

Creating a Joint Metadata Domain for the Social Sciences and Humanities in Europe

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DASISH Task 5.4

- Goal: "an integrated metadata domain for the SSH disciplines" (DASISH DoW, p. 22)
- Project partners:
 - MPI-PL Max Planck Institute for Psycholinguistics: task coordination/technical infrastructure
 - GESIS Leibniz Institute for the Social Sciences
 - SND Swedish National Data Service
 - ICLTT Institute for Corpus Linguistics and Text Technology
- Main contributors:
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Requirements

The DASISH catalogue should

- include interdisciplinary metadata from the Social Sciences and Humanities (SSH) -DARIAH, CLARIN, CESSDA - and
- make use of smart search techniques such as faceted browsing.





The Use of Interdisciplinary Metadata Catalogues

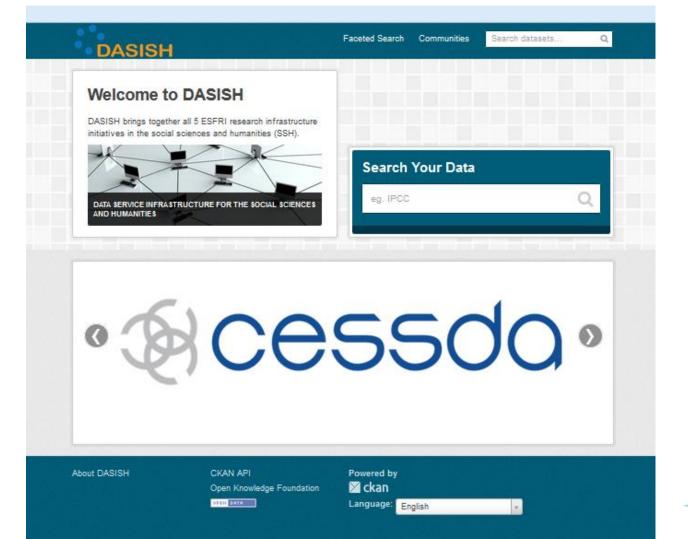
- Enhance the visibility of SSH research data
- Show metadata from different sources via a single application
- Provide search for several disciplines and support cross-disciplinary research interests
- Promote a culture of data sharing, data reuse, verification and citation





DATA SERVICE INFRASTRUCTURE FOR THE SOCIAL SCIENCES AND HUMANITIES

Demo http://ckan.dasish.eu/







- 1. Collecting OAI end-points
- 2. Choosing a catalogue software
- 3. Deciding on the set of facets and fields
- 4. Creating suitable mappings
- 5. Metadata harvesting
- 6. Metadata quality improvement
- 7. Metadata normalization





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1. Collecting OAI end-points

Questions:

- Harvesting metadata directly from the metadata provider or harvesting other harvesters?
- Where do we get lists of metadata providers (preferably OAI-PMH) from?

Results:

- 8 metadata providers (CESSDA)
- 20 metadata providers (CLARIN)
- 25 metadata providers (DARIAH)
- Total: 53 metadata providers





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2. Choosing a catalogue software

CKAN

- Developed by the open knowledge foundation
- publish and manage datasets (import functions)
- search and discovery
- harvesting (pull in data from existing repos)
- store raw data and metadata (for each dataset)
- visualise data, advanced geospatial features
- community: engage with users and others
- API: customise and extend
- see http://ckan.org/features/ for more information



