



europæana
think culture

The Manuscript as Cultural Heritage: Digitisation ++

A Digital Humanities Point of View
Not so much a conservation point of view
slides on <http://www.slideshare.net/gradmans>

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Overview

- Manuscript digitization ...
- ... and after: turning the 'object' into 'heritage' ...
- ... to enable scholarly work: modelling and (re-)aggregation
- Good Practice and Better Practice: Examples
 - COST A32, Discovery, SemLib, Shared Canvas
- How to use digitised manuscripts - beyond emulation?
 - Scholarly Primitives
 - Contextualisation
- Towards semantic interoperability
 - RDF, LoD and the EDM!
 - DM2E



Perspective



Digitization and Beyond

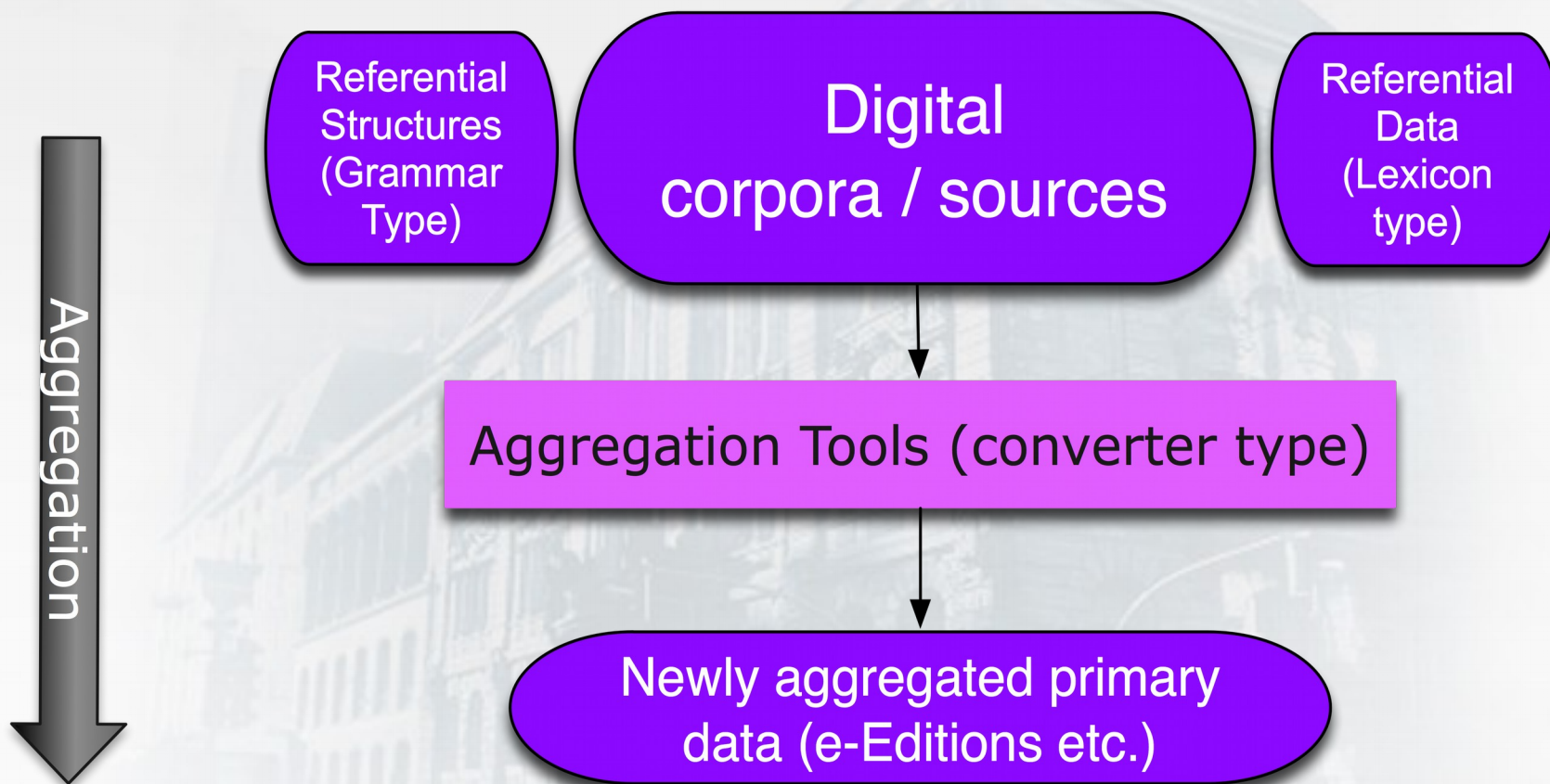
- I will not talk about manuscript digitisation ...
- ... but about what it takes to turn digitised manuscripts into cultural heritage
- What is 'cultural heritage' (as opposed to 'cultural objects' and 'cultural witnesses')?
 - Medieval manuscripts are cultural heritage.
 - Digitised manuscripts are not: they are a means to preserve and/or to represent this cultural heritage!
 - Or might the latter not be true: do digitised manuscripts have a potential of becoming 'cultural heritage' in their own right?
- Heritage is related to hermeneutical appropriation – and thus to digital humanities scholarship



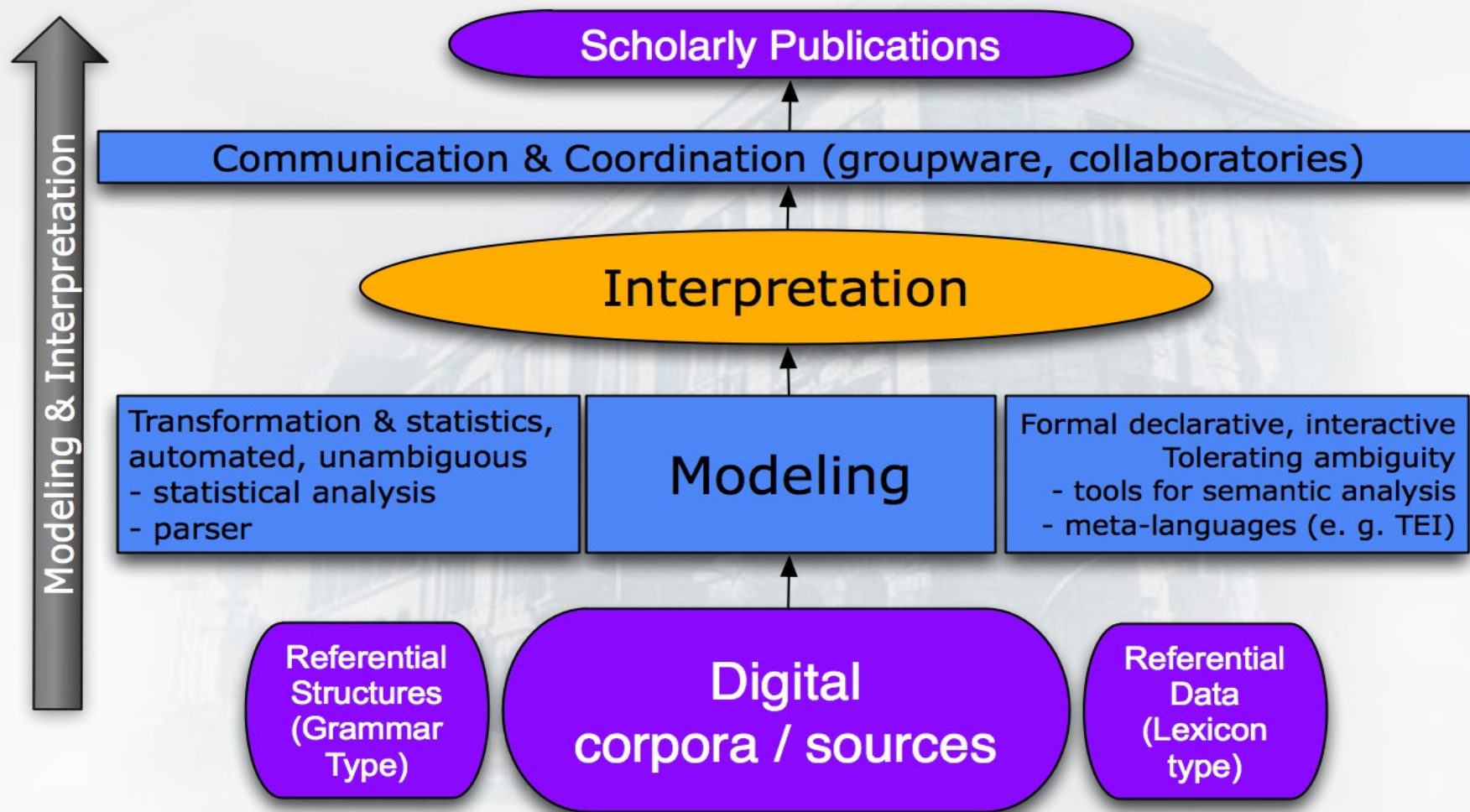
... into scholarly work



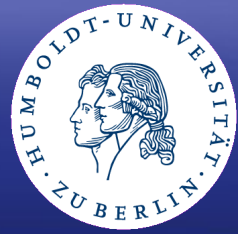
Processing of source data in the Humanities: **aggregation** ...



... modeling ...



... and Digital Heuristics?



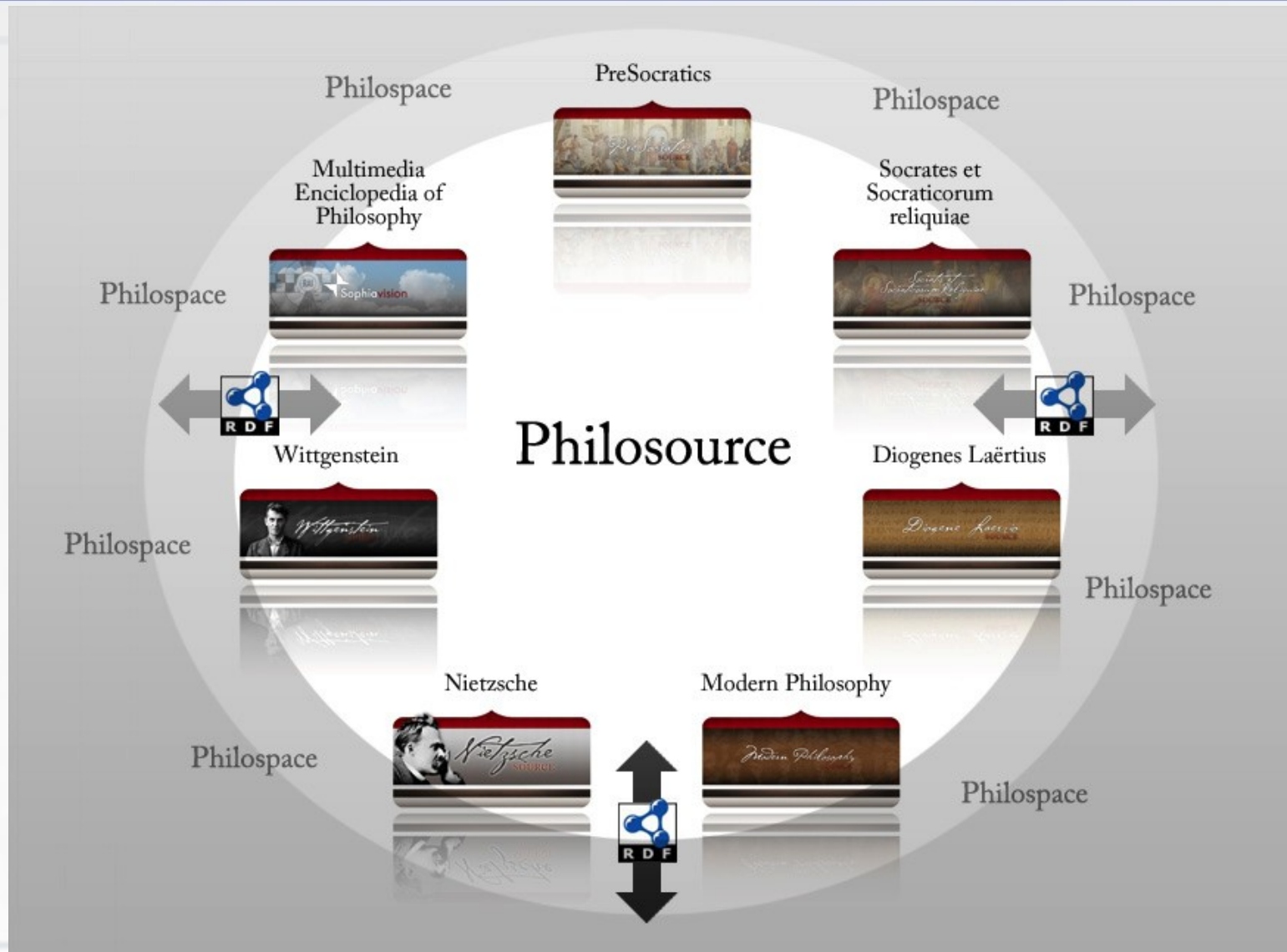
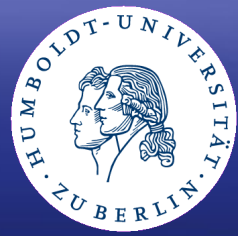
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Good Practices and Better Practices

