ΕΝΟΠΟΙΗΜΈΝΗ ΠΕΡΙΓΡΑΦΉ ΔΕΔΟΜΈΝΩΝ ΣΤΟΝ ΠΑΓΚΌΣΜΙΟ ΙΣΤΌ ΠΡΌΤΥΠΑ ΜΕΤΑΔΕΔΟΜΈΝΩΝ

DARIAH SEMINAR 09/07/2015

Nikolaos Simou – National Technical University of Athens



- Introduce metadata standards
- Familiarize the audience with a typical metadata aggregation workflow
- Highlight the importance of high-quality metadata

Outline

- Basic Concepts
 - Metadata
 - Europeana
- Metadata standards
 - ESE
 - EDM
 - EDM Sounds Profile

Aggregation Workflow & Quality of metadata



Metadata

- 5
- The term metadata refers to "data about data". The term is ambiguous, as it is used for two fundamentally different concepts (types).
 - Structural metadata is about the design and specification of data structures and is more properly called "data about the containers of data";
 - Descriptive metadata, on the other hand, is about individual instances of application data, the data content. In this case, a useful description would be "data about data content" or "content about content" thus metacontent.

Structural Metadata

- Structural metadata should be used when a digital resource is divisible into component parts and the components are useful in-and-of themselves.
- A digital book may be logically structured into chapters but "physically" exist as images for each page.
 - The structural metadata should be used to reflect how those component files are logically grouped and, ultimately, how they should be perceived.

Descriptive Metadata

- Descriptive metadata should be used for all the digital resources.
- Each page is a digital resource thus the metadata that provide information about it is descriptive metadata.
 - Title
 - Summary
 - Author
 - Page No

Europeana

Europeana.eu is an internet portal that acts as an interface to millions of books, paintings, films, museum objects and archival records that have been digitized throughout Europe.

Europeana

□ Link to record



C Rights Reserved - Free Access

View item at Parisienne de Photographie ☑



W Cite on Wikipedia

α Translate details



Powered by Microsoft[®] Translator

WINSTON CHURCHILL

Description:

Winston Churchill (1874-1965), homme politique britannique, témoignant au procès d'anarchistes anglais, en 1912.;

Winston Churchill (1874-1965), British politician, giving evidence during the English anarchists' trial in 1912.

Creator: MAURICE-LOUIS BRANGER (1874-1950)

Geographic coverage: Britain, U.K., UK, United Kingdom

Date of creation: 1912

Type: photography

Format:

gelatin dry plate negatives; Gelatine-Trockenplatten-Negative; Black-and-white negatives; schwarz-weiss Negative; 13x18; cm

Subject:

Clj Črime Loi Et Justice; litigation; Anarchiste Anglais; Temoin; Temoigner; Barre; Homme Politique Britannique; j ustice; CHURCHILL WINSTON HETA BRI 1874-65; Trials; British Politician; English Anarchist; Lawsuit; Witness; Give Evidence; barium

Identifier: 1123-7; - Accession Number : BRA-70157

Rights:

© Maurice-Louis Branger / Roger Viollet

Provenance: Roger-Viollet

Data provider: Parisienne de Photographie



Metadata Standards

- 11
- Metadata standards are requirements which are intended to establish a common understanding of the meaning or semantics of the data, to ensure correct and proper use and interpretation of the data by its owners and users. To achieve this common understanding, a number of characteristics, or attributes of the data have to be defined, also known as metadata.

Metadata Standards

- Different standards depending on the domain of interest
 - EBUCore audiovisual content
 - Dublin core networked resources
 - EDM cultural content
- Different formats depending on the application
 - XML (XSD)
 - RDF

Europeana Semantic Elements

- 13
- The Europeana Semantic elements (ESE) was the first reference metadata set used to describe cultural heritage objects in Europeana.
- It is a Dublin Core-based application profile providing a generic set of DC elements and some locally coined terms, which have been added specifically to support Europeana's functionalities.

