Europeana – Core Service Platform

MILESTONE

MS29: EDM development plan

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Revision History

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Introduction

The White Paper *Enhancing the Europeana Data Model (EDM)*[1], written under the project Europeana V3.0, gave an account of the latest EDM developments and highlights the principles that make it an open and suitable framework for Cultural Heritage (CH).
EDM, while maintained by the Europeana office, is further developed thanks to the work done in the EuropeanaTech community[2], taking into account the needs raised by the various CH domains represented in Europeana.

The EDM development plan for DSI year one is articulated around the same principles outlined in the White Paper:

- The needs from the community and requirements for new Europeana services will be supported by the creation of new extensions to EDM
- The coordination of the EDM extension activities as well as the work done by the EuropeanaTech community will take place within the standardization approach defined for EDM.
- The results of these efforts will be published and disseminated through the EuropeanaTech communication channels as defined in *MS28 Overall plan to coordinate, innovate and disseminate Europeana coordinated R&D.*

Developing new EDM extensions and refinements

The collaborative effort that made it possible for EDM to become an interoperable framework for describing digital CH metadata, now supports the creation of extensions and refinements of the model. As the Europeana Network expresses the need for EDM extensions to accommodate the subtleties of CH domain-specific data, the Europeana R&D team keeps tracks of the requests.
The *EDM roadmap* in Annex 1 provides an overview of the different EDM extensions that are required by Europeana and its community. The different items are prioritized depending on the projects' requirements, the status of specific collaborations and the Europeana product development roadmap. The EDM roadmap provides also work items for future EuropeanaTech Task Forces.
Not every EDM extension produced by the Europeana R&D team will be implemented in Europeana's current services. This means that Europeana won't retain the granularity of the data described in these extensions when aggregating the data. Data providers and implementers of EDM in specific communities are however still encouraged to create new extensions or to re-use the ones created by Europeana in their own environments. The Europeana Data Model is a model for the Europeana Network and beyond, not just for the products that form Europeana's core services.
The Europeana DSI supports such community efforts by maintaining EDM as a flexible and open model and by providing adequate documentation.

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[1] http://pro.europeana.eu/publication/enhancing-the-europeana-data-model-edm
[2] http://pro.europeana.eu/get-involved/europeana-tech

The objectives defined in the Europeana Business Plan for 2015-2016[3] have led to prioritizing the following extensions during DSI year one:
- Representation of annotations
- Representation of user-created sets of CH Objects
- Finer-grained representation of rights
- Describing content to enable re-use
- Indicating intermediate providers

The other items mentioned in the EDM roadmap will be progressed later, depending on the timing of Europeana's future product needs or on collaboration opportunities in the Europeana Network.

Representation of annotations

One important item listed in the Europeana Strategy for 2015-2020[4] is the development of new services for end-users to improve their engagement with CH data. Crowdsourcing metadata is one way of involving people with their cultural heritage and Europeana is currently looking at implementing it in the form of user annotations. Annotations will capture the information added by users like tags, links to related objects. For this, we are going to extend EDM based on recommendations from W3C's Web Annotation Data Model[5], to which we have contributed in the past[6]. This extension will allow the support of scenarios such as text and semantic tagging; linking to other CH Objects or media resources; or crowdsourcing metadata enrichment.

Initial work has already been undertaken as part of Europeana V3.0 and resulted in the inclusion of annotations from the HistoryPin.org[7] platform within Europeana. This first experiment mostly consisted in simple tagging.
Europeana is now working on more complex scenarios, such as object linking. The modelling effort started in the context of an earlier collaboration between Europeana and HistoryPin[8] and now continues as part of the Europeana Sounds project. The TunePal.org[9] service will allow sound resources linked on the HistoryPin platform to be brought back into Europeana in the form of annotations.
Additional work will also be carried out as part of Europeana Sounds with the Pundit[10] annotation tool to help data providers to support annotations from their side. For simple annotation, this scenario will allow for crowdsourced metadata enrichment (Stiller, Isaac & Petras (eds.) (2014)).

These different scenarios will be supported by one consolidated "EDM annotation profile" modelling effort[11]. This new extension will allow the display and export of annotations in the Europeana portal and channels.

