



# Europeana – Core Service Platform

## DELIVERABLE

### D4.2 Assessment report on needs for intelligence on digital heritage collections and services

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## Introduction

This report is an update of earlier efforts to trace valuable questions when monitoring the state of digital heritage collections and services in Europe. This report focuses primarily on the series of ENUMERATE core surveys, which will be continued in 2017 in Core Survey 4. So Intelligence is defined in a narrow way as the information to be collected from answers to core survey questions.

In a time span covering almost ten years, starting with the first EU initiated NUMERIC survey of 2007-2008, and followed by three ENUMERATE Core Surveys and one Thematic Survey, the team behind these initiatives has used several ways to determine what topics had to be covered by these data collection efforts.

In the NUMERIC survey of 2008 a questionnaire was used that was developed through desk research, covering surveys in preceding years, and the consultation of digital heritage professionals in a number of environments. The MSEG was a valuable reference point.<sup>1</sup> In the three year ENUMERATE Thematic Network period and following the same principles as in the NUMERIC project, the aim was *to develop the evidence base around digitisation of and provision of online access to our cultural heritage.*<sup>2</sup> The NUMERIC questionnaire was used as a starting point: possible questions from that survey were assimilated in the first core survey questionnaire.

During the various projects, we strived for a more inclusive approach. More varied research methods were used to adjust the series of survey questions:

- Desk research;
- Consultation with heritage professionals (e.g. MSEG, expert meetings, and workshops at conferences);
- Information received from the core surveys itself (the last core survey questions were about what was felt to be missing in the questionnaire).

Also we are aware of new information needs in the digital heritage community, if only because stakeholders expressed these needs *ad hoc*. Since the digital heritage field is quickly evolving, a continuous process of adjusting survey topics is essential. In each subsequent survey questionnaire topics were dropped and other topics were newly added.

The first part of this deliverable describes the position of ENUMERATE within Europeana with regard to the *Statistics Dashboard* and the need for statistics. The second part outlines the various user groups and their needs, while the third section contains a method for transforming these needs into indicators. The fourth part provides an initial list with new topics for the next core survey.

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<sup>1</sup> NUMERIC Study Report, May 2009, p.10 and following pages.

<sup>2</sup> ENUMERATE Business Plan and Sustainability Strategy (D4.8), March 2014.

## 1. Statistics within Europeana

Within Europeana, there is a need for various types of statistics:

- To measure performance indicators;
- To examine the impact of Europeana;
- To gain insight in the potential of Europeana.

### 1.1 The Statistics Dashboard, Impact Framework and ENUMERATE

The *Europeana Statistics Dashboard* provides Europeana's data partners with information about how audiences use the material they find via *Europeana Collections*. It gives cultural heritage institutions insight into the ways visitors interact with their collections. This is essential for planning and reporting, for public accountability and it helps the institutions to make the most of their collaboration with Europeana. The *IMPACT* study focusses on the three areas of the Europeana Impact Framework (social & cultural, economic, and network & innovation), whereas the ENUMERATE research gathers data from as much cultural heritage institutions as possible, regardless whether or not they are connected to Europeana.

### 1.2 Europeana Publishing Framework

The data from ENUMERATE is also used to support management decisions and to investigate the potential of certain policies. In particular, there is a need for information on the potential of the Europeana Publishing Framework and to know how many institutions are able at this point to actually meet the standards of the framework.

To manage content and deliver it in higher quality to Europeana's audiences, Europeana developed four tiers or scenarios of publishing their collections. Data partners are able to choose between these scenarios, depending on the quality of the data and the rights situation. The *Publishing Framework* clarifies the relationship between Europeana and its data partners. It clearly outlines what Europeana will do for data partners, depending on the content and metadata they decide to make available. The higher the quality of information provided by data partners, the more benefit they will create for their audiences. For ENUMERATE, this means, we will need to include questions about the quality of the data and the degree of availability of the material.

