



exploiting advanced research infrastructures to explore cultural diversity

dariah competence centre

in a nutshell

eveline wandl-vogt <u>DARIAH-PL</u> @ poznán, november, 9th, 2016





in a nutshell

explore cultural diversity dariah competence centre

eveline wandl-vogt <u>DARIAH-PL</u> @ poznán, november, 9th, 2016





outline

policies and strategies, projects and personal experiences

- cultural diversity
- curiosity driven collaboration
- EGI ENGAGE and DARIAH competence centre
 - SADE use case





outline

policies and strategies, projects and personal experiences

- UNESCO
- OPEN INNOVATION

- cultural diversity
- curiosity driven collaboration
- OPEN SCIENCE, ESFRI roadmap• EGI ENGAGE and DARIAH competence centre
- COST ENeL

• SADE use case





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policies and strategies, projects and personal experiences

- **UNESCO**
- **OPEN INNOVATION**
- curiosity driven collaboration
- OPEN SCIENCE, ESFRI roadmap• EGI ENGAGE and DARIAH competence centre
- **COST ENeL**

• SADE use case

cultural diversity

innovation networks ecosystems





cultural and language diversity and biodiversity

- strong relationship
- worlds linguistic, cultural and biological diversity
 as manifestations of diversity of life
- local and indigenenous communities complex classification systems
 reflect their understanding of natural environment;
 traditional knowledge maintained in language





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unesco declaration of cultural diversity (2001)





cultural diversity cultural and language diversity and biodiversity

the cultural wealth of the world

is it's diversity in dialogue

UNESCO declaration of cultural diversity [2001]





cultural diversity cultural and language diversity and biodiversity

the cultural **wealth** of the world

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UNESCO declaration of cultural diversity [2001]





cultural diversity

learnings from working on cultural diversity



- importance for global peace
- importance of non-standard languages and resources for challenge driven approaches
 - "digital dignity"
 - intersectoral collaboration

responsible reasearch, citizen science, do it yourself science

digital language diversity project

alliance for digital language diversity @ ELRA





curiosity driven collaboration explorative scholarship

- challenge driven approach
- opening up research process for methods and collaborators,
 including citizens
 - → ecosystem centric, cross-organizational innovation: innovation networks

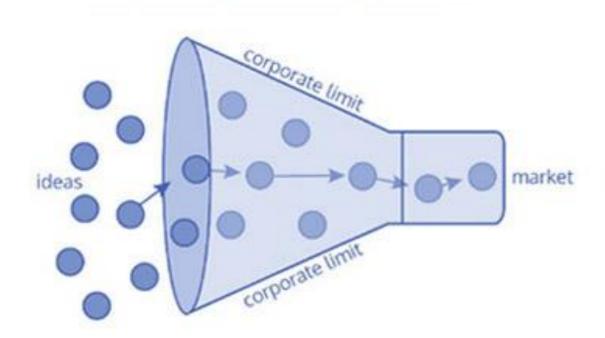
european commission open innovation 2.0. open innovation yearbook (2013)



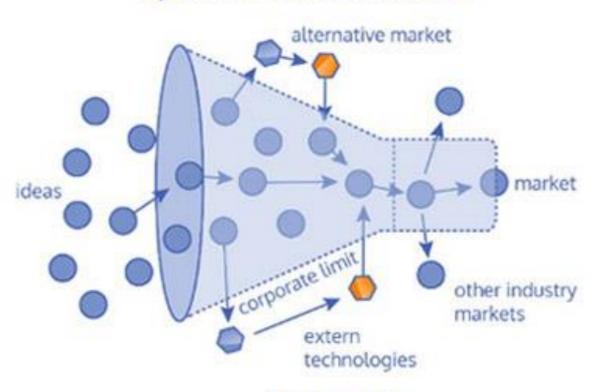


curiosity driven collaboration towards open innovation in science

Closed Innovation Model



Open Innovation Model



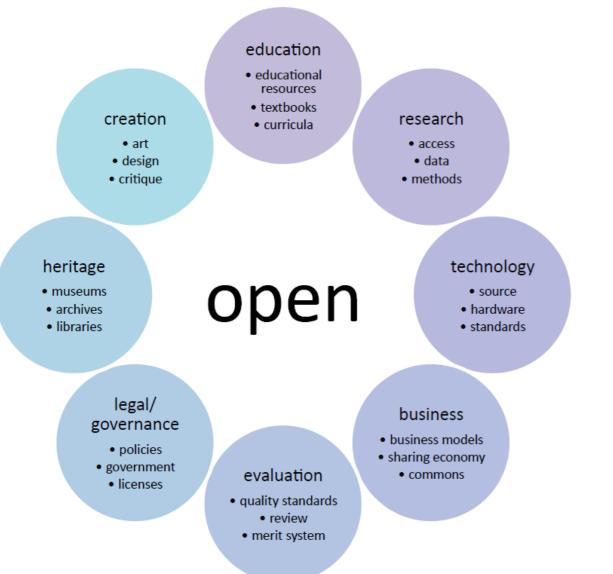
Past

Present





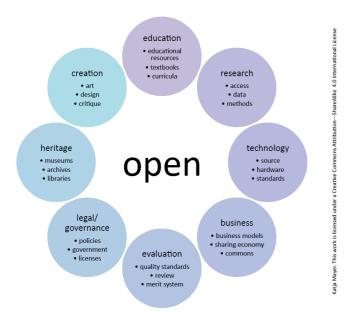
curiosity driven collaboration partners, collaborators, co-operations



Katja Mayer. This work is licensed under a Creative Commons Attribution---ShareAlike 4.0 International License







collaboration curiosity driven collaboration

heritage institutions:

"biodiversity and linguistic diversity portal" in collaboration with NHM vienna

• designing multidisciplinary collaborations in the humanities: survey, game "cards against humanities" and design probes





HOME ABOUT CONTACT

Collaborative Knowledge Discovery Environment

The project aim is to establish a collaborative science workflow and enable knowledge discovery as well as experimental scholarship in biodiversity and linguistic diversity. Our first step towards this is to establish a working environment (workspace) for researchers to explore linguistic diversity and interconnection of languages, cultural artefacts and data in linguistic and biological domain. We aim to provide users from these domains and with different backgrounds (researchers of different disciplines, layman) with services/applications to discover, curate and interlink biological taxonomic data with linguistic/terminological and cultural data, enrich and connect their data to external resources and publish them on the web as open data. The project is connected to ongoing initiatives like the COST ENeL action (European network of electronic lexicography).

RECONCILIATION SERVICE

The service was developed at the Austrian Centre for Digital Humanities as a first step towards Biodiversity and Linguistic Diversity knowledge discovery platform. It queries Common Names Service (CNS) in Natural History Museum Vienna for common names of living organisms in different languages for a given scientific name in latin language. The user can query one scientific name, or to import list of scientific names. In both cases the service returns data presented in the table which can be downloaded in csv or json formats. The third option is to query CNS service and get results in rdf/xml file where latin names and respective common names structured in SKOS format.

EXPLORE OUR DATASET

Explore a small sample data from ongoing work on dboe dataset which contains 100 scientific (latin) plant names and their common names in German dialects. The current sample contains 745 common names for 7 scientific names. The project is based on data originally compiled for the long-term project Dictionary of Bavarian Dialects in Austria (WBÖ) located at the Austrian Academy of Sciences. These data – referred to as plant names catalogue – were listed and stored for the most part in the 1930s with additional records up to the 1980s. The collection consists of approximately 3300 index cards, containing estimated 1600 plant species and genera, classified under their biological scientific names.