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[3] http://pro.europeana.eu/publication/make-the-beautiful-thing-business-plan-2015
[4] http://strategy2020.europeana.eu/
[5] http://www.w3.org/TR/annotation-model/
[6] http://www.openannotation.org/spec/core/
[7] https://www.historypin.org/
[8] https://docs.google.com/document/d/1Yw1uJdf76v3StXST8x16TReB8FmOLw5LuWOzZz4lSiM
[9] http://tunepal.org/#!/record
[10] http://thepund.it/
[11] https://docs.google.com/document/d/1I5pFY3WqLn83_mWXxbXGt9_eT3-VRcfkygZ-Ag-k2Io

Representation of user-created sets of CH Objects

Previous work has been done by Europeana on the definition of *collections* (Wickett, K.M., Isaac, A., Fenlon, K., Doerr, M., Meghini, C., Palmer, C.L & Jett, J. (2013)) in the CH context. An EDM application profile was defined for them, introducing a new class *edm:Collection* in the model (EDM collection profile (2014))*.* A collection, in the context of Europeana, is defined as a group of objects gathered together for some intellectual, artistic or curatorial purpose. In the context of the profile, the Collection class represents the original collection of cultural heritage objects (probably physical objects, but also born-digital where appropriate). The Europeana Sounds project has used this new Collection class in its EDM profile for Sounds (Charles, V. et al. (2015)) in order to represent collections of sound objects such as ethnographic sounds.

Europeana is now aiming to define a more granular type of collection called "user-created sets" to support new user services within the Europeana portal and Europeana channels. While previous work on collections addressed those endorsed by the CH organizations (e.g. curatorial collections, personal collections…), these sets are defined by Europeana's end-users, while interacting with CH Objects within Europeana for fulfilling their information needs (i.e. for research, learning or pleasure). In these sets, users organize a selection of CH Objects residing in Europeana according to selection criteria that can either be generic or of specific interest. For example, a student may gather a set of CH Objects relevant for her school assignment, while a researcher may gather the set of CH Objects that are the focus of a research question. Users should have the possibility to add or remove individual records from a set, similar to the implementation done by DigitalNZ[12].

Finer-grained representation of rights

Recent EDM developments have allowed the representation of structured rights information for different types of digital representations referred to in the metadata. This approach will be refined to allow the representation of different access and re-use conditions for different (digital) views of cultural objects. Each individual view of a CH Object (e.g. pictures of different resolutions, web pages) may therefore have its own "customized" rights statements. As part of the re-use conditions, further requirements will need to be defined for representing contractual restrictions. One example of such a contractual restriction is the existence of public-private partnerships between some of Europeana's data providers and Google Books.

In DSI year one Europeana will continue working on the description and the representation of structured rights statements. This work is being done as part of a collaboration with the Digital Public Library of America (DPLA).[13] The first stage of the work has defined a set of standard rights statements re-usable by Europeana and DPLA[14]. The list of statements will be managed according to Linked Data recipes: Europeana and DPLA will maintain RDF descriptions of the rights statements modelled as a vocabulary according to W3C's Simple Knowledge Organization System (SKOS) standard[15]. The model is built as an extensible framework which will allow new

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[12] http://www.digitalnz.org/help/collect-share-with-digitalnz-sets
[13] http://dp.la/
[14] This set embeds all the right statements already in use in Europeana
[15] http://www.w3.org/2004/02/skos/

communities to join in[16]. The descriptions of the rights statements will include translations and information about versioning and/or vocabulary schemes. The standard rights statements will be managed in a common technical infrastructure available from the domain http://rightsstatements.org/ [17].

In Europeana the rights statements from http://rightsstatements.org/ will be included alongside the current options allowed by EDM for data providers to express rights[18]. This rights interoperability framework will improve the access to Europeana's content within its services.

Describing content to enable re-use

As described above, the support of rights statements in EDM will improve the access to the content provided as part of data providers' metadata. However additional information needs to be provided to optimize the re-use of digital representations, such as technical metadata. EDM has already been extended to support a set of new technical metadata describing the technical properties of the five media types currently supported by Europeana, namely: Sound, Video, Text, Image and 3D objects.

In DSI year one further work will be done to increase the presence of digital media alongside the metadata describing CH Objects. Europeana will start generating previews for all the WebResources provided as part of data providers' metadata. Changes in EDM will be required to support the new preview generation logic as well as the existing or new user services relying on it. In particular, additional information will be necessary in order to describe the relation between the new previews and the WebResources they are derived from and their set of technical metadata.