## 2. The users of intelligence on digital heritage collections and services

The ENUMERATE observatory provides statistics for Europeana, cultural heritage institutions, policy makers and researchers. These users have different needs for intelligence and tools to use it. The *ENUMERATE Conceptual Framework*<sup>3</sup> provides an overview of the main user groups and their needs on reporting. In Milestone 20 (*Ingest plan for adding new content to the ENUMERATE Observatory*) the list of “stakeholders” was more detailed and focused on the possible benefits they would gain of Observatory services.<sup>4</sup> D4.2. elaborates further on these overviews with a [detailed] description of topics and examples of situations where ENUMERATE data is used.

Below the envisioned three primary users of the digital heritage evidence base (Observatory) are qualified a bit more *in extenso*.

### 2.1 Cultural heritage professionals

Cultural heritage institutions are both the user and the provider of the data in ENUMERATE. However the people providing the data - mostly specialists - aren't necessarily the people, mostly management, in the institution that use the data. This creates a special set of needs for information, but also of data and tools to make sense of these data.

They need data to:

- Develop institutional policies and make evidence-based management decisions.
- Put internal indicators of progress into context.<sup>5</sup>
- Compare their efforts at various levels, e.g. with other institutions, other domains, or on a national or European level.

They need information on:

- The goals set by other institutions on collection digitisation percentages;
- The growing or declining popularity of access channels to digital collections;
- The cost of building up and maintaining digital collections;
- The steps towards an effective regime of digital preservation and the maturity level reached in this domain.

A straightforward example is in the multitude of requests from individual institutions - refer to the answers given to Question 33 (“Please include any comments that would help us to improve future issues of this survey”) in the raw data on the ENUMERATE Data Platform<sup>6</sup> - to receive the completed questionnaire and be able to review the recently entered data in the context of earlier survey data, both from the same institution and from institutions of the same type or size.

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<sup>3</sup> ENUMERATE Conceptual Framework (2014), p16.

<sup>4</sup> The stakeholders identified in MS20 were: Europeana staff; Europeana network; the EU Commission; national ministries of culture; funding bodies; statistical agencies; umbrella organisations; heritage institutions and heritage professionals; and vendors.

<sup>5</sup> ENUMERATE Conceptual Framework (2014), p16.

<sup>6</sup> Refer to: <http://pro.europeana.eu/page/data-platform> (link accessed April 26, 2016).

## 2.2 Policy makers

This user group mainly consists of people working for the European Commission and national ministries and agencies.<sup>7</sup> They rely on statistical data to shape and evaluate policies.

They need data to:

- Support policy decisions in the field of - digital - cultural heritage in the EU and on a national level;<sup>8</sup>
- Evaluate existing policies.

They need information on:

- The effects of investment in the cultural sector;
- Limitations to the use and reuse of digital heritage collections;
- Possibly neglected - digital - heritage materials;
- The maturity of Institutions in dealing with sustainability issues.

An example is the question about broad classes of - analogue - object types and the percentages of these broad classes that have been digitised in specific EU member states. Policy makers might use these numbers to justify targeted policies. Another example are the recognisable obstacles to re-using digital heritage content and the underlying question of whether or not EU or nationwide policies and legislation could be an incentive to overcome such limitations.

## 2.3 Researchers

This user group was not included in the ENUMERATE Conceptual Framework and MS20, but the ENUMERATE dataset is a valuable resource for scholars, journalists and other researchers who need quantitative data about the cultural heritage sector.

They need data to:

- To combine it with other sources for validation and to answer research questions.

They need information on:

- Characteristics of memory institutions with digital heritage collections;
- Socio-economic indicators;
- The types of indicators, their definition and how they were measured and collected.

An example is a recent article on the digitisation of heritage collections as an indicator of innovation, by Karol J. Borowiecki and Trilce Navarrete. These researchers use ENUMERATE data to “analyse the extent to which heritage organizations have adopted a digital work practice, reflected in the share of collections digitized and published online, as [an] indication of their ability to innovate.”<sup>9</sup>

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<sup>7</sup>ENUMERATE Conceptual Framework (2014), p16.

