

# The European Data Model (EDM)

**EUROPEANALOCAL NATIONAL MEETING, 17th** of November, Madrid

#### Moving from Europeana Semantic Elements –ESEv3.3...

- Published in July 2010
- Some significant changes from V3.2.2
- Addition of:
  - europeana:dataProvider element containing the name of the content/data provider
  - europeana:rights element containing a statement about the licence applied to the objects



### **Europeana Semantic Elements (ESE) V3.3**

#### Strongly recommended

dc:title dcterms:alter

dcterms:alternative

dc:creator

dc:contributor

dc:date

dcterms:created

dcterms:issued

#### Recommended

dc:coverage
dcterms:spatial
dcterms:temporal
dc:description
dcterms:isPartOf
dc:language
dc:publisher
dc:source
dc:subject

dc:type<sup>7</sup>

#### Additional elements

dc:format

dcterms:extent

dcterms:medium

dc:identifier

dc:rights

dcterms:provenance

dc:relation

dcterms:conformsTo

dcterms:hasFormat

dcterms:isFormatOf

dcterms:hasVersion

dcterms:isVersionOf

dcterms:hasPart

dcterms:isReferencedBy

dcterms:references

dcterms:isReplacedBy

dcterms:replaces

dcterms:isRequiredBy

dcterms:requires

dcterms:tableOfContents

#### Europeana elements

europeana:country

europeana:dataProvider

europeana:hasObject

europeana:isShownAt

europeana:isShownBy

europeana:language

europeana:object

europeana:provider

europeana:rights<sup>7</sup>

europeana:type<sup>7</sup>

europeana:unstored

europeana:uri

europeana:usertag

europeana:year



#### A Toast, or A Night Feast after War near Yerevan

Title: A Toast, or A Night Feast after War near Yerevan სადღეგრძელო ანუ ომის შემდგომ ღამე ლხინი, ერევნის სიახლოვეს

Date: [1972]

Creator: Orbeliani, Grigol

**Description:** Grigol Orbeliani's best and longest work is an ode A Toast, or A Night Feast after War near Yerevan, whose original version was composed on the occasion of the battle of Yerevan during the Russo-Persian War in 1827, not without influence of the Russian poet Vasily

Data provider: The National Parliamentary Library of Georgia

as late as 1879. ave fallen in eorgia's tribes, e poet returns Il living.

Provider: The European Library; Europe



Free <u>Access</u>

ırce: The National Parliamentary Library of Georgia

a provider: The National Parliamentary Library of Georgia

vider: The European Library; Europe

opeana rights: Rights Reserved - Free Access

More



#### ...To The European Data Model (EDM)

- What is EDM?
  - A new data structure for Europeana
  - Will allow Europeana to move beyond ESE
  - Facilitate Europeana's participation in the Semantic Web





### **Europeana Data Model (EDM)**

- 1. Distinction between "provided object" (painting, book,
- program) and digital representation
- 2. Distinction between object and metadata record describing an object.
- 3. Allow for multiple records for same object, containing
- potentially contradictory statements about an object
- 4. Support for objects that are composed of other objects
- 5. Standard metadata format that can be specialized
- 6. Standard vocabulary format that can be specialized
- 7. EDM should be based on existing standards