The digital media will be served by Europeana through existing platforms for streaming audio and video (e.g. SoundCloud), or via open content protocols like the IIIF standard[19]. The technical specifications and standards required for the export and processing of text, images, audio or video will need to be clearly identified in the metadata describing the digital representations. The interoperability between services using these specifications and Europeana will need to be supported by EDM. Mappings will have to be created between the corresponding data models and EDM.

Europeana will focus in a first stage on the interoperability with IIIF. The standard is now actively developed by its community and provides Europeana with a good opportunity for collaboration. The work on IIIF will require close collaboration with other data providers such as the National Library of Wales[20], in the context of Europeana Cloud, or with communities such as Hydra[21]. We will especially seek to establish guidelines to improve the way CH institutions share and provide access to images on the Web.

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[16] http://lj.libraryjournal.com/2015/06/digital-content/dpla-europeana-creative-commons-collaborate-on-international-rights-statements/#_
[17] https://github.com/rightsstatements/data-model
[18] http://pro.europeana.eu/share-your-data/rights-statement-guidelines/available-rights-statements
[19] IIIF (International Image Interoperability Framework, http://iiif.io/) is a new protocol to serve images for viewing purposes. It allows zooming, resizing, etc.
[20] http://digirati.com/clients/national-library-of-wales/
[21] http://projecthydra.org/

More generally the Europeana Strategy for 2015-2020 also outlines the development of new services focused on content rather than metadata. The activities in the Europeana Cloud[22] project also put in place new solutions for aggregating content. This area is new for Europeana and will need to be the subject of further R&D investigation.

The work will focus on the following aspects:

- Recommendations and possible EDM extensions for referencing full-text in the metadata describing a CH Object and representing the relationships between the full-text and other components of the digital objects (images) and descriptive metadata.
- Logical and structural descriptions of the CH objects and their digital representation(s) for supporting a richer interaction between end-users and the digital objects, particularly in cases of structurally complex objects. Several types of objects are known to have a complex structure which is essential for the interpretation of the object by its user: the logical structure of texts with sections, subsections and possibly multiple volumes; the various independent articles within a newspaper, annotated or decorated historic maps, etc. EDM already supports the expression of structural relations between CH objects and web resources, but its use in the cases described above will have to be re-evaluated, possibly leading to further EDM extensions.

Indicating intermediate providers

Aggregators have raised the importance of capturing the full aggregation chain in the metadata they provide to Europeana. From the original data provider to its aggregators, metadata gets curated by many actors before being delivered to Europeana. EDM currently captures the provenance of the data at the level of the data provider (*edm:dataProvider* property) and the aggregator (*edm:provider* property). However these properties being unique and mandatory, there is no possibility to describe all the intermediate providers who played a role in the aggregation of the data.

EDM will therefore be extended with an additional property to indicate intermediate providers. In order to reduce redundancy within the existing model, Europeana will try to re-use a property from an existing model. We plan to re-use the property *dpla:intermediateProvider*[23] to capture the name of the "intermediate organisation that selects, collates, or curates data from a Data Provider that is then aggregated by a Provider".

This change will be added to the existing Organisation Profile (EDM organization profile (2014)). This extension will be an extra step for Europeana in the representation of provenance information.

Developing EDM for better data quality

EDM is now a key part of the Europeana platform: Europeana now aggregates, processes, enriches and disseminates data using the Europeana Data Model. The model participated to the improvement of the quality of the data in Europeana as it offers ways to describe more complex and granular metadata. However data quality is an area where Europeana can still make progress (Dangerfield, MC. et. al (2015)).

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[22] http://pro.europeana.eu/structure/europeana-cloud
[23] From the DPLA metadata application profile http://dp.la/info/wp-content/uploads/2015/03/MAPv4.pdf

Europeana will develop an additional set of rules and metrics to encourage and check better data quality. The work on EDM validation being done as part of the DCMI task group on RDF application profiles[24] will provide Europeana's data providers with better validation mechanisms to assess the quality of the metadata they provide to Europeana.

Standardizing EDM as a framework for CH data

A standardized development of EDM

The development of the above mentioned extensions will be done within the standardization framework Europeana has developed for EDM.

The work around EDM remains a collaborative effort and won't be done in isolation from the CH community. The extensions are mostly triggered by Europeana's product development plans but they also answer needs in the community. The representation of the intermediate providers, for instance, comes from a direct request made by the LoCloud project[25] to Europeana.

Europeana will seek feedback from the EuropeanaTech community[26] as well as the general Network Association regarding both the development of the extensions mentioned above and collecting additional requirements. For this purpose Europeana will organise EDM workshop bringing all the experts having contributed to the development of the model to celebrate its fifth anniversary of EDM and define the next steps of its development. This event will take place during the Europeana General Assembly in November 2015[27].

