

Shaping Data in Digital Humanities University of Copenhagen, 20/04/2018

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Outline



- Presentation
- Rationale
- Methodology
- Concepts standardisation
- Conclusion and future work

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POSTDATA axes



Semantic Web Infrastructure



Linked Open Data (LOD)

Virtual Research Environment



Digital
Scholarly
Editing

Poetry Lab



Natural Language Processing

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Western literature





And yet...



- Diversity of paradigms
- Fragmentary access to poetic resources

And yet...



- Diversity of paradigms
- Fragmentary access to poetic resources
- Partiality of methods (and results)

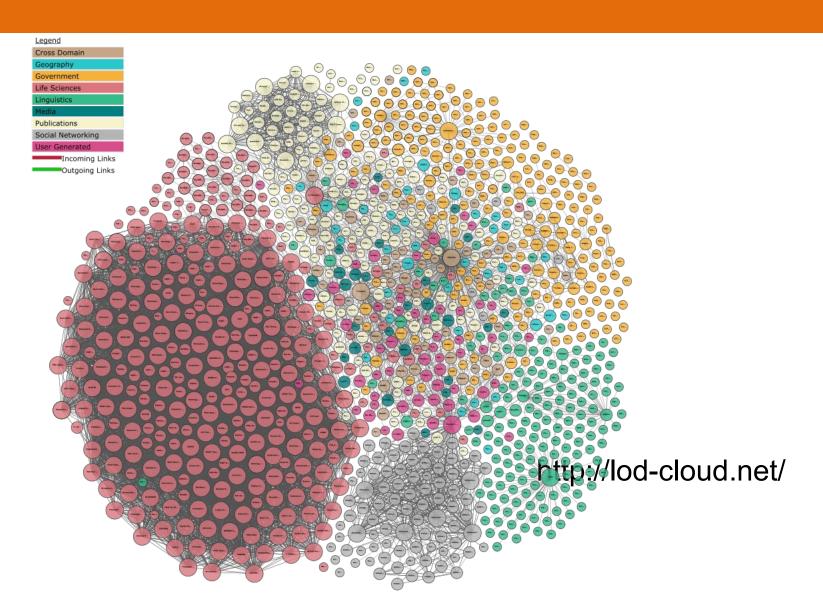
A workaround



- The key concepts: standardisation and interoperability
- The most advantegous paradigm: Linked Open Data

LOD cloud





LOD



- A huge database (worldwide) on the Web of Data
- Since the data is open, the community can rely also on other sources of data
- Big advantage over other approaches

Goal



- Enhance interoperability between existent poetic resources
- Facilitate the creation of new resources

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Defining a Metadata Application Profile (MAP)
 for European Poetry



Main task: Defining a Metadata Application
 Profile (MAP) for European Poetry

(MAP: a semantic model in the context of LOD)



- Main task: Defining a Metadata Application
 Profile (MAP) for European Poetry
- Milestone: to define a Domain Model



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(Domain Model: a model that presents the concepts of the context and its relations)

Starting point



- Repertoires of European Poetry and Poetry Metrics
 - Data models
 - Functionalities of the Websites
- Report of data needs of the community

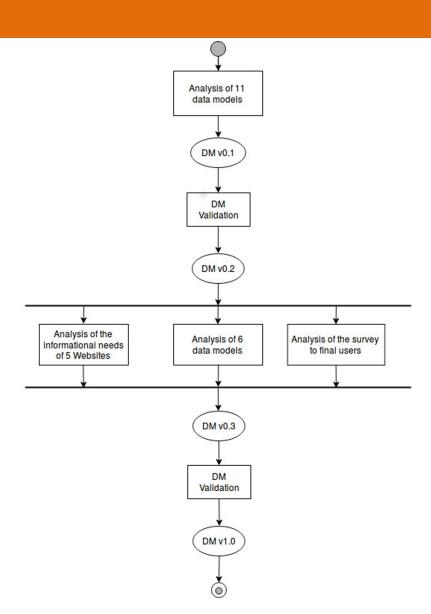
Starting point





Workflow





Process



- Analysis of the data model of a representative sample of EP databases
- Analysis of a survey addressed to the final users of the repertoires in order to understand the data needs of the users of poetry databases.

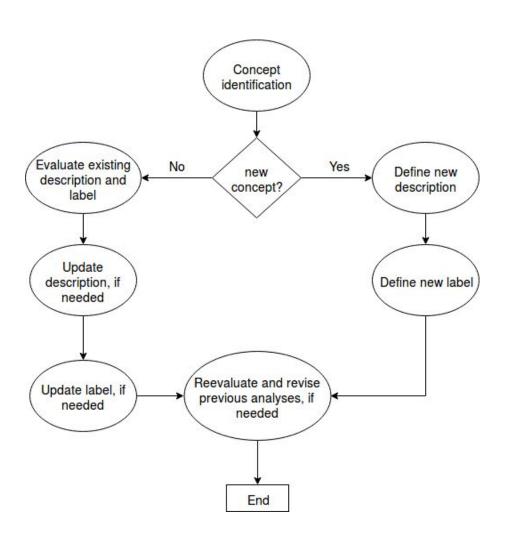
Analysis of the data models



- Analysis of the file sent by each partner with the structure of the database
- Study of the structure of the database
- Identification of every concept of the database, as well as the properties that characterize that concept
- Identification of the relationships between concepts

Concept analysis process





Types of modeling



- egoistic modeling: to express specific research ideas in cases where data is being created to support the creator's own research needs
- altruistic modeling: to serve as an interchange format for some types of users and user communities where data is typically being created and modeled with someone else's needs in mind

(Jannidis & Flanders 2013)

Importance of data modeling



- (Effective) semantic interoperability
- Data needs of the community are met

Looking for balance



The tension between semantics and interoperability

- Level of abstraction tends to increase (and names are changed retroactively)
- Semantics may be lost in favor of interoperability gain

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Multi-linguistic data

Eg. "poetic line"

- Diachronic corpora
- Different philological traditions

Eg. "dieresis"

Same term in different technical vocabularies

Different terms depending on the theoretical background

for similar concepts

Eg. "apparatus"



Multi-linguistic data



- Multi-linguistic data
 - Eg. "poetic line"



- Multi-linguistic data
- Diachronic corpora



- Multi-linguistic data
- Diachronic corpora
 - Eg. "line group as a metrical unit"



- Multi-linguistic data
- Diachronic corpora
- Different philological traditions
 - Same term in different technical vocabularies
 - Eg. "diaeresis"



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 - Different terms depending on the theoretical background for similar concepts
 - Eg. "apparatus"

Semantic efficiency



- Evaluation of which concepts should be integrated
- Evaluation of which concepts should be merged
- Evaluation of which concepts should be distinguished

Practical issue



Depending on the prosodic tradition:

- we count syllables
- we discern the distribution of stresses
- we analyse the length of the syllables

Practical issue



Metrical scheme

- "syllabicMetricalScheme"
- "accentualMetricalScheme"

Validation



- We might create a rigorous model from a semantic and philological point of view, but lack the acceptance of the community
- The conceptualization of certain elements might be perceived as "intrusive"

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Research possibilities



- Questions about the contents
- Questions about the structure

Research possibilities



- Questions about the contents
- Questions about the structure
- Conclusion: a broader contextualization and a more accurate picture

Work in progress



- Vocabulary alignment: match each concept with a term of a RDF vocabulary
- Encode the semantic model
- Report on how to enrich the repertoires' data with links to existent resources
- Develop documentation: Manuals, HowTos,
 Use case examples



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