COST A32, Discovery, SemLib, Shared Canvas



'Discovery' Corpus: Digitised Manuscripts



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HyperNietzsche: Digitisation, Presentation



D'Iorio facsimile edition

Simple Mode
NietzscheSource
Facsimile Edition

Manuscript Page Search

Home > D'Iorio Facsimile Edition > Manuscripts > Copybook > U-II-5

MI1 MI2 MI3 MII1 MII2 MIII3 MIII5 MIII7 **UII5**

Large octavo notebook (14 x 19,5cm) bound in black. 250 lined pages often used only on the odd side; p. 53f and p. 58 in Albert Brenners hand, p. 113f in an unknown hand; p. 1-4 philological notes; thoughts, studies for *Schopenhauer as Educator*, *Richard Wagner in Bayreuth*; plans and aphorisms from the *All Too Human* period. Location: Weimar, Goethe- und Schiller-Archiv, 71/115

U II 5,d1 U II 5,d2 U II 5,a1 U II 5,1 U II 5,2 U II 5,3 U II 5,4 U II 5,5 U II 5,6 U II 5,7 U II 5,8

U II 5,9 U II 5,10 U II 5,11 U II 5,12 U II 5,13 U II 5,14 U II 5,15 U II 5,16 U II 5,17 U II 5,18 U II 5,19 U II 5,20

U II 5,21 U II 5,22 U II 5,23 U II 5,24 U II 5,25 U II 5,26 U II 5,27 U II 5,28 U II 5,29 U II 5,30 U II 5,31 U II 5,32

U II 5,33 U II 5,34 U II 5,35 U II 5,36 U II 5,37 U II 5,38 U II 5,39 U II 5,40 U II 5,41 U II 5,42 U II 5,43 U II 5,44

Collegati a # in questa pagina



HyperNietzsche: Transcription, Presentation



The screenshot displays a digital manuscript viewer interface. On the left, a grid of six manuscript pages is shown, labeled N-II-6,2 through N-II-6,5. The right pane shows a detailed view of page N-II-6,5[1], titled "V. Zapf. transcription of N II 6,5[1] (vzapf-23)". The transcription text reads: "Im Jahr 1877 wusste ich von der Zukunft gar nichts zu verlangen. Selbst Gesundheit nicht – denn diese ist ein Mittel – w a s hätte ich mit diesem Mittel erreichen wollen?". Below the transcription, the word "Criteria." is visible. The interface includes navigation buttons for "image", "HNML", "Linear", "diplo.", and "Print".



HyperNietzsche: Sources, Editions (synoptic)



NietzscheSource, colli-montinari, Search results

Simple Mode
NietzscheSource
Colli-Montinari Edition

philosophie Search
Advanced Search

Home > Colli-Montinari > Search: philosophie

List of works

- AC (6)
- DS (3)
- DW (2)
- GD (8)
- GM (12)
- GT (6)
- HL (4)
- MA (25)**
- 1
- 8
- 9 Chemie der Begriffe und Empfindungen.
- 14 Der Geist der Wissenschaft im Theil, nicht im Ganzen mächtig.
- 15 Der Störenfried in der Wissenschaft.
- 35 Ersatz der Religion.
- 37 Vom Dufte der Blüten berauscht.
- 42 Zur Beruhigung.
- 45 Trotzdem.
- 76 Moralität und Erfolg.
- 88 Greis und Tod.
- 116 Der doppelte Kampf gegen das Uebel.
- 117 Gram ist Erkenntniss.
- 118 Die Wahrheit in der Religion.
- 120 Beliebige Nachwörter.

Search Results

86 occurrences of the words 'philosophie' in the critical edition Colli-Montinari

Select All | Deselect All Print Results

- 42 MA, 1
...bis zum letztin veröffentlichten „Vorspiel einer **Philosophie** der Zukunft“: sie enthielten allesammt, hat man mir...
- 43 MA, 8
...— Nach einer so artigen Antwort rath mir meine **Philosophie**, zu schweigen und nicht mehr weiter zu fragen; zumal...
- 44 MA, 9, Chemie der Begriffe und Empfindungen.
...Egoismus, Wahrheit aus Irrthümern? Die metaphysische **Philosophie** half sich bisher über diese Schwierigkeit hinweg,... ..Wesen des „Dinges an sich“ heraus. Die historische **Philosophie** dagegen, welche gar nicht mehr getrennt von der...
- 45 MA, 14, Der Geist der Wissenschaft im Theil, nicht im Ganzen mächtig.
...unpersönlich, als in ihren Theilen behandelt. Bei der **Philosophie** nun gar, als bei der Spitze der gesammten... ..der Erkenntniss überhaupt aufgeworfen, und jede **Philosophie** hat unbewusst die Absicht, ihr den höchsten Nutzen... ..den wissenschaftlichen Einzelgebieten und der **Philosophie**. Letztere will, was die Kunst will, dem Leben und... ..keinen Philosophen gegeben, unter dessen Händen die **Philosophie** nicht zu einer Apologie der Erkenntniss geworden...
- 46 MA, 15, Der Störenfried in der Wissenschaft.
...7. Der Störenfried in der Wissenschaft. — Die **Philosophie** schied sich von der Wissenschaft, als sie die Frage...
- 47 MA, 35, Ersatz der Religion.
...27. Ersatz der Religion. — Man glaubt einer **Philosophie** etwas Gutes nachzusagen, wenn man sie als Ersatz... ..welche die Religion befriedigt hat und nun die **Philosophie** befriedigen soll, nicht unwandelbar sind; diese... ..Befriedigung, sondern Vernichtung verdienen. Eine **Philosophie** kann entweder so nützen, dass sie jene Bedürfnisse... ..weniger unterhalten, als durch eine metaphysische **Philosophie**. Von der Kunst aus kann man dann leichter in eine...
- 48 MA, 37, Vom Dufte der Blüten berauscht.
...Schoosse tragend. Diess Resultat führt zu einer **Philosophie** der logischen Weltverneinung : welche übrigens sich...

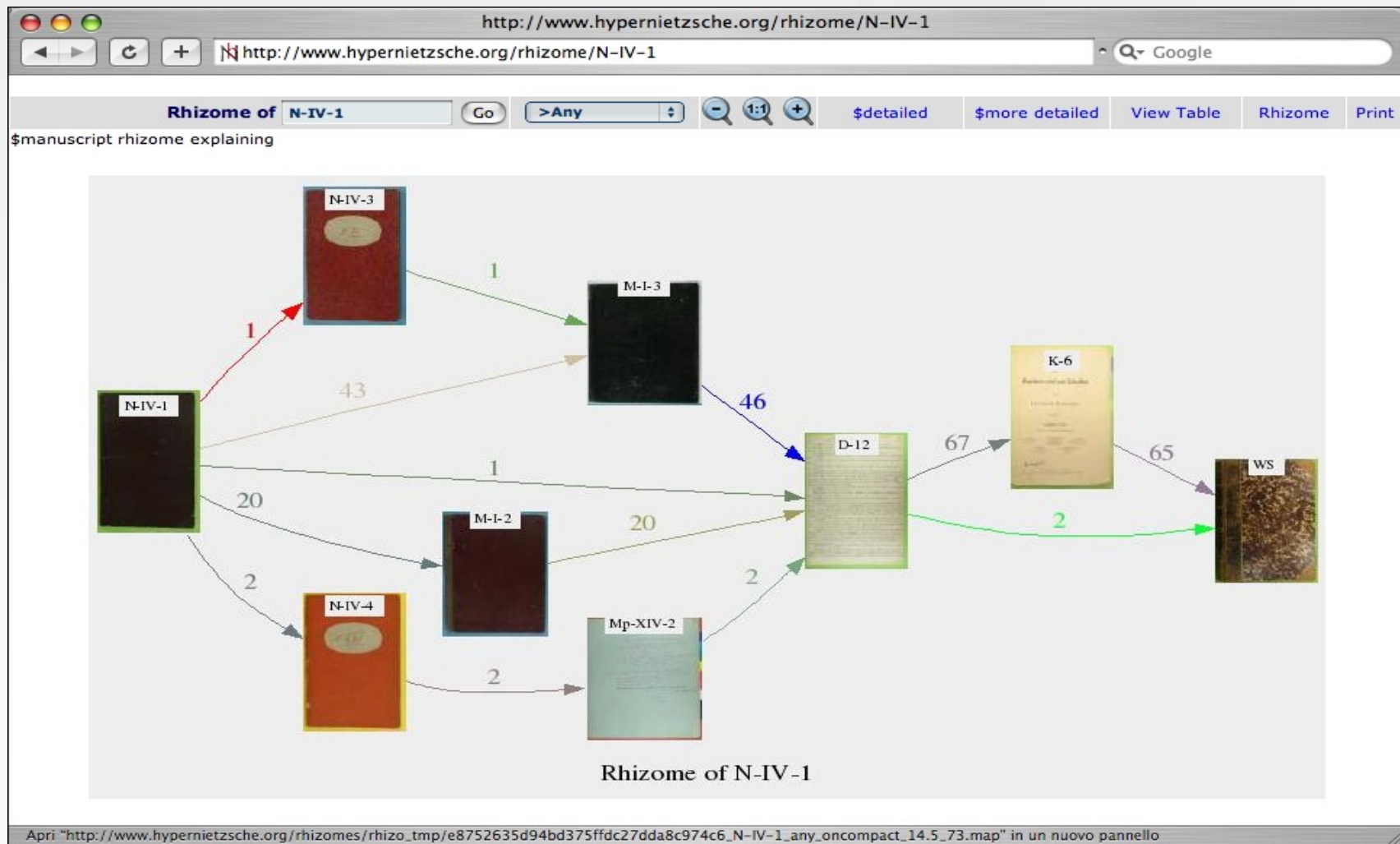
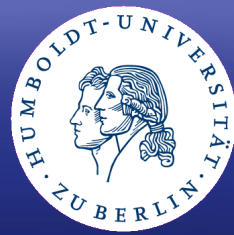


Talia: Refactoring Hyper with Semantic Web Technology

```
N-V-3,71.rdf (modified)
N-V-3,71.rdf (/Users/gradmans/Documents/4-europe/Projects/Discovery/RDF_Samples/)
<?xml version="1.0" encoding="UTF-8"?>
<rdf:RDF
  xmlns:taliadom="http://trac.talia.discovery-project.eu/wiki/SampleDomainOntology#"
  xmlns:default="http://default.dummy/"
  xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema#"
  xmlns:foaf="http://xmlns.com/foaf/0.1/"
  xmlns:local="http://www.talia.discovery-project.org/sources/"
  xmlns:dcons="http://purl.org/dc/elements/1.1/"
  xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#"
  xmlns:hyper="http://www.hypernetzsche.org/ontology/"
  xmlns:talias="http://trac.talia.discovery-project.eu/wiki/StructuralOntology#"
  xmlns:talia_db="http://talia.discovery-project.eu/wiki/DatabaseDupes#"
  xmlns:luccadom="http://trac.talia.discovery-project.eu/wiki/LuccaOntology#"
  xmlns:owl="http://www.w3.org/2002/07/owl#"
  <rdf:Description about="http://www.talia.discovery-project.org/sources/N-V-3,71">
    <rdf:type>
      <rdf:Description rdf:about="http://www.w3.org/2000/01/rdf-schema#Resource"/>
      <rdf:Description rdf:about="http://www.hypernetzsche.org/ontology/Page"/>
      <rdf:Description rdf:about="http://www.hypernetzsche.org/ontology/Manuscript"/>
    </rdf:type>
    <hyper:position_name>71</hyper:position_name>
    <hyper:position>75</hyper:position>
    <hyper:width>2454.00</hyper:width>
    <talia_db:primary_source>>false</talia_db:primary_source>
    <talia_db:workflow_state>0</talia_db:workflow_state>
    <hyper:part_of>
      <rdf:Description rdf:about="http://www.talia.discovery-project.org/sources/N-V-3"/>
    </hyper:part_of>
    <talia_db:uri>http://www.talia.discovery-project.org/sources/N-V-3,71</talia_db:uri>
    <dcons:title>N V 3,71</dcons:title>
    <hyper:height>4080.00</hyper:height>
  </rdf:Description>
</rdf:RDF>
```



Generating Stemmata based on Inferencing (1)



Generating Stemmata based on Inferencing (2)



HyperNietzsche, WS-350

Work: WS, Aphorism 353 (WS-350) Search

HyperNietzsche

Home > Primary Sources > Works > WS > WS,181 > WS-350 Publish your contributions on WS-350

Context Panorama Browse Rhizome

Rhizome of WS-350 Go Genetic View Table Rhizome Print

\$annotation rhizome explaining

WS-350a: Die goldene...
vzapf-873
genetic

WS-350d: Die goldene...
vzapf-663
genetic

WS-350b: Die goldene...
vzapf-869
genetic

WS-350c: Die goldene...
vzapf-871
genetic

Rhizome of WS-350

Abandoned!



