenschmieden, die einflussreichen Familien De Geer, Grill und Tamm sowie die Architektur von Herrenhaus und Garten. (...)
WEITERLESEN
Geschichte
Die früheste bekannte Erwähnung von Österby stammt aus dem Jahr 1335. In der zweiten Hälfte des 15. Jahrhunderts war Österby ein untergeordneter Hof zum Anwesen Örbyhus im Besitz der Vasa. Letzteres wurde 1451 von Johan Kristiernsson, dem Großvater von Gustav I. Vasa, gemeinsam mit weiteren Ländereien (...)
WEITERLESEN
Tools
Diese Seite wurde Zuletzt Am 30. Juli 2024 Um 12:18 Uhr Bearbeitet. Der Inhalt Ist Verfügbar Unter Der Lizenz CC-BY, Sofern Nicht Anders Angegeben.
IMPRESSUM
DATENSCHUTZ
Herrenhauszentrum
des Ostseeraums
UNIVERSITÄT GREIFSWALD
Wissen lockt. Seit 1456
GEMEINSAM GEFÖRDERT VON:
MV
Mecklenburg-Vorpommern
Ministerium für Wissenschaft, Kultur, Bundes- und Europaangelegenheiten
CONTACT:
Herrenhauszentrum Des Ostseeraums
Universität Greifswald
Rubenowstr. 2 B
D-17489 Greifswald
T. +49 3834 420 3251
herrenhauszentrum@uni-greifswald.de
WIKIBASE
Semantic MediaWiki
SEMANTICS
COMPACCT


Herrenhauszentrum des Ostseeraums
ÜBER ERGEBNISSE HERRENHÄUSER MENSCHEN VISUALISIERUNGEN
Herrenhäuser durchsuchen
Hiiu-Suuremõisa
01. Forschungsstand
02. Geschichte der Anlage vor dem 18. Jahrhundert
03. Wirtschaftlicher Kontext
04. Besitzverhältnisse 18. Jahrhundert
05. Baugeschichte und Architektur
06. Innenräume im 18. und 19. Jahrhundert
07. Garten und Park im 18. Jahrhundert
Besitzende im 18. Jahrhundert
1755 Ebba Margareta De la Gardie (en)
1776 Jakob Pontus Stenbock (en)
1796 Otto Reinhold Ludwig von Ungern-Sternberg (en)
Eckdaten
Name: Suuremõisa estate (en), Hiiu-Suuremõisa mõis (et)
Baujahr: 1755
Ort: Suuremõisa küla (et)
Land: Estonia (en), Estland (de)
Zustand: preserved (en), erhalten (de)
Beiträge zur Gutsgeschichte jüngeren Datums konzentrierten sich insbesondere auf die Wirtschaftsaktivitäten der Familie De la Gardie im 17. Jahrhundert. Zur Wirtschaftsgeschichte im Zusammenhang mit den zahlreichen Gütern des landsässigen Adels unter schwedischer Herrschaft forschte bereits der estnische Historiker Arnold Soom umfangreich und quellenbasiert.In den letzten Jahrzehnten erschienen in unregelmäßigen zeitlichen Abständen Beiträge zum Herrenhaus in Überblickswerken. Der Kunsthistoriker Juhan Maiste veröffentliche wiederholt zu den Herrenhausbeständen Estlands seit den 1990er Jahren.
Geschichte
Im 16. und 17. Jahrhundert gehörten die Männer und Frauen der Familie De la Gardie zu den mächtigsten in Schweden. Militärisches Geschick, vorteilhafte Heiratsstrategien und ausgeklügelte soziale Netzwerke ebneten ihnen in einem rasanten Tempo den Weg in die höchsten Adelskreise. Dabei spielten die zeitlich äußeren Umstände, vor allem die Expansionsbestrebungen (...)
WEITERLESEN
Wirtschaftlicher Kontext
Jakob De la Gardie erregte in der historischen Forschung unter anderem in seiner Rolle als innovativer Gutsherr Interesse. Er ließ auf der Insel Dagö|Hiiumaa zum Beispiel Glas produzieren, was zur damaligen Zeit eine große Besonderheit war. Der schwedische Militär war seit 1619 Gouverneur von Estland und ab 1621 bis 1628 Generalgouverneur von Livland (...)
WEITERLESEN
Tools Diese Seite Wurde Zuletzt Am 30. Juli 2024 Um 12:18 Uhr Bearbeitet. Der Inhalt Ist Verfügbar Unter Der Lizenz CC-BY, Sofern Nicht Anders Angegeben.
IMPRESSUM DATENSCHUTZ
Herrenhauszentrum des Ostseeraums
UNIVERSITÄT GREIFSWALD Wissen lockt. Seit 1456
GEMEINSAM GEFÖRDERT VON:
Die Beauftragte der Bundesregierung für Kultur und Medien
MV Mecklenburg-Vorpommern Ministerium für Wissenschaft, Kultur, Bundes- und Europaangelegenheiten
CONTACT:
Herrenhauszentrum Des Ostseeraums
Universität Greifswald
Rubenowstr. 2 B
D-17489 Greifswald
T. +49 3834 420 3251
herrenhauszentrum@uni-greifswald.de
WIKIBASE
Semantic MediaWiki
SEMANTIC COMPACT


Herrenhauszentrum des Ostseeraums
ÜBER ERGEBNISSE HERRENHÄUSER MENSCHEN VISUALISIERUNGEN
Herrenhäuser durchsuchen
05. Baugeschichte und Architektur
< Hiiu-Suuremõisa
01. Forschungsstand
02. Geschichte der Anlage vor dem 18. Jahrhundert
03. Wirtschaftlicher Kontext
04. Besitzverhältnisse 18. Jahrhundert
05. Baugeschichte und Architektur
06. Innenräume im 18. und 19. Jahrhundert
07. Garten und Park im 18. Jahrhundert
08. Quellen- und Literaturverzeichnis
Zustand des Gutes Großenhof nach einem Inventar im Restitutionsjahr 1755
Ebba Margareta De la Gardie konnte eine Reihe Dagöer Güter nach zwölf jährigem Kampf 1755 zurückerlangen. Sie waren ihrem Großvater Axel Julius De la Gardie in Folge der Güterreduktion Karls XI. 1691 entzogen worden. Im April 1755 restituierte die russische Kaiserin Elisabeth I. fünf Ländereien an ihre treue Untertanin.[1] In welchem Zustand die Gräfin die Güter Großenhof (auch Pöhalep, Suuremõisa), Hienhof (estn. Hiiessaare), Hohenholm (estn. Kõrgessaare) und Putkas (estn. Putkaste) sowie die Feuerbaacke zu Koppo (Kõpu) übernahm, wurde in Inventaren zu den Gütern 1755 festgehalten.[2] Das Dokument gibt Aufschluss über den Zustand der Gebäude, der Gärten sowie der vorhandenen Lebensmittel, Gerätschaften und die zu den Gütern gehörende Bauernschaft.
Für das Gut Großenhof soll die Beschreibung kurz zusammengefasst und an prägnanten Stellen mit einem im Reduktionsjahr 1691 angefertigten schwedischen Inventar[3] in Beziehung gesetzt werden.
Das Gut Großenhof umfasste 1755 mehr als 20 Gebäude.
Abb. 1 Vorderseite Großenhof|Hiiu-Suuremõisa 2023
Abb. 2 Rückseite Großenhof|Hiiu-Suuremõisa 2023
Abb. 6 Zeichnungsfolge Hof- und Gartenfassade, Nordseite mit Treppenturm, Gebäudequerschnitt
Abb. 8 Dielenboden aus der Entstehungszeit des Hauses, Nordtrakt
Abb. 9 Gut Großenhof|Hiiu-Suuremõisa, Anfahrtsseite, historische Fotografie, Aufnahme 19. Jahrhundert
Abb. 11 Hiiu-Suuremõisa, Eichentür, vermutlich aus der Entstehungszeit des Hauses im letzten Drittel des 19. Jh.
Abb. 12 Grundriss Seitenflügel, unteres Geschoss, Entwurf?
Abb. 13 Grundriss Seitenflügel, Obergeschoss, Entwurf?


Herrenhauszentrum des Ostseeraums
06. Innenräume im 18. und 19. Jahrhundert
Spuren des Interieurs aus dem 18. Jahrhundert und Umbauten im 19. Jahrhundert
Paradetreppe
Barocke Details

Visualisierungen

Alle Orte mit mehreren Herrenhäusern

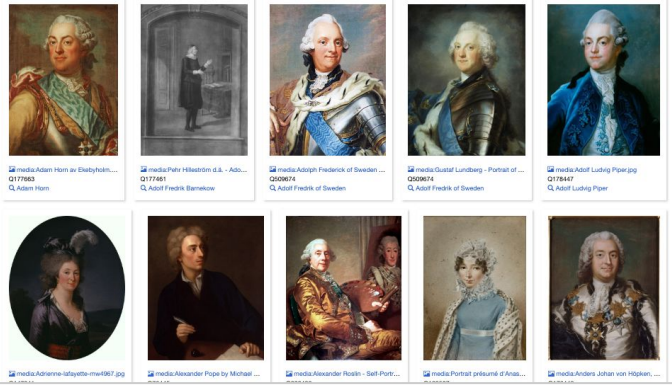
Alle Herrenhäuser, die nach 1750 gebaut wurden

Menschen

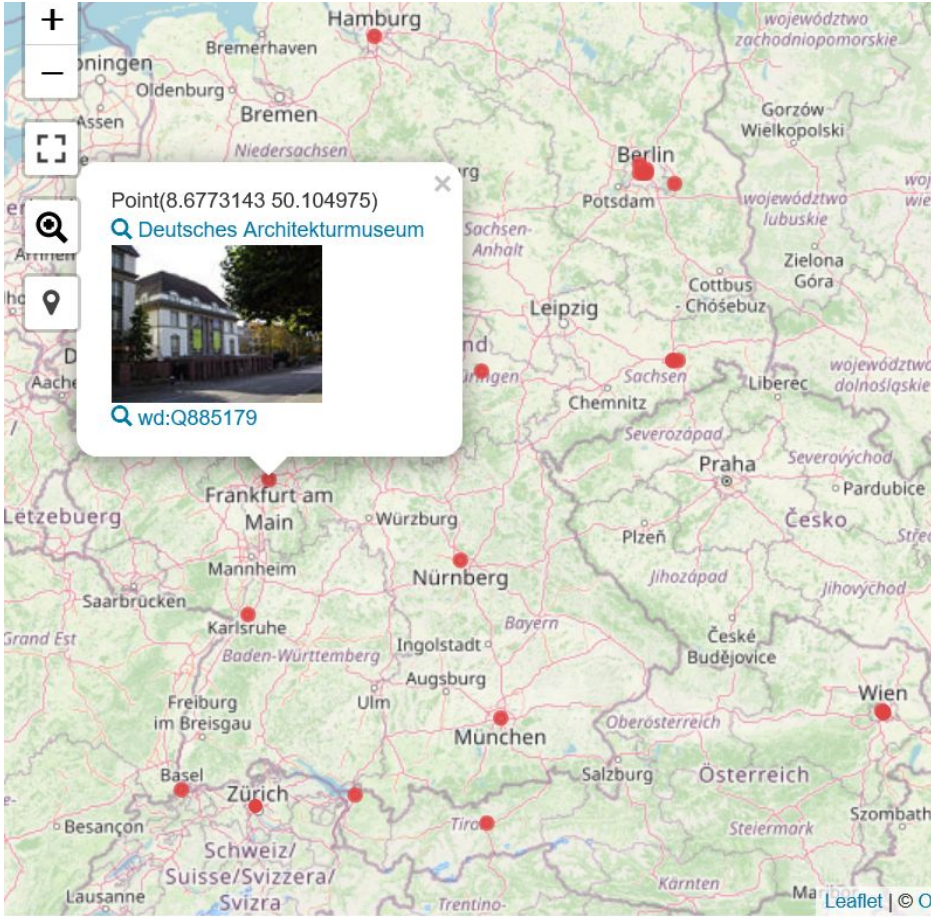
Besitzer von Herrenhäusern mit Daten des Eigentums

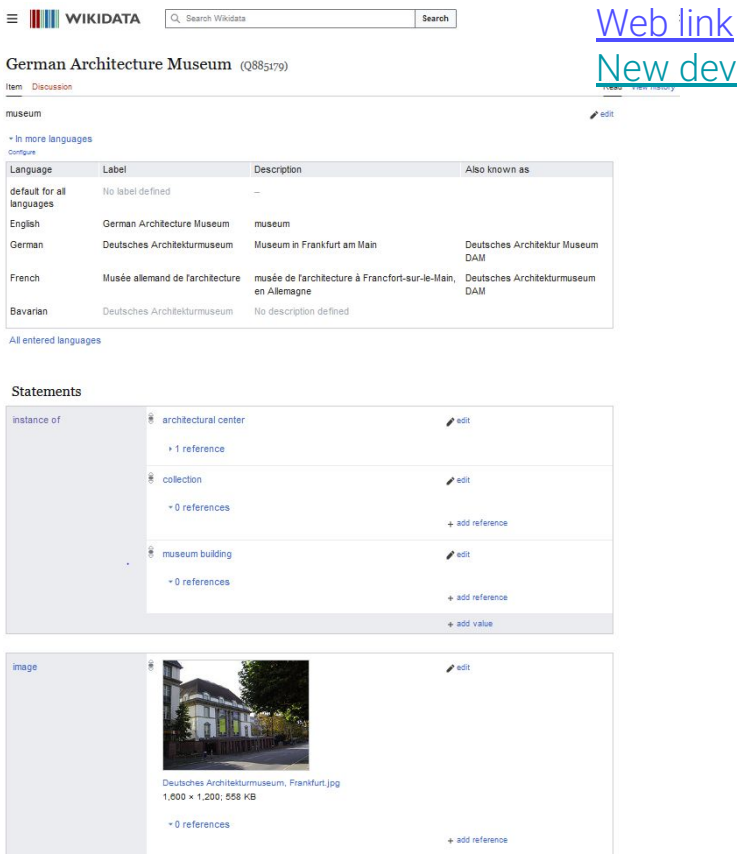
item	itemLabel	estate	estateLabel	date
tib:Q5922	Abraham Grill	tib:Q5287	Österbybruk estate	1758/1823
tib:Q6113	Adrian Bernhard von Borcke	tib:Q5404	Stargordt estate	1717/1741
tib:Q6643	Anders Hansson	tib:Q4817	Stola estate	/1543
tib:Q6551	Anna Christoffersdotter	tib:Q4817	Stola estate	1608/1648
tib:Q5925	Anna Johanna Grill	tib:Q5287	Österbybruk estate	1790/1802
tib:Q5956	Anne Marie Griis	tib:Q5376	Fossesholm estate	1710/1760
tib:Q6277	Arthur Wilhelm Otterström	tib:Q4817	Stola estate	1908/1916
tib:Q6398	Bernt Anker	tib:Q3743	Hafslund estate	1774/1776
tib:Q6178	Brita Claesdotter Uggla	tib:Q4817	Stola estate	1648/1651
tib:Q6248	Brita Margareta Horn af Ekebyholm	tib:Q4817	Stola estate	1771/1791
tib:Q6454	Carl Adolf von Plessen	tib:Q3796	Gunderslevholm estate	1758/1803
tib:Q6454	Carl Adolf von Plessen	tib:Q3796	Gunderslevholm estate	1758/1803
tib:Q6454	Carl Adolf von Plessen	tib:Q3796	Gunderslevholm estate	1725/1758
tib:Q6279	Carl Ander	tib:Q4817	Stola estate	1916/1920
tib:Q6279	Carl Ander	tib:Q4817	Stola estate	1920/1947
tib:Q6279	Carl Ander	tib:Q4817	Stola estate	1920/1947
tib:Q5868	Carl Fredrik Piper	tib:Q4950	Christinehof estate	1752/1770
tib:Q5890	Carl Gustaf Piper	tib:Q4950	Christinehof estate	1770/1803
tib:Q6276	Carl Johan Lindqvist	tib:Q4817	Stola estate	1879/1908
Herrenhäuser Query Service	Carl Magnus Stenbock	tib:Q4586	Kolga estate	1745/1798