Europeana Semantic Elements

XSD – XML Based schema

- dc:title
- dc:creator
- dc:subject
- □ dc:description
- □ dc:publisher
- dc:contributor
- dc:date
- dc:type
- dc:format
- dc:identifier
- dc:source

- dc:language
- dc:relation
- dc:coverage
- dc:rights
- □ dcterms:provenance
- ese:object
- □ ese:provider
- ese:type
- ese:rights
- ese:dataProvider
- ese:isShownAt
- ese:isShownBy

Europeana Data Model

Europeana Data Model

- The Europeana Data Model (EDM) is aimed at being an integration medium for collecting, connecting and enriching the descriptions provided by Europeana content providers.
- EDM is an ontology. In other words it can be considered as a vocabulary consisting of classes and properties that describe the Digitized Cultural Heritage domain

EDM Classes and Properties

Classes

- edm:ProvidedCHO
- edm:WebResource
- edm:Agent
- edm:Place
- edm:Timespan
- skos:Concept
- ore:Aggregation

- Properties
 - dc:title or dc:description
 - dc:language for text objects
 - dc:subject or dc:type or dc:coverage or dcterms:spatial
 - edm:type
 - edm:dataProvider
 - edm:isShownAt
 - edm:isShownBy
 - edm:object
 - edm:provider
 - edm:rights

EDM full documentation at http://pro.europeana.eu/page/edm-documentation

An example in RDF

- RDF identifies things using Web identifiers (URIs), and describes resources with properties and property values.
- Explanation of Resource, Property, and Property value:
 - A Resource is anything that can have a URI, such as "http://mint-projects.image.ntua.gr/data/sounds/10853"
 - A Property is a Resource that has a title, such as "dc:title" and a creator "dc:creator"
 - A Property value is the value of a Property, such as "Johann Sebastian Bach" or "http://dbpedia.org/resource/Johann_Sebastian_Bach" (note that a property value can be another resource)

RDF Syntax

<edm:ProvidedCHO rdf:about="http://mintprojects.image.ntua.gr/data/sounds/10853"/>

<dc:creator>Johann Sebastian Bach</dc:creator>

<dc:creator

rdf:resource="http://dbpedia.org/resource/Johann_Seb astian Bach"/>

<dc:identifier>10853</dc:identifier>

<dc:title xml:lang="en">Bourree in eminor</dc:title>

<edm:type>SOUND</edm:type>

</edm:ProvidedCHO>

RDF as a Graph



EDM Syntax

<edm:ProvidedCHO rdf:about="http://mintprojects.image.ntua.gr/data/sounds/10853">

<dc:creator>Johann Sebastian Bach</dc:creator>

<dc:creator

rdf:resource="http://dbpedia.org/resource/Johann_Sebastian_Bach"/>

<dc:identifier>10853</dc:identifier>

<dc:title>Bourree in e-minor</dc:title>

•••

<edm:type>SOUND</edm:type>

</edm:ProvidedCHO>

<ore:Aggregation rdf:about="http://mintprojects.image.ntua.gr/data/sounds/Aggregation 10853">

<edm:aggregatedCHO rdf:resource="http://mintprojects.image.ntua.gr/data/sounds/10853">

<edm:dataProvider>NTUA</edm:dataProvider>

<edm:isShownAt rdf:resource="http://link.to.portal">

<edm:rights>SOUND</edm:rights>

</edm:ProvidedCHO>

EDM as a Graph



Basic Concepts – EDM Sounds

EDM Sounds Profile

An extension of the EDM ontology for better fitting the content provided by the Europeana Sounds Project

- Classes
 - mo:MusicGroup
 - edm:Collection

Properties

- mo:remaster_of
- mo:track_number
- ebucore:hasGenre
- ebucore:dateDigitised

•••

EDM Sounds full documentation at

http://pro.europeana.eu/taskforce/edm-profile-for-sound

edm:Collection

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ore: Aggregation

ore: Aggregation

ore: Aggregation



What is MINT?