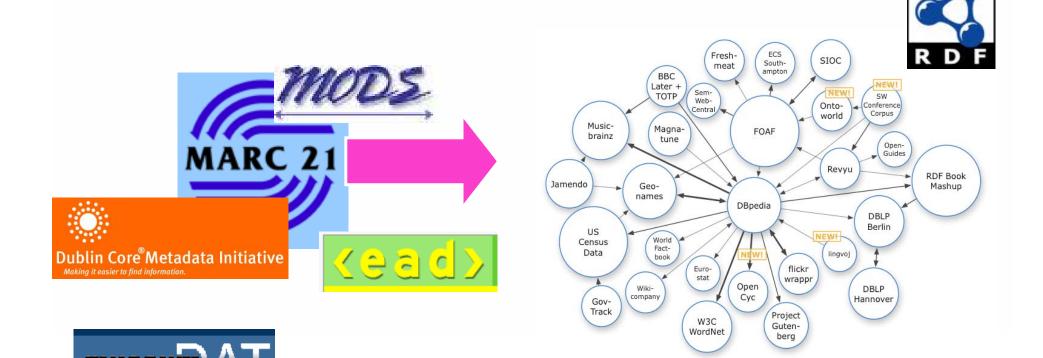
### Main principles

#### EDM is a richer model

- Transcends domain specific metadata standards
- Based on an open, cross-domain semantic web-based framework
- Namespaces used in EDM: RDF, RDFS, OAI-ORE, SKOS, DC
- The Resource Description Framework (RDF) and the RDF Schema (RDFS) namespaces (http://www.w3.org/TR/rdf-concepts/)
- The OAI Object Reuse and Exchange (ORE) namespace (http://www.openarchives.org/ore)
- The Simple Knowledge Organization System (SKOS) namespace (http://www.w3.org/TR/skos-reference/)
- The Dublin Core namespaces for elements (http://purl.org/dc/elements/1.1/, abbreviated as DC), terms (http://purl.org/dc/terms/, abbreviated as DCTERMS) and types (http://purl.org/dc/dcmitype/, abbreviated as DCMITYPE)
- The Visual Resources Association (VRA) namespace

### **Europeana Data Model (EDM)**

 Framework for collecting, connecting and enriching metadata

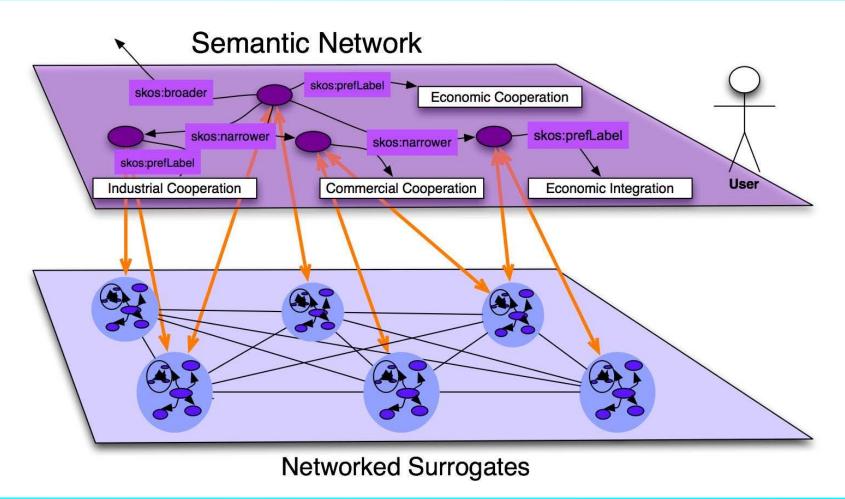


### **Europeana Data Model (EDM)**

- Enabling the generation of knowledge ...
- Allowing connections to be made between search terms
- Giving to the digitised object a new dimension allowing multiple linking between its digital representations accessible over the web
- Allowing the representation of hierarchical items