EXPLORE





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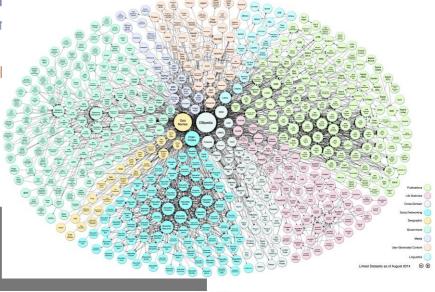
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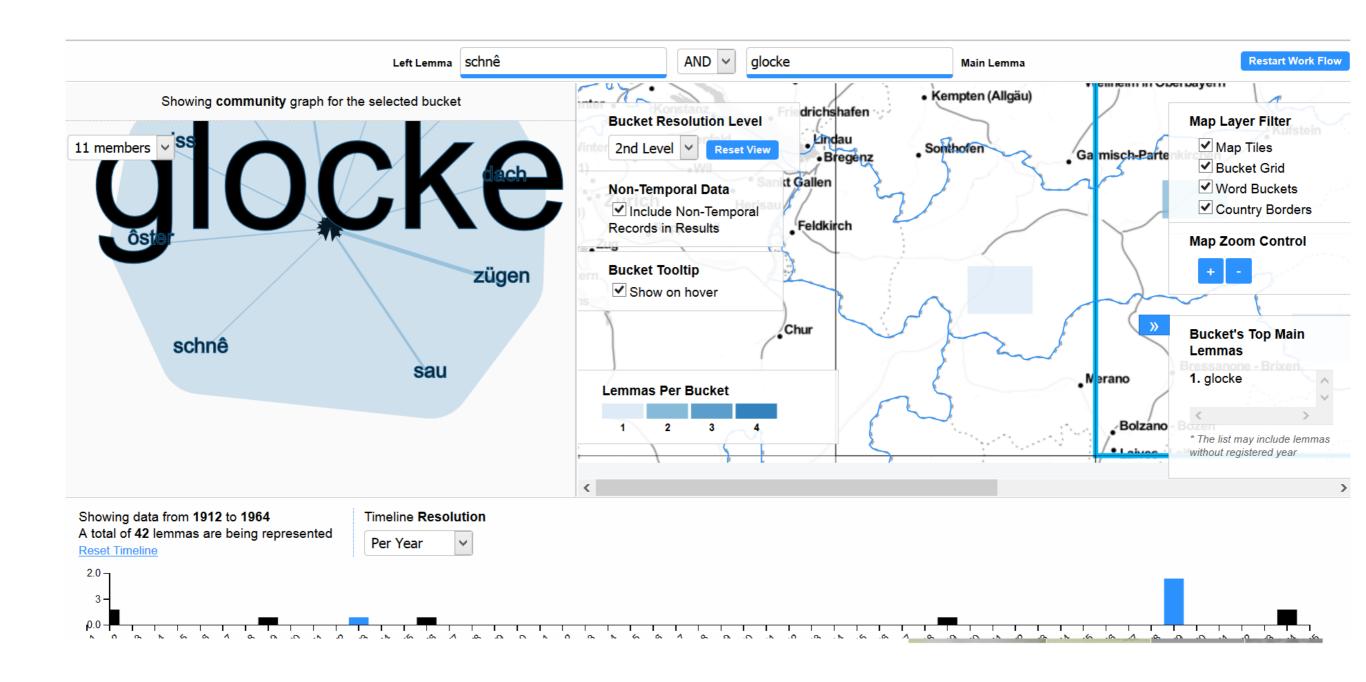
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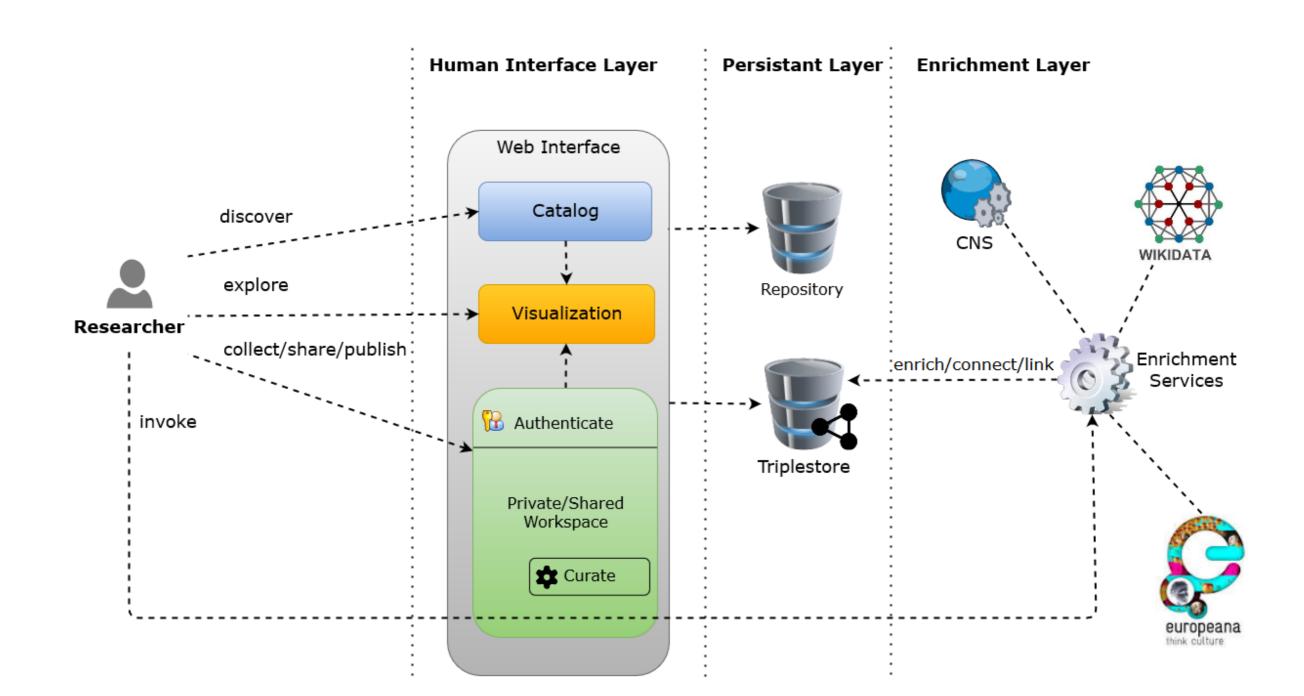