- MINT is an open source, web based platform for Metadata INTeroperability
 - <u>http://mint.image.ece.ntua.gr</u>
 - It has been successfully used in more than 15 Europeana feeder projects
 - 300 cultural organizations
 - 500 users
 - More than 6.000.000 metadata records have been produced by it and published on Europeana

MINT – The early days

- 26
- MINT development started by the NTUA team during the Athena project back in 2008
- Athena's main objectives were
 - The delivery of 4.200.000 metadata records coming from 23 different museums and organisations to Europeana
 - The development of a metadata standard for the museum sector that would act as an intermediate for the project
 - The development of technical tools for assisting content providers to meet project objectives

MINT – Initial Workflow





Harvesting requirements

- Different metadata models
 - Standards e.g. Dublin Core
 - In house metadata models
- Different File formats
 - XML
- Different delivery protocols
 - File upload (i.e. HTTP)
 - Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH)

Mapping & Transformation req.

- Agnostic to metadata input
- Target schema based on a metadata model
 XSD support
- Crosswalks between known schemas
 - Project's intermediate to ESE
- User friendly interface
 - Most of the content providers did not have any technical background, they were (in most cases) well aware of their metadata

Mapping Editor

	Mapping: testLido (LIDO 1.0)		Navigation
testLido Organization: Video and Multimedia Systems Laboratory Created: 2013-07-21 23:23:00.202	Preview Ø Navigation % Preference	es 🕜 Help	
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ths:Decemption			lido:@cype
 			lido:appellationValue
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ths:Place ths:Related_Object	🞯 🐼 😭 lido:administrativeMetadata	00	lido:recordSource
	structural		lido:linkResource
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Further requirements...

- Better control of metadata and its quality
 - Metadata cleaning services
 - Many of the providers have realised that they also hold a lot of rubbish they wanted to get rid before publishing to Europeana
 - Validation according to target schema
 - Mapping to a common target schema itself did not provide high quality metadata
 - Preview interfaces
 - Providers wanted to preview their metadata for controlling its quality before the actual publication

Mappings – Concatenate mapping

32

 Allows users to combine more than one mappings for producing a new mapping

6	Ο Ο Εθνικό	
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	Ο Ο Πολυτεχνείο	
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Mappings – Conditional Mapping

33

- Allows users to set conditions on their mappings
 - If the value of xpath tns:Organisation is equal to "IVML" and the value of xpath tns:PhotoURI starts with "http://www.image.ntua.gr" and either the value of xpath tns:PhotoURI contains "nsimou" of EuPhoto then the value of the xpath tns:Organisation will be mapped to the xpath lido:appellationValue of the target schema



Mappings – Value Mapping

34

Allows users to normalize their metadata by mapping values of their input to specific values they set

input:	Nikos Simou		Q	
Output:	Nikolaos Simo	ı		O Add
Input			Output	
Petros Ka	atsaros		Petros Emmanuel Katsaro	os 🤤

Mappings – Functional Mapping

- **Substring:** User sets the start and the end index.
- Substring after: User sets the substring of the original string after which the value is taken.
- Substring before: User sets the substring of the original string before which the value is taken.
- Substring between: User sets the substrings of the original string after and before which the value is taken.
- Split: User sets the delimiter for tokenization and the start index of the original string.
- Tokenize content and generate an element per content: User sets the delimiter for tokenization.

Preview & Validation

⊂×⊋	Preview	12
🔍 The F	arthenon	8
Input	XSL Output ESE Europeana Report	
1		- 1
2	<pre>clido:lidoWrap.wins:lido="http://www.lido-schema.org" xmins:xalan="http://xml.apache.org/xalan"> clido:lidoWrap.wins:lido="http://www.lido-schema.org" xmins:xalan="http://xml.apache.org/xalan"></pre>	- 1
4	do:lidoRcID lido:type="Photography">/Photography:000008	
5	doi:descriptiveNetadata>	- 1
7	<1100:00/0CCLINSSITICATIONHTOP> <1100:00/0CCLINSSITICATIONHTOP>	
8	did:objectWorkType>	
9	<pre>slido:term lido:addedSearchTerm="no">Photography clidotactionstinueUniterm="no">Photography</pre>	
10		
12	<11do:classificationMnap>	
13	diduclassification lido:type="europeana:type">	
14	<pre><li< td=""><td></td></li<></pre>	
16		
17	<td></td>	
18	did:id/id/id/id/id/id/id/id/id/id/id/id/id/i	
20		
21	do:appellationValue>The Parthenon	
22		
23	<pre></pre> <1/dots/dots/dots/dots/dots/	
25	<pre>(lide.objectBescriptionSet)</pre>	
26	do:descriptiveNoteValue>The west facade of the Parthenon	
27		
28	//indextop/construction//indextop/construction	
30	clido:eventimap	
31	do:eventSet>	
32	<pre>clide:event> clide:event></pre>	
34	<pre>(lide:conceptD lide:type="URI">http://terminology.lide-schema.org/lide00012</pre>	
35		
36	<pre>clide:eventActor></pre>	
37	<pre></pre>	
39	<lido:nameactorset></lido:nameactorset>	
40	<pre></pre> ido:appellatiorWalue>Petros Katsaros	
41	<pre></pre>	
43	(lide:actorInRole)	
44		
10 17 18 20 20 21 24 25 26 27 28 29 30 31 33 36 37 38 36 37 38 34 40 41 42 44 44	<pre></pre>	