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



Findbook Architecture Collections





Web link
New dev

Members according to the Federation's Wikipedia page (Link) with location and further information, if available (Wikidata)

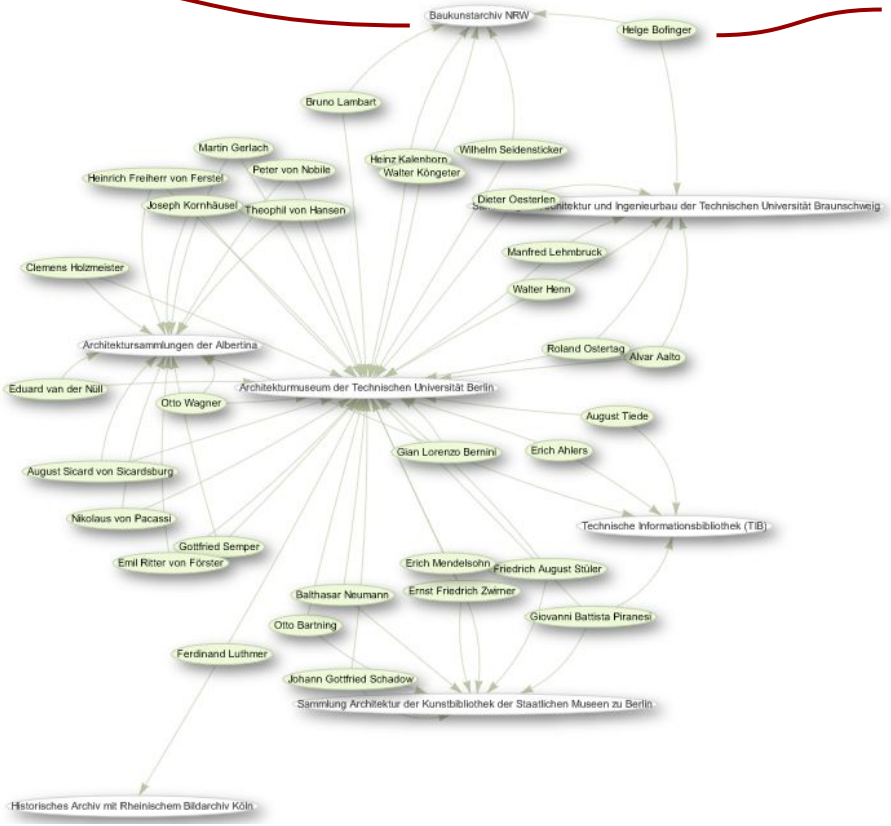
Die folgenden Seiten verlinken auf **Baukunstarchiv NRW** (Q1564):

Angezeigt werden 50 Einträge.

Zeige (vorherige 50 | nächste 50) (20 | 50 | 100 | 250 | 500)

- Helge Bofinger (Q248) (← Links)
- Walter Köngeter (Q919) (← Links)
- Wilhelm Seidensticker (Q1031) (← Links)
- Heinz Kalenborn (Q1204) (← Links)
- Bruno Lambart (Q1281) (← Links)
- Jochen Hebestreit (Q1418) (← Links)
- Herwarth Schulte (Q1419) (← Links)
- Horst Retzki (Q1420) (← Links)
- Sabine Hallmann-Retzki (Q1421) (← Links)
- Toni Hermann (Q1422) (← Links)
- Walter Höltje (Q1423) (← Links)
- Hans-Joachim Budeit (Q1424) (← Links)
- Friedrich Mebes (Q1425) (← Links)
- Hans Westermann (Q1426) (← Links)
- Ulrich Gastreich (Q1427) (← Links)
- Mechthild Moritz-Gastreich (Q1428) (← Links)
- Eckhard Gerber (Q1429) (← Links)
- Ulrich S. von Altenstadt (Q1430) (← Links)
- Bruno Haupt (Q1431) (← Links)
- Stefan Polónyi (Q1432) (← Links)
- Harald Deilmann (Q1433) (← Links)
- Betrud Lieberwirth (Q1434) (← Links)
- Carl Lieberwirth (Q1435) (← Links)
- Hans P. Koellmann (Q1436) (← Links)
- Herbert Ehm (Q1437) (← Links)
- Eduard Kirschner (Q1438) (← Links)
- Eckhard Schulze-Fielitz (Q1439) (← Links)
- P. Rodemeier (Q1440) (← Links)
- Klaus Kafka (Q1441) (← Links)
- Karl-Heinz Wend (Q1442) (← Links)
- Josef Franke (Q1443) (← Links)
- Ewald Rüter (Q1444) (← Links)
- Hermann Schulz (Q1445) (← Links)
- Albrecht Egon Wittig (Q1446) (← Links)
- Hans Junghanns (Q1447) (← Links)
- Josef Küpper (Q1448) (← Links)
- Jürgen Ringel (Q1449) (← Links)
- Heinz Kunze (Q1450) (← Links)
- Hermann-Josef Farwick (Q1451) (← Links)
- Günther Baumsteiger (Q1452) (← Links)
- Walter Böhm (Q1453) (← Links)
- Werner Ruhnau (Q1454) (← Links)
- Wolfgang Meisenheimer (Q1455) (← Links)
- Bernhard Küppers (Q1456) (← Links)
- Rudolf Brüning (Q1457) (← Links)
- Georg Lüpke (Q1458) (← Links)
- Heinz Weden (Q1459) (← Links)
- Hans Laxner (Q1460) (← Links)
- Heinz Buchmann (Q1461) (← Links)
- Wilhelm Peter Gummersbach (Q1462) (← Links)

Zeige (vorherige 50 | nächste 50) (20 | 50 | 100 | 250 | 500)



Network of individuals and archives: Which collections are available in which archives?

Helge Bofinger (Q248)

Architekt, 1940-03-30 - 2018-06-07

▾ In weiteren Sprachen

Konfigurieren

Sprache	Bezeichnung	Beschreibung
Deutsch	Helge Bofinger	Architekt, 1940-03-30 - 2018-06-07
English	Keine Bezeichnung vorhanden	Keine Beschreibung vorhanden

▸ Zuordnungen zu anderen Ontologien

Aussage	URL

Aussagen

Geburtsdatum	1940-03-30 (30. März 1940) ▾ 0 Fundstellen
ist ein(e)	Mensch ▾ 0 Fundstellen
Todesdatum	2018-06-07 (7. Juni 2018) ▾ 0 Fundstellen
GND	11537955X ▾ 0 Fundstellen
Material verfügbar in Archiv	Sammlung für Architektur und Ingenieurbau der Technischen Universität Braunschweig ▾ 0 Fundstellen Baukunstarchiv NRW ▾ 0 Fundstellen
Wikidata ID	Q1602355 ▾ 0 Fundstellen

Alvar Aalto (Q237)

Architekt, 1898-02-03 - 1976-05-11

▾ In weiteren Sprachen
Konfigurieren

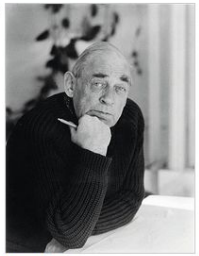
Sprache	Bezeichnung	Beschreibung	Auch bekannt als
Deutsch	Alvar Aalto	Architekt, 1898-02-03 - 1976-05-11	
English	Keine Bezeichnung vorhanden	Keine Beschreibung vorhanden	

▸ Zuordnungen zu anderen Ontologien

Aussage	URL

Aussagen

Bild auf Wikimedia Commons



Alvar Aalto1.jpg
1.200 × 1.585; 184 KB

▾ 0 Fundstellen

Beruf

Architekt
▾ 0 Fundstellen

Designer
▾ 0 Fundstellen

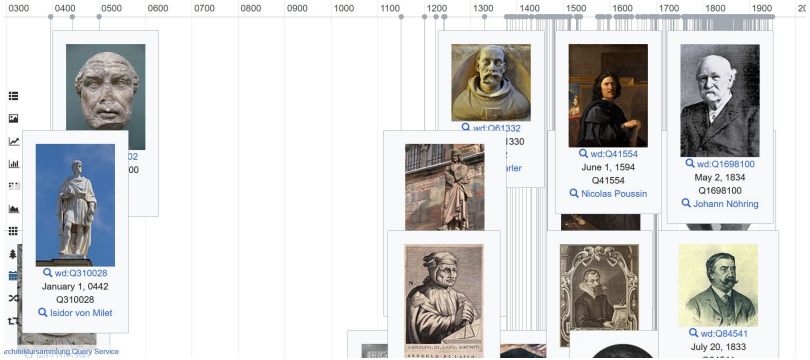
Stadtplaner
▾ 0 Fundstellen

Material verfügbar in Archiv

Sammlung für Architektur und Ingenieurbau der Technischen Universität Braunschweig
▾ 0 Fundstellen

Architekturmuseum der Technischen Universität Berlin
▾ 0 Fundstellen

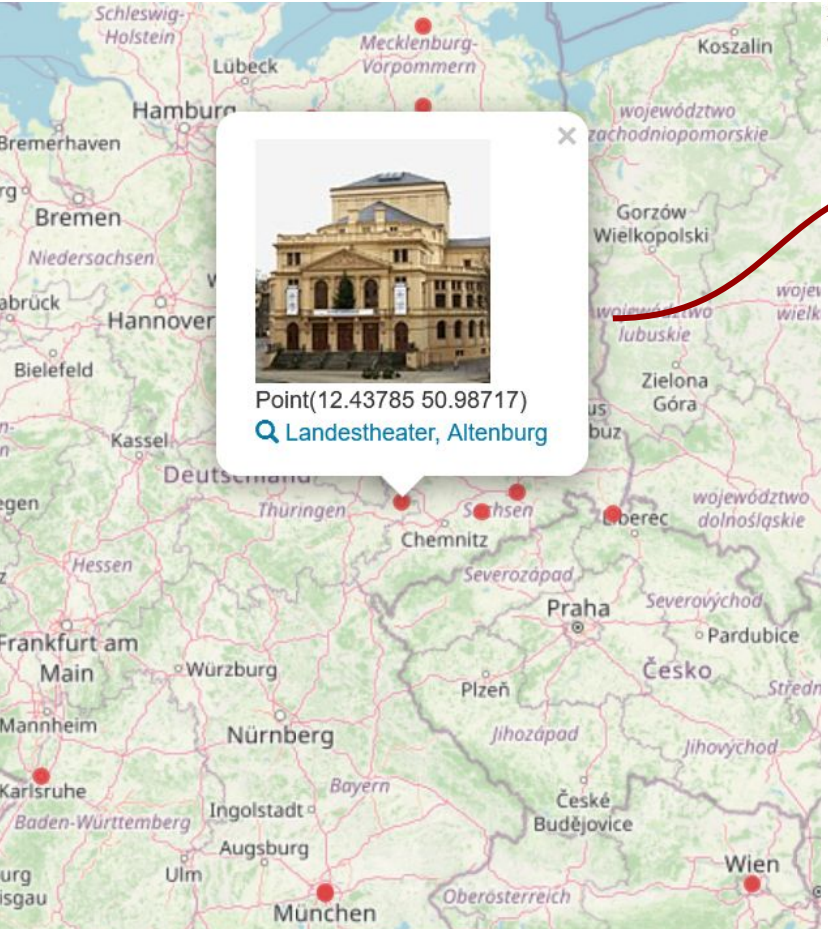
Another person with material in various archives