### The general picture





#### **EDM** structure

Europeana Data Model v. 5.1

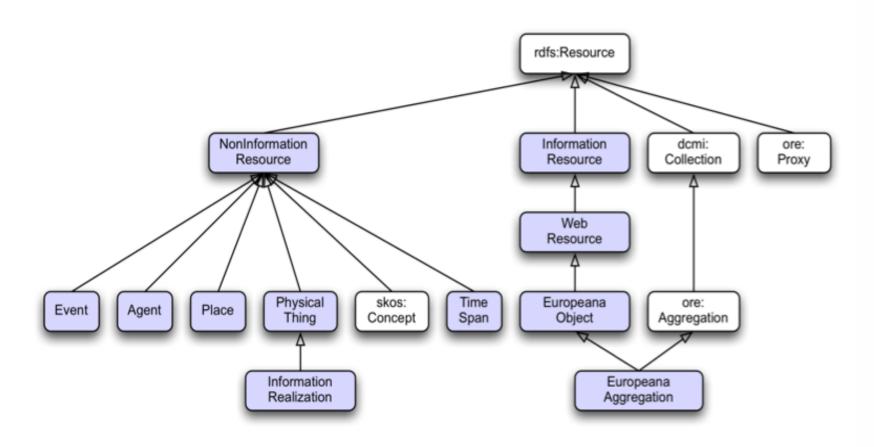
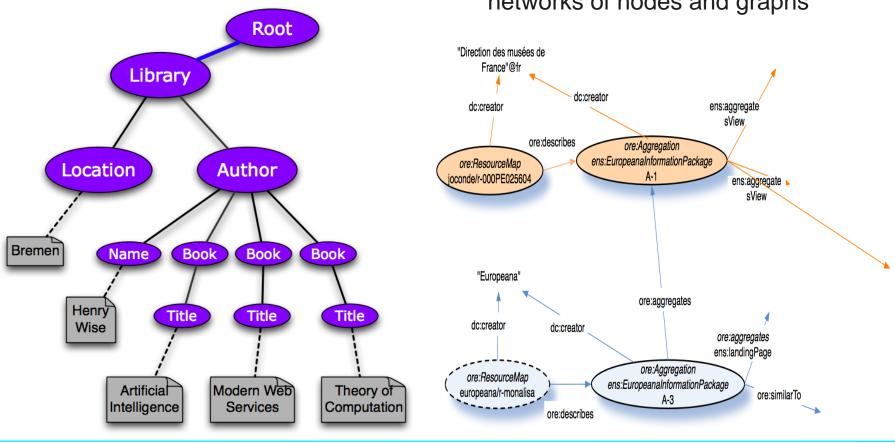


Figure 1. The EDM Class hierarchy. The classes introduced by EDM are shown is light blue rectangles. The classes in the white rectangles are re-used from other schemas; the schema is indicated before the semicolon.

#### Difference between XML and RDF

XML represents knowledge as ,trees'

RDF represents knowledge as networks of nodes and graphs





#### An example 1

Réponse n° 1







Domaine peinture

Type d'objet tableau

Titre PORTRAIT DE MONA LISA (1479-1528); DITE LA JOCONDE

Auteur/exécutant LEONARDO DI SER PIERO DA VINCI; VINCI Léonard de (dit)

Précision auteur/exécutant Vinci, 1452 ; Amboise, 1519

Ecole Italie

Période création/exécution 1er quart 16e siècle Millésime création/exécution 1503 entre : 1506 et

Genèse oeuvre en rapport ; reproduit en gravure

Historique commandé par le florentin Francesco del Giocondo, époux de Mona Lisa entre 1503 et 1506

; nombreuses copies dont une conservée au Louvre ; gravé par Fauchery, par Filhol, par

Landon

Matériaux/techniques peinture à l'huile ; bois

Mesures 77 H; 53 L

Sujet représenté portrait (Mona Lisa, femme, à mi-corps, de trois-quarts, assis, accoudé, loggia, Italien); fond

de paysage (montagne, rocher, cours d'eau, pont, plaine, route)

Date sujet représenté 1479-1528

Lieu de conservation Paris ; musée du Louvre département des Peintures

Musée de France au sens de la loi n° 2002-5 du 4 janvier 2002

Statut juridique propriété de l'Etat ; musée du Louvre département des Peintures

Anciennes appartenances François Ier; Couronne de France

Numéro d'inventaire INV 779

Commentaires légère diminution du tableau sur les côtés (environ 7 mm) ; acheté vraisemblablement vers