<sup>8</sup>ENUMERATE Conceptual Framework (2014), p16

<sup>9</sup> Karol J. Borowiecki and Trilce Navarrete, “Digitization of heritage collections as indicator of innovation”, *Economics of Innovation and New Technology*, 2016, p.17: <http://dx.doi.org/10.1080/10438599.2016.1164488> (link accessed April 22, 2016).

## 3. Transforming needs into indicators

### 3.1 Reviewing and weighing needs for intelligence

The current core surveys in ENUMERATE in large part consist of the same questions. This is understandable, since it allows us to compare data over time and to detect trends and developments. In order to accommodate the need for data on other topics as well, ENUMERATE has to provide a mechanism to collect these topics and if appropriate, incorporate them into the survey. We have developed four steps:

1. Collect feedback from users on topics that might be of relevance for future ENUMERATE research;
2. Determine whether or not these topics fall into the scope of ENUMERATE;
3. Prioritise the topics that need to be transformed into indicators;
4. Develop the indicators and integrate them into the survey.

It is part of the established ENUMERATE methodology that a draft of the new survey will be sent to the MSEG group and the national coordinators to collect feedback and to make changes to the survey if necessary.

### 3.2 Collecting feedback: Antenna

In MS20 a concise general description was made of the *antenna*, the functional component used to trace possible new topics for inclusion in the Observatory. Up to now we have used various approaches to collecting feedback on new and existing topics:

- Expert meetings in the former ENUMERATE projects and in Europeana v3;<sup>10</sup>
- An inventory of comments and requests for certain data from the survey participants, national coordinators and users;
- Internal consultation within Europeana;
- Comments from survey participants, distilled from the answers to feedback questions in core surveys 1 to 3;
- Topics addressed in the EU/MSEG 2015 National Reports;<sup>11</sup>
- Topics found in other surveys/research efforts.

The feedback from these sources is currently collected in a systematic way. We are planning to integrate tools that stimulate a more interactive form of feedback from our users and have the feedback stored in a database in the next version of the Observatory.

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<sup>10</sup> See for instance the expert meeting at the AGM in Madrid, reported in the Market Survey. Another example is a recent workshop, entitled *Metenenvergelijken: kengetallenverzamelen over je digitalecollecties*, at the Belgian conference "InformatieAan Zee" (September 2015): <http://www.vvbad.be/node/4303> (link accessed April 22, 2016).

<sup>11</sup> Refer to: <https://ec.europa.eu/digital-single-market/en/news/2015-national-reports-digital-preservation> (link accessed April 15, 2016).



### 3.3 Criteria for collecting ENUMERATE data: determine the scope

To determine whether new topics fall into the scope of ENUMERATE we have created a list of criteria that need to be met:

1. Is the topic already being researched in other studies and is that data reusable? If so, ENUMERATE will include a reference to that research in the observatory, but not include that topic in the survey. If not, we will look at the other criteria;
2. The data is about digital heritage collections and services in (EU) memory institutions. Note: for definitions of these concepts refer to the *Definitions* in the *ENUMERATE Framework*.<sup>12</sup>
3. The data is relevant for strategic, tactical and operational decision making. This is either within the memory institutions and/or in umbrella organisations, on a national scale, and in the EU.
4. The data is about the size and growth of digital collections [Supply]; the access to and use of digital collections [Participation]; the cost and funding of digital collections [Economics]; and the preservation of digital collections [Sustainability].
5. Data should not be specific for, or relevant in only one or a few EU member states; they should not be relevant to only one of the types of heritage institution (GLAMs).

If the topic is not conform the criteria on this list then it will not be turned into an indicator.

### 3.4 Prioritise the topics

Potentially new topics can be prioritised according to the:

- Number of people that requested a topic;
- Contribution to the development of Europeana (for instance, providing input for management decisions) or to support policy makers like MSEG;
- Feasibility of collecting the data, i.e. the data should be readily available within the memory institutions.