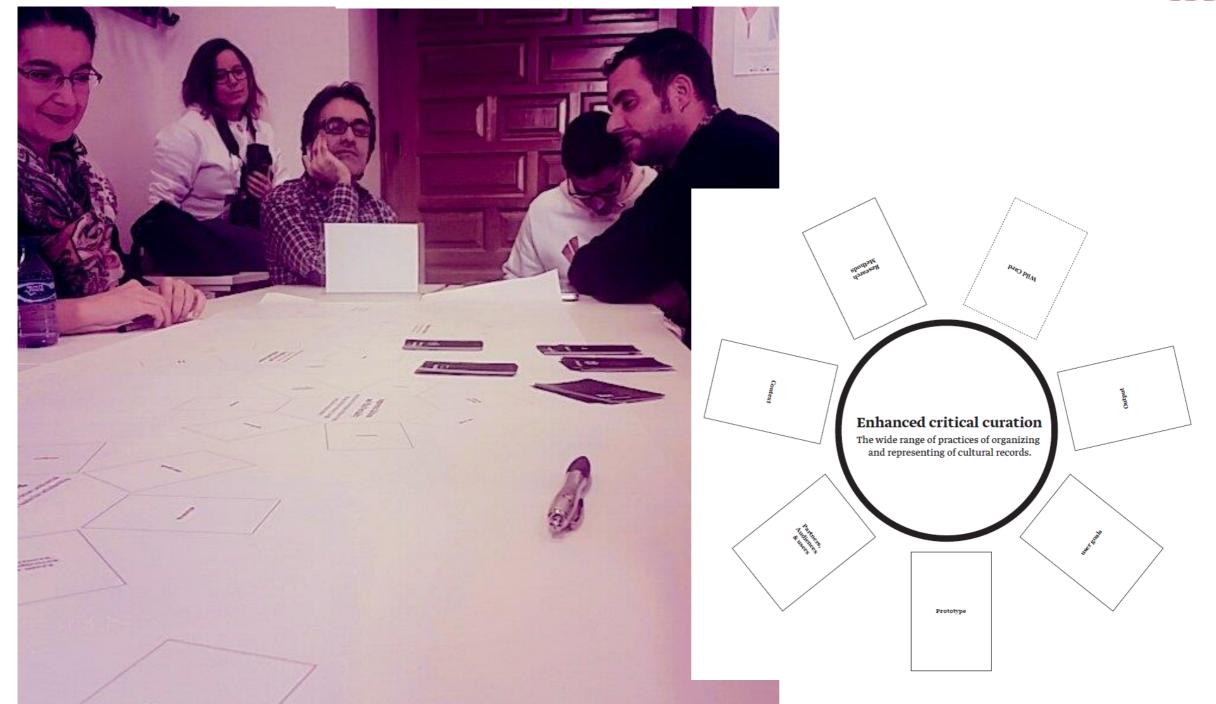






EUROPEAN NETWORK of e-LEXICOGRAPHY









curiosity driven collaboration

learnings from working towards intersectoral collaboration

- virtual, open collaboration
- common goals and passion
- designing workflows, opening up
 - process is messy
- change requires time, creates fear
 - network facilitator

innovation networks ecosystem centric



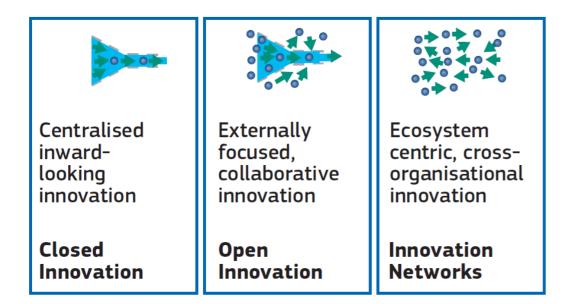


curiosity driven collaboration

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Figure 6: The evolution of innovation



innovation networks ecosystem centric







EGI european grid infrastructure

- EUROPEAN: 32 european countries (national grid initiative)
 - GRID: federating IT services
 - INFRASTRUCTURE: compute power, storage, applications clouds, grids etc.

sustainability via project driven innovation









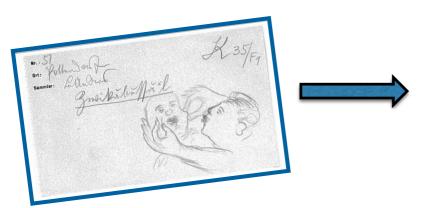
EGI engage DARIAH competence centre

- strenghtening collaboration between EGI and DARIAH
- increasing the number of cloud based services and applications for A&H
 - raising awareness of benefits of using research infrastructures for A&H
 - providing access to EGI FedCloud resources
 - technical support

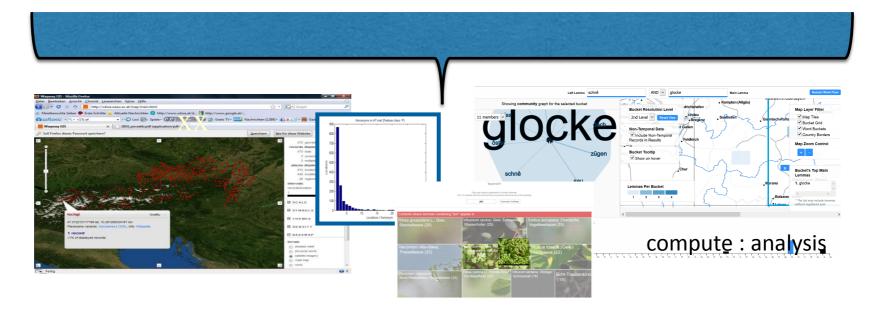




DARIAH competence centre cultural lexicographers user needs





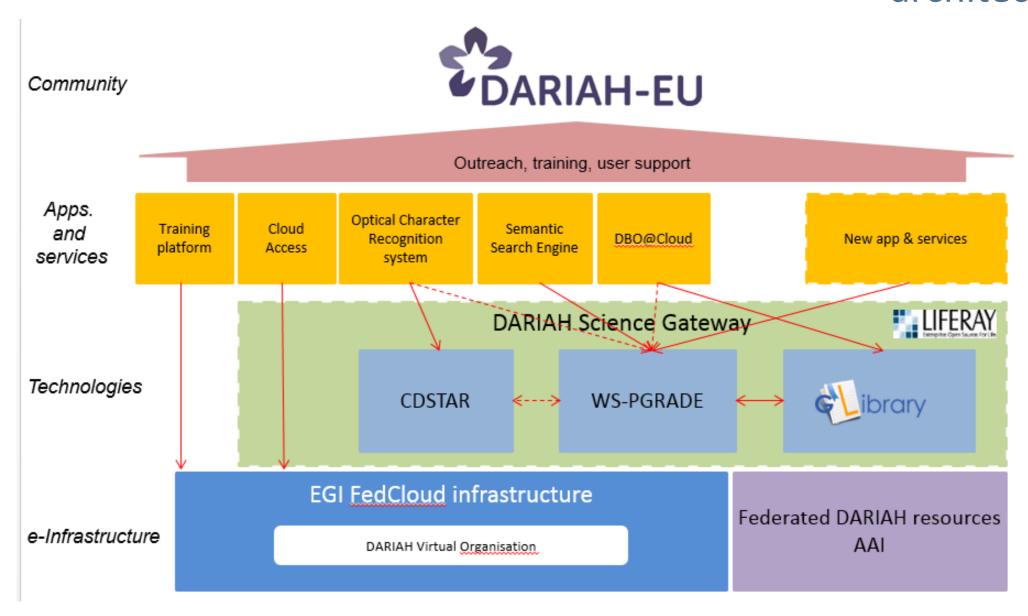








DARIAH CC architecture







DARIAH CC within DARIAH-EU

- 1. WG defining cloud infrastructure services for DH
- 2. WG federated identity management for DARIAH