Interpretation: Muruca



SwickyNotes: Ontology Based Annotation as Linked Open Data



SWickyNotes V2.1.7 (MurucaSKA)

Browser <http://dbin.org/swickynotes/murucaska/start.htm>

open-source tools for scholars.

COST A32 SWickyNotes Workshop in Munich: DEMO PAGE

Finally, you can try to annotate one of the Digital Libraries in the **Philosource network**, a federation of Talia based digital libraries built within the Discovery EU project:

Relations involving **start.htm**

start.htm

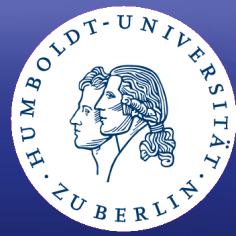
Subjects Sources

Create new item Refresh

All Subjects

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SwickyNotes: Selecting Ontologies



Preferences

Ontologies

Ontologies are the 'meta-data schema' that drives your SWickyNotes. Activating and deactivating Ontologies you can 'tune' your annotation capabilities, deciding the Entities and Relations you can use when you annotate web pages. Example: if you are interested in Nietzsche more than other philosophers, you might want to activate the Nietzsche Domain Ontology.

- Icons (enabled)
- Scholarship Ontology (enabled)
- Philospace Ontology (enabled)
- http://erlangen-crm.org/onto/ecrm_101001.owl (disabled)
- Daphnet Ancient Philosophy Ontology (enabled)
- Daphnet Modern Philosophy Ontology (disabled)
- Daphnet Ancient (enabled)
- Daphnet Modern (disabled)
- Hyper Ontology (disabled)
- Nietzsche (disabled)
- Scholar 0 1 (disabled)
- Sophiavision (disabled)
- Wittgenstein (disabled)

Add an Ontology

Name: Icons
URL: <http://dbin.org/brainlets/discovery/ontologies/icons.rdf>

Copy URL View RDF Disable Remove

Enable automatic ontology discovery

Help Restore Defaults Apply

Cancel OK



“Cretans are always Liars” ... annotated

SWickyNotes V2.1.7 (MurucaSKA)

Browser <http://presocratics.daphnet.org/texts/Presocratics/3-B>

Presocratics SOURCE STANDARD MODE PRESOCRATICS

Home > Presocratics > 3-B Epimenides

1-B Orpheus >
2-A Musaios >
2-B Musaios >
3-A Epimenides >
3-B Epimenides >
3-B,1 >
3-B,2 >
3-B,3 >
3-B,4 >
3-B,5 >
3-B,6 >
3-B,7 >
3-B,8 >
3-B,9 >
3-B,10 >

3 B 1. PAUL. *ad Tit.* ΧΡΗΣΜΟΙ. ΚΡΗΤΙΚΑ
1, 12. Disse uno di 3 B 1. PAUL. *ad Tit.*
loro [*Cretesi*], un loro 1, 12. [I 31. 30] Εἶπέν
profeta: τις ἐξ αὐτῶν
Sempre mentono i [Kreter], ἴδιος
Cretesi, male bestie, αὐτῶν προφήτης
ventri pigri.^{6*} [I 32. App.]
Κρήτες ἀεὶ
CLEM. ALEX. ψεύσται, κακὰ
strom. I 59 [II 37, 21]. θηρία, γαστέρες
Come settimo [*tra i* ἀργαί. 🗨️ 🚫
sette sapienti] alcuni CLEM. *Str.* I 59 (II
enumerarono 37, 21 St.) τὸν δὲ
Periandro di Corinto, ἑβδομον [Weisen] οἱ
altri Anacarsi scita, μὲν Περίανδρον
altri ancora Epimenide

2 Note
sorted by: [has-creation-date](#), [has-Note-author](#), and [label](#); then by... • grouped as sorted

1. **Alle Kreter lügen** [E][X]
Posted by [gradmans](#) on 10-10-2010 15:27:57
[Show in browser](#)
No comment associated with this Note.
[1, 12 \[I 31. 30\]](#) [είπεν τις ἐξ αὐτῶν \[Kreter\]...](#) [is related to](#) [Lügenparadox](#)

2. **Note by: gradmans (10-10-2010 15:47:02)** [E][X]
Posted by [gradmans](#) on 10-10-2010 15:47:02
[Show in browser](#)
No comment associated with this Note.
[είπεν τις ἐξ αὐτῶν \[Kreter\], ἴδιος αὐτῶν...](#) [definesPhilosophicalSubject](#) [Lügenparadox](#)

Subjects Sources

Create new item Refresh

- Title
 - Titles
 - Daemon
 - DialogueMethod
 - Divination
 - EthicsOfVirtue
 - I know that I do not know
 - JoinInquiry
 - YoungsEducation
 - Event



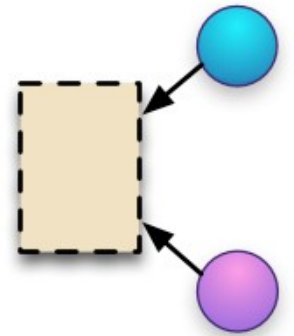
SemLib

- SemLib (<http://www.semlibproject.eu/>) is a continuation of Discovery in a EU funded project under FP7 working on
 - A Tool to export existing metadata in RDF and publish it as **Linked Data** (Web of Data);
 - A Semantic **Annotation** System, to exploit user-generated RDF metadata and publish it as **Linked Data**;
 - A Semantic Recommender System, to use **Linked Data** to improve searching and browsing in the DLs.



Shared Canvas

- Shared Canvas (<http://www.shared-canvas.org>) is about annotation again – but in a much more sophisticated data model enabling multiple and potentially concurrent layered annotations.
- Demo at <http://www.shared-canvas.org/impl/demo1/>
- Benjamin, you have at least one adopter: DM2E!



-
- Common traits
 - Moving away from Database-Portal paradigm
 - Use of RDF as underlying technology
 - Emulation of well known functionality on the Web



Scholarly Use of Digitisation ... beyond Emulation



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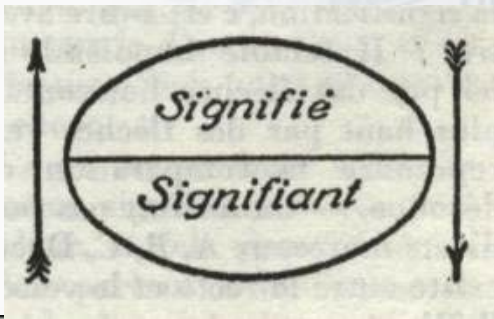
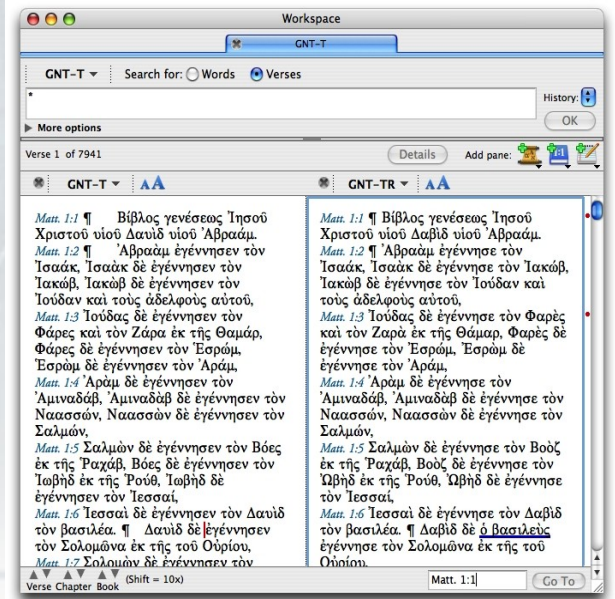
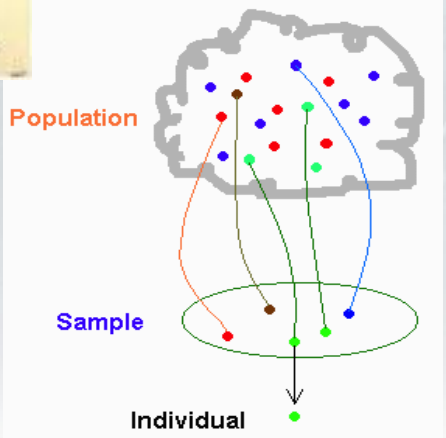
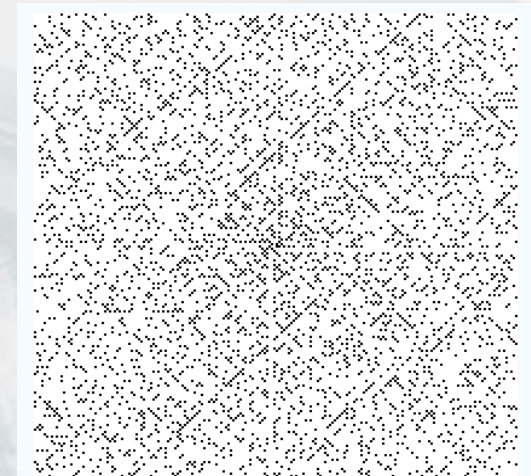
Scholarly Primitives

- Discovering
- Annotating
- Comparing
- Referring
- Sampling
- Illustrating
- Representing

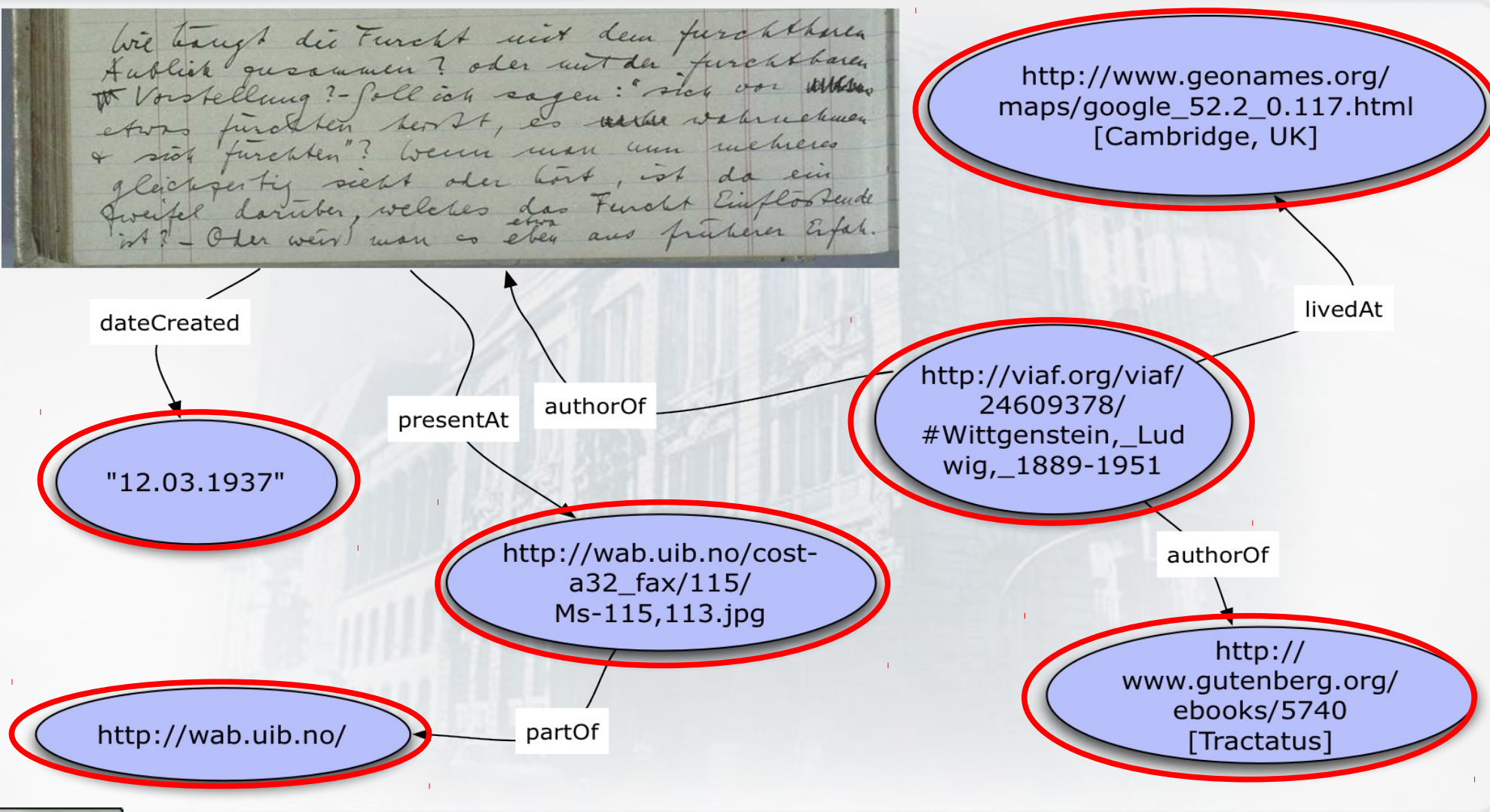
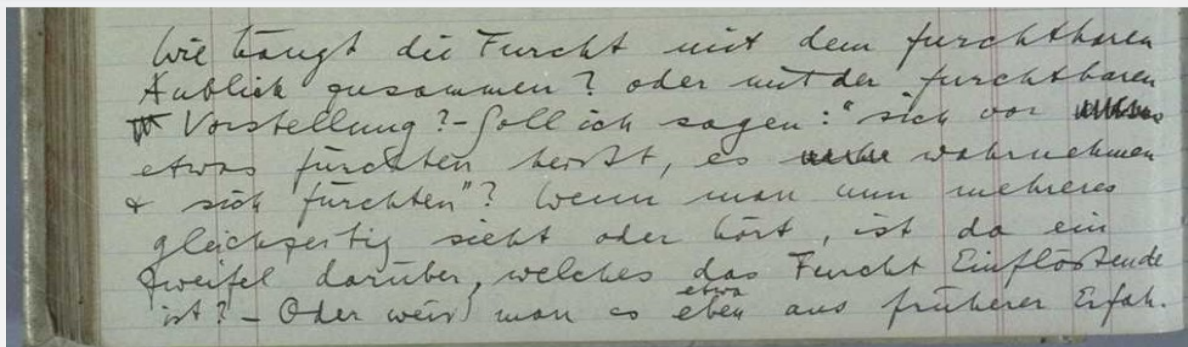
enlarged font
 Four score and seven years ago our fathers brought forth on this continent a new nation, conceived in liberty, and dedicated to the propositions that all men are created equal. *put in italics*
 Now we are engaged in a great civil war, testing whether that nation, or any nation
align text to both margins

new paragraph skip a line

Indent and bold, up to "our"