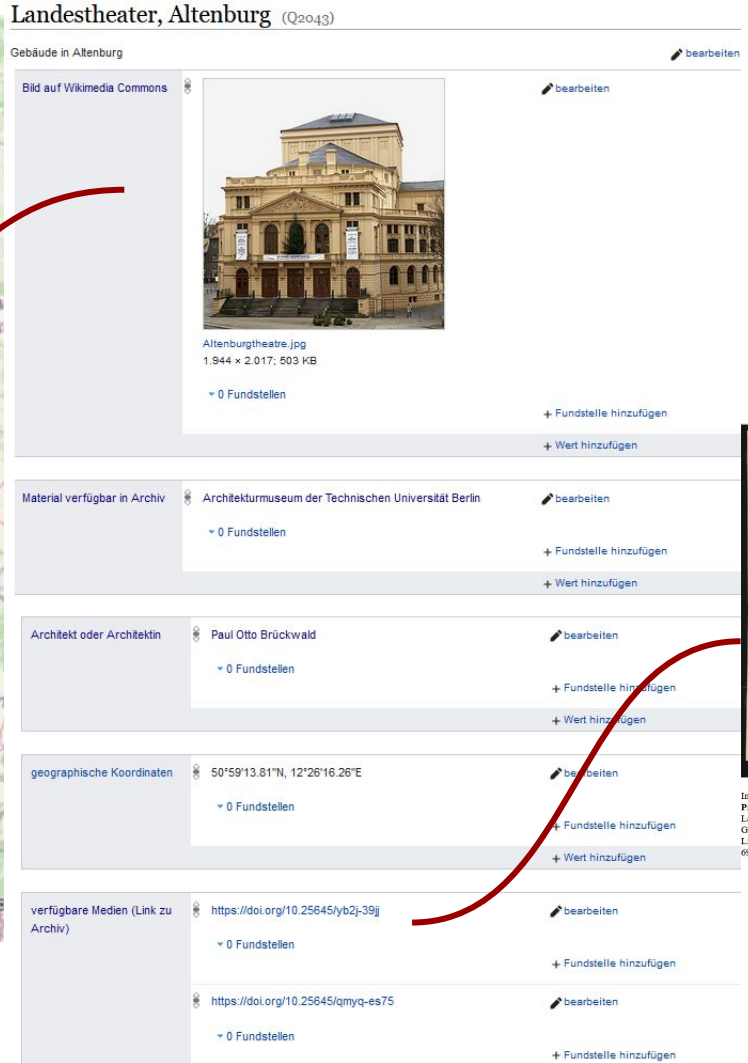


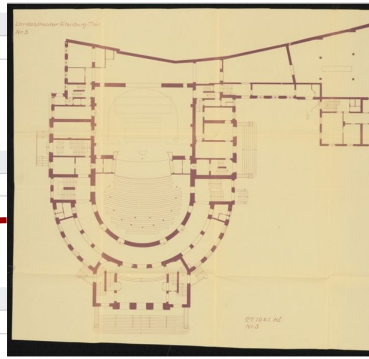
Zeitleiste mit Personen, die in den Archiven verzeichnet sind, jeweils mit Bild und Geburtsdatum (aus Wikidata / WM Commons)

person	personLabel	gnd	item	itemLabel
tib:Q1029	Elias Holl	118706462	<https://www.deckenmalerei.eu/1423d062-5fba-4059-9ff6-2e9a64e93965>	Augsburg, Hohmannhaus
tib:Q1029	Elias Holl	118706462	<https://www.deckenmalerei.eu/d8c94a82-4604-46df-93dd-9673cc2962c3>	Augsburg, Stadtmetzg
tib:Q1129	Joseph Saint-Pierre	118794159	<https://www.deckenmalerei.eu/22e4e2e7-457e-4968-a9be-24cd883a7d77>	Bayreuth, Markgräfliches Opernhaus
tib:Q1129	Joseph Saint-Pierre	118794159	<https://www.deckenmalerei.eu/41bc15be-de47-4456-8984-3579a98687e5>	Bayreuth, Neues Schloss
tib:Q1144	Louis Remy de la Fosse	118778463	<https://www.deckenmalerei.eu/b6332a60-3895-456a-8ac3-9291fe8d5530>	Schillingsfürst, Schloss
tib:Q1173	Georg Ludwig Friedrich Laves	118726811	<https://www.deckenmalerei.eu/ca02d024-8782-44d6-9222-e05bb52e5637>	Hannover-Herrenhausen, ehem. Schloss
tib:Q1359	Maximilian von Welsch	118766651	<https://www.deckenmalerei.eu/0877d992-f358-4513-8d70-411e3c24937f>	Tettnang, Neues Schloss
tib:Q1359	Maximilian von Welsch	118766651	<https://www.deckenmalerei.eu/28ffd31a-a0d7-471b-b60f-d1cb1b2ae954>	Wiesbaden, Schloss Biebrich
tib:Q1359	Maximilian von Welsch	118766651	<https://www.deckenmalerei.eu/6a8e00cd-c3db-4c30-87e3-1e032a7072fa>	Erfurt, Statthalterei (Staatskanzlei)
tib:Q498	Carl Gotthard Langhans	118726463	<https://www.deckenmalerei.eu/532f4dcf-67a8-475a-bca2-9015044672a3>	Berlin, Belvedere (Charlottenburg)
tib:Q498	Carl Gotthard Langhans	118726463	<https://www.deckenmalerei.eu/75df3f1f-6937-4c92-b204-4ce261345989>	Berlin, Schloss Charlottenburg

The individuals listed in the archives who can be found in the NFDI4Culture Knowledge Graph, together with the works linked there

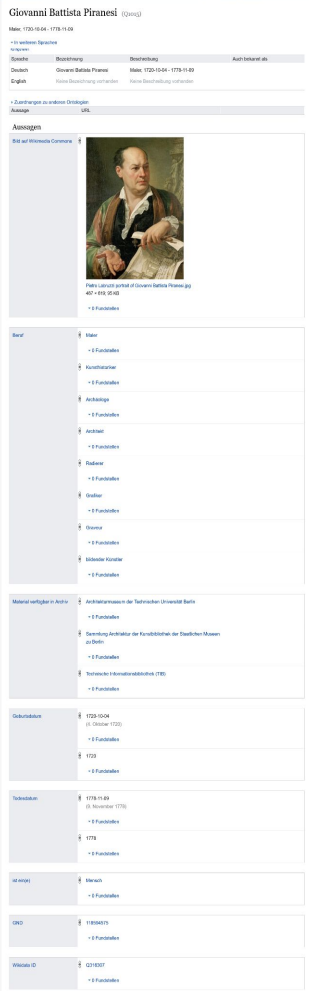


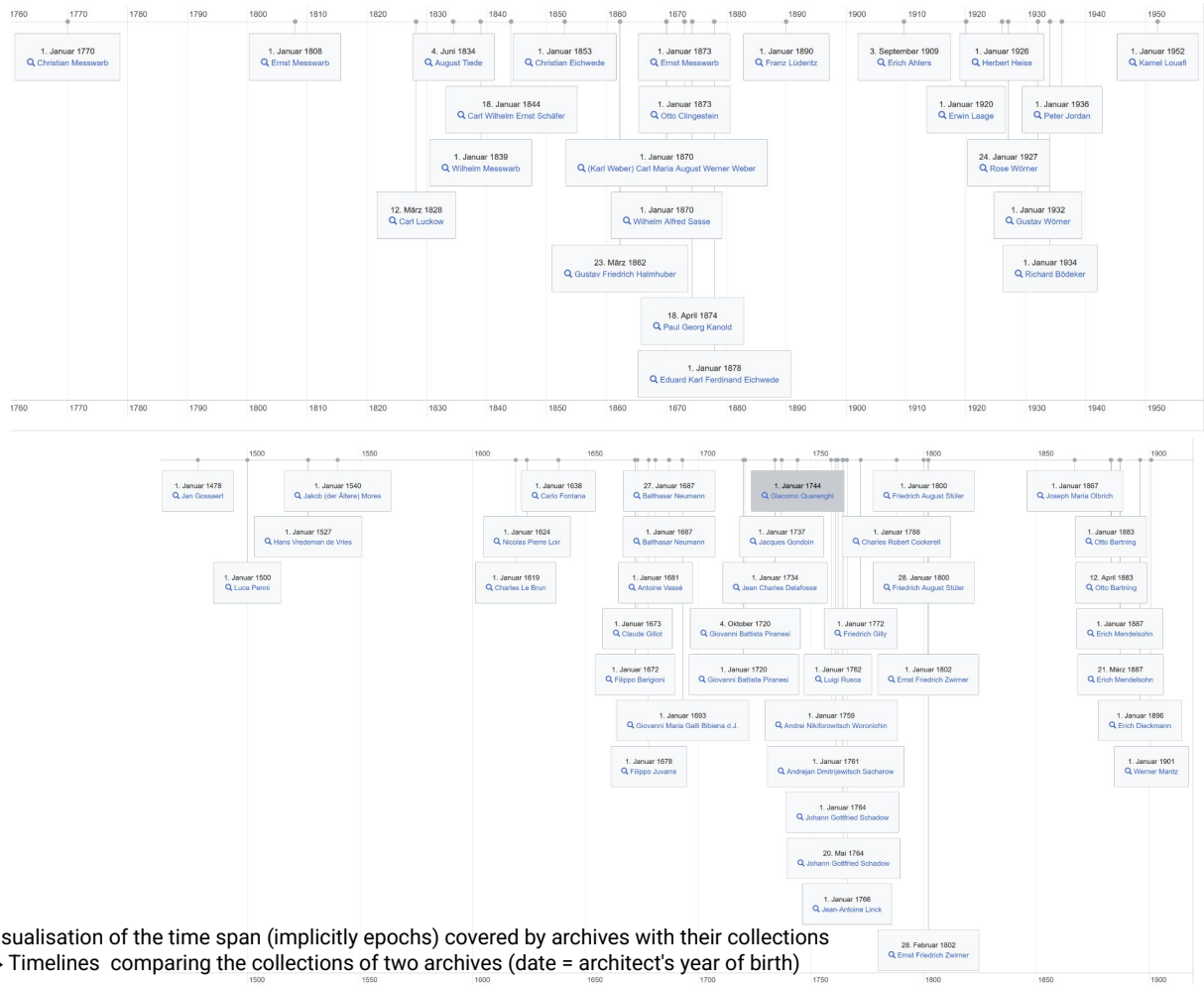




Inv. Nr. TBS 003.03
Paul Otto Brückwald / Theodor Hoppe
Landestheater, Altenburg
Grundriss
Lichtpause: Lichtpause auf Papier
69,6 x 77,6 cm

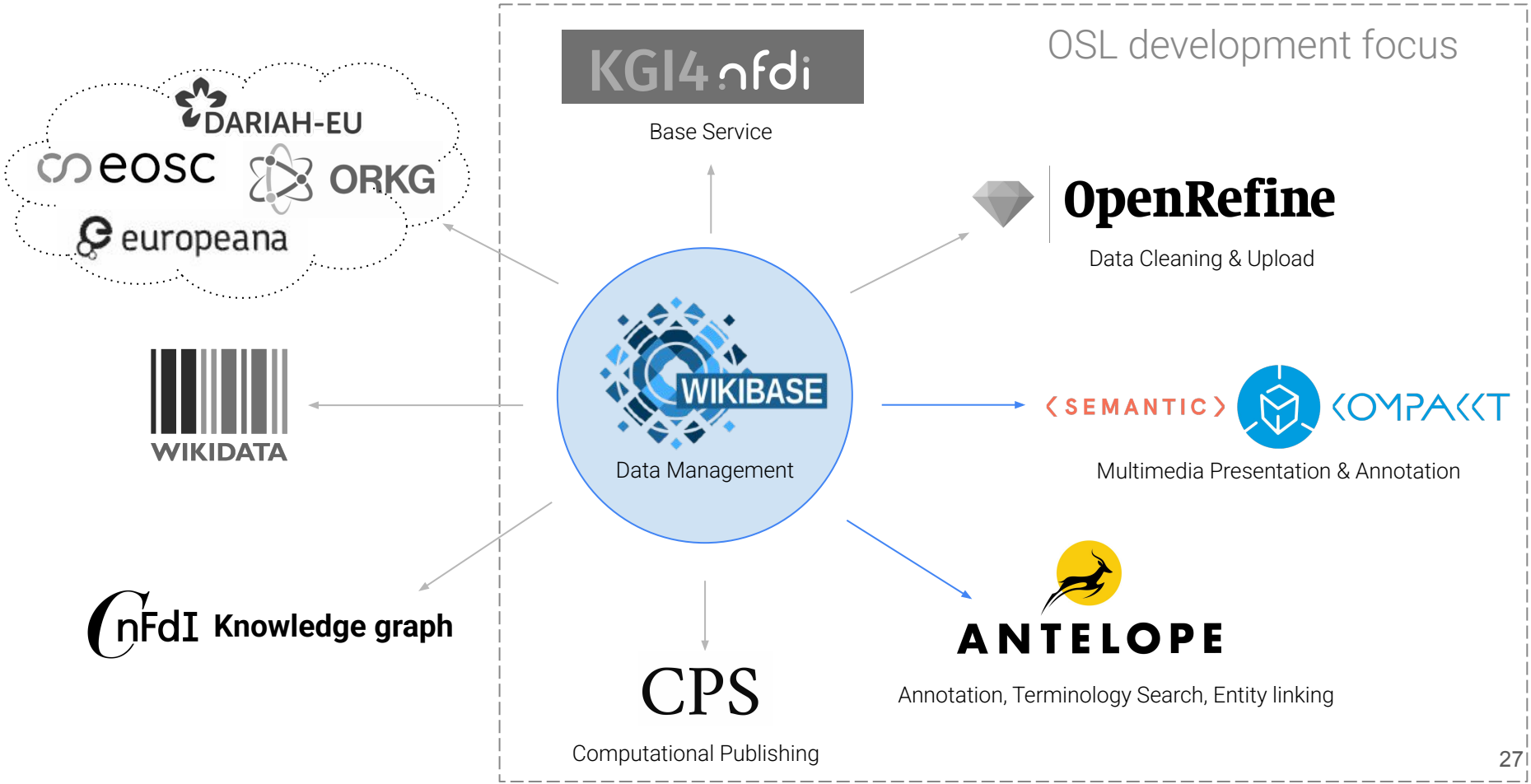
Map showing an excerpt of the works catalogued in an archive (coordinates and images from Wikidata / WM Commons)
Right: Detailed view of the work with a link to the media available in the archive





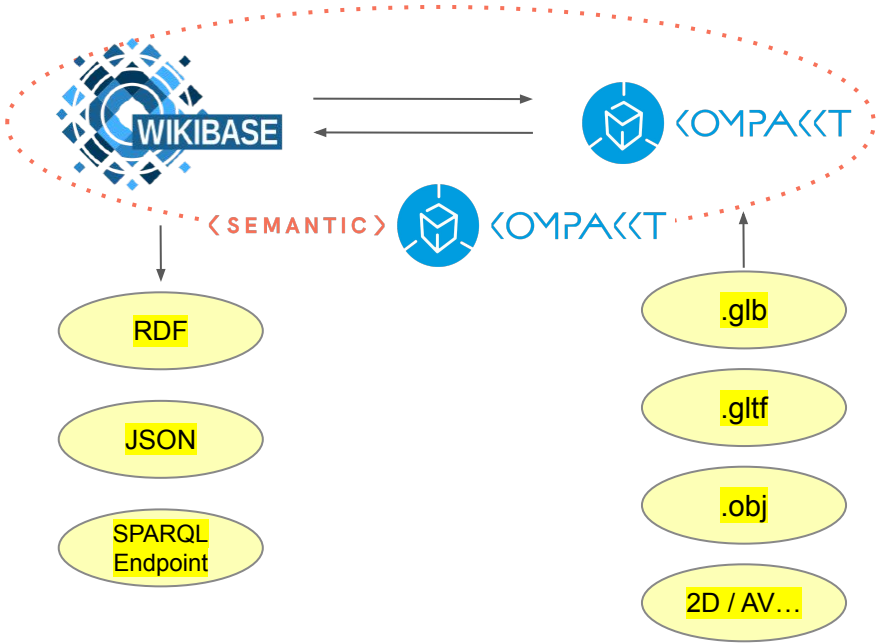
Visualisation of the time span (implicitly epochs) covered by archives with their collections
→ Timelines comparing the collections of two archives (date = architect's year of birth)