Europeana Preview

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Metadata Quality

□ Link to record



View item at

Academy of Athens - Resear ch Center for the Study of M odern Greek History / Ακαδη μία Αθηνών - Κέντρο Ερεύνη ς της Ιστορίας του Νεωτέρου Ελληνισμού ΕΔ



Αυτόγραφα Σολωμού - Σατιρικά

Identifier:

local 100005 [Metadata]

Rights:

Academy of Athens; Ακαδημία Αθηνών

Source:

Academy of Athens - Research Center for the Study of Modern Greek History; Ακαδημία Αθηνών - Κέντρο Ερεύνης της Ιστορίας του Νεωτέρου Ελληνισμού

Data provider:

Academy of Athens - Research Center for the Study of Modern Greek History / Ακαδημία Αθηνών - Κέντρο Ερεύνης της Ιστορίας του Νεωτέρου Ελληνισμού

Provider:

Athena

Providing country: Greece

Other items you may be interested in:



Αυτόγραφα Σολωμού -Σατιρικά



Αυτόγραφα Σολωμού -Σατιρικά διάφορα.



Αυτόγραφα Σολωμού -Σατιρικά διάφορα

Show all 156 items

The shift from ESE to EDM

Metadata Quality

- Metadata reconciliation
 - Connecting provider's collection-specific vocabularies to controlled vocabularies on the Web
- Metadata Annotation
 - Some of the providers had metadata of limited expressivity for publishing on Europeana

Mappings – Thesaurus mapping

Target schema elements can take values from SKOS vocabularies



Mappings – Thesaurus mapping

The user can

select a term from the thesaurus that will be applied to all items

(<i>⊋</i> co	nceptID thesaurus	↔	
4 <u>6</u> 0	language: en - English	÷	?
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i Airport	(~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	1
Allegory	(~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
(i) Altarpiece	(~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
 Amateur art 	(~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	1

Mappings – Thesaurus mapping

The user can

align its in-house values to terms selected from the thesaurus

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negative		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
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Input	Output	
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Metadata Annotation

□ Annotator

Create, delete and modify records

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Switch to Group Item Annotator			O Create new	v item	Delete current item	Switch to complete	x Preview
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Starkat Lappeenranta - Budapest Old Boys Ice-hockey Match	Selles/Collectori title	•	Retro hirado	OK			
Demonstration of the Italian Radical Party for the Ozone Lay							
Night Broadcast Launching by Radio Danubius	Title in english	0	Intertoto Co	ngress	in Budapest		•
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Education of Models in Hungary							
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Metadata Annotation

□ Group Edit

Tag records using elements of the schema

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Desciect all		

Metadata Quality

□ Link to record



Free access - no

re-use

View item at

ographie 🗹

WINSTON CHURCHILL

Description Winston Churchill (1874-1965), homme politique britannique, témoignant au procès d'anarchistes anglais, en 1912 .:

Winston Churchill (1874-1965), British politician, giving evidence during the English anarchists' trial in 1912

Creator: MAURICE-LOUIS BRANGER (1874-1950)

Type:

Format:

Parisienne de Phot Geographic coverage: ain, U.K., UK, United Kingdom

tography

Share Date of creation: W Cite on

Wikinedia 22 Translate details Select language \$

Powered by Microsoft Translator

e; Black-and-white negatives; schwarz-weiss Negative; 13x18; cm Subject Clj Crime Loi Et Justice; litigation; Anarchiste Anglais; Ternoi n; Temoigner; Barre; Homme Politique Britannique; justice; CHURCHILL WINSTON HETA BRI 1874-65: Trials: British P

olitician; English Anarchist; Lawsuit; Witness; Give

alatin dry plate negatives; Gelatine-Trockenplatten-Negativ

Evidence: barium Identifier

1123-7: - Accession Number : BRA-70157

Rights: Maurice-Louis Branger / Roger Viollet

Provenance Roger-Viollet

Data provider:

ne de Photographie

Provider: EuropeanaPhotography

Providing country: France

Auto-generated tags *

Geographical coverage *

Place Term: http://sws.geonames.org/2635167/

Place Label:

Place Laber: [Det forente kongerike Storbritannia og Nord-Irland, Storbritannia] (no); [Grut-Brittanje] (fy); [Storbritannia] (nn); [An Rioghachd Aonaichte] (gd); [An Riocht Aontaithe] (ga); [Reialme Unit] (oc); [Iso-Britannia, Yhdistynyt kuningaskunta] fi); [United Kingdom] (om); [Grande-Bretagne, Royaume-Uni] (fr); [Stóra Bretland] (fo); [Стыр Британи] (os); [.асгоссания] הממלכה המאוחדת (he); [Reino Unido, Reino Unido - United Kingdom] (gl); [Reeriaght Unnaneyssit, Rywvaneth Unys] (gv); [Wielka Brytania, Zjednoczone Królestwo Wielkiej Brytanii] (pl); [ສະຫະລາດຊະອານາຈັກ] (lo); [Ingelétele] (ln); [Vurong quốc Anh, Vương quốc Liên hiệp Anh và Bắc Ireland] (vi); [ਸ਼

नदे तेत जैहातमा (dz); [Apvienotā Karaliste, Lielbritānija, Lielbritānijas un Ziemeļīrijas Apvienotā Karaliste] (lv); [Didžioji Britanija, Jungtinė Karalystė] (It); [England, Großbritannien, Großbritannien und Nordirland, Vereinigtes

Обединено кралство. Обединено кралство Великобритания и Северна Ирландия] (bg); [გაერთიანებული სამეფო, დიდი ბრიტანეთი] (ка); [Uingereza] (sw); [Велікабрытанія, Вялікабрытанія, Вялікая Брытанія] (be); [Rywvaneth Unys] (kw); [Velika Britanija, Združeno kraljestvo (V. Britanija in S. Irska), Združeno kraljestvo Velike Britanije in Severne Irske) (sl); [Spojené kráľovstvo] (sk); [Det Forenede Kongerige, Det Forenede Kongerige Storbritannien og Nordirland. Storbritannien] (da); [United Kingdom] (so); [Keyatiya Yekbûyî ya Brîtaniya Mezin û Îrlanda, Qraliyeta Yekbûyî] (ku); [Велика Британија, Уједињено Краљевство] (sr); [Britania e Madhe, Mbretëria e Bashkuar] (sg); [영국] (ko); [Prydain Fawr, Y Deyrnas Unedig] (cy); [Stuorra-Británnia] (se); [Ujedinjeno Kraljevstvo] (sh); [Spojené království, Velká Británie] (cs); [Vereineg Keuninkriek] (li); [Regnu Unitu] (co); (Britanniarum Regnum, Regnum Unitum) (la); (Groussbritannien, Groussbritannien an Nordirland) (lb): (Великобритания) (ru): (Uiediniena Kralievina, Uiedinieno Kraljevstvo, Velika Britanija] (hr); [英国] (zh); [Marea Britanie, Regatul Unit] (ro); [Reginavel Un) da la Gronda Britannia ed Irlanda dal Nord] (m); [Wayòm Ini] (ht); [Egyesült Királyság] (hu); [यूनाइटेड किंगडम, संयुक्त राजधाड़ी] (hi); [Britania Raya, Inggris Raya, Kerajaan Inggris] (id); [Regno Unite] (ia); (Hukilachasqa Qhapaq Suyu) (qu); [Մեծ Բրիտանիա, [Reino Unido] (pt); [United Kingdom] (aa); [イギリス] (ja); Koninkrykl (af)