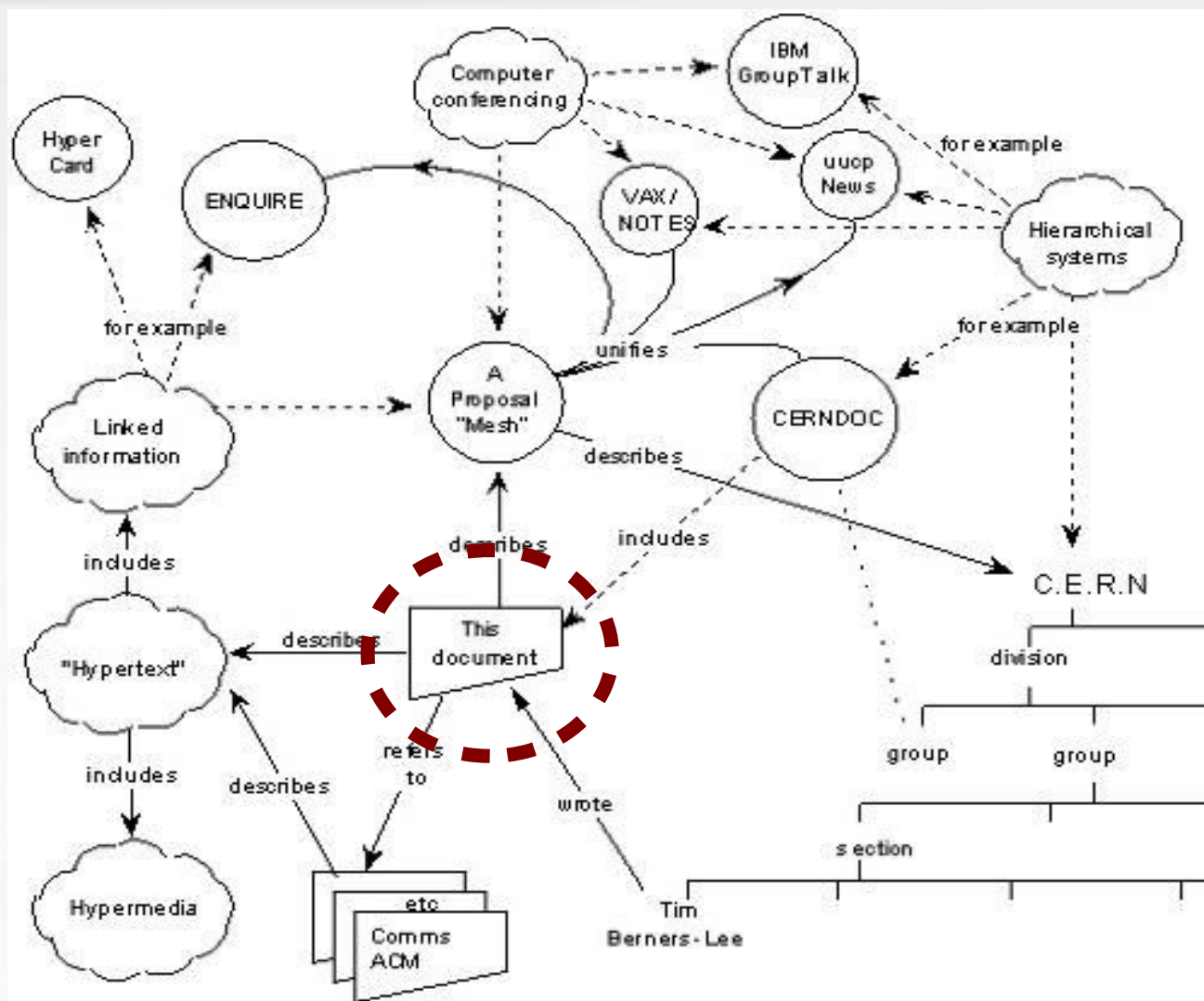
Massive Contextualisation



Resource Description Framework (RDF), Linked open Data (LoD) and the Europeana Data Model (EDM)



The Web of Documents

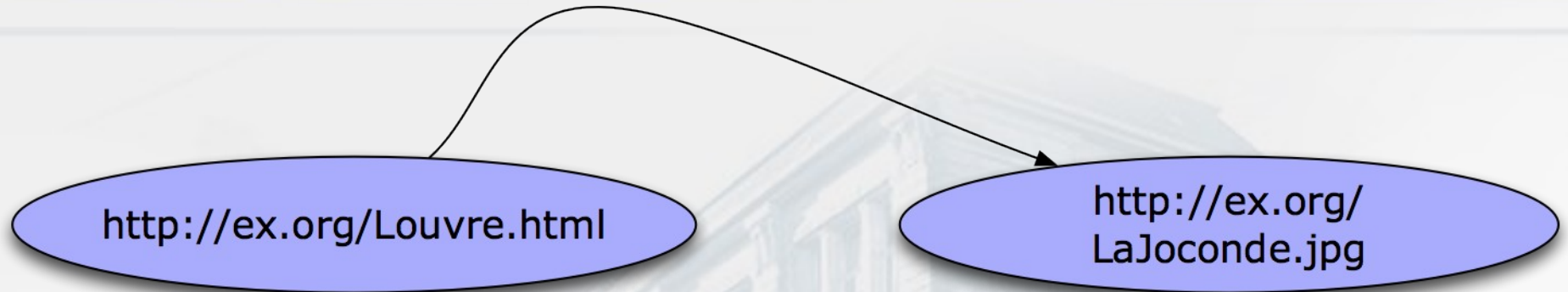
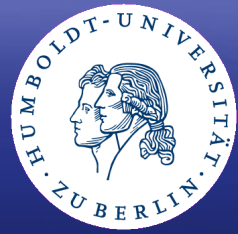


Information Management: A Proposal (TBL, 1989)

The Linked Data Web is a double Extension of this model

- in **syntax**
- in **scope**

Resources and Links in the Document Web

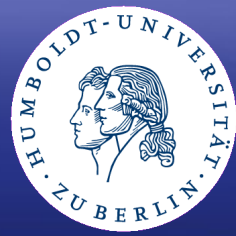


```
<a href="http://ex.org/LaJoconde.jpg">b</a>
```

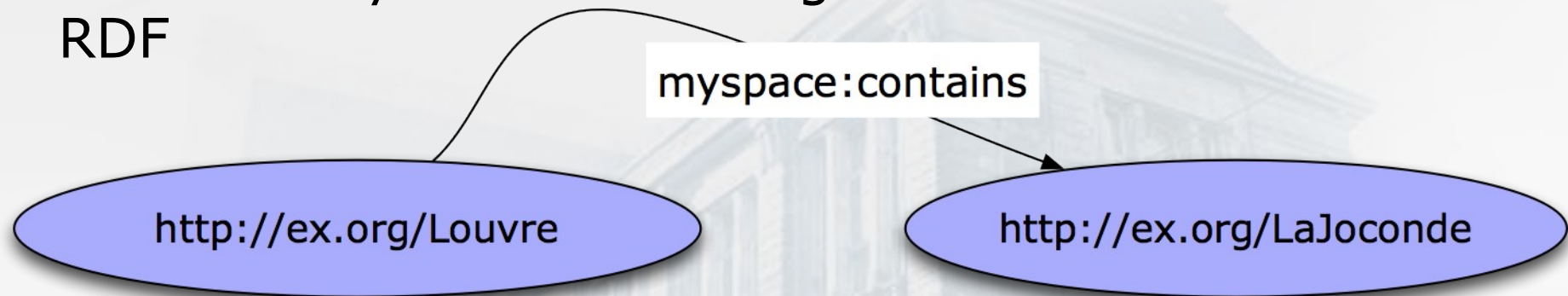
- We have HTTP URIs to identify resources and links between them – but we are missing a few things!
- What kinds of resources are 'Louvre.html' and 'LaJoconde.jpg'?
 - A machine cannot tell.
 - Humans can: we recognize implied context!
- How exactly do they relate to each other?
 - A machine cannot tell.
 - Humans can: again we recognize implied context!



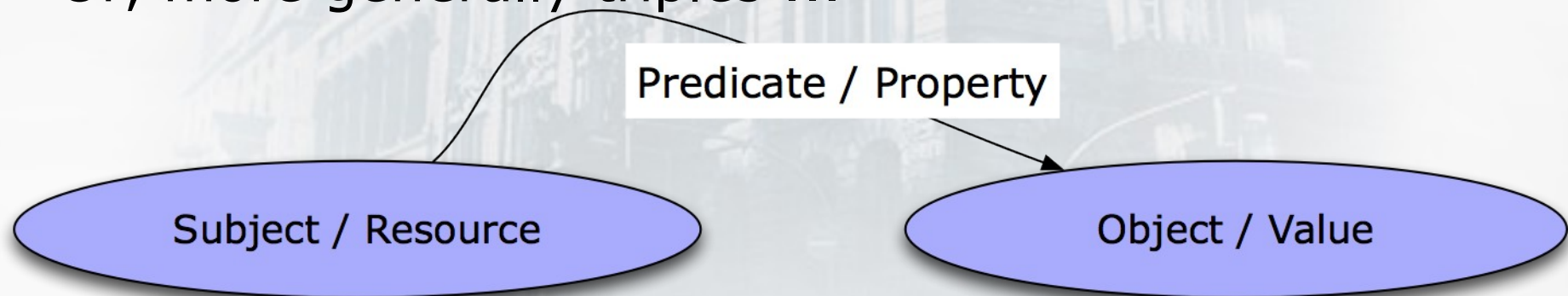
Syntactically Extending the Document Web: RDF (1)



- We add a syntax for making statements on resources: RDF



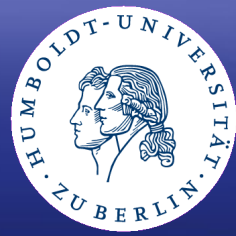
- Or, more generally triples ...