sustainable collaboration

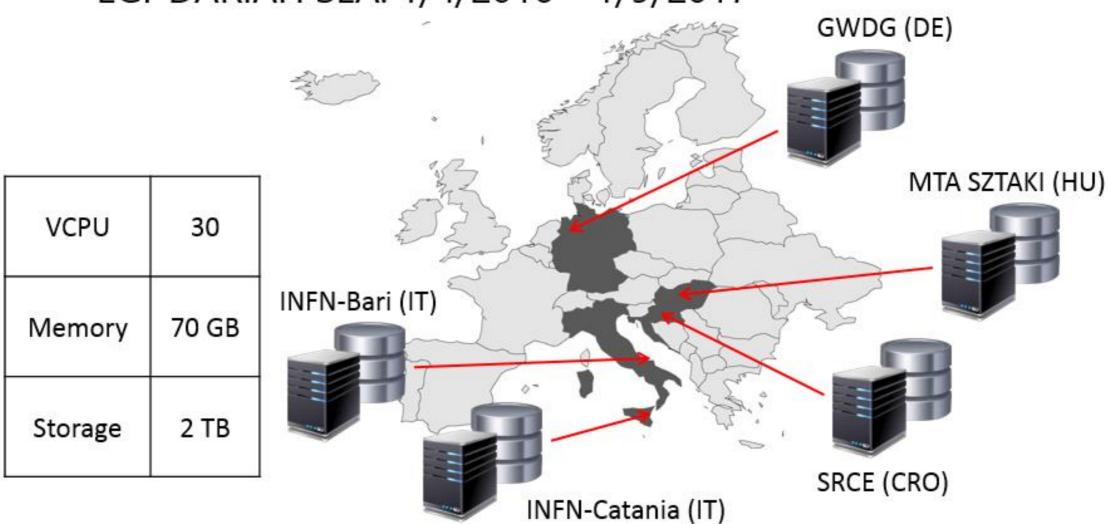




available (planned) FedCloud resources

Virtual organization: vo.dariah.eu

EGI-DARIAH SLA: 1/4/2016 – 1/9/2017







DARIAH CC services for A&H communities

Generic services

End-user oriented, non-specific applications:

DH Gateway, PSSE, Cloud

Access, File Transfer

FedCloud services, applications and tools

Developers services

App developer and service provider oriented, development services: *aLibrary, CDSTAR, WS-PGRADE*

Demonstrators

End-user, specific research groups, specific use-cases: DBO@Cloud, OCR





DARIAH CC DARIAH science gateway



Welcome to the EGI DARIAH Gateway!

This gateway was developed within the EGI-Engage H2020 project and operated by the EGI DARIAH Competence Centre. This gateway displays state-of-the-art capabilities of what's available in digital science with the use of EGI. The gateway provides various web-based applications and services for the Digital Humanities researchers, institutes and communities.

The gateway includes a Help page for giving more information on the applications and services it provides.

The gateway includes the following applications:

Simple Semantic Search Engine (SSE):

Allows users to search in the e-Infrastructure Knowledge Base (Open Access Document Repositories and Data Repositories). No authentication is required to access the service.

· Parallel Semantic Search Engine (PSSE):

PSSE is a parallelised version of SSE enabling simultaneously search across the <u>e-Infrastructure Knowledge Base</u>, <u>Europeana</u>, <u>Cultura Italia</u>, <u>Isidore</u>, <u>OpenAgris</u>, <u>PubMed</u> and <u>DBpedia</u> platforms.

No authentication is required to access the service.

DBO@Cloud:

A Cloud-based repository presenting 100+ years old collection of Bavarian dialects. No authentication is required to access the service.

The gateway includes the following services:

Cloud Access:

Single-job applications and parameter-sweep applications can be run on the DARIAH VO clouds without porting efforts. Authentication is required to access the service.

· Workflow Development:

Complex workflow applications can be developed and run on all the resources of the DARIAH VO. Authentication is required to access the service.

File transfer

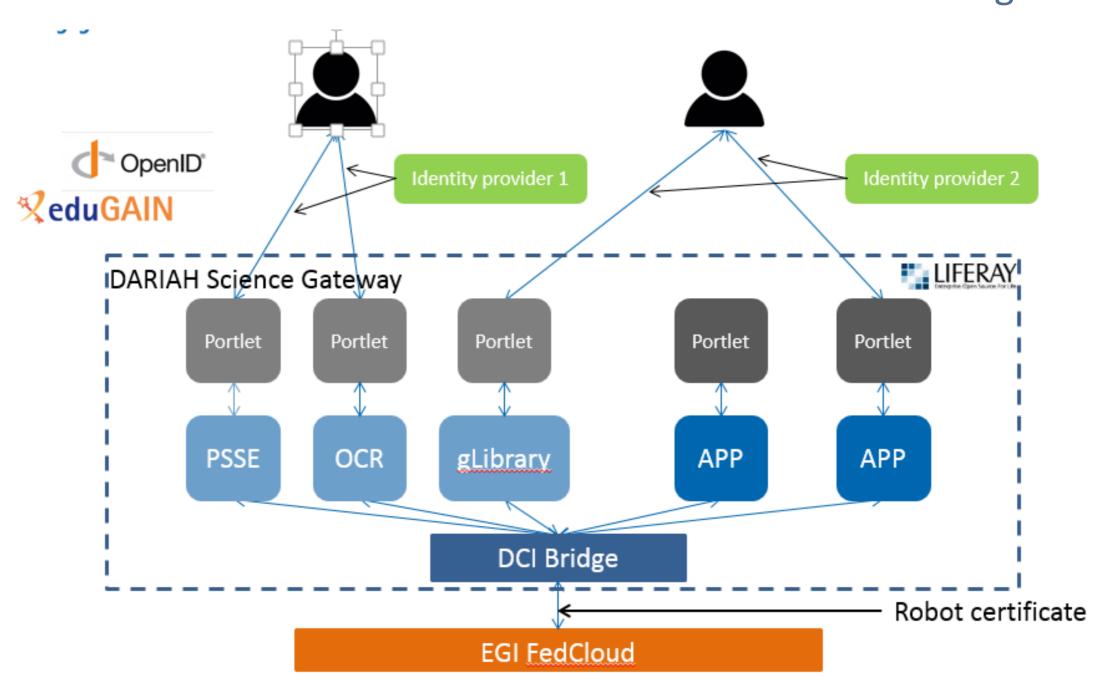
Enables transferring data from, to and between storage services providing HTTP, HTTPS, SFTP, GSIFTP, SRM, iRODS and S3 protocols.

Authentication is required to access the service.