What *

Concept Term: http://bib.arts.kuleuven.be/photoVocabulary/12008

Concept Label:

(suchý želatínový proces) (sl); [Негативи - сухий желатиновий спосіб] (uk); [明胶干版底片] (zh); [gelatine tørre plade negativer) (da); (negatiu de placa seca de gelatina] (ca): [negativi su lastra asciutta alla gelatina] (it): [želatiniai sausieji stiklo negatyvai] (It); [Gelatin dry plate Negative] (de); [negatywy żelatynowe (tzw sucha plyta)] (pl); (Négatif sur verre au gélatino-bromure d'argent) (fr); (негатив върху суха желатинова плака] (bg); [Gelatin dry plate negatives] (en); [Негативы - сухой желатиновый способ] (ru); [negativos de gelatina en placa seca] (es); [Gelatineplaatnegatief] (nl)

Concept Broader Label: http://bib.arts.kuleuven.be/photoVocabulary/12000

Concept Term: http://bib.arts.kuleuven.be/photoVocabulary/12003

Concept Label:

[čiernobiele negativy] (sl); [sort-hvide negativer] (da); [Чорно-білі негативи] (uk); [白色底片] (zh); [negatiu blanc i negre] (ca); [negativo in bianco e nero] (it); [baltai juodi negatyvai] (It); [Schwarz-weiß Negative] (de); [negatywy czarno-białe] (pl); (черно-бял негатив) (bg); (Négatif en noir et blanc] (fr); [Black-and-white negatives] (en); [Чернобелые негативы) (ru); (negativos blanco v negro) (es); [Zwart-wit negatief] (nl)

Concept Term:

Concept Label:

http://www.eionet.europa.eu/gemet/concept/11563

Concept Term:

Concept Label:

Concept Term:

Concept Label:

Concept Broader Label

(industriële processen) (nl)

Concept Broader Label

Broader concept: chemical element

Concept Term:

Concept Label:

Concept Term:

Concept Label:

Concept Term:

Concept Label:

http://www.eionet.europa.eu/gemet/concept/11583

[justitje] (ro); [adalet] (tr); [rettferdighet] (no); [igazság, pártatlanság] (hu); [tiesiskums] (lv); [teisingumas] (lt); [Recht]

pravosodje/sodstvo/sodna oblast] (sl); [justicia] (sk); [justizia]

(eu); [retfærdighed] (da); [giustizia] (it); [ģustizzja] (mt); [Juse] (ar); [systém právní] (cs); [δικαιοσύνη] (el); [Justiça] (pt);

[praworządność] (pl); [justice] (en); [правосудие] (ru); [õigus] (et); [justicia] (es); [gerechtigheid] (nl)

http://www.eionet.europa.eu/gemet/concept/13123

[fotografie] (ro); [fotoğrafçılık] (tr); [fotografering] (no);

[fényképezés] (hu); [fotogrāfija] (lv); [fotografija] (lt);

[valokuvaus] (fi); [photographie] (fr); [fotografi] (sv);

المان محمد الله الله المان (خلا), المان محمد المان (خلا), المان محمد المان (خلا), المان محمد المان الم (خلا) (مان مان المان (خلا) (مان مان المان (خلال مان مان المان المان

[photography] (en); [фотография] (ru); [fotograafia] (et); [fotografiar] (es); [fotografie] (nl)

http://www.eionet.europa.eu/gemet/concept/4257

[proces industrial] (ro); [endüstriyel proses] (tr);

(teollisuusprosessit) (fi): [processus industriel] (fr):

[industrijski proces] (sl); [priemyselné procesy] (sk); [industriprocesser] (da); [industria-prozesu; prozesu

(βιομηχανικές διαδικασίες (μέθοδοι)] (el); [processos

[tööstusprotsess] (et); [procesos industriales] (es);

http://www.eionet.europa.eu/gemet/concept/719

http://www.eionet.europa.eu/gemet/concept/2637

(grup II elementleri (toprak-alkali metaller)) (tr):

[element de grupa II (metale alcalino-pământoase)] (ro);

jordalkalimetall] (no); [II. főcsoport elemei (lúgos földfémek)]

process] (en); [промышленный процесс] (ru);