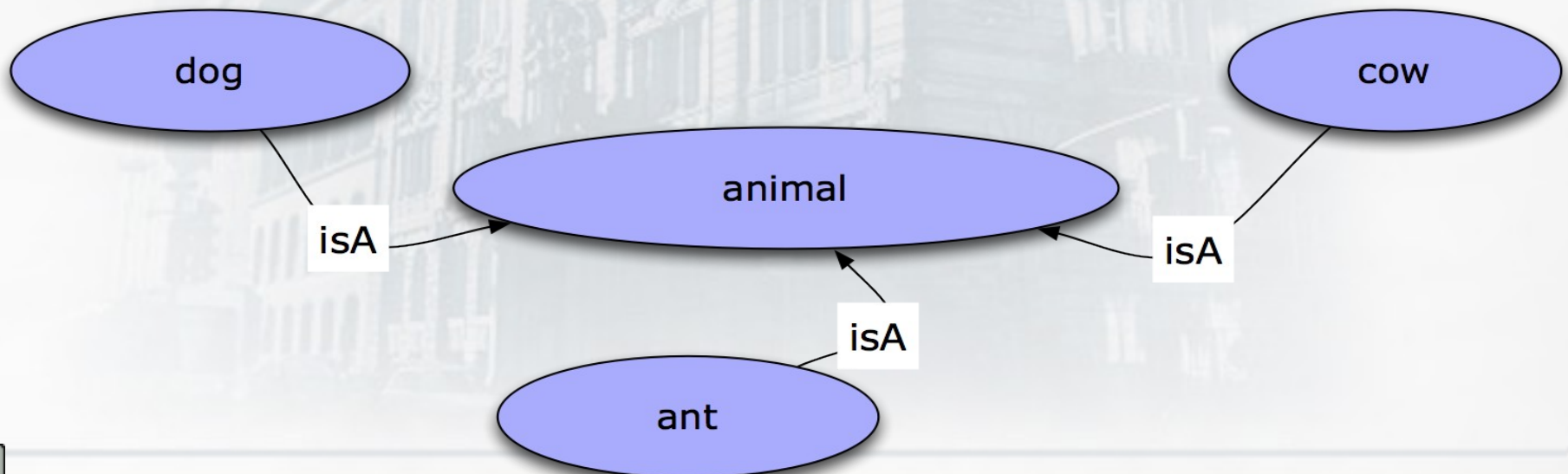
- ... where S and P are web resources (identified using URIs) and O is either a web resource or a literal



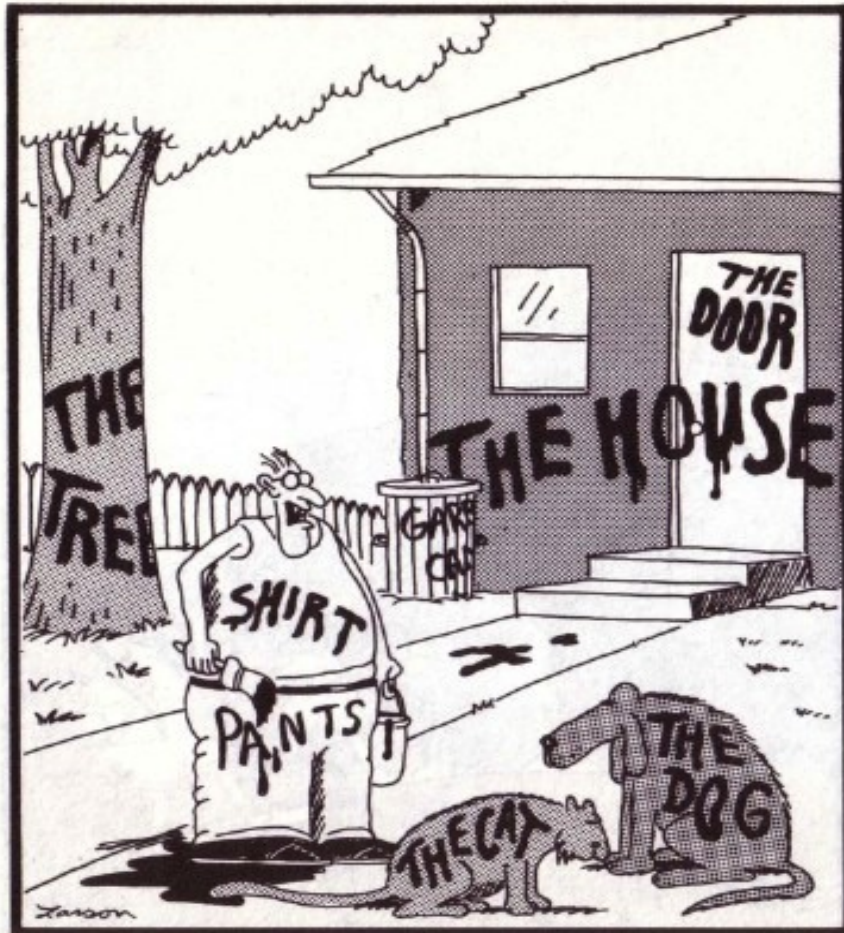
Syntactically Extending the Document Web: RDF (2)



- We add a schema language (RDFS) with elements such as
 - classes ('chair' as instance of chairs),
 - hierarchies of classes and properties (chairs are a subclass of furniture, 'teaches' is a sub-property of 'communicates')
 - inheritance (communication based on language → teaching also is)
 - support for basic inferencing.
- And thus are able to establish structures in triple aggregations resulting in lightweight domain ontologies:



The Web of Things ... Somewhat Mistaken



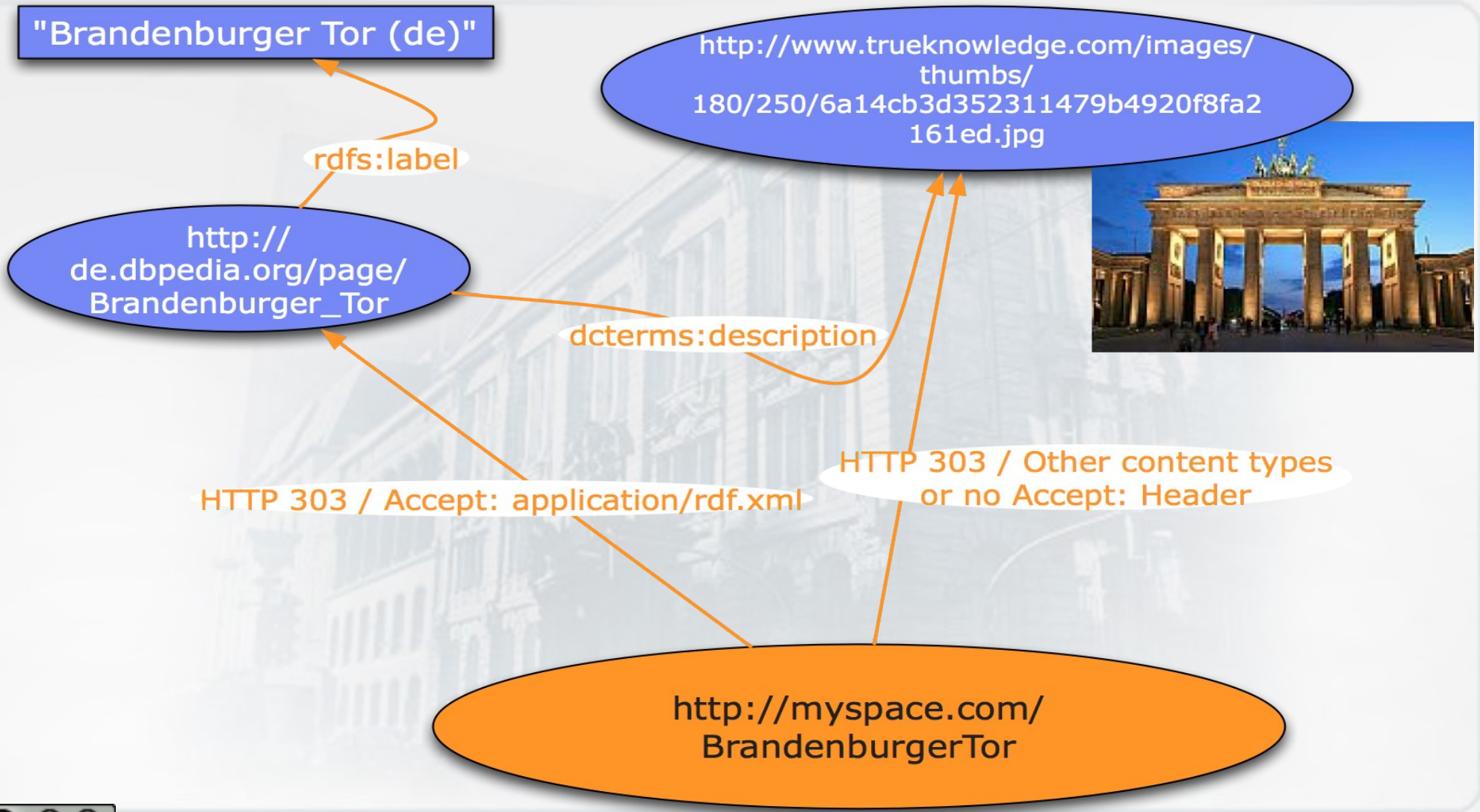
Now! ... That should clear up
a few things around here!

What's **wrong**
with this picture?

Taken from Ronald Carpentier's
Blog at
[http://carpentier.wordpress.com/
2007/08/08/1-2-3/](http://carpentier.wordpress.com/2007/08/08/1-2-3/)



... and the Way we extend the Web in scope to make it a 'Web of Things'



And we get ... Linked Data

Linked Data essentials

1. Use URIs Standard **Identifiers**
2. Use HTTP URIs Standard **Pointers**
3. Serve useful information using SPARQL, RDF standards
4. Mention URIs of related objects Standards for **Queries** and **Statements**

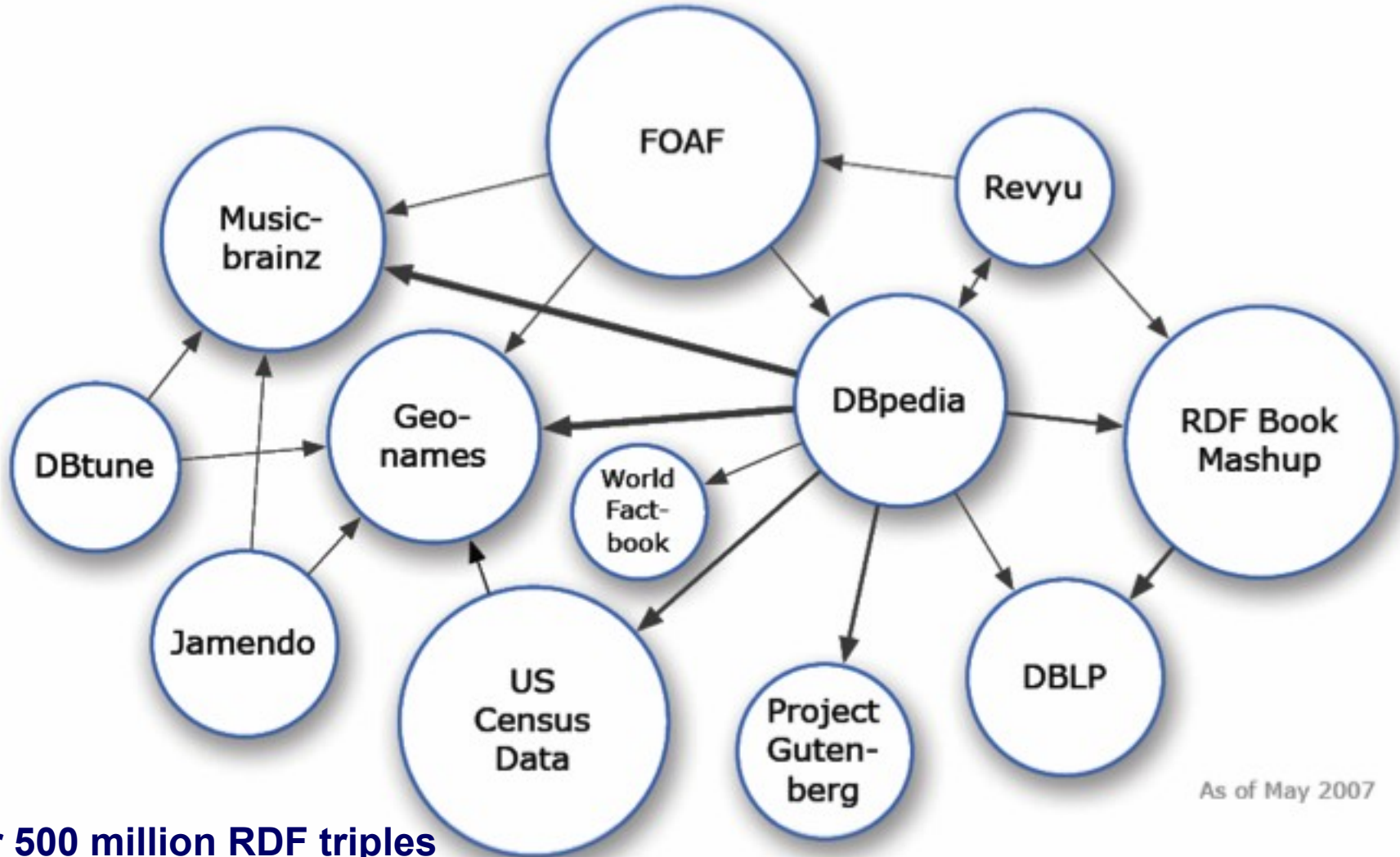
Link to Context

Copyright © 2008 W3C (MIT, ERCIM, Keio)

[http://www.w3.org/2008/Talks/0617-lod-tbl/#\(4\)](http://www.w3.org/2008/Talks/0617-lod-tbl/#(4))