DARIAH CC DARIAH science gateway







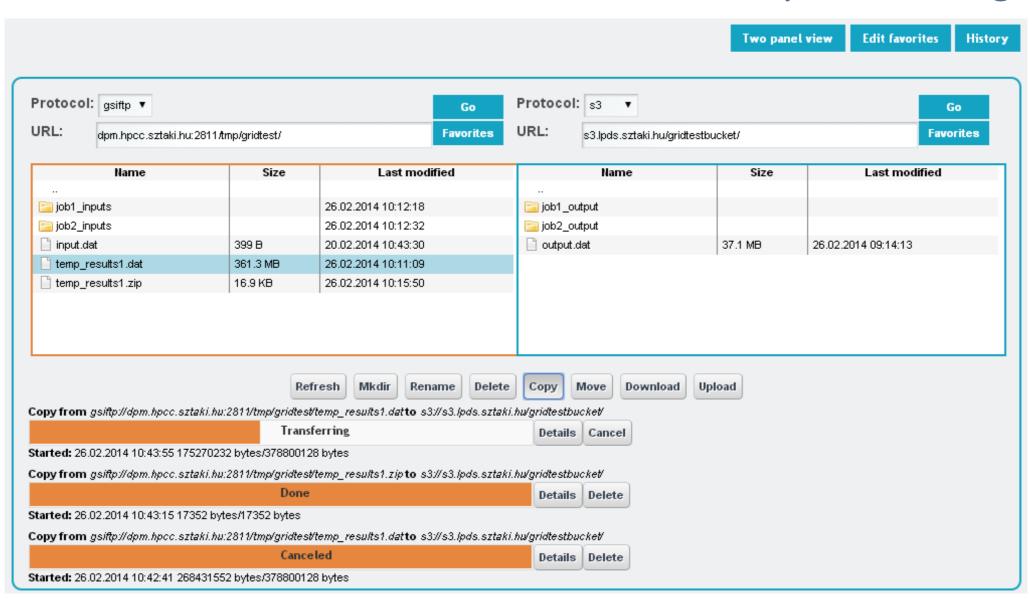
DARIAH CC authentification & sign in

DFN-AAI + eduGAIN **ReduGAIN Deutsches** Forschungsnetz About eduGAIN | Help Select your organisation In order to access the service dariah-gateway.lpds.sztaki.hu please select or search the organisation you are affiliated with. Select MTA Sztaki Munkatársak Enter the name of the organisation you are affiliated with... Last used MTA Sztaki Munkatársak AFIRE (Armenia) Software provided by SWITCH





cloud access functionality: transfering data







cloud access functionality: run applications easily

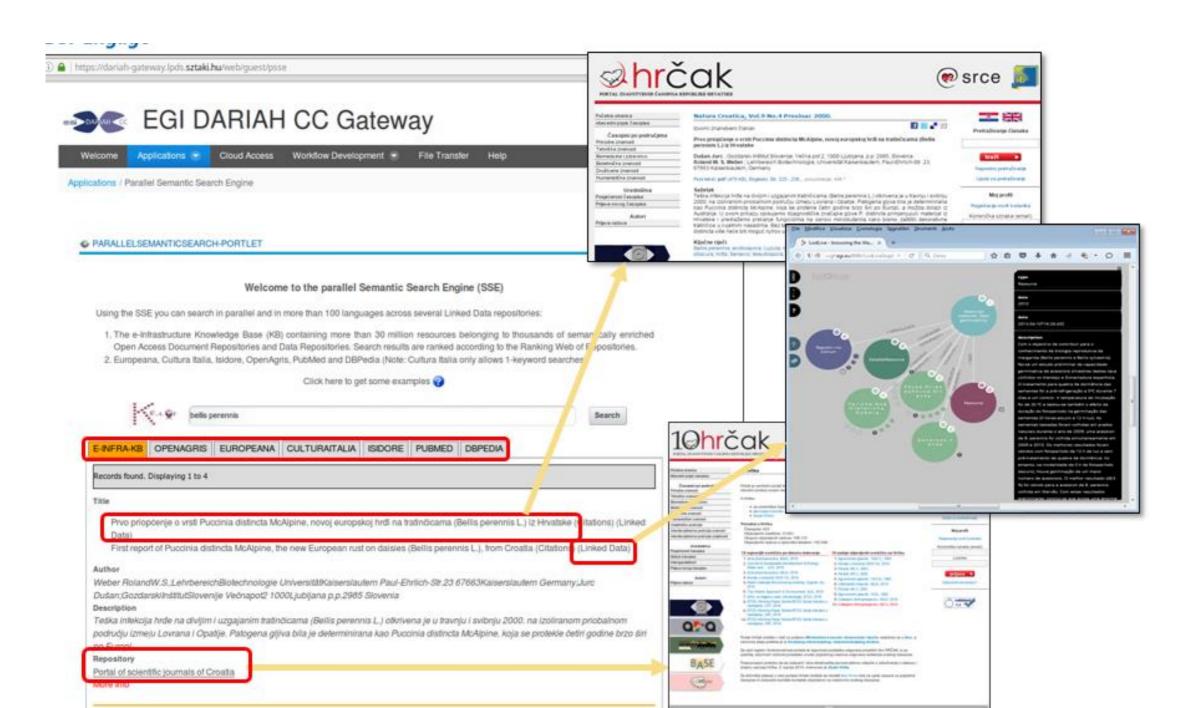
6 steps to run your application

- 1. provide your executable
- 2. define static inputs (optional)
- 3. define parametric inputs (optional)
- 4. define command line arguments (optional)
 - 5. select resource
 - 6. define output files (optional)





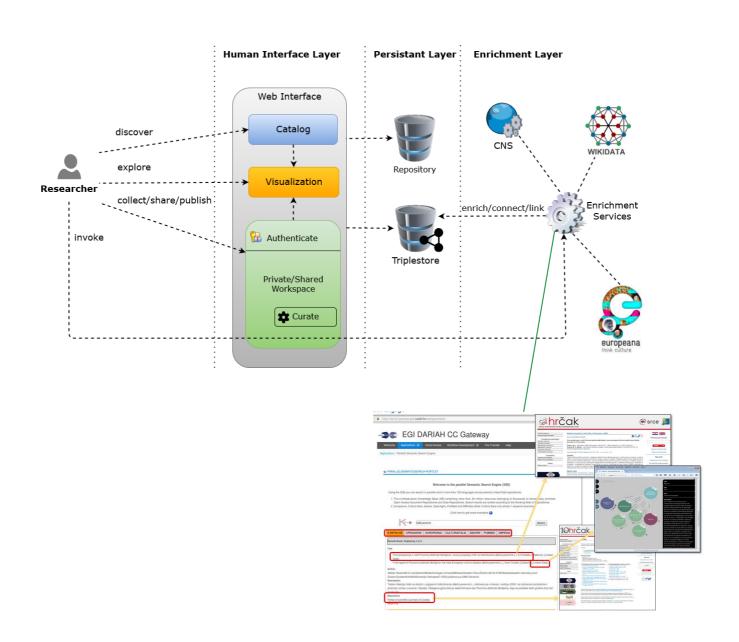
parallel semantic search on the example 'bellis perennis'