Enrichment Open Source Tool Suite based on Wikibase

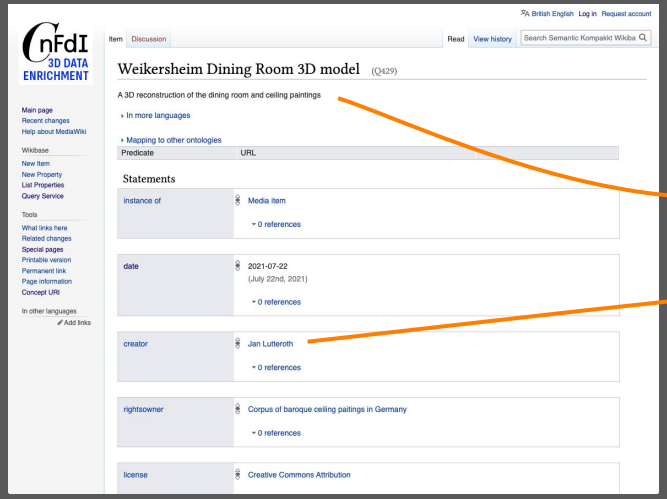


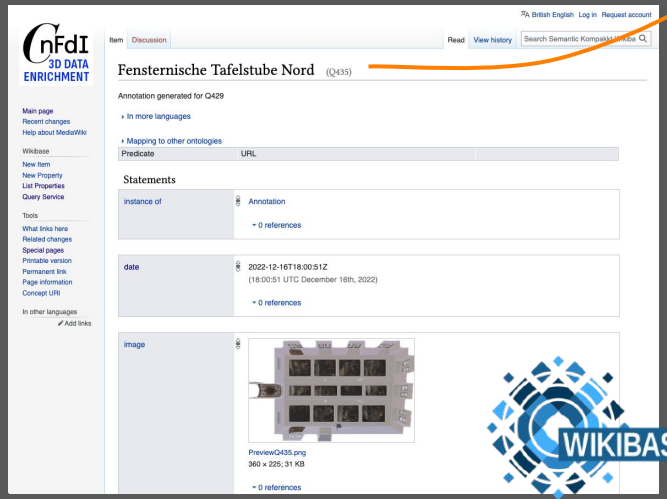
Extended applications: Semantic Kompakkt

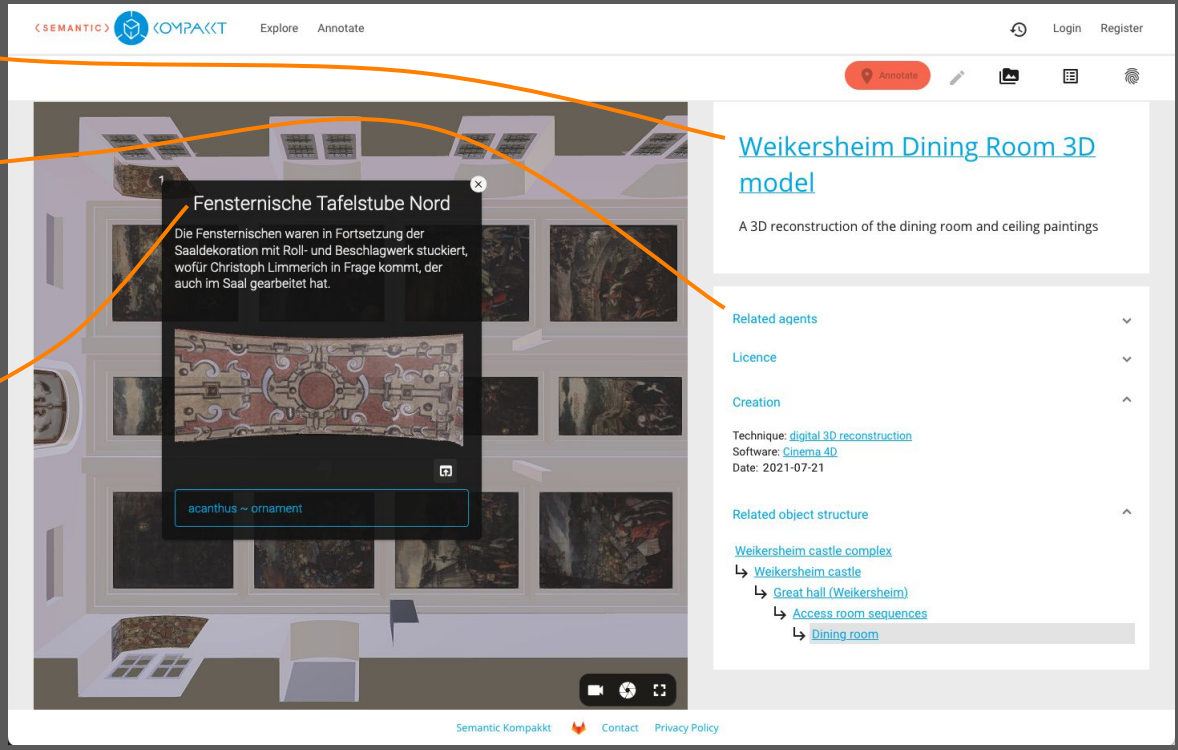
Data indexing and storage



Media presentation and annotation

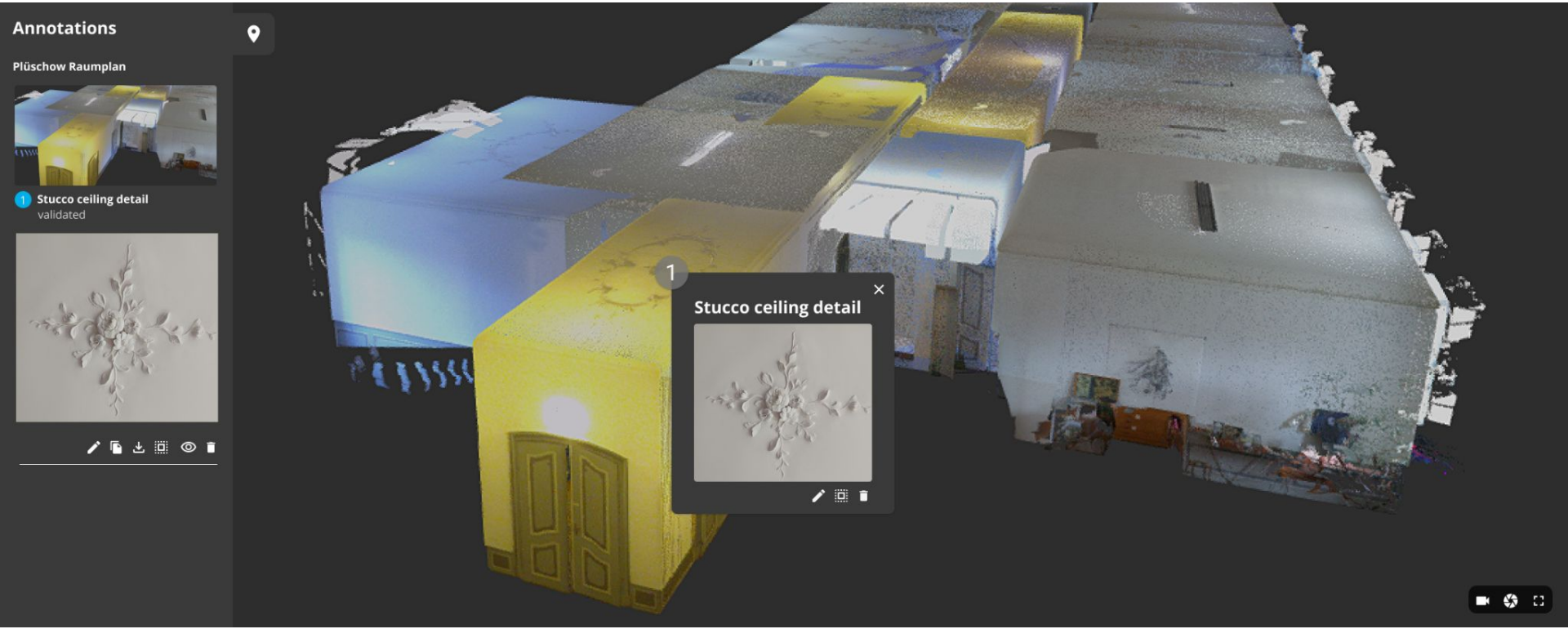






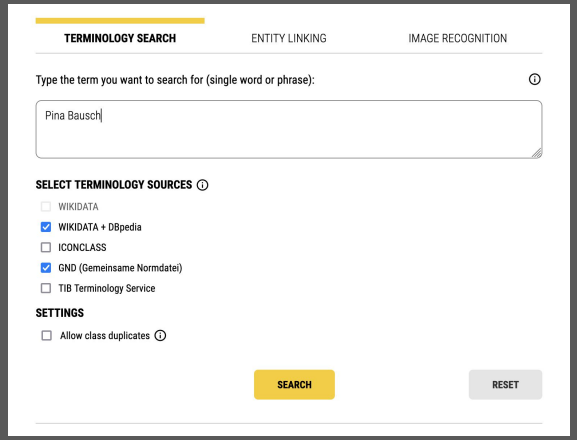
WIKIBASE

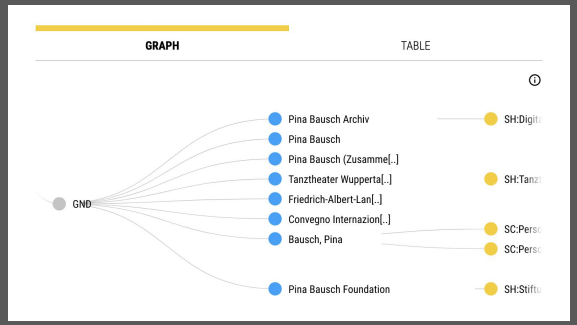
SEMANTIC KOMPAKKT


Annotations
Plüschow Raumplan
1 Stucco ceiling detail
validated
1
Stucco ceiling detail

Extended applications: Antelope

Terminology search + results visualization





Entity linking with possibility for user-defined dictionary

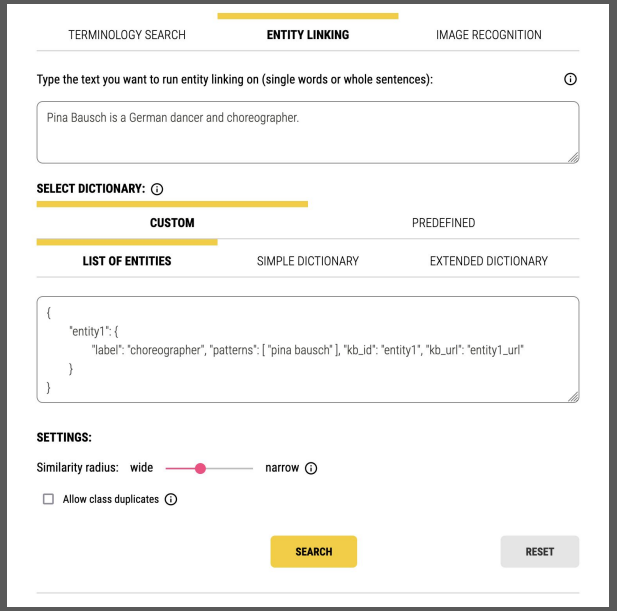
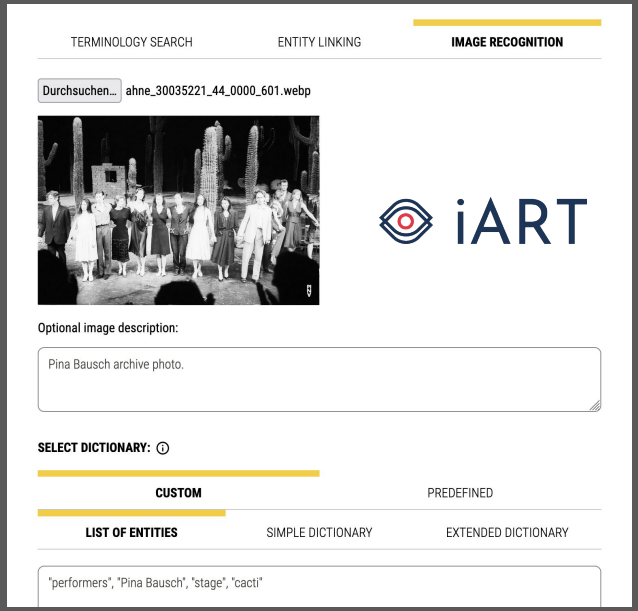
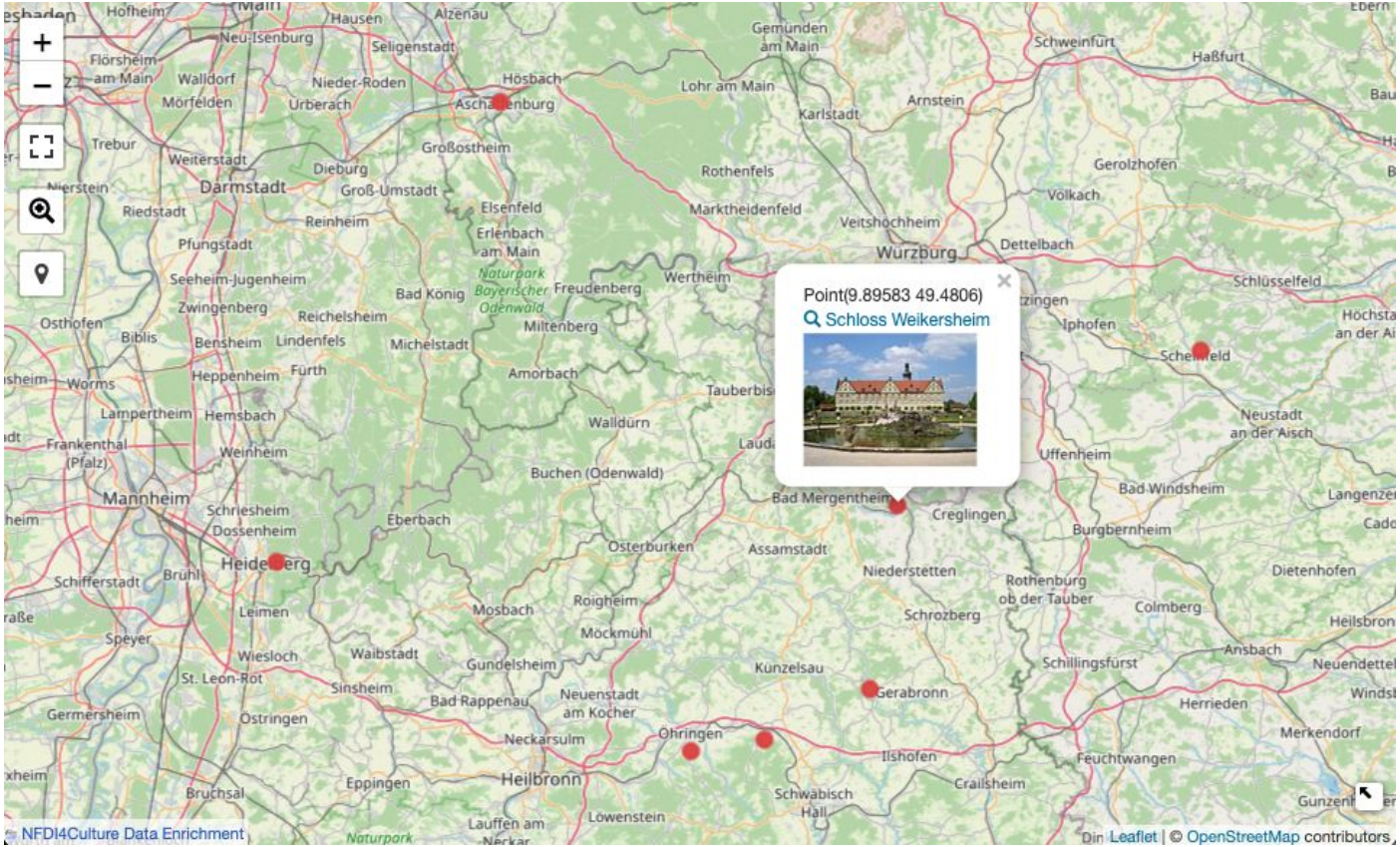