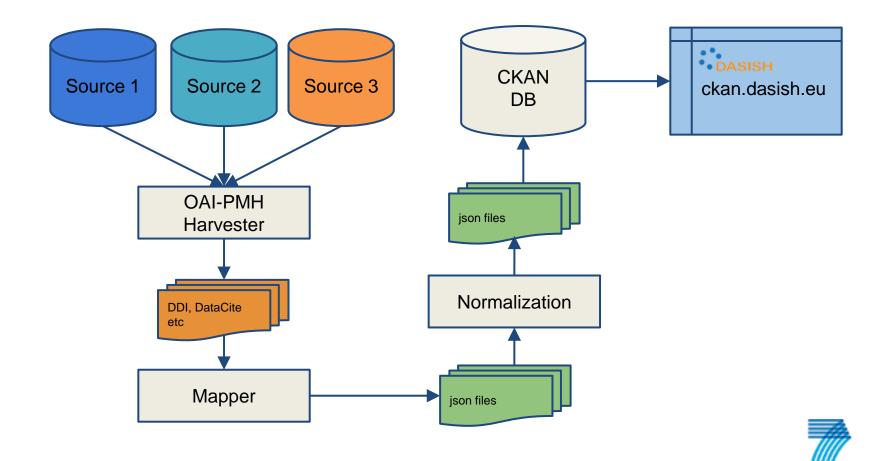
Choice of ckan for the metadata portal

- CKAN have been used earlier by MPI and is built on proven technology
- API to import metadata via json/csv
- Cusomizable interface





Technical flow





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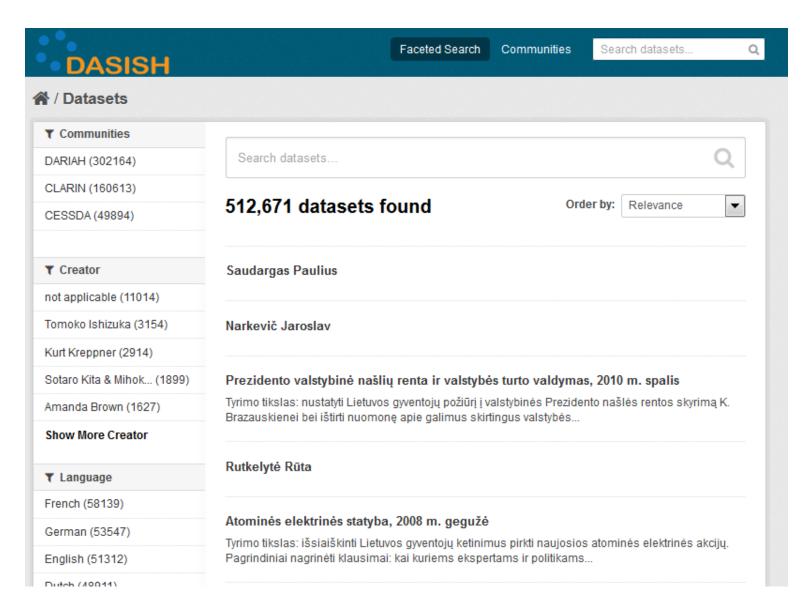
3. Deciding on the set of facets and fields

Search Facets

- 1. Communities
- 2. Creator
- 3. Language
- 4. Creation Year
- 5. Publication Year
- 6. Data Provider

- 7. Country
- 8. Collection
- 9. Discipline
- 10. Subject
- 11. OAI Origin









DATA SERVICE INFRASTRUCTURE FOR THE SOCIAL SCIENCES AND HUMANITIES

Other Metadata Fields

- Spatial coverage
- Temporal coverage
- Contributor
- Metadata schema
- Metadata source
- Resource type
- Rights
- Data format