A few Bubbles: 5/2007



As of May 2007

- Over 500 million RDF triples
- Around 120,000 RDF links between data sources

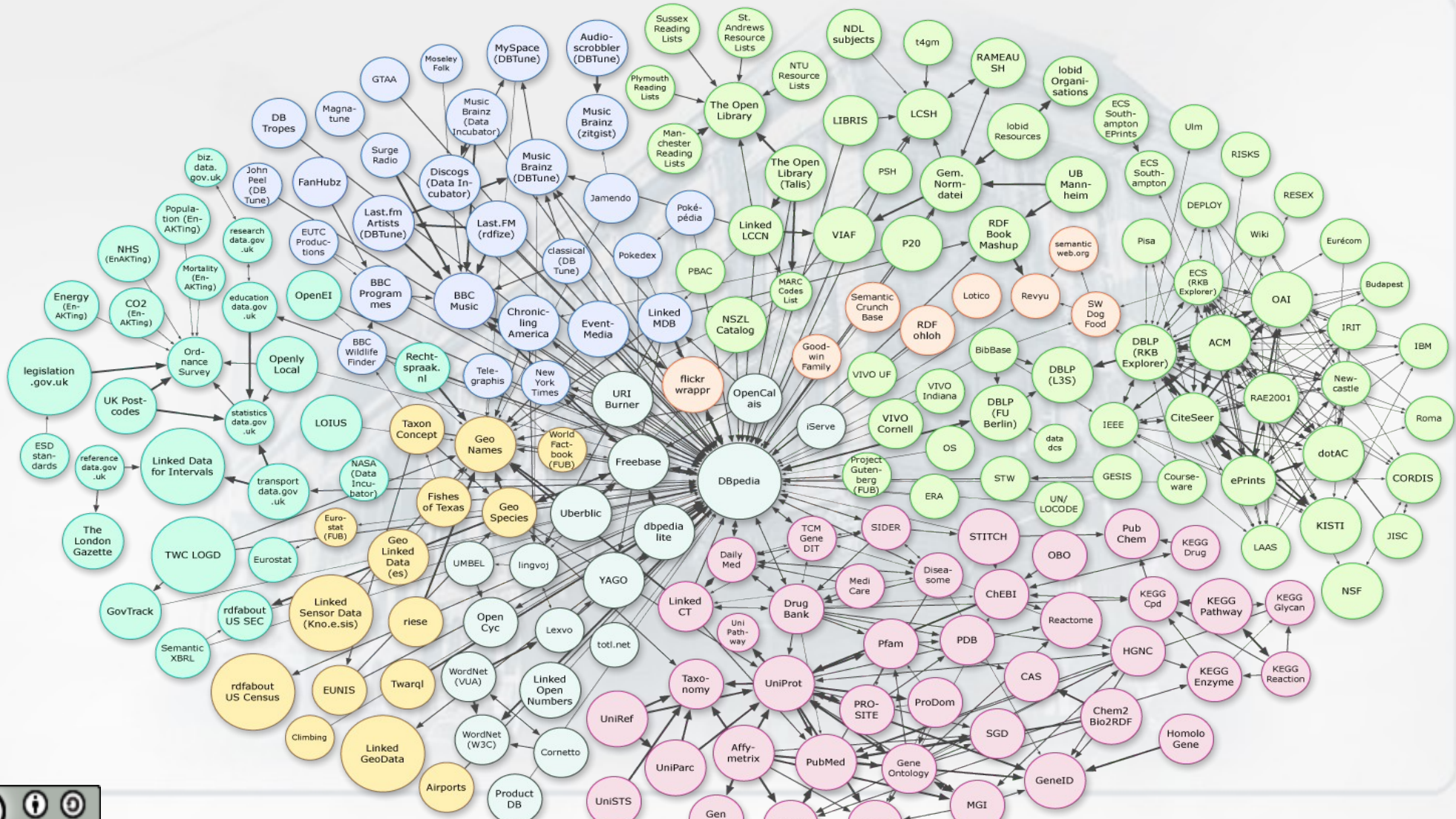
© Richard Cyganiak



A Whole Lot of Bubbles: 09/2010



http://richard.cyganiak.de/2007/10/lod/lod-datasets_2010-09-22_colored.html

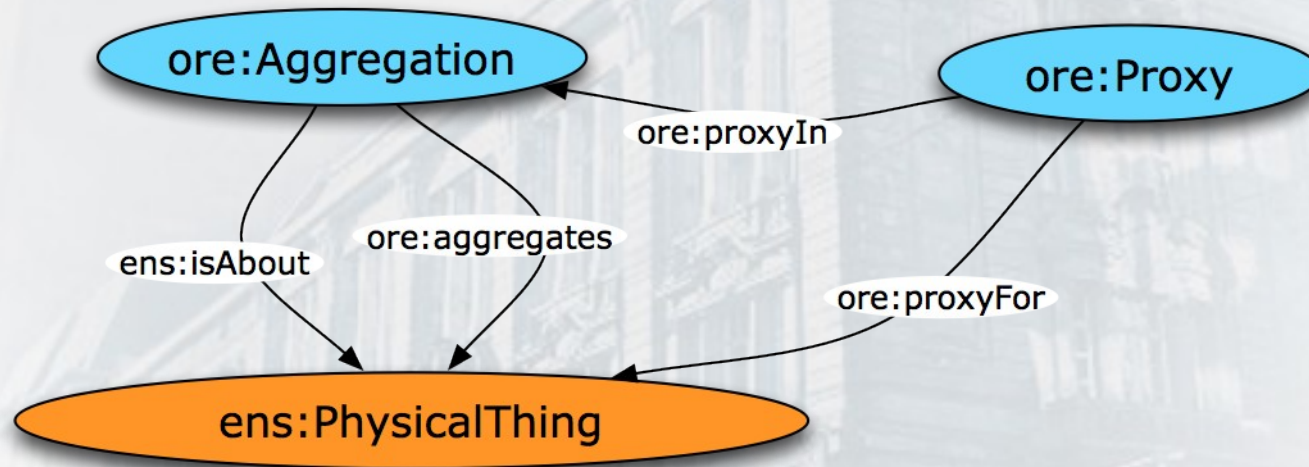


The Manuscript as Cultural Heritage. Digitisation ++
Stefan Gradmann. Firenze, Fondazione Ezio Franceschini, March 9 2012

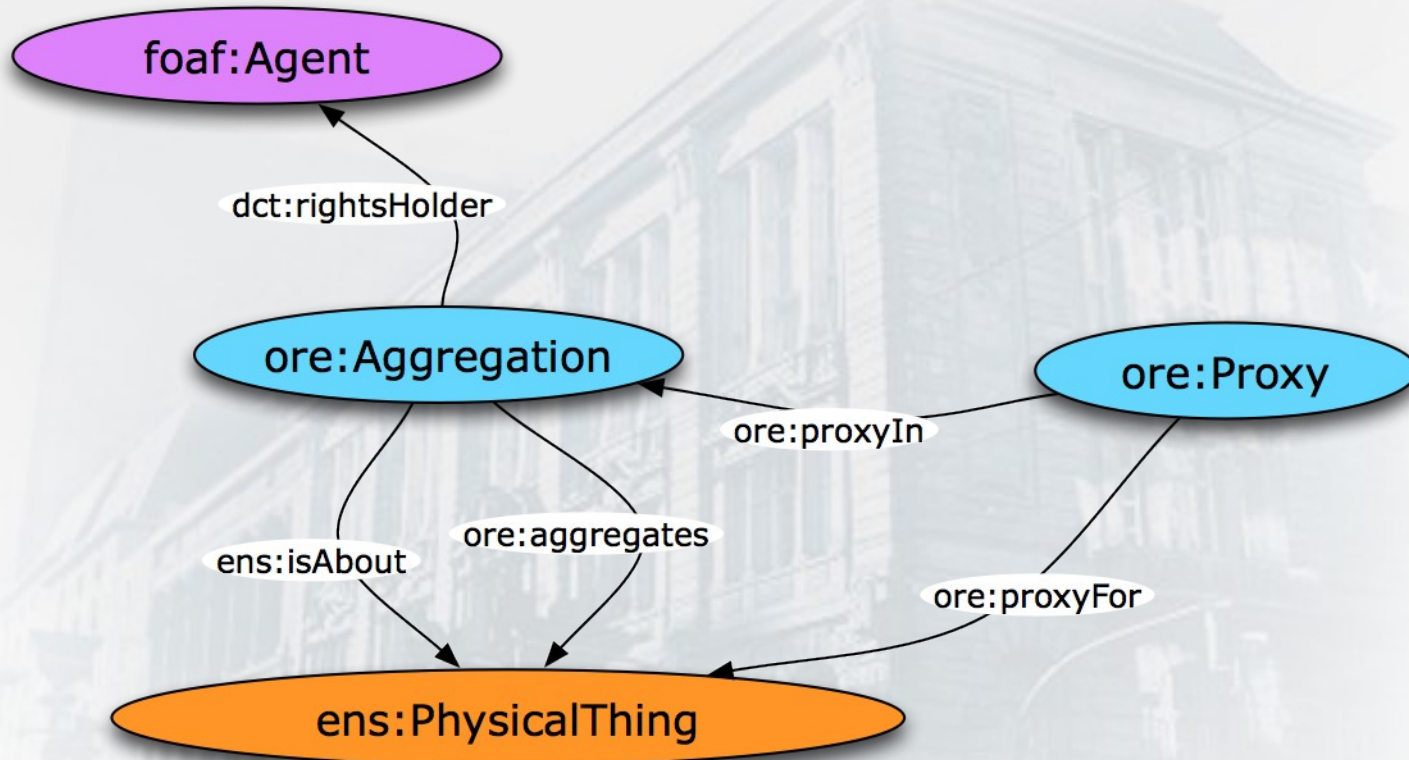
As of September 2010



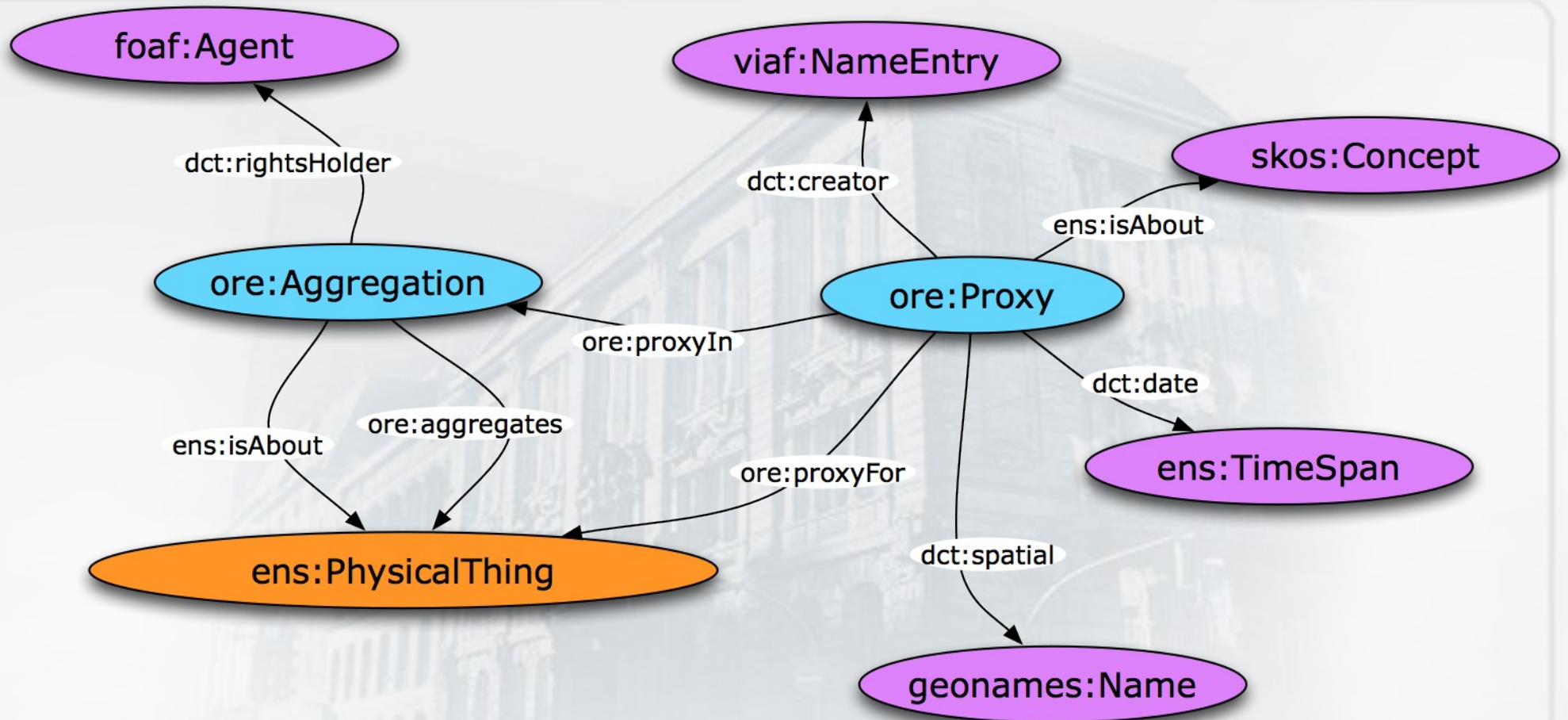
An EDM Aggregation ...