The interoperability between Europeana and the CH community will be ensured in the way the extensions to EDM are developed.

For most of the extensions mentioned above, Europeana will re-use existing standards instead of creating new solutions. The work on the annotations for instance will follow the recommendations of the W3C in the Web Annotation Model; the property for representing intermediate providers will be taken from the DPLA data model.

When it won't be possible to re-use directly existing solutions, Europeana will align its practices with other standards' guidelines. This will take the form of mappings[28] created between these standards and EDM. For instance a mapping will be created between some IIIF elements and EDM. In the same way EDM will be further aligned with new datasets such as Wikidata for progressing the efforts on data enrichment. These mappings will guarantee the interoperability of the Europeana data with other CH data but also with other domains.

Lastly we will facilitate the work on data interoperability through strong and fruitful collaboration between organizations and networks. The collaborative work on rights between Europeana and DPLA for instance will result in a common technical infrastructure and a set of recommendations that will benefit the whole CH community. Similarly the collaboration between Europeana and the IIIF community will fill a gap in terms of guidelines. Europeana has now grown very strong on metadata interoperability; the next step is content interoperability.

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[24] http://wiki.dublincore.org/index.php/RDF_Application_Profiles
[25] http://www.locloud.eu/
[26] Refer to *MS28 Overall plan to coordinate, innovate and disseminate Europeana coordinated R&D* for further details on the EuropeanaTech community specific activities
[27] http://pro.europeana.eu/event/europeana-annual-general-meeting-2015
[28] An expression of rules to convert structured data from one format or model to another such as EDM.

Developing and adopting best practices

The standardization efforts of Europeana will take place in various groups and will imply the evolvement of Europeana in different collaborations. If we can't develop the best practices ourselves we will voice the requirements of CH within new groups. The Europeana case has been for instance used within DCMI task group on RDF application profiles in the same way than EDM was re-used and aligned with other standard as part of the collaboration with Hydra. Europeana will also make sure that best practices defined in the CH sector outside of Europeana get disseminated and adopted by the Europeana community. Europeana will participate to the task group working on best practices for vocabulary creation and management created as part of the NISO bibliographic roadmap project[29].

Encouraging re-use of EDM

The refinement of EDM as part of international collaboration and its alignment with other standards has an objective of facilitating its re-use within the CH community. EDM is and remains a framework for CH metadata. Even though all the extensions won't be implemented in Europeana services, the CH community is encouraged to re-use EDM for its own needs.
Europeana will continue encouraging the best practices that EDM supports. For instance data providers will be invited to make use of the new rights definitions developed in http://rightsstatements.org/ in the metadata they will provide to Europeana.

The coordination of the aggregators and data providers' work around EDM will also take the form of an assessment of the work done by the community over the past few years. For this purpose Europeana will make a new inventory of EDM mappings, refinements and extensions as initiated by the previous Task Force on the topic[30]. This new survey will bring an updated vision on the work undertaken by Europeana's data providers and aggregators. This overview will also provide the Network Association with a complete inventory of EDM mappings and extensions. Network Association members will be able to re-use existing mappings and extensions for submitting data to Europeana or as inspiration for further developing their own. This work will also contribute to higher data quality, as mapping has been identified as a key factor in metadata errors (Charles, V. & Olensky, M. (2014)).

Europeana will also investigate translations tools in order to facilitate the adoption of EDM by Europeana's data providers. Tools such as OTTO[31] could be used to translate the classes and properties defined in the model and therefore facilitate its use in more local environment.

Dissemination and publication of the results

As well as defining the framework, Europeana will continue documenting EDM.
Amendments to the EDM schema will be propagated to the main EDM documentation available on the Europeana Professional website[32]. A new section will be created there to publish all the

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[29] http://www.niso.org/topics/tl/BibliographicRoadmap/

[30] http://pro.europeana.eu/get-involved/europeana-tech/europeanatech-task-forces/edm-mappings-refinements-and-extensions

[31] Ontology translation system (OTTO) https://www.insight-centre.org/content/otto-%E2%80%93-ontology-translation-system

[32] http://pro.europeana.eu/share-your-data/data-guidelines

EDM profiles developed so far. As mentioned above these profiles are not always fully implemented in the Europeana aggregation workflow. They are nevertheless great assets for EDM implementers or communities working around the same topics.