Facered Search Communities Search datases. DASISH # / Datasets / Eurobarometer 15 (1981) 👹 Groups - 🔘 Jodyty Stream - 🖼 Related Eurobarometer 15 (1981) Eurobarometer 15 has the following main survey focus areas: 1, the mood and sats action of Europeans, 2. attude to Europe and the European Community and 3, attude to introduction of a European page port Topics: 1. The mood and satisfaction of Europeans: general consument with the fundamental philosophy on society; Judgmenton the Importance of political goals in one's country, 2, defaule to Europe and the European Community: articule to unification of Western Europe: judgment on the development of harmony between the nations of the BC; actuals to membership in the community and degree of solidarity with the BC; index of actuals to the European Community; advantages and disadvantages of membership of one is country in the EC; actude to remaining or leaving the EC; judgment on solidarity within Europe. 5, detude to introduction of a European passport 6. Miscellaneous: judgmenton one is own opinion leaders hig: political interest; self-assessmenton a lef-rightcontinuum; party allegiance and party preference; possession of television set (color or black and white) and average relevision time per week; preferred types of selevision broadcasts: postmaterialism index. Demography: age; sex; marital status; occupational position; company size; household Income; household composition; respondent is head of household; party preference (Sunday question); degree of urbanization. Additional Info Flaid Source http://doi.org/10.4292/1.1209 Contributor DBMR 90, British CreationDate Creator Inglehart, Ronald Rabler, Jacques-René Riffault, DataProvider GESIS Date Archive. Language Marachira Schang http://schema.datache.org/netaikernel-Silvandam vad Nork 01-harvested besida results ideacle-Maraches Source 9.0/GESIS via DaraChe 0002/bal_oal_datachs_org_609764.xml OAI Origin GESIS via Dura Che PublicationDate ResourceType Discourage an SpatialCoverage KST12 International Institutions, Relations. Subject Conditions 1991-04-10 TemporalCoverage

 $\frac{\text{http://ckan.dasish.eu/dataset/ef0c1e882b57c80f542f6021110036009bb}}{5de864ecec9e5fb05751ebd3e5de3}$



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4. Creating suitable mappings

Format harvested

- DDI 1.2.2 (nesstar)
- DDI 3.1
- DataCite
- CMDI (component metadata infrastructure) -Clarin
- Dublin Core

Mappings available on:

https://github.com/DASISH/md-mapping





Mapping via xpath

```
<field name="title">
    <xpath>
        /ddi:DDIInstance/s:StudyUnit/r:Citation/r:Title[@xml:lang='en']/text()
        </xpath>
        <xpath>/ddi:DDIInstance/s:StudyUnit/r:Citation/r:Title/text()</xpath>
        <xpath>
        /ddi:DDIInstance/s:StudyUnit/r:Citation/dc:DCElements/
        dc2:title[@xml:lang='en']/text()
        </xpath>
        </field>
```





Mapping problems

- Values in certain fields are not always what you think. Mixed content in identifier fields (url:s, doi, internal identifiers, shortnames etc.)
- xml:lang is not always used in some communities
- Hard to get Language code from DDI (DDI-C and DDI-L) if its event there at all.
- More complex logic could have been expressed using XSLT



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5. Metadata harvesting

- Harvesting done via OAI-PMH
- CESSDA
 - harvested from 7 out of 9 providers
 - 49,894 records
- CLARIN
 - harvested from 4 out of 20 providers
 - 160,613 records
- DARIAH
 - harvested from 14 out of 25 providers
 - 302,164 records

Tool developed by MPI:

https://github.com/TheLanguageArchive/md-mapper





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6. Metadata quality improvement

- Different date fields (Temporal Coverage, Creation Date, Publication Date) to increase the conformance of user expectations
- "If-then-else" logical constructions to avoid data sparseness (e.g. if no creator then use project/organization)
- Normalization to overcome differences in controlled vocabularies





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▼ Language eng (148662) nl (26576) English (23803) Dutch (19990) en (12804) German (11052) French (6012) es (5450)

(Language facet before the

nld (4894)

normalization)

7. Metadata normalization

convert to yyy-mm-dd
Country
convert to ISO 3166
Language
convert to ISO 639-3

Scripts available on: https://github.com/DASISH/jmd-scripts





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Future of the DASISH catalogue

- Question:
 How can we keep the DASISH catalogue available in the future since the DASISH project ends 2014?
- Answer: Turn the catalogue over to the EUDAT project which is running B2FIND.
- Delivrable available on http://dasish.eu/deliverables/
- Documentation available on <u>https://github.com/DASISH</u>





Thank you!