1519, après la mort de l'artiste

Bibliographie HEYDENRICH 6; OTTINO DELLA CHIESA 31; VILLOT I 484; HAUTECOEUR 1601;

C.S.I. 1981, P 192

Copyright notice © Musée du Louvre, © Direction des Musées de France, 1999

Crédits photographiques © Réunion des musées nationaux ; © Hervé Lewandowski ; © Thierry Le Mage



commande reproduction et/ou conditions d'utilisation

renseignements sur le musée

000PE025604

### An example 2



@ Musée du Louvre/A. Dequier - M. Bard

Denon 1 e étage Salle de la Joconde Salle 6









détail du buste

## Leonardo di ser Piero DA VINCI, dit Léonard de Vinci

Vinci, 1452 - Amboise, 1519

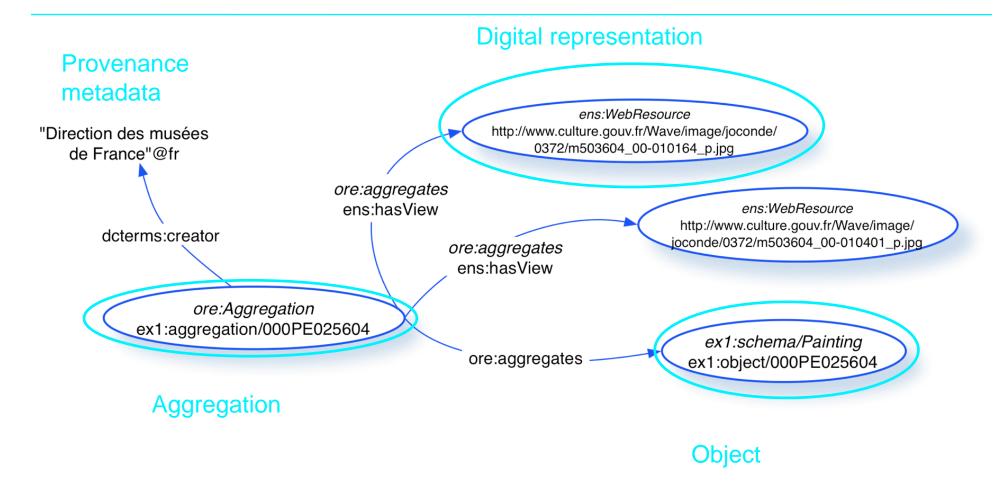
Portrait de Lisa Gherardini, épouse de Francesco del Giocondo, dite Monna Lisa, la Gioconda ou la Joconde

Vers 1503 - 1506 Peint à Florence Bois (peuplier) H.: 0,77 m.; L.: 0,53 m.