Image recognition support for entity linking



Connected ecosystem

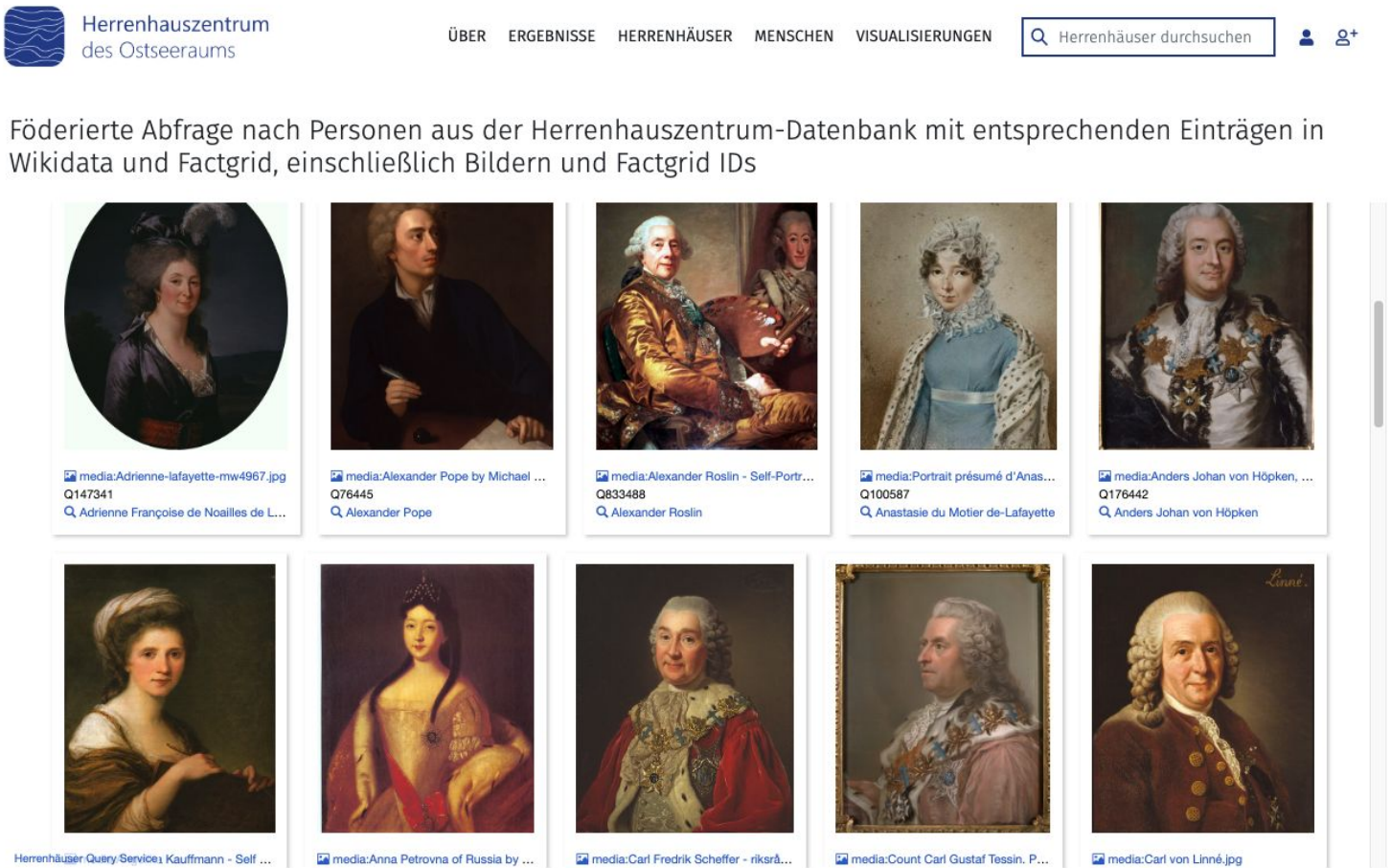
Federation with **Wikidata**: More information about locations and physical objects



Semantic Kompakkt example:

https://tinyurl.com/2yn4ewrb

Federation with **Wikidata**: More information about people



Page source:

https://wb.manorhouses.tibwiki.io/wiki/Menschen

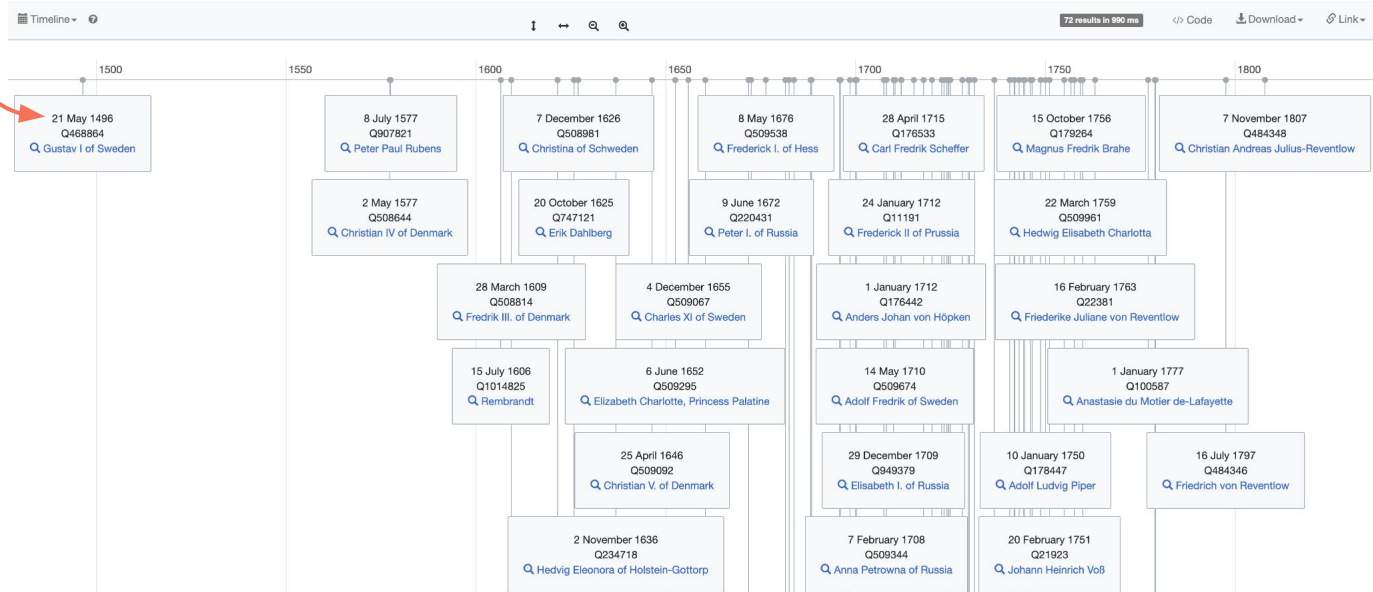
Example:

Query source

Next step federation with **Wikidata** and at least one more source, e.g. **Factgrid**

Herrenhäuser / Query Service Examples

```
PREFIX wd: <http://www.wikidata.org/entity/>
PREFIX wdt: <http://www.wikidata.org/prop/direct/>
PREFIX wdqs: <https://query.wikidata.org/sparql>
PREFIX fg: <https://database.factgrid.de/entity/>
PREFIX fgt: <https://database.factgrid.de/prop/direct/>

SELECT Distinct ?person ?personLabel ?Factgrid_id ?birth_date
WHERE{
?person tibt:P1 tib:Q5.
?person tibt:P104 ?Wikidata_id.

SERVICE wikibase:label { bd:serviceParam wikibase:language "[AUTO_LANGUAGE],en". }

BIND(IRI(CONCAT(STR(wd:), ?Wikidata_id)) AS ?Wikidata_item)

SERVICE wdqs: {
  ?Wikidata_item wdt:P8168 ?Factgrid_id.
}

BIND(IRI(CONCAT(STR(fg:), ?Factgrid_id)) AS ?Factgrid_item)

SERVICE <https://database.factgrid.de/sparql> {
  ?Factgrid_item fgt:P77 ?birth_date.
}

}
Order by ?personLabel
Limit 100
```



[Query source]

Federating between **Semantic Kompakkt** to get the 3D file view location & **Wikidata** to get all external IDs:

Wikibase / Query Service

Examples

Query Helper

+ Filter

object of representation

+ Show

file view

wikidata id

Limit

```
PREFIX wd: <http://www.wikidata.org/entity/>
PREFIX wdt: <http://www.wikidata.org/prop/direct/>
PREFIX wdqs: <https://query.wikidata.org/sparql>

SELECT DISTINCT ?CIIC81Label ?3D_view ?wd_id ?OSM_id ?SMRS_id ?LOD_id ?Factgrid_id WHERE {
  SERVICE wikibase:label { bd:serviceParam wikibase:language "[AUTO_LANGUAGE],en". }
  VALUES ?CIIC81 {tib:Q1407}
  ?Media_item tibt:P63 ?CIIC81.
  ?Media_item tibt:P74 ?3D_view.
  ?CIIC81 tibt:P107 ?wd_id.

  BIND(IRI(CONCAT(STR(wd:), ?wd_id)) AS ?wd_item)

  SERVICE wdqs: {
  ?wd_item wdt:P11693 ?OSM_id;
           wdt:P4857 ?SMRS_id;
           wdt:P2888 ?LOD_id;
           wdt:P8168 ?Factgrid_id.
  }
}
```

1 result in 513 ms

CIIC81Label	3D_view	wd_id	OSM_id	SMRS_id	LOD_id	Factgrid_id
Ogham Stone UCC Stone Corridor IV	<https://semantic-kompakkt.de/entity/670e54210da6ec51ee08e5fb>	Q130529871	11071361392	CO074-148----	<http://lod.ogham.link/data/Y50000081>	Q1000294

[Query source]

Slide source: https://zenodo.org/records/14055699

NFDI4Objects Research Data Infrastructure for the Material Remains of Human History

nFdI CULTURE

NFDI formemory

Federating between **Semantic Kompakkt** (as starting point), ***Wikidata*** (to get external IDs), ***FactGrid*** (to get Fuzzy-SL ID), and Fuzzy Spatial Locations (***fuzzy-sl***) to get coordinates

NFDI4Objects
Research Data Infrastructure for the Material Remains of Human History

formemory

NFDI CULTURE

[Query source]

query.semantic-kompakkt.de/#PREFIX%20wd%3A%20<http%3A%2F%2Fwww.wiki...