[industriprosess] (no); [ipari folyamat] (hu); [rūpniecisks process] (lv); [pramoninis procesas] (lt); [Industrielle

industriella processer] (sv); [Промишлен процес] (bg);

Verfahren] (de); [industrial process, 工业流程、工序] (def);

industrial] (eu); [processi industriali] (it); [process industrijali] (mt); [علية مساعية] (ar); [proces průmyslový] (cs);

industriais] (pt); [technologia przemysłowa] (pl); [industrial

[bariu] (ro); [baryum] (tr); [barium] (no); [bárium] (hu); [bārijs]

(Iv); [baris] (It); [Barium] (de); [barium, 钡] (def); [barium] (fi); [baryum] (fr); [barium] (sv); [Барий] (bg); [barij] (sl); [bárium] (sk); [barium] (da); [bario] (eu); [bario] (it); [bariu] (mt); [bariu]

(ar); [baryum] (cs); [βάριο] (el); [bar] (pl); [bário] (pt); [barium]
 (en); [барий] (ru); [baarium] (et); [bario] (es); [barium] (nl)

[Photographie] (de); [photography, 摄影术] (def);

(de); [justice, 正义] (def); [oikeus] (fi); [rättvisa; rätt] (sv);

[justice] (fr); [Справедливост] (bg); [pravičnost/zakonitost,

[litigiu] (ro); [hukuki ihtilåf] (tr); [rettstvist] (no); [pereskedés] (hu); [prāva] (lv); [bylinėjimasis] (lt); [Rechtstreit] (de); [litigation, 诉讼] (def); [riita-asia, käräjöinti] (fi); [rättstvist; process] (sv); [contentieux] (fr); [Съдебен процес] (bg); [pravni spor, proces, pravdni/sodni postopek] (sl); [súdny spor] (sk); [auzi] (eu); [retstvist] (da); [contenzioso] (it); [liti]

htuasi; hagi] (et); [pleito] (es); [procesvoering] (nl)

Concept Broader Label:

Broader concept: organisation of the legal system Concept Term:

[rechtsstelsel] (nl)

Concept Term:

Concept Label

rechtsstelsel] (nl)

Concept Term:

Concept Label

Concept Broader Label:

http://www.eionet.europa.eu/gemet/concept/10085

Concept Label:

(sistem judiciar) (ro): [mahkeme teskilati] (tr): [rettsvesen] (no); [bírósági rendszer] (hu); [tiesu sistēma] (lv); [teisiné

sistema] (It); [Rechtssystem] (de); [judicial system, 司法系统]

(def); [oikeuslaitos, tuomioistuinlaitos] (fi); [juridiskt system]

(cs); (josan discut (cs); (jorganizzazione giudiziaria) (tc); [sistema ģudizzjarja] (mt); (jorganizzazione giudiziaria) (tt); [sistema ģudizzjarja] (mt); (jorganizzazione giudiziaria) (tt); [sistema ģudizzjarja] (mt); [sistema judicial] (pt); [system

sądowniczy] (pl); [judicial system] (en); [судебная система] (ru); [kohtusüsteem] (et); [sistema judicial] (es);

http://www.eionet.europa.eu/gemet/concept/13146

(organizare a sistemului juridic) (ro); [adalet teşkilâtı] (tr); [rettsordenstruktur] (no); [jogrendszer szervezete] (hu); [tlesību sistēmas organizēšana] (lv); [teisinēs sistemos

organizacija] (It); [Organisation des Rechtssystems] (de);

[Организация на правната система] (bg); [organiziranost pravnega sistema] (sl); [usporiadanie právneho systému]

(sk); [justizia-sistemaren antolamendu] (eu); [retssystemets

رهار الاعتماد animatic animaticul (eu), relassivations oppogning) (eta), relassivations della giustizia) (fit); (organizzazzioni tal-gustizzia) (mt): المنظم الشعر العلم العالي (ar); (organizzace systému právního) (cs); (opyávuơn rou νομικού αυστήματος) (el); (organizząšo do sistema jurídico) (pt);

[system prawny] (pl); [organisation of the legal system] (en); [организация правовой системы] (ru); [õigussüsteem] (et);