... some context



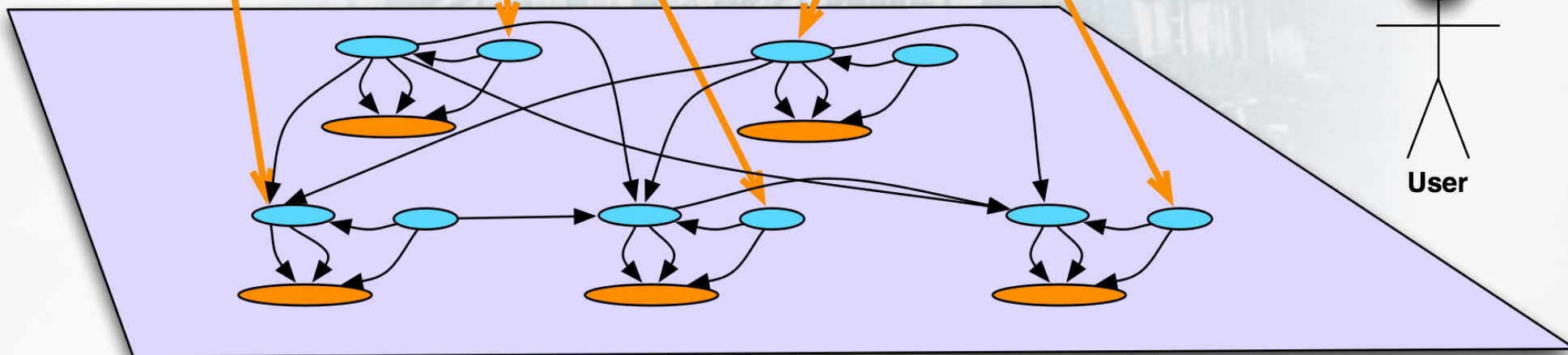
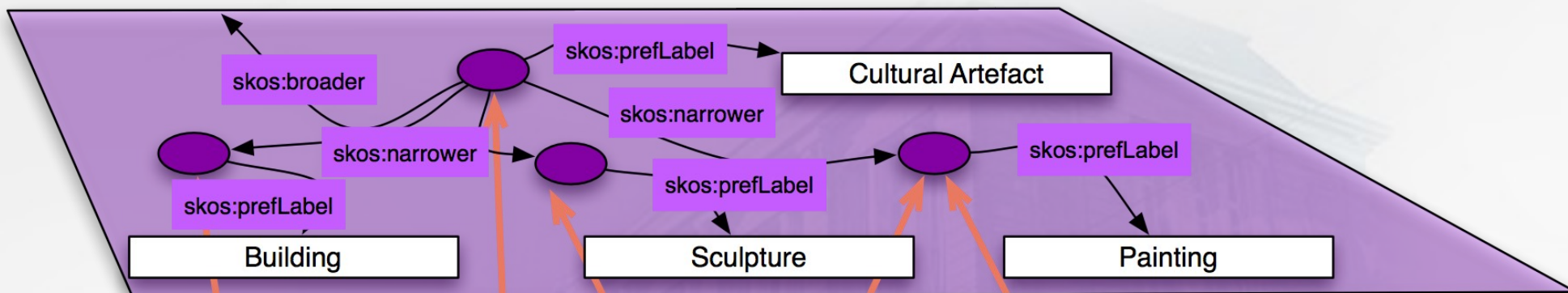
... more context



... and the Big Picture: The Semantic Data Layer



Semantic Network

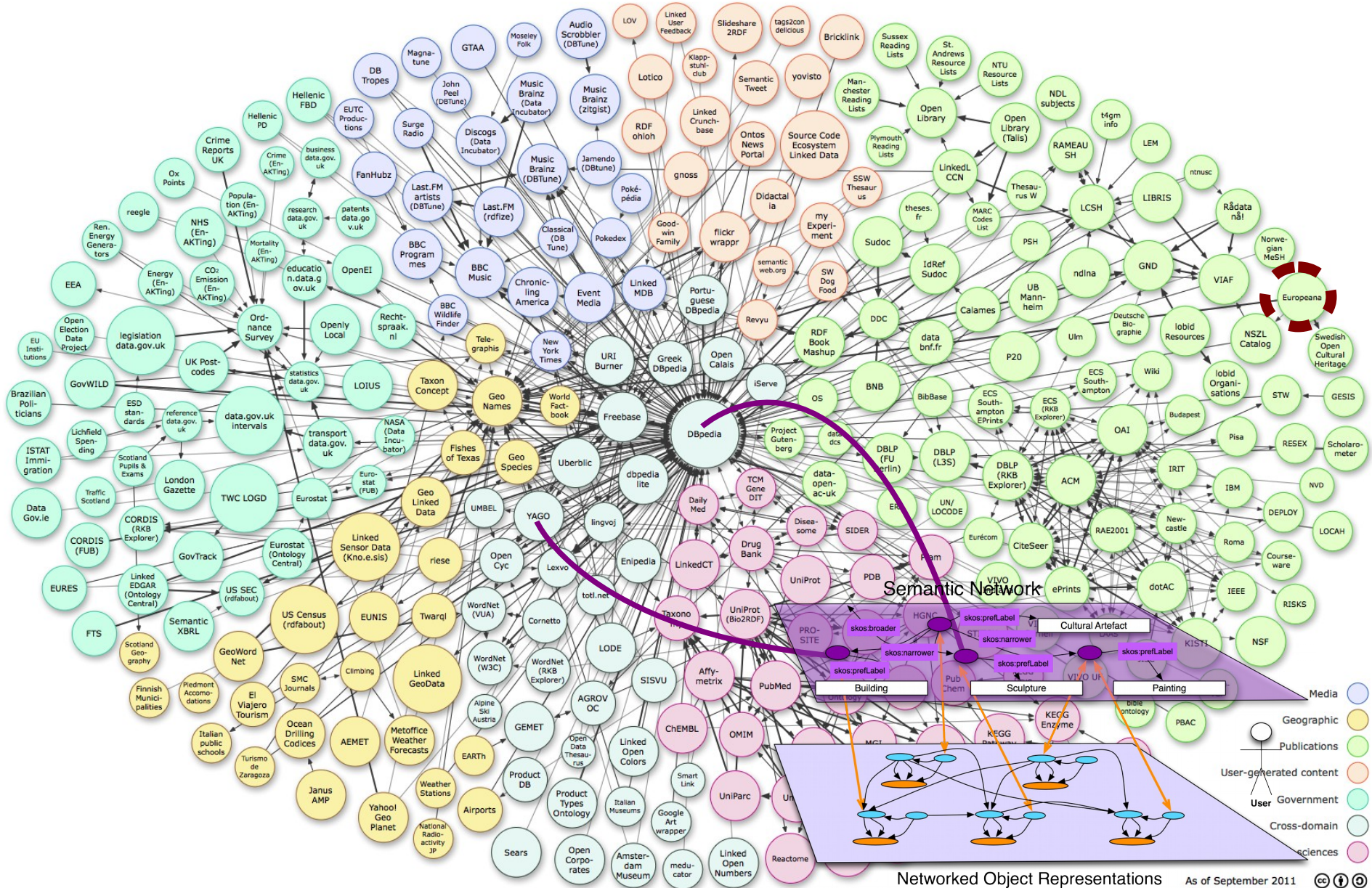


Networked Object Representations

The Manuscript as Cultural Heritage: Digitisation ++
Stefan Gradmann. Firenze, Fondazione Ezio Franceschini, March 9 2012

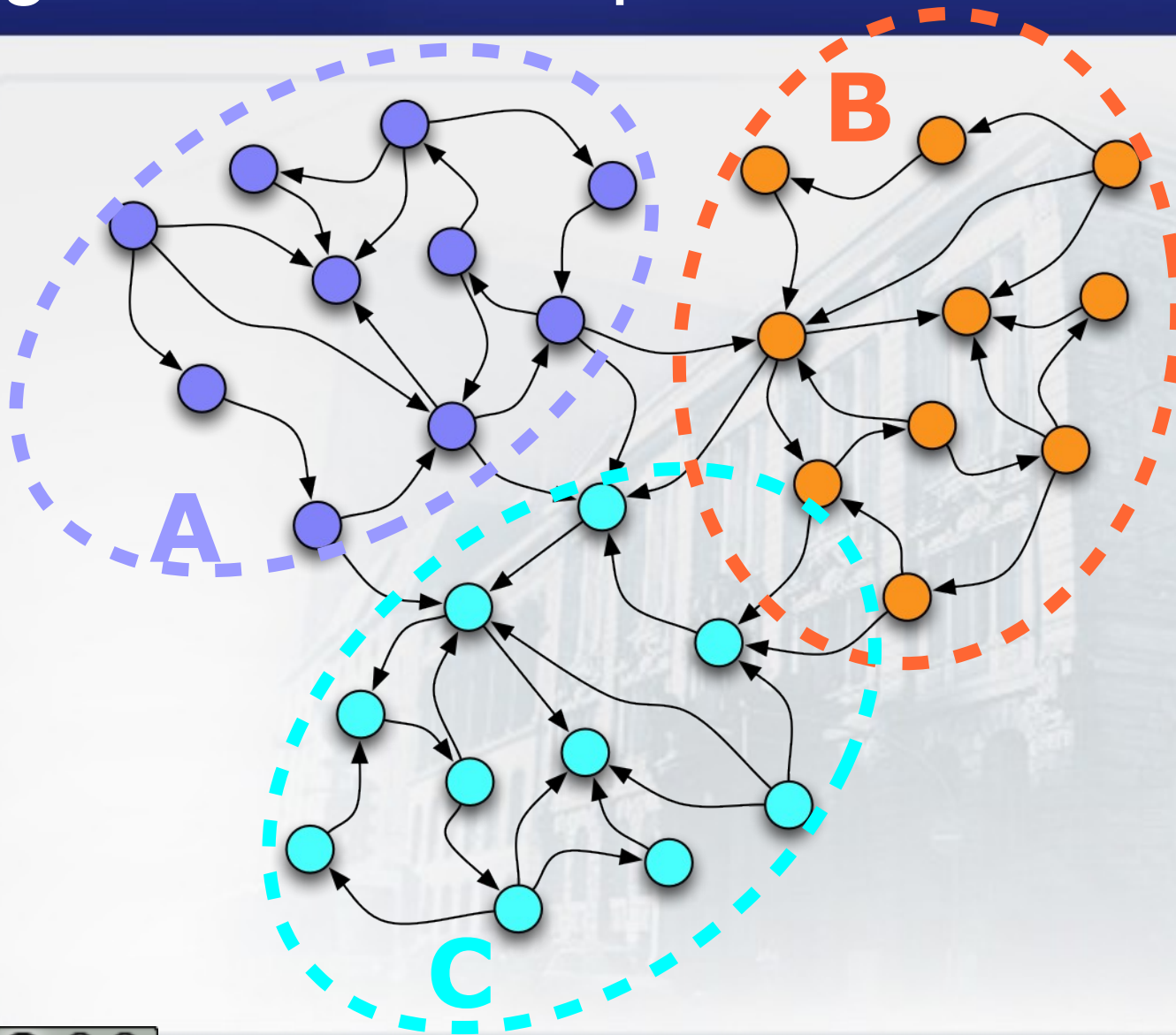


EDM and Linked Open Data



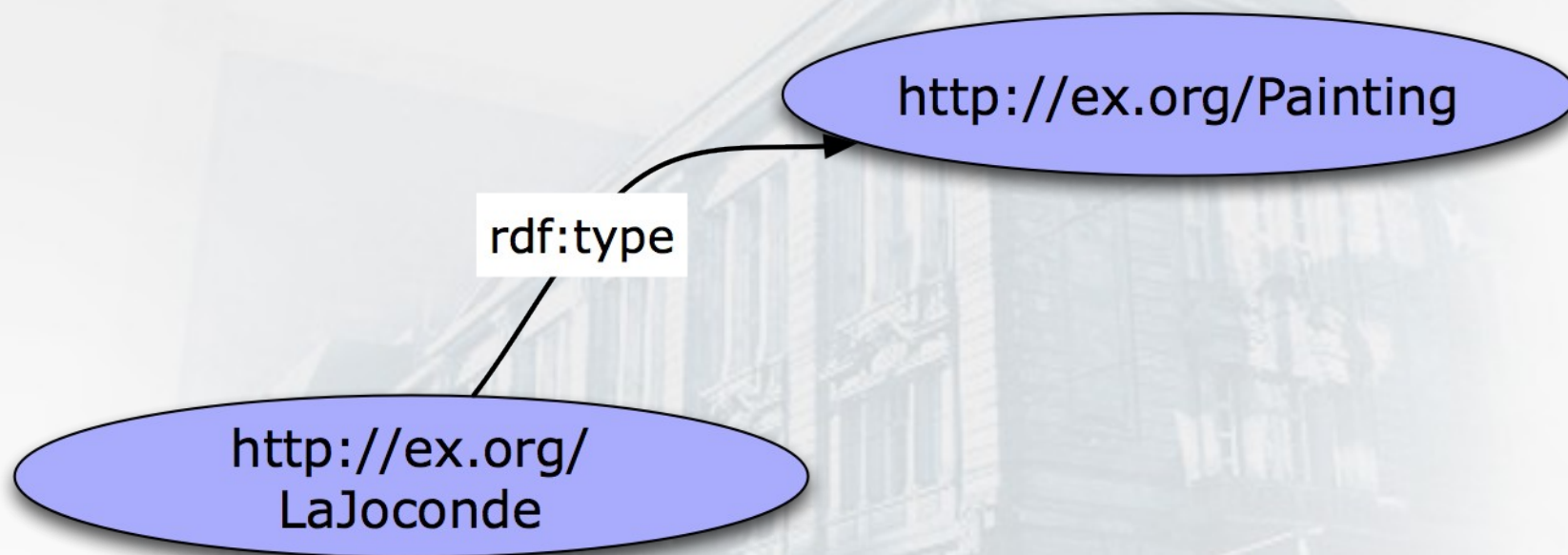
THE MANUSCRIPT AS CULTURAL HERITAGE. DIGITISATION
Stefan Gradmann. Firenze, Fondazione Ezio Franceschini, March 9 2012

'Beyond Catalogues and Records' generates new questions!