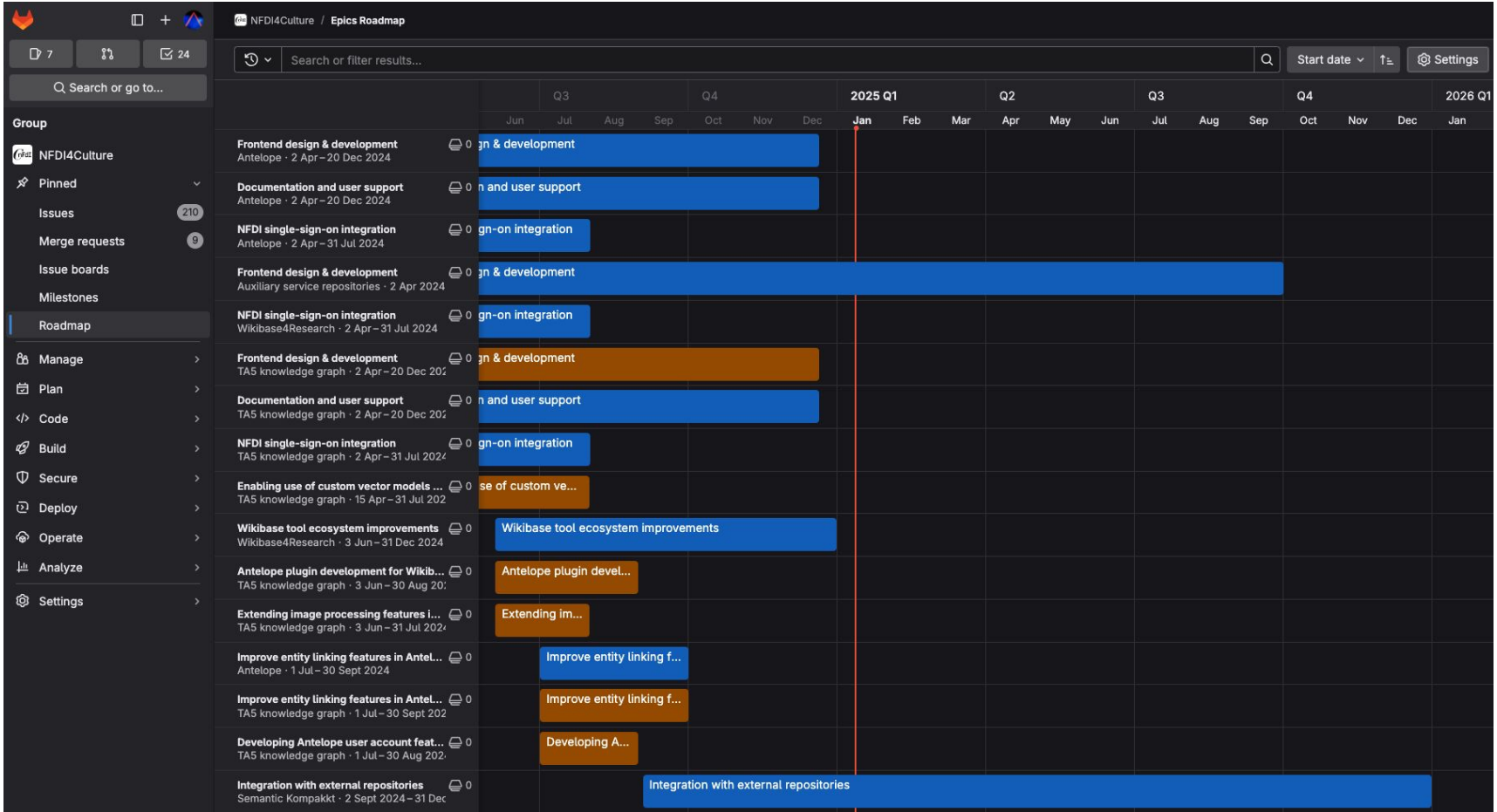
Wikibase / Query Service | Examples

```
PREFIX wd: <http://www.wikidata.org/entity/>
PREFIX wdt: <http://www.wikidata.org/prop/direct/>
PREFIX wdqs: <https://query.wikidata.org/sparql>
PREFIX fslwd: <https://fuzzy-sl.wikibase.cloud/entity/>
PREFIX fslwdt: <https://fuzzy-sl.wikibase.cloud/prop/direct/>
PREFIX fg: <https://database.factgrid.de/entity/>
PREFIX fgt: <https://database.factgrid.de/prop/direct/>

SELECT DISTINCT ?CIIC81Label ?3D_view ?wd_id ?OSM_id ?SMRS_id ?LOD_id
  ?Factgrid_id ?fuzzy_id ?coordinates WHERE {
  SERVICE wikibase:label {
  bd:serviceParam wikibase:language "[AUTO_LANGUAGE],en". }
  VALUES ?CIIC81 {tib:Q1407}
  ?Media_item tibt:P63 ?CIIC81.
  ?Media_item tibt:P74 ?3D_view.
  ?CIIC81 tibt:P107 ?wd_id.

  BIND(IRI(CONCAT(STR(wd:), ?wd_id)) AS ?wd_item)

  SERVICE wdqs: {
  ?wd_item wdt:P11693 ?OSM_id;
           wdt:P4057 ?SMRS_id;
           wdt:P2888 ?LOD_id;
           wdt:P8168 ?Factgrid_id.
  }

  BIND(IRI(CONCAT(STR(fg:), ?Factgrid_id)) AS ?Factgrid_item)
  SERVICE <https://database.factgrid.de/sparql>  {
  ?Factgrid_item fgt:P1215 ?fuzzy_id.
  }

  BIND(IRI(CONCAT(STR(fslwd:), ?fuzzy_id)) AS ?fuzzy_item)
  SERVICE <https://fuzzy-sl.wikibase.cloud/query/sparql> {
    ?fuzzy_item fslwdt:P4 ?coordinates.
  }
}
```

1 result in 520 ms | Code | Download | Link

CIIC81Label	3D_view	wd_id	OSM_id	SMRS_id	LOD_id	Factgrid_id	fuzzy_id	coordinates
Ogham Stone UCC Stone Corridor IV	<https://semantic-kompakkt.de/entity/670e54210da6ec51ee08e5fb>	Q130529871	11071361392	CO074-148----	<http://lod.ogham.link/data/Y50000081>	Q1000294	Q74	Point(-8.492443111 51.893659305)

Open development – GitLab



Wikibase Stakeholder Group

[Group projects]

WIKIMEDIA DEUTSCHLAND

Biodiversity Heritage Library

Peoples of the Historical Slave Trade

Digital Scriptorium

RHIZOME

Semantic Lab at Pratt Institute

Kompetenzzentrum Trier Center for Digital Humanities

FIZ Karlsruhe

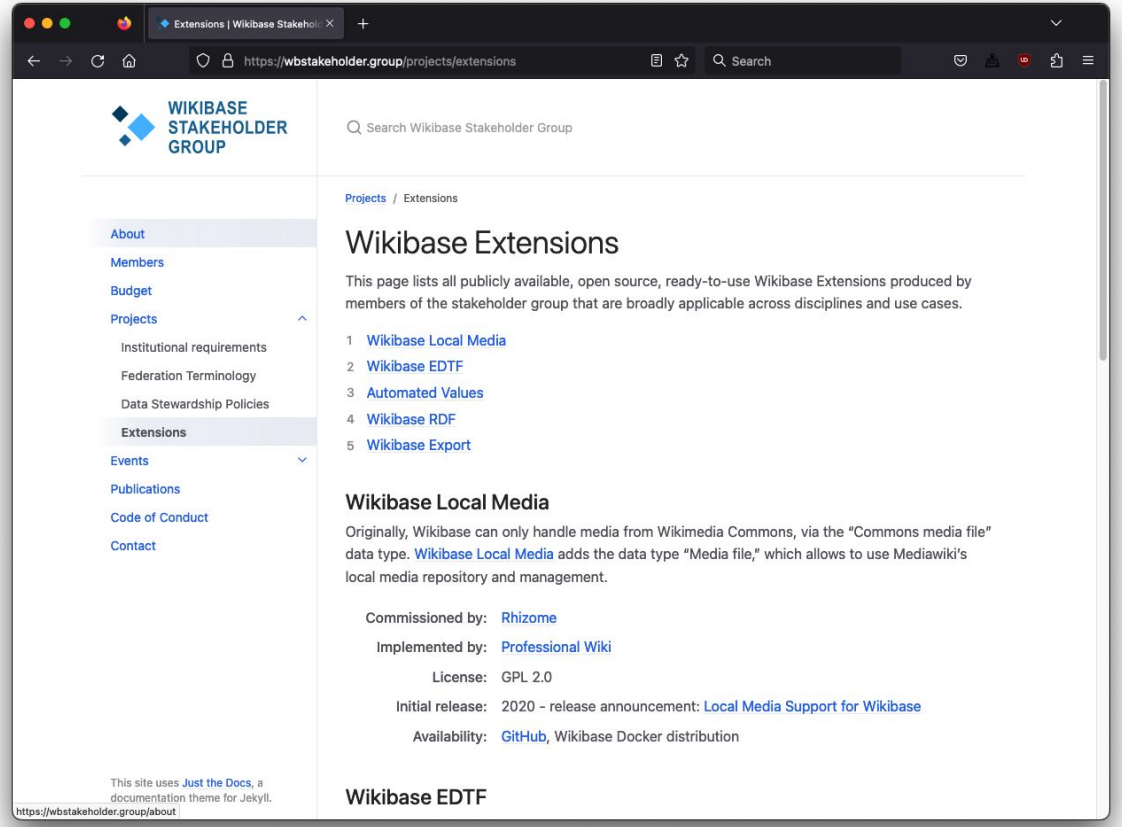
FactGrid a database for historians

TIB

The QA Company

UB UNIVERSITÄTSBIBLIOTHEK MANNHEIM

Professional Wiki



Wikibase and TIB Open Science Lab

Useful links:

https://nfdi4culture.de/services
https://gitlab.com/nfdi4culture/
https://service.tib.eu/wikibase-data

Contact:

Ina.Bluemel@tib.eu
Lozana.Rossenova@tib.eu

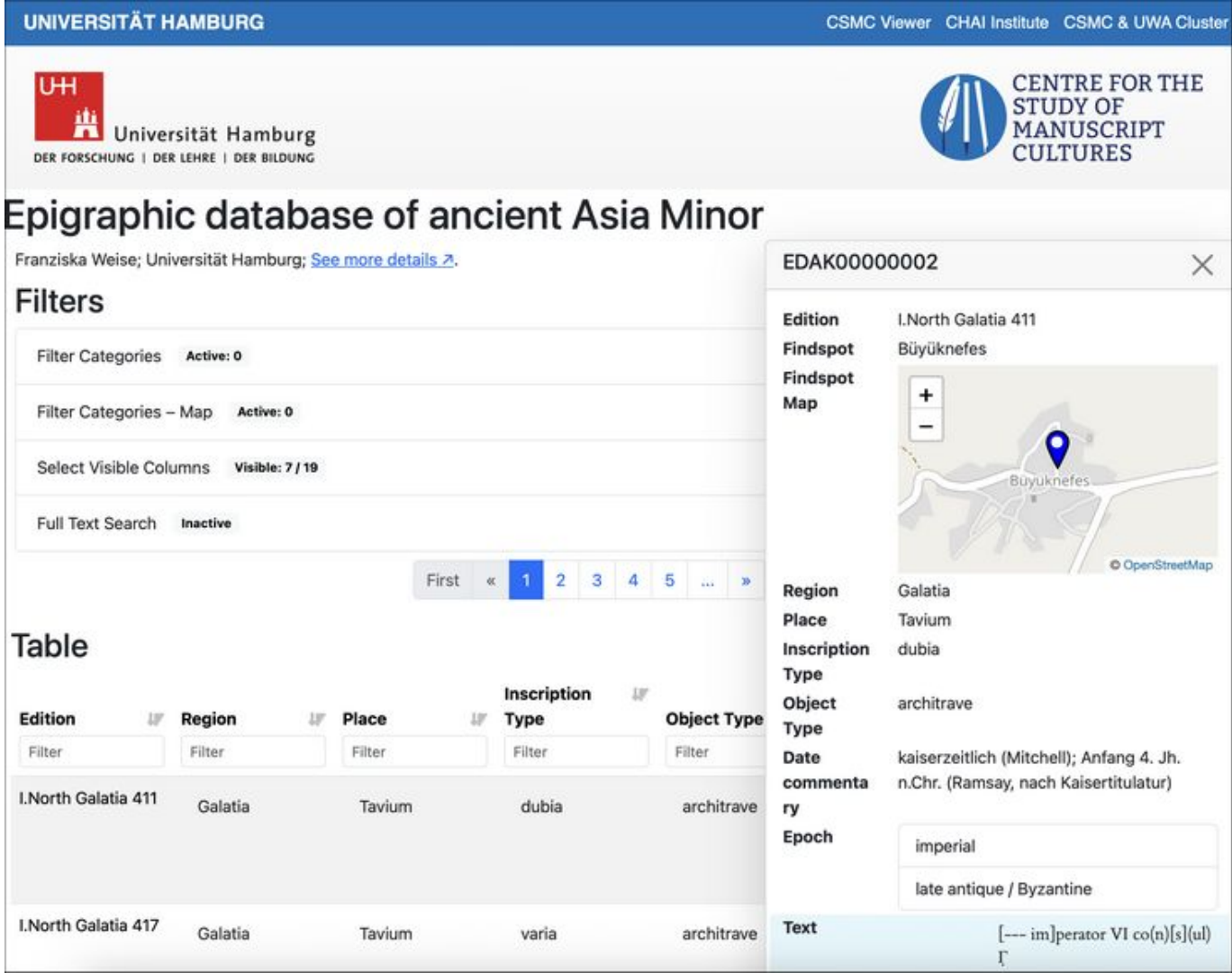
Funded by
DFG Deutsche Forschungsgemeinschaft
German Research Foundation

CSMC

A simple way to store and share research data

A CSMC file (ZIP archive) bundles raw research data along a dedicated viewer (clientside JavaScript) to visualize the data

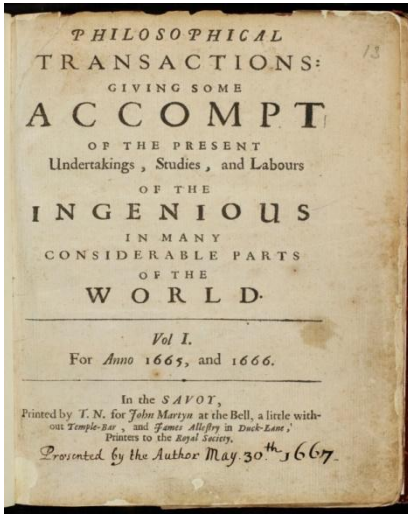
https://csmc-view.chai.uni-hamburg.de/specification



What about Research Information?

Scholarly Communication has not changed (much)

17th century

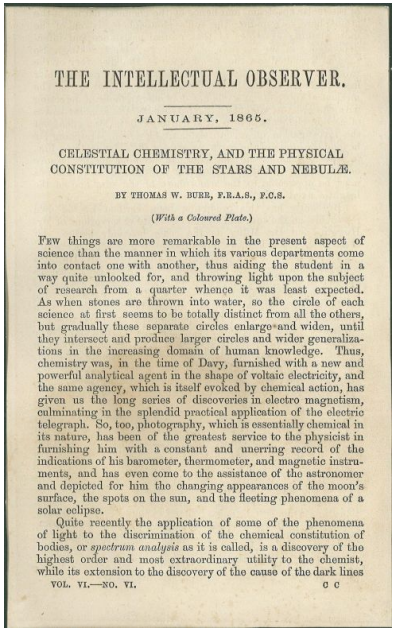


PHILOSOPHICAL
TRANSACTIONS:
GIVING SOME
ACCOMPT
OF THE PRESENT
Undertakings, Studies, and Labours
OF THE
INGENIOUS
IN MANY
CONSIDERABLE PARTS
OF THE
WORLD.

Vol I.
For Anno 1665, and 1666.

In the SAVOY,
Printed by T. N. for John Martyn at the Bell, a little without Temple-Bar, and James Allestry in Duck-Lane;
Printers to the Royal Society.
Presented by the Author May. 30th. 1667.

19th century



THE INTELLECTUAL OBSERVER.

JANUARY, 1865.

CELESTIAL CHEMISTRY, AND THE PHYSICAL CONSTITUTION OF THE STARS AND NEBULÆ.

BY THOMAS W. BURR, F.R.A.S., F.C.S.

(*With a Coloured Plate.*)

Few things are more remarkable in the present aspect of science than the manner in which its various departments come into contact one with another, thus aiding the student in a way quite unlooked for, and throwing light upon the subject of research from a quarter whence it was least expected. As when stones are thrown into water, so the circle of each science at first seems to be totally distinct from all the others, but gradually these separate circles enlarge and widen, until they intersect and produce larger circles and wider generalizations in the increasing domain of human knowledge. Thus, chemistry was, in the time of Davy, furnished with a new and powerful analytical agent in the shape of voltaic electricity, and the same agency, which is itself evoked by chemical action, has given us the long series of discoveries in electro magnetism, culminating in the splendid practical application of the electric telegraph. So, too, photography, which is essentially chemical in its nature, has been of the greatest service to the physicist in furnishing him with a constant and unerring record of the indications of his barometer, thermometer, and magnetic instruments, and has even come to the assistance of the astronomer and depicted for him the changing appearances of the moon's surface, the spots on the sun, and the fleeting phenomena of a solar eclipse.