Acquis par François Ier en 1518 Département des Peintures

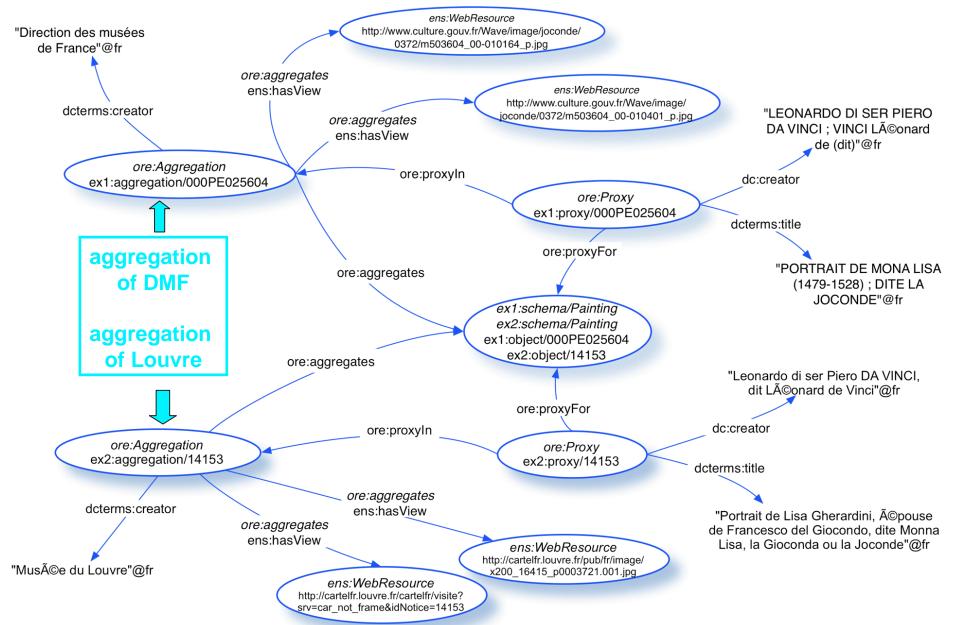
INV. 779

### Aggregation of data of a provider

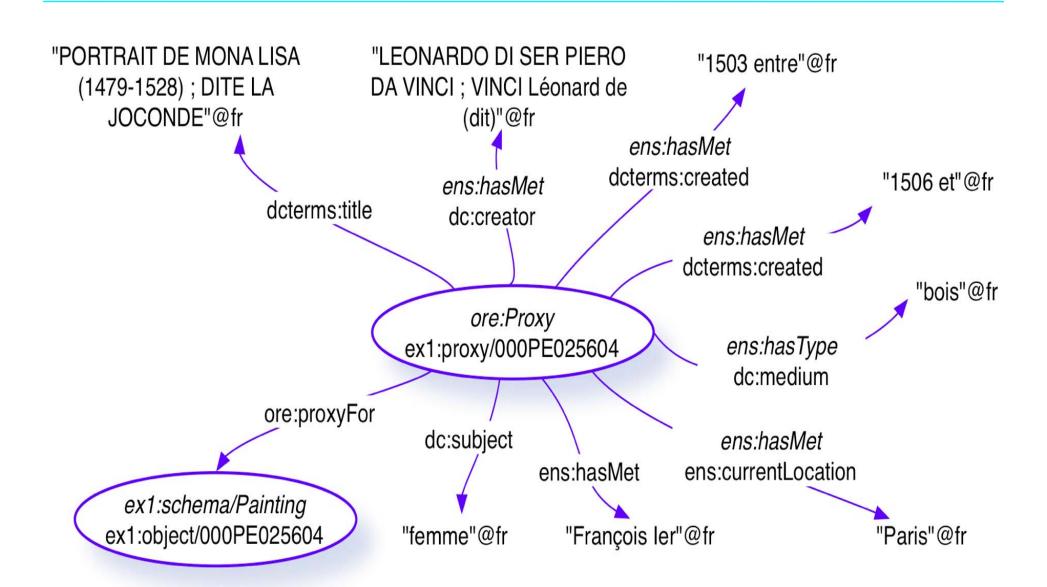




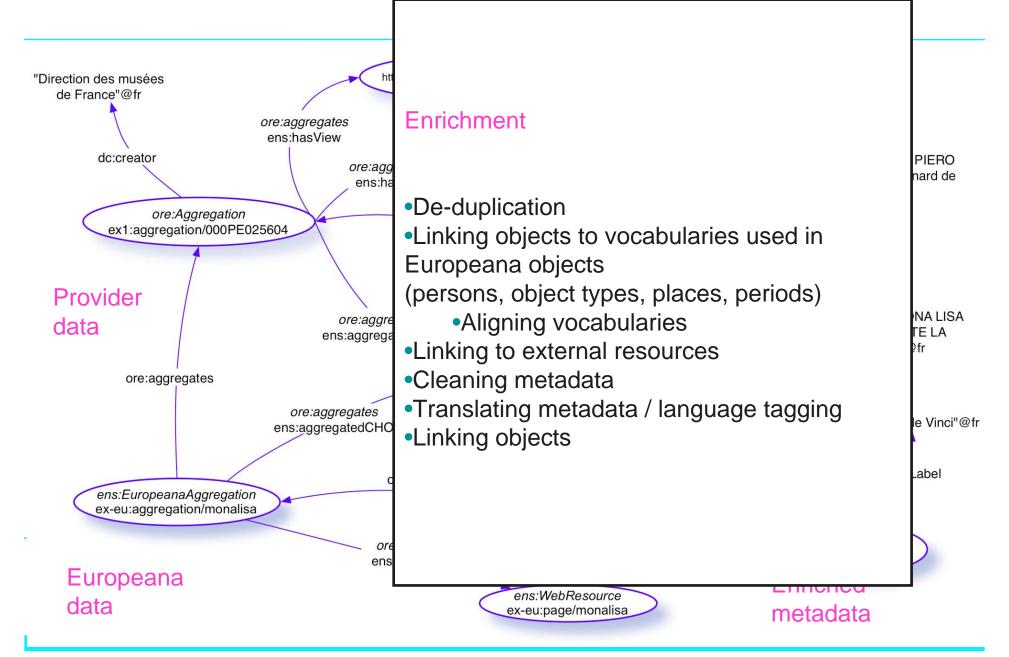
### Multiple aggregations for multiple providers



#### Provides contextual information



EDM enrichment example

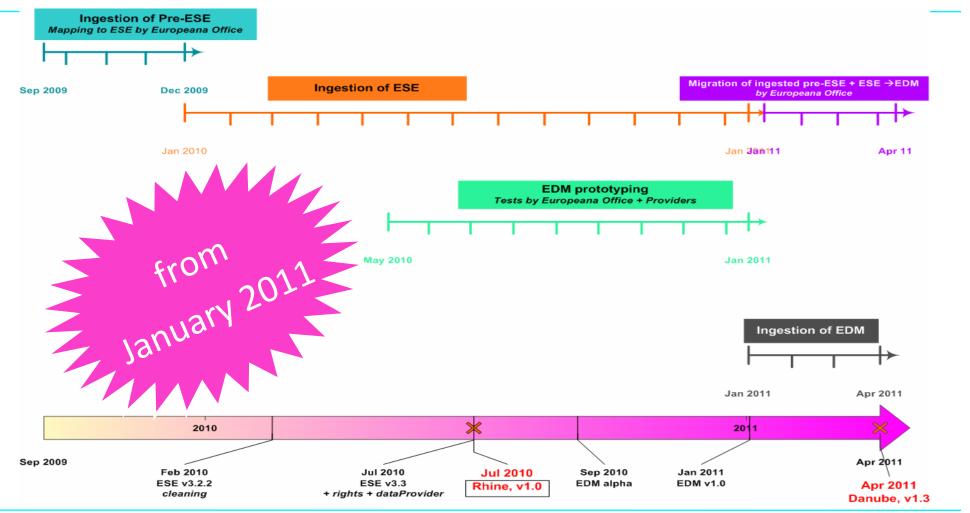


### Future developments and implementation

- EDM has been validated by technical specialists at libraries, museums, archives and audio-visual collections
- It will be refined and tested between now and January 2011
- It is backwardly compatible with ESE, and will start to be used by data providers during 2011



#### **Preparation of EDM: timeline**





### Documentation available (current status)

- Europeana Data Model Primer (v5.1)
- Europeana Data Model Specification (v5.2)
- <a href="http://version1.europeana.eu/web/europeana-project/technicaldocuments/">http://version1.europeana.eu/web/europeana-project/technicaldocuments/</a>



Europeana Data Model Primer

01/04/2010

Europeana v1.0

Definition of the Europeana Data Model elements

Version 5.2, 30/7/2010

#### Thanks!

- Contact: <u>valentine.charles@kb.nl</u>
- content@europeana.eu