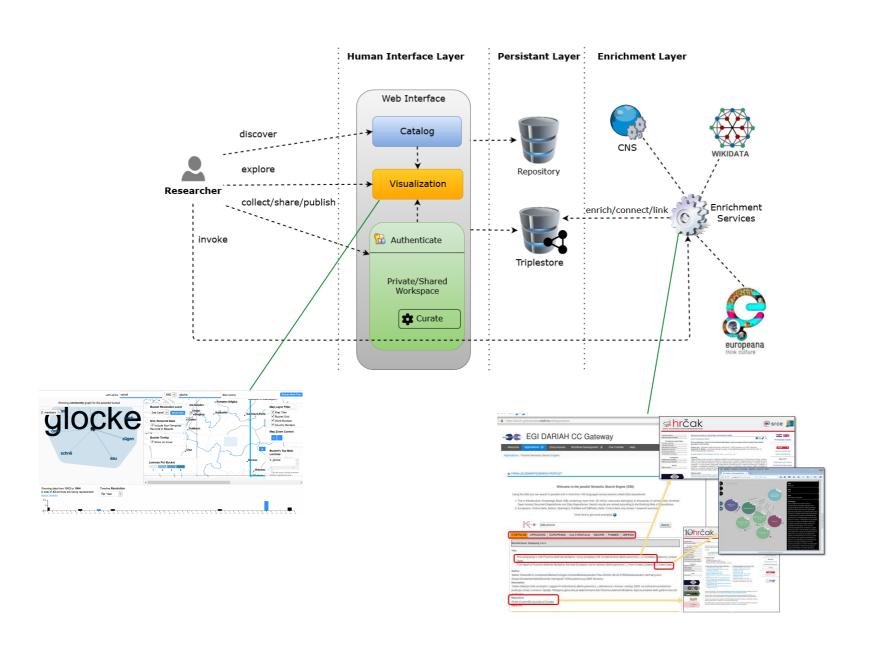
DARIAH CC supporting cultural diversity documentation and research







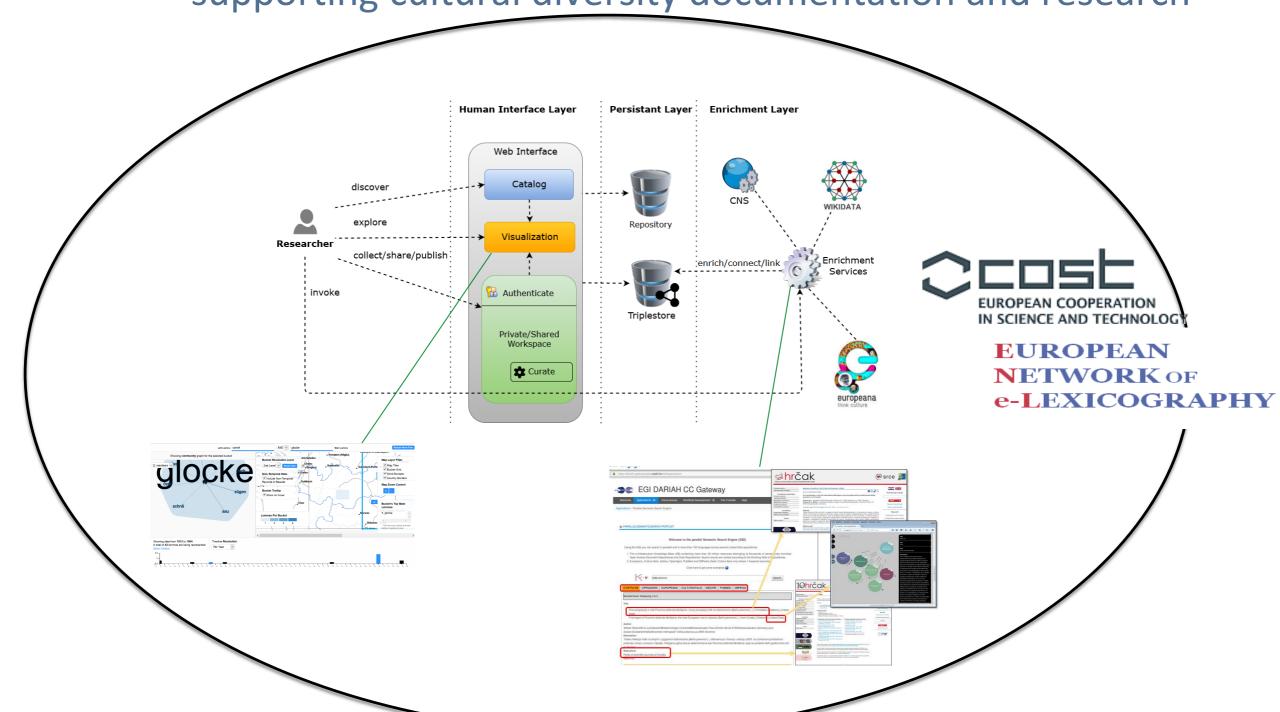
DARIAH CC supporting cultural diversity documentation and research







supporting cultural diversity documentation and research







DARIAH CC information via wiki



Navigation

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Toolbox

What links here Related changes Special pages Permanent link

Print/export

Create a book
Download as PDF
Printable version

Page Discussion

Competence centre DARIAH

EGI-Engage Competence centres: Main page ELIXIR BBMRI MoBrain DARIAH LifeWatch EISCAT_3D EPOS Disaster Mitigation | EGI-Engage Knowledge Commons

About

The DARIAH Competence Center (CC) is a virtual research group, consisting of computer scientists and the researchers coming from the Arts and Humanities. Its mission is to broadening the usage of the advanced research infrastructures and technologies, such as cloud-oriented services, computational and storage resources in the domain of the Arts and Humanities research. The main activities of the DARIAH CC are:

- 1. Bringing together relevant stakeholders from the EGI and DARIAH communities who help DARIAH members to better understand their research infrastructure needs, and who operate as a 'knowledge hub' concerning the use of e-Infrastructures in the domain. >> Read about the CC members a.
- 2. Providing customised e-Infrastructure services for Arts and Humanities, by extending generic EGI e-Infrastructure services according to the unique needs of Arts and Humanities users.
- 3. Creating demonstrator applications from the Arts and Humanities domain that use e-Infrastructure services. The demonstrators display state-of-the-art capabilities of what's available in digital science with the use of EGI. >> Learn about and try our demonstrators 🚨
- 4. Raising awareness within the Arts and Humanities researcher community teams about the benefits of e-Infrastructure technologies. The CC is organising outreach, training and workshop events, and contributes to high-impact events in the field. >> Check our event calendar 🚨

THE REST OF THE PAGE, INCLUDING THE REFERENCED SERVICES, IS UNDER FINALISATION

Participants

Ruđer Bošković Institute (RBI), Croatia (Leader institute)	Davor Davidović (CC coordinator), Karolj Skala
Hungarian Academy of Science, Institute for Computer Science and Control (MTA SZTAKI), Hungary	Zoltán Farkas (CC technical coordinator)
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Austrian Academy of Science (AAS), Austria	Eveline Wandl-Vogt