Quite recently the application of some of the phenomena of light to the discrimination of the chemical constitution of bodies, or *spectrum analysis* as it is called, is a discovery of the highest order and most extraordinary utility to the chemist, while its extension to the discovery of the cause of the dark lines

20th century

A Relational Model of Data for Large Shared Data Banks

E. F. CODD
IBM Research Laboratory, San Jose, California

Future users of large data banks must be protected from having to know how the data is organized in the machine (the internal representation). A prompting service which supplies such information is not a satisfactory solution. Activities of users at terminals and most application programs should remain unaffected when the internal representation of data is changed and even when some aspects of the external representation are changed. Changes in data representation will often be needed as a result of changes in query, update, and report traffic and natural growth in the types of stored information.

Existing noninferential, formatted data systems provide users with tree-structured files or slightly more general network models of the data. In Section 1, inadequacies of these models are discussed. A model based on n-ary relations, a normal form for data base relations, and the concept of a universal data sublanguage are introduced. In Section 2, certain operations on relations (other than logical inference) are discussed and applied to the problems of redundancy and consistency in the user's model.

KEY WORDS AND PHRASES: data bank, data base, data structure, data organization, hierarchies of data, networks of data, relations, derivability, redundancy, consistency, composition, join, retrieval language, predicate calculus, security, data integrity
CR CATEGORIES: 3.70, 3.73, 3.75, 4.20, 4.22, 4.29

1. Relational Model and Normal Form

1.1. INTRODUCTION

This paper is concerned with the application of elementary relation theory to systems which provide shared access to large banks of formatted data. Except for a paper by Childs [1], the principal application of relations to data

The relational view (or model) of data described in Section 1 appears to be superior in several respects to the graph or network model [3, 4] presently in vogue for noninferential systems. It provides a means of describing data with its natural structure only—that is, without superimposing any additional structure for machine representation purposes. Accordingly, it provides a basis for a high level data language which will yield maximal independence between programs on the one hand and machine representation and organization of data on the other.

A further advantage of the relational view is that it forms a sound basis for treating derivability, redundancy, and consistency of relations—these are discussed in Section 2. The network model, on the other hand, has spawned a number of confusions, not the least of which is mistaking the derivation of connections for the derivation of relations (see remarks in Section 2 on the "connection trap").

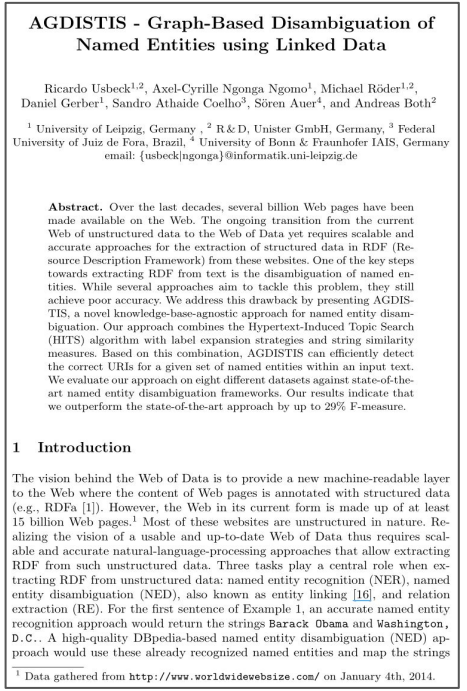
Finally, the relational view permits a clearer evaluation of the scope and logical limitations of present formatted data systems, and also the relative merits (from a logical standpoint) of competing representations of data within a single system. Examples of this clearer perspective are cited in various parts of this paper. Implementations of systems to support the relational model are not discussed.

1.2. DATA DEPENDENCIES IN PRESENT SYSTEMS

The provision of data description tables in recently developed information systems represents a major advance toward the goal of data independence [5, 6, 7]. Such tables facilitate changing certain characteristics of the data representation stored in a data bank. However, the variety of data representation characteristics which can be changed *without logically impairing some application programs* is still quite limited. Further, the model of data with which users interact is still cluttered with representational properties, particularly in regard to the representation of collections of data (as opposed to individual items). Three of the principal kinds of data dependencies which still need to be removed are: ordering dependence, indexing dependence, and access path dependence. In some systems these dependencies are not clearly separable from one another.

1.2.1. *Ordering Dependence.* Elements of data in a data bank may be stored in a variety of ways, some involving no concern for ordering, some permitting each element to participate in one ordering only, others permitting each

21th century



AGDISTIS - Graph-Based Disambiguation of Named Entities using Linked Data

Ricardo Usbeck[1,2], Axel-Cyrille Ngonga Ngomo[1], Michael Röder[1,2], Daniel Gerber[1], Sandro Athaide Coelho[3], Sören Auer[4], and Andreas Both[2]

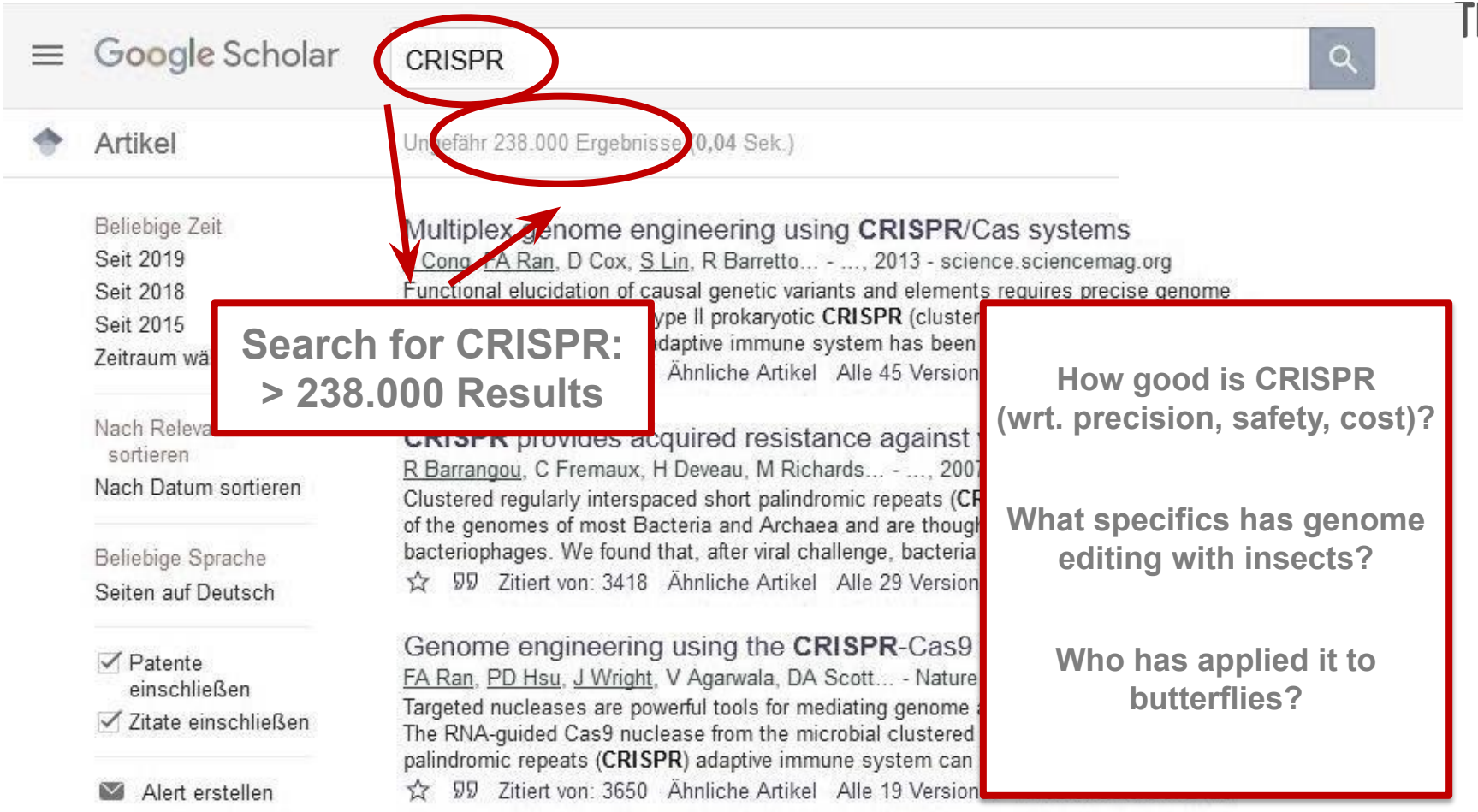
[1] University of Leipzig, Germany , [2] R & D, Unister GmbH, Germany, [3] Federal University of Juiz de Fora, Brazil, [4] University of Bonn & Fraunhofer IAIS, Germany
email: {usbeck|ngonga}@informatik.uni-leipzig.de

Abstract. Over the last decades, several billion Web pages have been made available on the Web. The ongoing transition from the current Web of unstructured data to the Web of Data yet requires scalable and accurate approaches for the extraction of structured data in RDF (Resource Description Framework) from these websites. One of the key steps towards extracting RDF from text is the disambiguation of named entities. While several approaches aim to tackle this problem, they still achieve poor accuracy. We address this drawback by presenting AGDISTIS, a novel knowledge-base-agnostic approach for named entity disambiguation. Our approach combines the Hypertext-Induced Topic Search (HITS) algorithm with label expansion strategies and string similarity measures. Based on this combination, AGDISTIS can efficiently detect the correct URIs for a given set of named entities within an input text. We evaluate our approach on eight different datasets against state-of-the-art named entity disambiguation frameworks. Our results indicate that we outperform the state-of-the-art approach by up to 29% F-measure.

1 Introduction

The vision behind the Web of Data is to provide a new machine-readable layer to the Web where the content of Web pages is annotated with structured data (e.g., RDFa [1]). However, the Web in its current form is made up of at least 15 billion Web pages.[1] Most of these websites are unstructured in nature. Realizing the vision of a usable and up-to-date Web of Data thus requires scalable and accurate natural-language-processing approaches that allow extracting RDF from such unstructured data. Three tasks play a central role when extracting RDF from unstructured data: named entity recognition (NER), named entity disambiguation (NED), also known as entity linking [16], and relation extraction (RE). For the first sentence of Example 1, an accurate named entity recognition approach would return the strings `Barack Obama` and `Washington, D.C.`. A high-quality DBpedia-based named entity disambiguation (NED) approach would use these already recognized named entities and map the strings

[1] Data gathered from `http://www.worldwidewebsize.com/` on January 4th, 2014.



Source: https://scholar.google.de/scholar?hl=de&as_sdt=0%2C5&q=CRISPR&btnG=, 04.2019

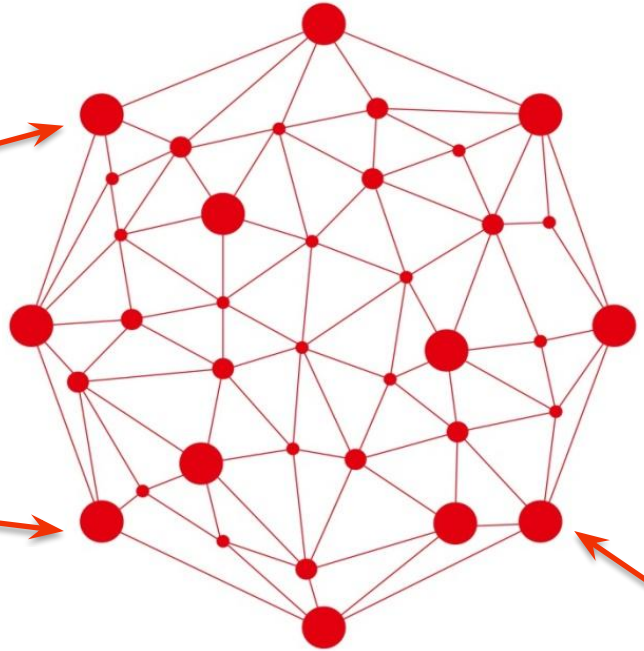
How can we fix it?

Concepts

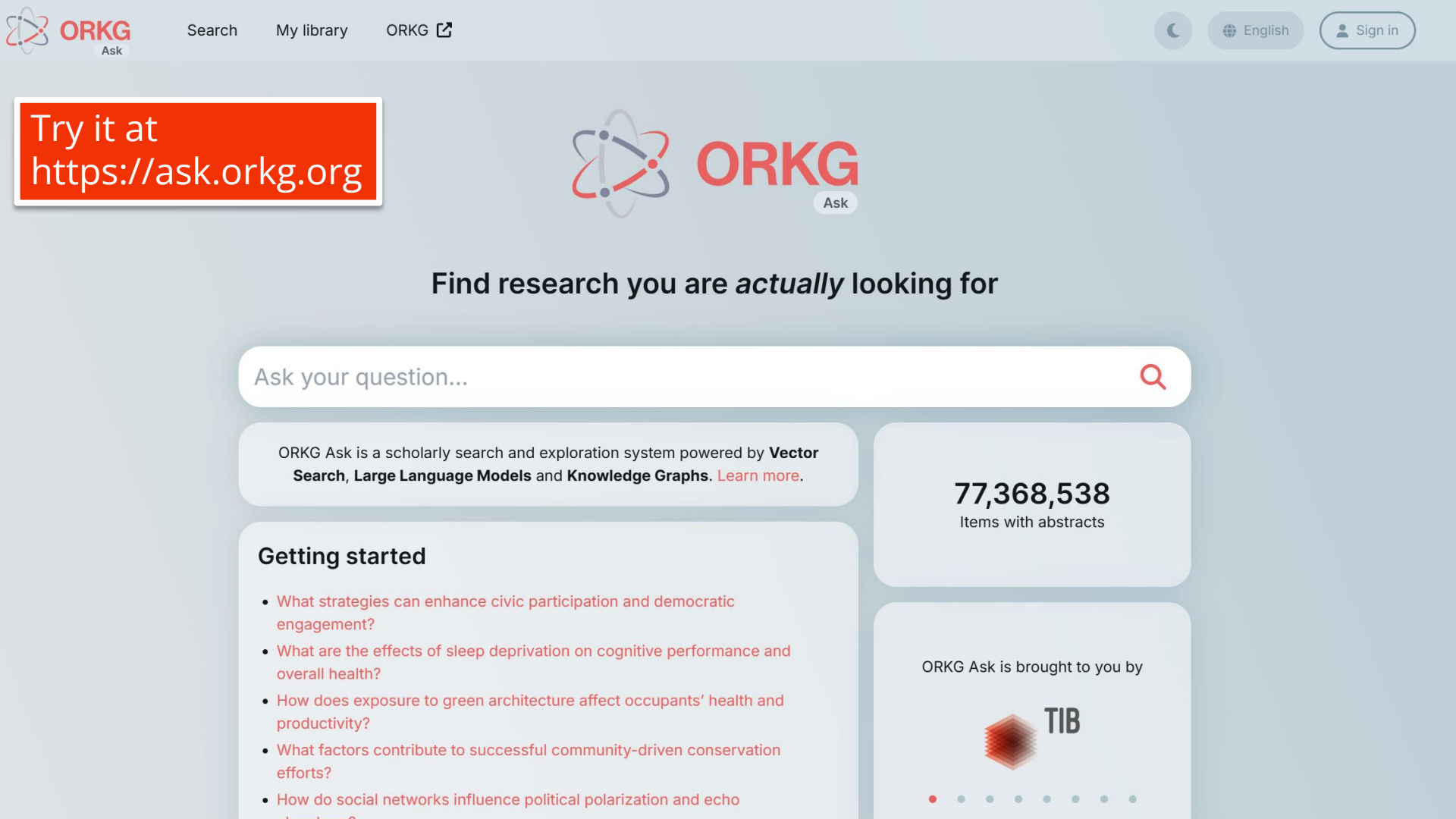
Overarching Concepts
- Research problems
- Definitions
- Research approaches
- Methods

Artefacts
- Publications
- Data
- Software
- Image/Audio/Video
- Knowledge Graphs / Ontologies

Domain specific Concepts



Mathematics	Physics	Chemistry	Computer Science	Technology	Architecture
• Definitions • Theorems • Proofs • Methods • ...	• Experiments • Data • Models • ...	• Substances • Structures • Reactions • ...	• Concepts • Implementations • Evaluations • ...	• Standards • Processes • Elements • Units, Sensor data	• Regulations • Elements • Models • ...