The outcomes of the diverse collaborations mentioned in this plan will be reported to the EuropeanaTech community in the form of reports, blogs, etc.

Conclusion

The EDM development plan proposes a roadmap of the EDM extensions that will be developed in the course of DSI year one to support new end-user services. The plan also highlights the collaborations that will support the development of these extensions. Beyond being a simple technical roadmap, this plan shows how EDM will be further standardized as a framework for CH metadata.

References

Charles, V. et al. (2015). EDM profile for Sound. Retrieved September 29, 2015 from
http://pro.europeana.eu/files/Europeana_Professional/EuropeanaTech/EuropeanaTech_taskforces/EDMSound//TF_Report_EDM_Profile_Sound_301214.pdf

Charles, V. & Olensky, M. (2014). Report on Task force on EDM mappings, refinements and extensions. Retrieved September 29, 2015 from
http://pro.europeana.eu/files/Europeana_Professional/EuropeanaTech/EuropeanaTech_taskforces/Mapping_Refinement_Extension//EDM%20%20Mapping%20refinement%20extension%20Report.pdf

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EDM organization profile (2014). Retrieved September 29, 2015 from
http://pro.europeana.eu/files/Europeana_Professional/Share_your_data/Technical_requirements/EDM_profiles/Organisation%20profile.pdf

Stiller, Isaac & Petras (eds.) (2014): EuropeanaTech Task Force on a Multilingual and Semantic Enrichment Strategy: final report. Available:
http://pro.europeana.eu/files/Europeana_Professional/EuropeanaTech/EuropeanaTech_taskforces/MultilingualSemanticEnrichment//Multilingual%20Semantic%20Enrichment%20report.pdf

Wickett, K.M., Isaac, A., Fenlon, K., Doerr, M., Meghini, C., Palmer, C.L & Jett, J. (2013). Modeling cultural collections for digital aggregation and exchange environments. Retrieved September 29, 2015 from http://hdl.handle.net/2142/45860

Annex 1: Running EDM roadmap

Task Name	Details
Representation of hierarchical objects *Done in 2013*	Report from the Task Force on hierarchical object published at http://pro.europeana.eu/files/Europeana_Professional/EuropeanaTech/EuropeanaTech_taskforces/Hierarchical_objects//TF%20report%20V1.0%20PDF.pdf . The EDM schema and the mapping guidelines have been updated with the new properties.
	Related projects: DM2E, APEX, HOPE, JUDAICA
Sound EDM profile *Done in September 2014*	Report from the Task Force published at http://pro.europeana.eu/web/network/europeana-tech/-/wiki/Main/Task+Force+on+EDM+profile+for+Sound. Few properties supporting technical metadata were implemented in EDM.
	Related projects: Europeana Sounds
Representation of rights *Ongoing*	**End date for out-of-copyright-non-commercial:**Specifications available at https://europeanadev.assembla.com/spaces/europeana/tickets/1580-expiration-date-on-ooc-nc-objects# **Add conditional Rights Statements:** Specifications at https://www.assembla.com/spaces/europeana-creative/tickets/31 **Syntax for conditional rights statements:** Specifications at https://www.assembla.com/spaces/europeana-creative/tickets/32 **Further specifications as part of the DPLA collaboration:** https://docs.google.com/document/d/1B3yse1VQYh_vQH5bVT4p3qgsn454IFerJ5PZrVXBugA/edit#heading=h.t7r481x3w9i5
Add edm:rights to edm:WebResource *Done in 2014*	Specifications at https://www.assembla.com/spaces/europeana-creative/tickets/30
	Related projects: Europeana Awareness, Europeana Cloud, Europeana Creative, Collaboration with DPLA
Representation of technical metadata for WebResources *Done in 2014*	Tasks are part of the definition of the Content re-use framework. https://www.assembla.com/spaces/europeana-creative/tickets/27). Definition of a new set of properties to support technical metadata. Final specification at http://pro.europeana.eu/files/Europeana_Professional/Share_your_data/Technical_requirements/EDM_profiles/Technical Metadata Properties_20150217.docx This profile supports the requirements specified for the media file checker. Functional requirements for the API at https://docs.google.com/document/d/19sLBS5LJe4Ij0Uz16PfUPw6ha0Dd8esxMXwODhbfdIo/edit# Decisions made here can impact the Dataset Profile (DigitalObjectlicense and type) element,