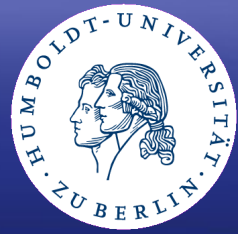


- Where do resource aggregations 'start'? Where do they 'end'?
- And what constitutes document boundaries??
- And which node was connected to which one at a given time???

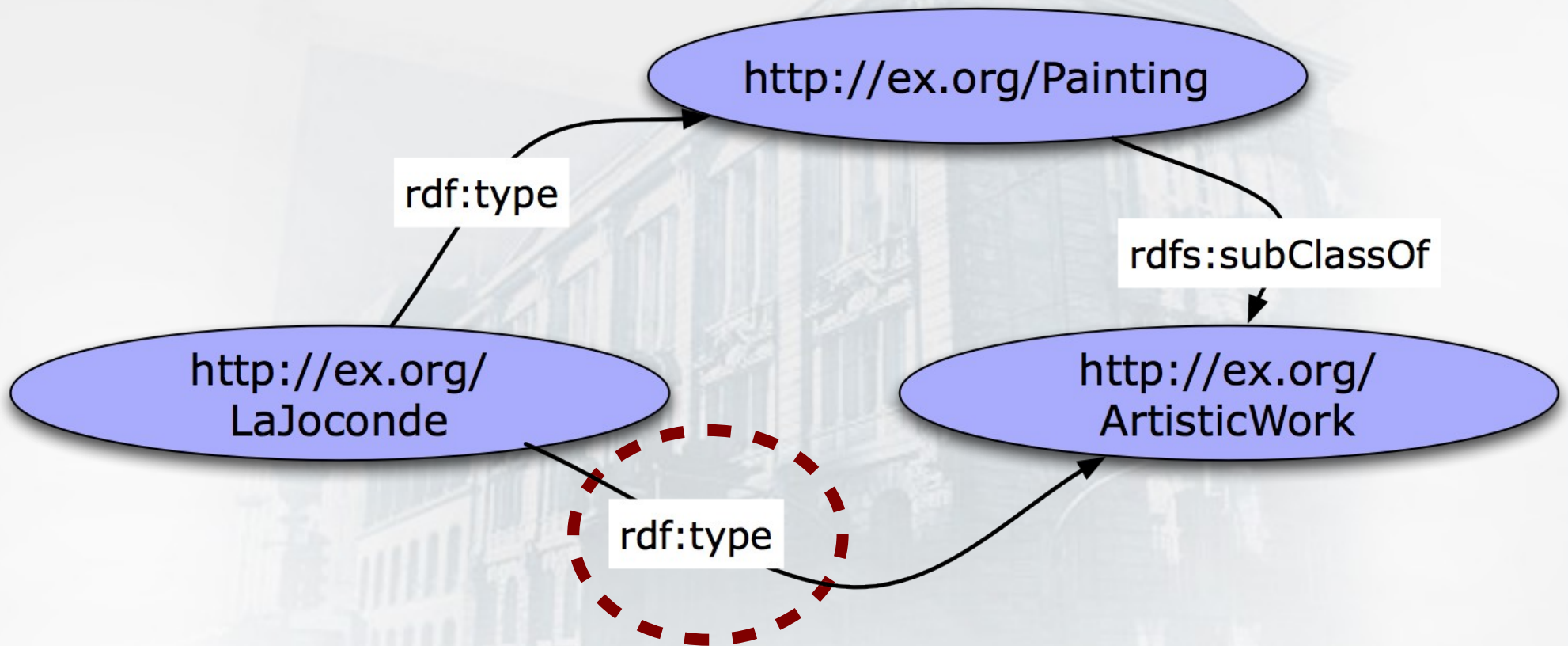
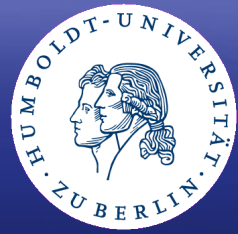
... and new opportunities: Triple Sets and Reasoning (1)



Triple Sets and Reasoning (2)



Triple Sets and Reasoning (3)



→ **Potential of novel digital heuristics!**



EDM + Muruca =

DM2G



EDM + Muruca =

DM2G



... and Europeana?



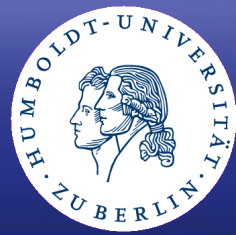
Digitised Manuscripts to Europeana (DM2E): What?



- WP1: Provide substantial amounts of **digital content** to Europeana with a focus on **digitised manuscripts**
- WP2: Integrate existing **technical building blocks**
 - from Europeana development
 - as well as from generic LoD oriented development
 - into a **generic production chain** for migrating data from various sources to the EDM as well
 - as for the **contextualisation** of the object representations.
- WP3: Explore usage scenarios of such content in a specialised platform for **humanities research** generating digital heuristics and making data as well as heuristics available to specialised visualisation or reasoning environments.



Digitised Manuscripts to Europeana (DM2E): Who (1)?



■ Content Providers

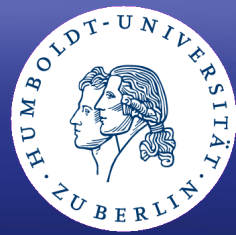
- European Association for Jewish Culture (Judaica)
- Max-Planck-Institut für Wissenschaftsgeschichte (ECHO)
- Österreichische Nationalbibliothek (Google)
- Staatsbibliothek zu Berlin (Kalliope)
- University of Bergen (Wittgenstein)
- CNRS ITEM (Nietzsche)
- National Library of Israel (Judaica)
- Berlin Brandenburgische Akademie (German Text Archive)
- Humboldt-Universität zu Berlin (Polytechnisches Journal)

■ Technology Providers

- ExLibris (Aleph, MARC sources management)
- Freie Universität Berlin (dBpedia, LoD, LoD2, D2R, SILK)
- Max-Planck-Institut für Wissenschaftsgeschichte (ECHO)
- Net7 S.r.l. (Muruca)
- National Technical University of Athens (MINT)



Digitised Manuscripts to Europeana (DM2E): Who (2)?



■ **Digital Humanities Community**

- Dr. Tobias Blanke (King's College, London)
- Sally Chambers (The European Library / DARIAH-D)
- Prof. Dr. Stefan Gradmann (HUB)
- Prof. Dr. Gerhard Lauer (Göttingen Center for the Digital Humanities)
- Dr. Alois Pichler (UIB)
- Dr. Jürgen Renn (MPIWG)
- Prof. Dr. Susan Schreibman (Trinity College Dublin)
- Dr. Claire Warwick (University College, London)

■ **Community Building**

- Open Knowledge Foundation (OKFN)

■ **Coordination, Management & Information Science**

- Humboldt-Universität zu Berlin (HUB)



WP3: Digital Humanities Requirements and Related Engineering - Context



Goal: lower the barriers for **digital content curation** by providing an integrated, flexible, semantic based environment targeted to **digital humanities scholars**

Structured or semi-structured data sources

Compliant web pages with metadata

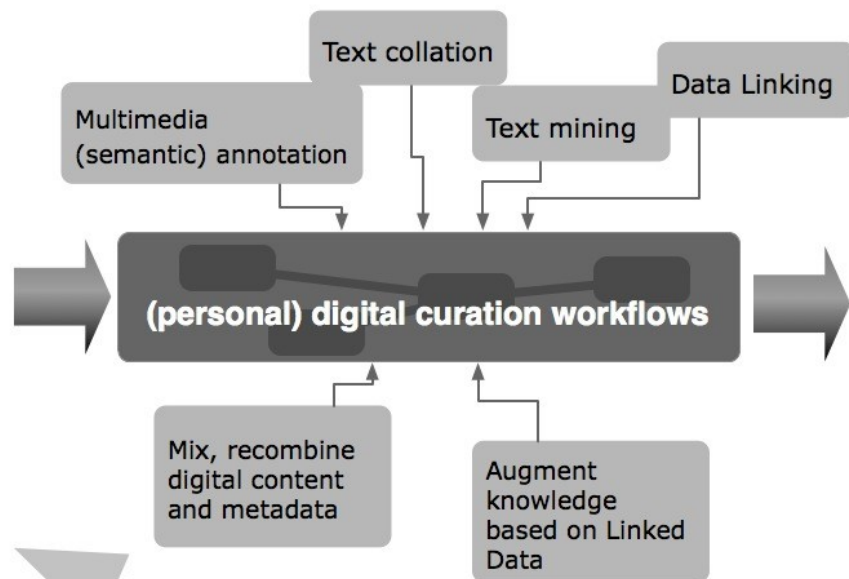
Europeana (EDM)

Partners/third party platforms

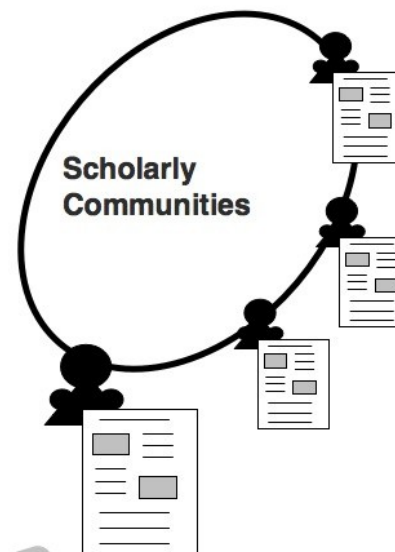
Linked Open Data Cloud

Web of Data

Digital re-mix and curation tool for humanities scholars and domain experts



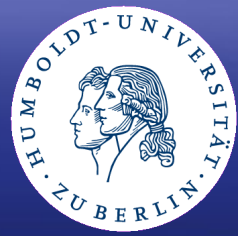
- Custom virtual collections
- Curated, domain specific mashups
- Scientific contributions
- etc..



Linked, semantically structured content further enriching the data web



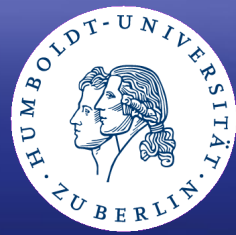
Digital Humanities Functionality (WP3)



- How to enable **digital scholarship** building on combined EDM metadata and digital surrogates ...
- ... building on an ontological, granular representation of John Unsworth's **scholarly primitives** (or their successors according to Blanke/Hedges 2011) ...
- and resulting in a increasingly complex **social semantic scholarly graph** containing RDF statements such as
 - Version_A – isSuccessorOf – Version_B
 - Statement_1 – contradicts - Statement_2
 - Scribe_Y – copiedFrom – Scribe_Z
- → building **scholarly heuristics** on inferences on this graph ...



Conclusion (after-lunch wake-up)



- Consider digitised manuscripts as **cultural heritage** in their own right!
- Leave behind the walled gardens: '**databases**' are a point of departure, not a target!
- **RDF** and its future extensions is key technology!
- Needs of **scholarly users** should be the driving force
 - → We need to better understand what scholars are actually doing
- Try to avoid a few terms librarians are so fond of such as '**Catalogue**' or '**Holdings**': they are deeply rooted in the walled garden paradigm!
- Have a look at <http://dm2e.eu> from mid-next week on!



Selected Reading

- Martin Doerr, Stefan Gradmann, Steffen Hennicke, Antoine Isaac, Carlo Meghini, Herbert van de Sompel (2010): The Europeana Data Model. IFLA 2010 (Gothenburg). Session on „Libraries and the Semantic Web“. <http://www.ifla.org/files/hq/papers/ifla76/149-doerr-en.pdf>
- Stefan Gradmann (2010): Knowledge = Information in Context: on the Importance of Semantic Contextualisation in Europeana. Europeana White Paper 1. <http://www.scribd.com/doc/32110457/Europeana-White-Paper-1>
- John Unsworth (2000): Scholarly Primitives. What methods do humanities researchers have in common, and how might our tools reflect this? In the seminar on Humanities Computing, King's College, London. <http://www3.isrl.illinois.edu/~unsworth/Kings.5-00/primitives.html>
- Tobias Blanke, Mark Hedges (2011): Scholarly primitives. Building institutional infrastructure for humanities e-Science, Future Generation Computer Systems, In Press (Science) <http://www.sciencedirect.com/science/article/pii/S0167739X11001178#br000085>



Thank you!