ORKG
Ask
Search
My library
ORKG
English
Sign in
Try it at
https://ask.orkg.org
ORKG
Ask
Find research you are *actually* looking for
Ask your question...
ORKG Ask is a scholarly search and exploration system powered by **Vector Search**, **Large Language Models** and **Knowledge Graphs**. Learn more.
77,368,538
Items with abstracts
Getting started
What strategies can enhance civic participation and democratic engagement?
What are the effects of sleep deprivation on cognitive performance and overall health?
How does exposure to green architecture affect occupants' health and productivity?
What factors contribute to successful community-driven conservation efforts?
How do social networks influence political polarization and echo
ORKG Ask is brought to you by
TIB

Save | Share | Hidden | Export | ORKG | Edit columns

Search query
How can we measure and enhance digital literacy skills across different age groups?

Search

Answer (based on top 5 papers)

To measure and enhance digital literacy skills across different age groups, there is a need for a global measure of digital and ICT literacy skills [1]. This involves understanding the definitions and assessing the approaches to measuring digital skills [1]. Children's engagement with digital technologies requires measuring not only technical skills but also the softer, non-technical skills like creativity, critical thinking, and safety [2]. These skills are crucial for effective interaction with digital technologies [2]. Additionally, understanding individual and contextual variables influencing digital skills distribution is essential [3]. In low-resource settings, novel approaches like observing task completion and self-reported survey responses can measure digital literacy [4]. Policymakers and educators can use this evidence to design interventions and policies tailored to users with various digital literacy levels [1][2][4].

Filters

- Year
- Language
- Collection
- Add filter...

ORKG Ask is brought to you by TIB

Answer	Insights	TL;DR	Conclusions	Results	Meth
A global measure of digital and ICT literacy skills Ainley, John • Schulz, Wolfram • Fraillon, Julian • December 2015 • ACEReSearch					
• Interest at national and international level has emerged to explore the best ways of measuring digital and ICT literacy skills • This paper reviews the definitions, approaches, and criteria for developing a global measure of digital and ICT literacy skills • Furthermore, the paper includes an appraisal of prospects for such a development in the current era of growing interest in ICTs for enhancing learning	• Digital and ICT literacy is important for full participation in a knowledge economy and an information society. • Interest in measuring digital and ICT literacy at a national and international level has emerged. • There are various definitions of digital and ICT literacy that have been adopted in cross-national studies. • There are different approaches to assessing digital and ICT literacy in those studies. • Criteria for developing a global measure of digital and ICT literacy skills have been identified. • Prospects for developing a global measure of digital and ICT literacy skills have been appraised. • Recommendations for such development have been proposed.	This paper discusses the need for a global measure of digital and ICT literacy skills and explores the definitions, assessment approaches, and criteria for developing such a measure	The paper proposes criteria for the development of a global measure of digital and ICT literacy skills.	• The paper reviews the definitions, assessment approaches, and criteria for a global measure of digital and ICT literacy skills. • It also includes an appraisal of prospects and challenges for such a development.	N/A
How to measure digital skills and build sustainable digital skills policy together? d'Haenens, Leen • Joris, Willem • January 2021 • 10.5281/zenodo.4568760					
• Significant disparities between the digital skills of girls and boys. Boys are more likely to engage in activities that promote the		The paper is about the importance of measuring digital skills in children and young people, as the COVID-19 pandemic has made digital skills			

The Open Research Knowledge Graph provides overview comparisons on the state-of-the-art for key research problems

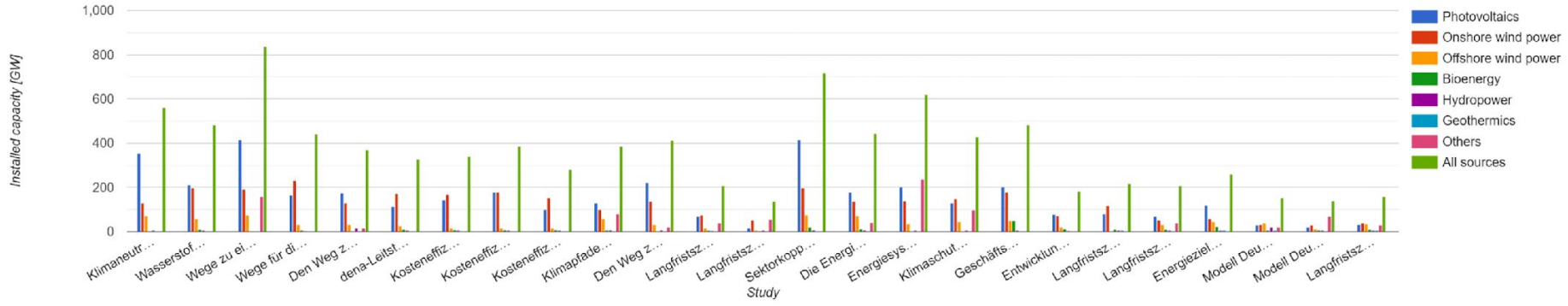
Properties	Klimaneutrales Deutschland *Contribution - 2020*	Wasserstoff-Roadmap Nordrhein-Westfalen *Contribution - 2020*	Wege zu einem klimaneutralen Energiesystem *Contribution - 2020*	Wege für die Energiewende *Contribution - 2019*	Den Weg zu einem treibhausgasneutralen Deutschland ressourcenschonend gestalten *Contribution 1 - 2019*	dena-Leitstudie Integrierte Energiewende *Contribution - 2018*	Kosteneffiziente Sektorenkopplung *Contribution - 2018*	Kostene Sektore *Contribu*
	hydropower	hydropower	hydropower	hydropower	hydropower	hydropower	hydropower	
	import	import	import	import	import	import	import	
	net import Show 4 more	net import Show 4 more	net import Show 4 more	net import Show 4 more	net import Show 4 more	net import Show 4 more	net import Show 4 more	
hasscenario/scenario								
has name*	Scenario	Scenario	Referenzszenario	Szenario 95	GreenEe	TM95	Technologieoffen	
hasgoal/goal								
has description*	100% CO2 reduction until 2050	95% CO2 reduction until 2050	95% CO2 reduction until 2050	95% CO2 reduction until 2050	95% CO2 reduction until 2050	95% CO2 reduction until 2050	80% CO2 reduction until 2050	80% C
has value*	100	95	95	95	95	95	80	
has unit*	percent	percent	percent	percent	percent	percent	percent	
has type*	CO2 reduction	CO2 reduction	CO2 reduction	CO2 reduction	CO2 reduction	CO2 reduction	CO2 reduction	
has time frame*	2050	2050	2050	2050	2050	2050	2050	
has energy sources/bioenergy								
has electricity generation*	Electricity generation	Electricity generation	Electricity generation	Electricity generation	Electricity generation	Electricity generation	Electricity generation	El
has electricity generation/electricity generation/has value*	4	18	0	26	0	49	45.84	
has installed capacity*	Installed capacity	Installed capacity	Installed capacity	Installed capacity	Installed capacity	Installed capacity	Installed capacity	
has installed capacity/installed	1	8.2	0	6.8	0	10	8	

View visualization

Reported Installed Capacity [GW] of Compared Studies

This image shows the reported installed capacity in gigawatt of the compared studies.

23 November 2021 | Oliver Karras | Jan Göpfert



Export | Close

ressourcenschonend gestalten

Contribution 1 · 2019

all sources	all sources	all sources	all sources	all sources	all sources	all sources	all sources	all
bioenergy	bioenergy	bioenergy	bioenergy	bioenergy	bioenergy	bioenergy	bioenergy	bi
geothermics	geothermics	geothermics	geothermics	geothermics	geothermics	geothermics	geothermics	geo
hydropower	hydropower	hydropower	hydropower	hydropower	hydropower	hydropower	hydropower	hyd
import	import	import	import	import	import	import	import	
net import	net import	net import	net import	net import	net import	net import	net import	ne
Show 4 more	Show 4 more	Show 4 more	Show 4 more	Show 4 more	Show 4 more	Show 4 more	Show 4 more	Show

TIB AISSISTANT

Sign in

To get started, you need to sign in first

The TIB AIssistant is an early preview version. Explore, create and use, but always with caution. Data is sent to OpenAI, privacy policy.

Welcome to TIB AIssistant

The AI-supported TIB AIssistant platform helps you as researcher throughout the research life cycle. Get AI assistance during research, while you stay in the driver seat.

Assistants

Assistants are designed to help you with tasks. You can use assistant sequentially, or you can use assistants individually, only using the support where you need it.

Tools

Assistants use **Tools** to connect to external services. This makes TIB AIssistant unique, as it integrates various different scholarly services into a single AI platform.

Assets

Assistant outputs are stored in the **Assets**, which in turn can serve as input to other assistants. Assets are stored locally in your browser.

20
Assistants

7
Tools

5
Assets

Open source

Developed by researchers, made for research.

Gitlab | Developer docs

Research life cycle support

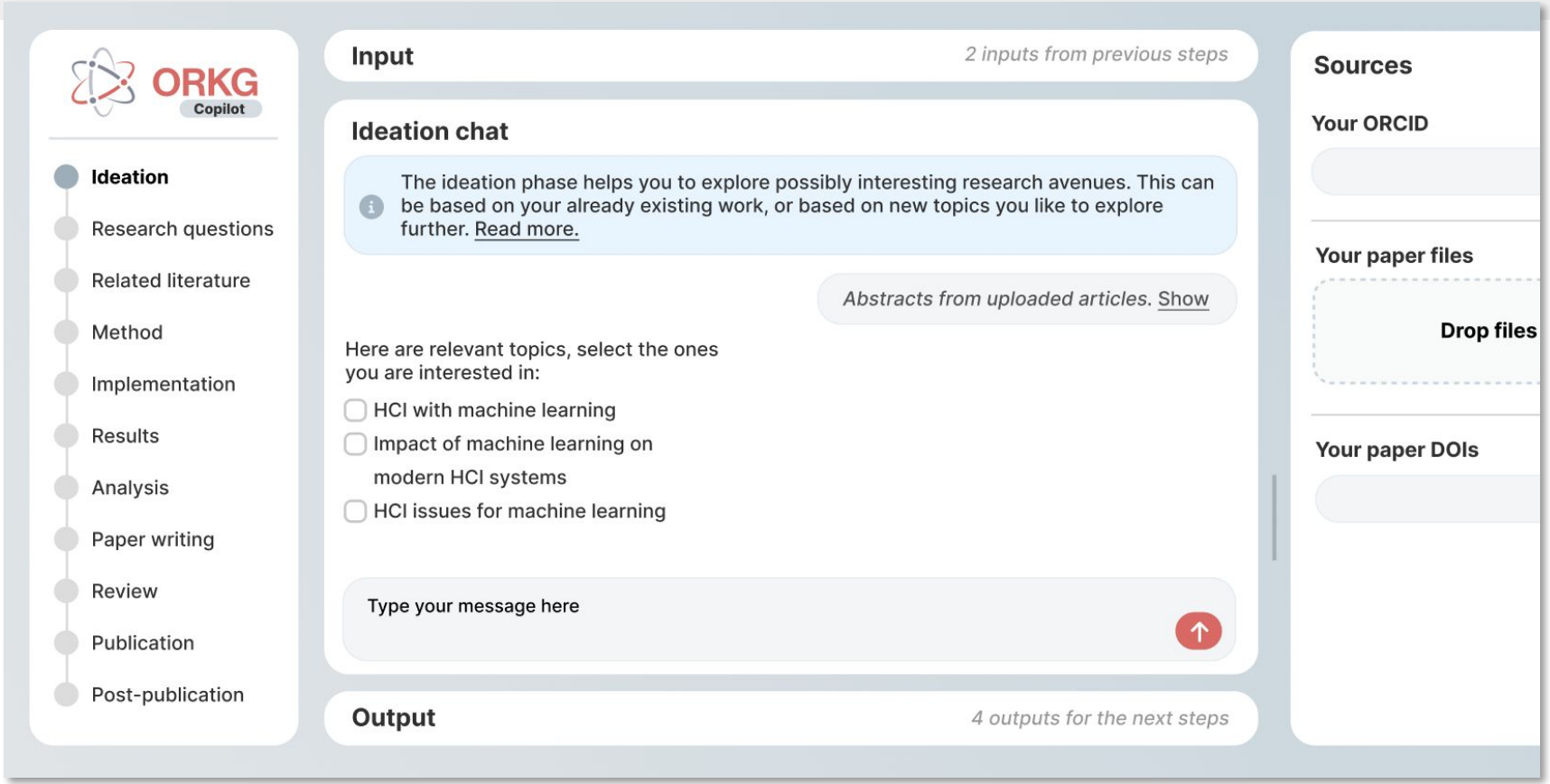
Tech stack

OpenAI NEXT.js AI SDK

Brought to you by

TIB

Future: AI Assistant for the whole Research Life-Cycle



https://de.linkedin.com/in/soerenauer

https://mstdn.social/@soeren_auer

Prof. Dr. Sören Auer

TIB & Leibniz University of Hannover
auer@tib.eu

Leibniz Universität Hannover

Member of Leibniz Association