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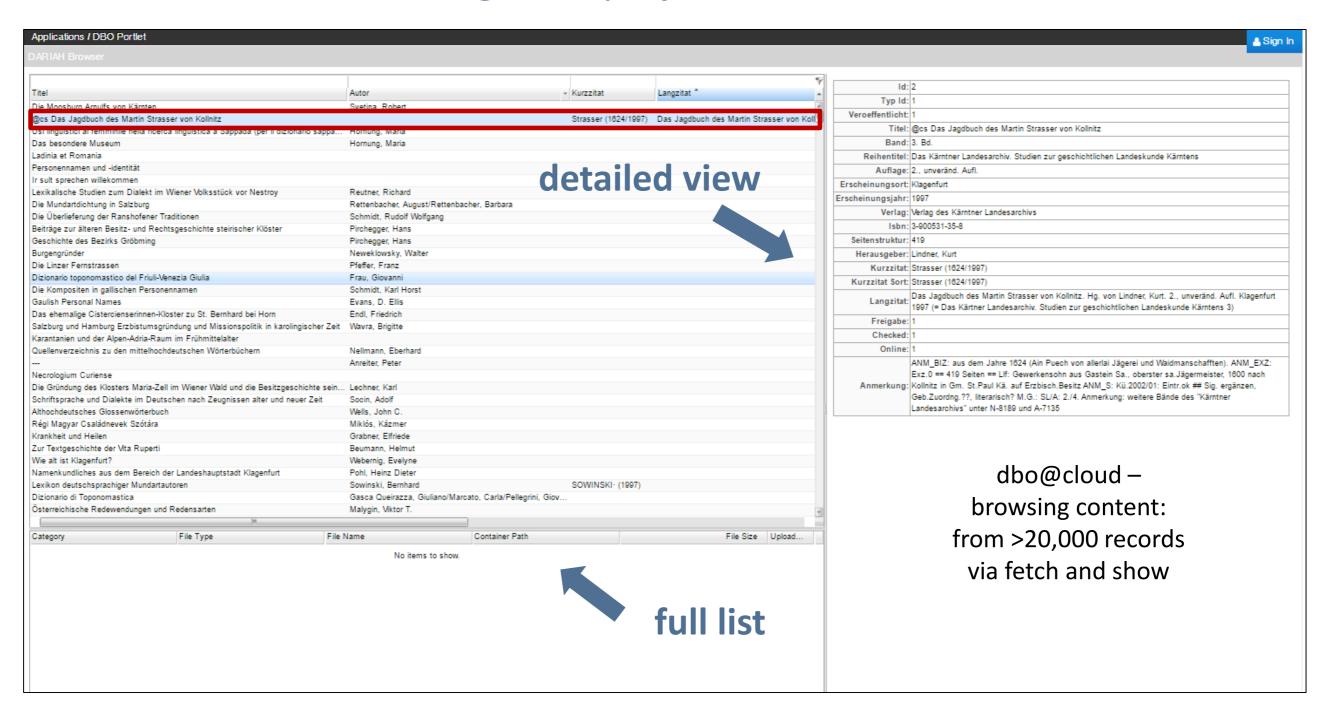
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SADE use case @ DARIAH CC

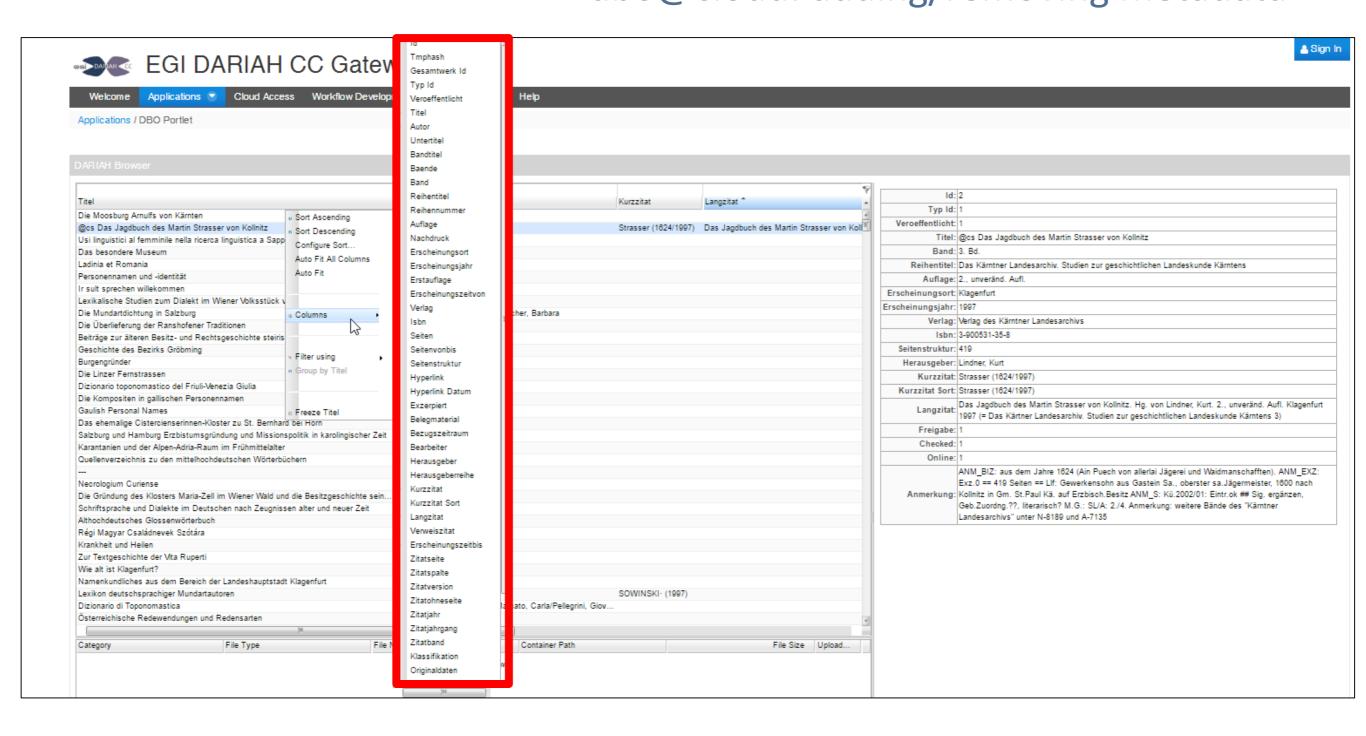
from a long-term project to h2020-use case: dbo@cloud







SADE use case @ DARIAH CC dbo@cloud: adding/removing metadata





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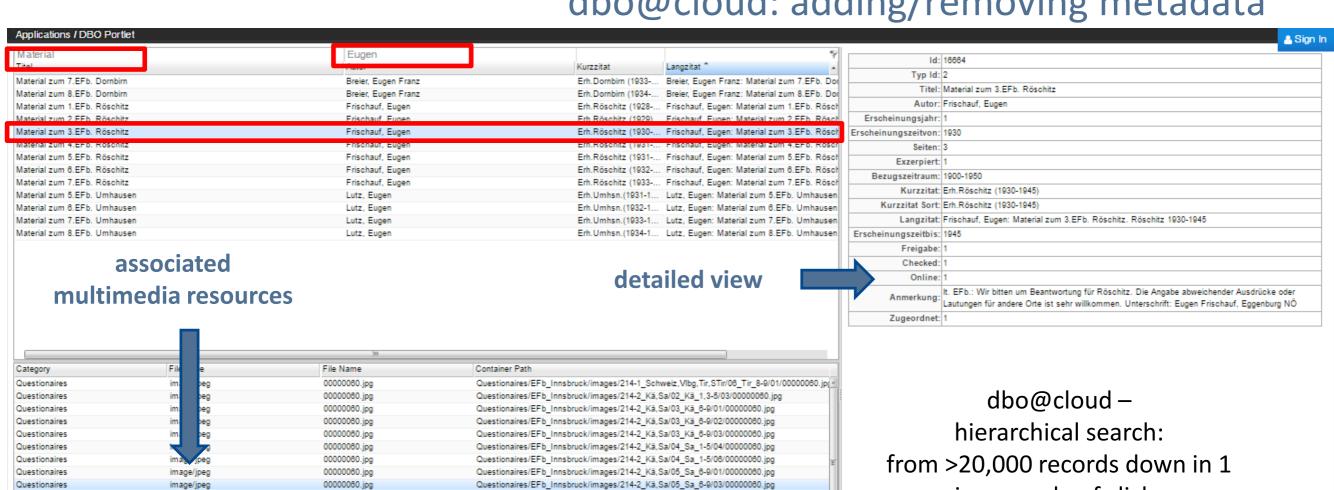
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SADE use case @ DARIAH CC