	Potential new requirements are expected related to the preview generation.
	Related projects: Collaboration with Hydra community, Europeana Creative
Representation of content *Ongoing*	Representation of structural and logical relationships between metadata and full-text
	Related projects: Europeana Cloud, collaboration IIIF
Representation of annotations *Ongoing*	First annotation scenarios to be explored are semantic tagging and object linking. Further types of annotations will be implemented in the future like geotagging, media annotations, user created set… Annotations model will be based on the W3C's Web Annotation Data Model standard. Progress on the modelling activities available at https://docs.google.com/document/d/1I5pFY3WqLn83_mWXxbXGt9_eT3-VRcfkygZ-Ag-k2Io
	Related projects: Europeana 1914-1915, Europeana 1989, Europeana Awareness, Europeana Creative, DM2E, Europeana V2.0, PATHS, Europeana Sounds, Food and Drinks
Representation of user sets *Ongoing*	Initial requirements for user sets at https://docs.google.com/document/d/15nqqs7M9V25iku9NsiEfXl-vJpWh31LmyaYVA__cvho/edit First draft of the specification at http://pro.europeana.eu/files/Europeana_Professional/Share_your_data/Technical_requirements/EDM_profiles/Collection_UserSets_Profile_042015.docx
	Related projects: Europeana Creative
Representation of collections *Ongoing*	Specifications of the EDM collection profile in the paper at http://hdl.handle.net/2142/4586 and in http://pro.europeana.eu/files/Europeana_Professional/Share_your_data/Technical_requirements/EDM_profiles/EDM Collection Profile.pdf
	Related projects: Europeana Creative, LOCloud, Europeana DSI WP3, Mesch
Support for contextual resources *Ongoing*	This is mostly about mapping from other data models to EDM so that Europeana can ingest the contextual resources expressed by these models. Refers to all the projects. See https://www.assembla.com/spaces/europeana-r-d/wiki/Vocabularies_used_by_Europeana_data_providers Mapping DBpedia, Wikidata to EDM Initial mapping available at https://docs.google.com/spreadsheets/d/1HatX13gn4VeRGciv2IvrkzIJ3LKO5AhCyfZmlywUtUs/edit#gid=999588005. Ticket for implementation at https://europeanadev.assembla.com/spaces/europeana-ingestion/tickets/1563-create-mapping-for-dbpedia-

	concepts-to-skos-concept
	Related projects: Europeana Creative, Food and Drink, Europeana Sounds, LoCloud
Representation of datasets *Ongoing*	Requirements at https://www.assembla.com/spaces/europeana/tickets/485 and specific ticket at https://www.assembla.com/spaces/europeana/tickets/1007 Specifications at http://pro.europeana.eu/files/Europeana_Professional/Share_your_data/Technical_requirements/EDM_profiles/Dataset profile.pdf A subset of the dataset profile was implemented in the Europeana API
	Related projects: Europeana Inside
Representation of data provider/provider information *Ongoing*	Requirements at https://www.assembla.com/spaces/europeana/tickets/485 Specifications at http://pro.europeana.eu/files/Europeana_Professional/Share_your_data/Technical_requirements/EDM_profiles/Organisation profile.pdf A subset of the organisation profile for implemented in the Europeana API.
	Related projects: Europeana Inside
Representation of intermediate data provider *Ongoing*	Add dpla:intermediateProvider to the internal and external schemas
Data Workflows/Provenance representation *Ongoing*	As part of the work on specifying requirements for noval aggregation workflows, and an ongoing review of the Synergy aggregation model
Validation of EDM data in RDF *Ongoing*	Participation to the DCMI task force http://wiki.dublincore.org/index.php/RDF-Application-Profiles. Specificifications have be specified at https://docs.google.com/document/d/1UpVusHCyMdgtUIYsDRLIO7Oibulwm5fas8zTQ-2n_Pk/editand documented in a use case http://wiki.dublincore.org/index.php/EDM A machine readable version of the specification will be prepared.
Support of EDM extensions/profiles *Not started*	**Related projects:** Europeana Fashion, DM2E, German Digital Library, Europeana Sounds

Versioning of EDM schema *Not started*	
Representation of Creators for Creator pages for Search and Browse *Ongoing*	Mappings from DBpedia to our Agent class and/or extend the Agent class to encompass more detailed and rich data, Place of birth and death are first candidates. Related ticket: https://www.assembla.com/spaces/Europeana-Portal-API/tickets/434-richer-mapping-of-dbpedia-agent-data-to-edm#/activity/ticket