[justitje] (ro); [adalet] (tr); [rettferdighet] (no); [igazság, pártatlanság] (hu); [tiesiskums] (lv); [teisingumas] (lt); [Recht]

(de); [justice, 正义] (def); [oikeus] (fi); [rättvisa; rätt] (sv);

(ar); [systém právní] (cs); [δικαιοσύνη] (el); [Justiça] (pt);

[justice] (fr); [Справедливост] (bg); [pravičnost/zakonitost,

pravosodje/sodstvo/sodna oblast] (sl); [justicia] (sk); [justizia]

(eu): [retfærdighed] (da): [giustizia] (it): [gustizzia] (mt): الالها): (أسالة)

[praworządność] (pl); [justice] (en); [правосудие] (ru); [õigus] (et); [justicia] (es); [gerechtigheid] (nl)

(organización de la justicia) (es); (organisatie van het

http://www.eionet.europa.eu/gemet/concept/11583

[organisation of the legal system, 法律组织] (def);

rättssystemet] (sv); [organisation de la justice] (fr);

[oikeusjärjestelmän organisaatio] (fi); [organisation av

(sv); [organisation judiciaire] (fr); [Юридическа система] (bg); [sodni sistem] (sl); [súdnictvo] (sk); [retssystem] (da);

...and more requirements...

- Publication
 - Support of multiple publications
 - Europeana
 - Thematic portals
 - Linked Open Data

MINT – Current Workflow

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Lesson learnt

Metadata

- The production of high quality metadata will always depend on the user. A tool can only provide useful services
- Never-ending requirements
 - Be one of them, find out what they'll need before they do
 - Be flexible by modularizing everything as much as possible

Future developments

Cleaning and Linking

- Developing functionalities based on semantic technologies for cleaning and linking metadata to existing Linked Open Data sources
- APIs for creative applications
 - Simplify access to MINT manipulated metadata for building applications, websites and mash-ups

Useful links

- MINT web site
 - <u>http://mint-wordpress.image.ntua.gr/mint-end-user-documentation/</u>
- MINT Instance for training
 <u>http://mint-projects.image.ntua.gr/tutorial</u>
- EUscreen Linked Open Data Pilot
 <u>http://lod.euscreen.eu/</u>
- Europeana Fashion Thematic Portal
 <u>http://www.europeanafashion.eu/</u>
- Material for the next session
 - <u>http://www.image.ece.ntua.gr/~nsimou/MINT/Dariah.zip</u>



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Mappings – Xpath mapping

Xpath mapping is performed simply by dragging the xpath from the input tree and dropping it to the desired element of the mapping area



Additional Mapping Functionalities



...last but not least...

Reporting



Imported Items 4 Alinari 24.3% 22.2% 22.2% Central Institute f... 6 Generalitat de C... 6 Girona City Coun... 1 MAGNO brandst... 1 International Cen...

Overall

Name	Imported	Transformed	Published	Final goal30-11-2014	Current goal30-11-2014
Alinari	25638	24429	12319	12319	12319
Central Institute for Unique Catalogue	16009	8000	8000	23000	23000
Fratelli Alinari. Fondazione per la storia della fotografia	42587	42185	20070	10000	10000
Generalitat de Catalunya Departament de Cultura	37537	39212	37537	65550	65550
Girona City Council	170729	72263	34482	50074	50074
IMAGNO brandstaetter images	50681	0	0	20000	20000
International Centre for Information Management Systems and Services	4510	3263	3263	10023	10023
KULeuven	62146	122169	17068	20000	20000
Lithuanian Art Museum	14121	14116	14121	20955	20955
Museum of History of Photography	806	806	806	3000	3000
NALIS	41374	82748	15959	15000	15000
POLFOTO JP-Politikens Hus A-S	40086	38923	13660	25000	25000
Parisienne de photographie	18434	16759	16759	35000	35000
Theatre Institute	15169	30338	10539	10089	10089
TopFoto	187213	88061	48524	60000	60000
United Archives	33046	24435	8611	40000	40000
Video and Multimedia Systems Laboratory	30	20	5	90	90
Workers Museum	10046	10046	10041	25000	25000

MINT – Current Workflow

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