dbo@cloud: adding/removing metadata



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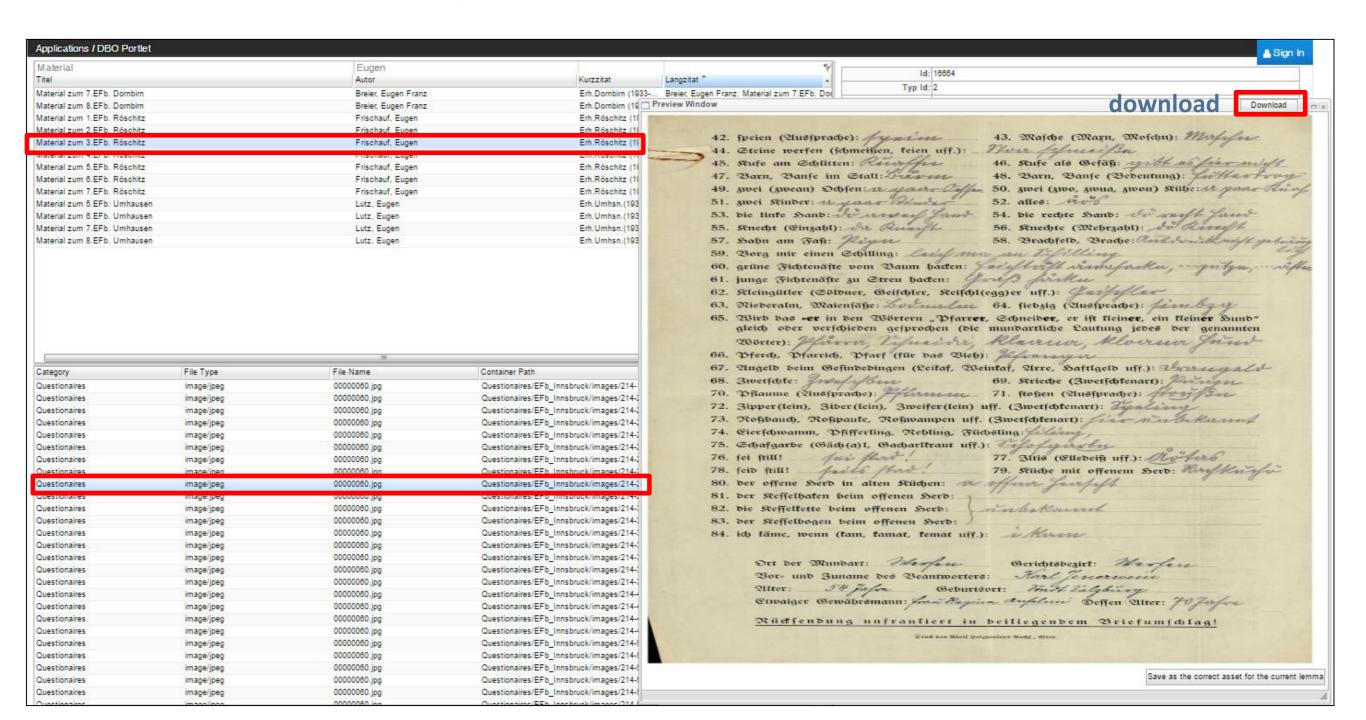
in a couple of clicks





SADE use case @ DARIAH CC

dbo@cloud: preview and download of multimedia resources

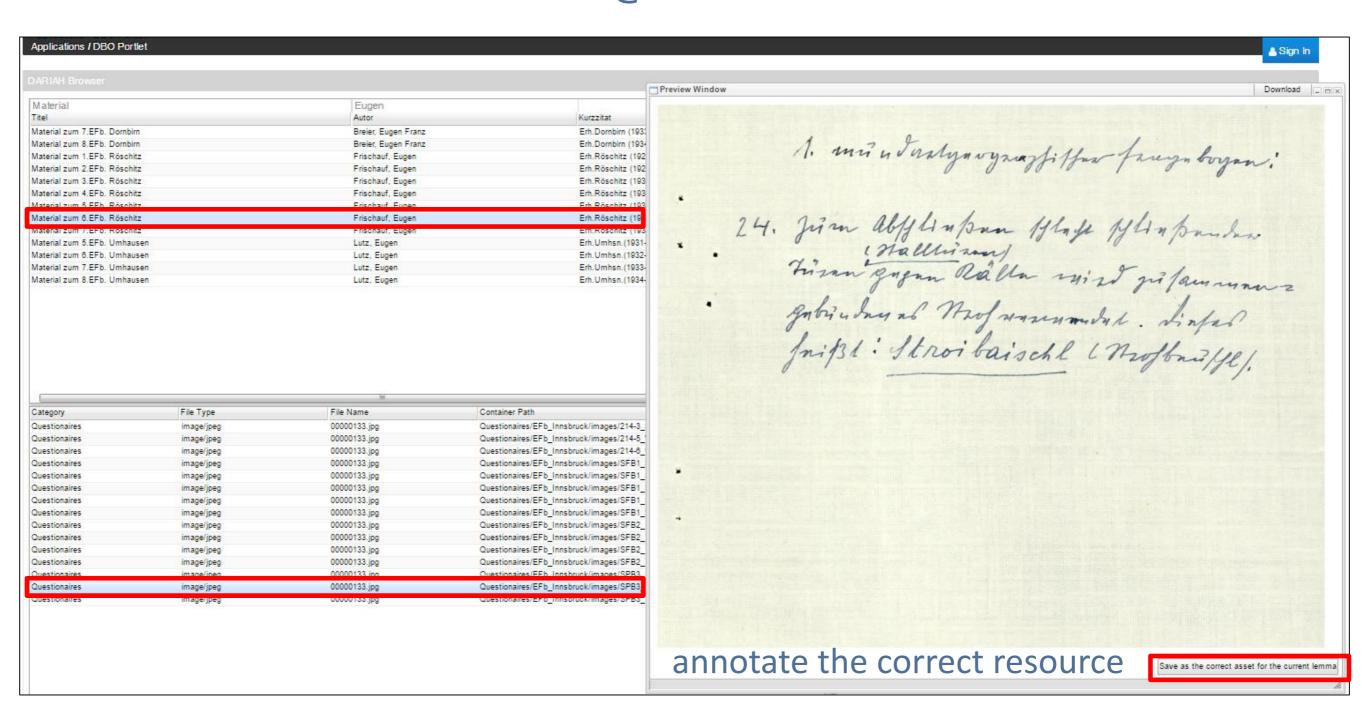






SADE use case @ DARIAH CC

dbo@cloud: annotate the correct resource







SADE case study learnings from a case study approach

- re-modeling of a long term humanities project is possible
 yet challenging
 - goes along with microprototyping approach
 - fits well with open innovation in science methods
 - stimulating innovation, creativity, fun

digital transformation collaborative organisations





SADE case study learnings from a case study approach

learnings from case studies should stimulate

A&H large scale projects

humanities researcher often fail to connect their knowledge with infrastructure providers

co-design, co-creation, team-science





explore cultural diversity dariah competence centre in a nutshell

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