This list is not-exhaustive and should be considered as a mere guideline.

### 3.5 Develop the indicator

Currently, research is being done by DEN on developing indicators for cultural heritage institutions. The results will also be translated into a model for ENUMERATE that can be used to develop new indicators. An important source are the guidelines developed by UNAIDS.<sup>13</sup> These guidelines were initially aimed at the health sector, but can be applied in other domains as well. The guidelines include a list of questions that are used to turn a topic in an indicator:

- Does the indicator have a clearly stated title and definition?

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<sup>12</sup> ENUMERATE Conceptual Framework (2014), p.41

<sup>13</sup>UNAIDS. An introduction to indicators. Geneva: UNAIDS; 2010. [11 December 2010]. [http://www.unaids.org/sites/default/files/sub\\_landing/files/8\\_2-Intro-to-IndicatorsFMEF.pdf](http://www.unaids.org/sites/default/files/sub_landing/files/8_2-Intro-to-IndicatorsFMEF.pdf) (link accessed April 26, 2016).

- Does the indicator have a clearly stated purpose and rationale? Is the method of measurement for the indicator clearly defined, including the description of the numerator, denominator and calculation, where applicable?
- Are the data collection methodology and data collection tools for the indicator data clearly stated?
- Is the data collection frequency clearly defined?
- Is any relevant data disaggregation clearly defined?
- Are there guidelines to interpret and use data from this indicator?
- What are the strengths and weaknesses of the indicator and the challenges in its use?
- Are relevant sources of additional information on the indicator cited?

ENUMERATE will use this list of questions to turn topics into indicators that produce valid data.

## 4. Defining the needs for Core Survey 4

The results of the collected feedback through the *antenna* are displayed here. This is a tentative list of topics, because the next core survey will be held in 2017 and new topics may be identified in the future.

### 4.1 Evaluation of existing indicators

The evaluation of existing indicators can provide valuable pointers on how to continue with the next core survey. A list of lessons learned was included in the *ENUMERATE Conceptual Framework*. These were taken into account while designing Core Survey 3 and remain relevant in the designing process for future surveys. We have also included a field in the core survey where participants can leave suggestions for topics that are not addressed yet in the survey. What follows is a list of needs from that evaluation:

Topics	Comments
Born digital collections	A clear distinction in all the questions about collections between born-digital content and digitised content and the possibility to mention the origin of the objects, e.g. commercial, non-commercial, editorial and born-digital-born content, etc.
Collections and collection types	Include the option to add the percentages for digitisation for every collection type and to specify the collection types, e.g.: books, newspapers. etc.
Economics	The use of business models and/or ways to valorise digital heritage collections. Payed for and/or free access to digital collections.
Linking digital heritage collections	Respondents to the core survey repeatedly point at the possibilities and intricacies of linking collections, for instance through taking part in aggregation initiatives.
Metadata	More importance on the role of metadata and the possibility of the presence of objects without metadata.
Organisational context	More insight and questions about the structure of the institutions: <ul style="list-style-type: none"> <li>• More distinction in the types of staff</li> </ul>

	<p>involved in the digitisation process, for instance not all staff members are directly engaged in digitisation, but are important for the process as a whole.</p> <ul style="list-style-type: none"> <li>• M, more information on the professionalization of volunteers, measuring staff in working-hours instead of money.</li> </ul>
Rights	Rights related restrictions to the use of digitised and born digital collections.

In the case of the first item in the table above, the topic of collections and collection types, a question on this theme was part of the first two core surveys. It was removed from Core Survey 3 because it was a very time-consuming question to answer for participants. There was an option included to send the figures in a separate document but no participant has used that option, which is understandable given the non-mandatory nature of the request. There is clearly a need to include this topic again, based on several remarks in the survey. We should add to this that reintroducing detailed collection size related questions must go together with procedures enabling memory institutions to easily provide the necessary figures, for instance by offering earlier collection size estimates, or by hiding all but the relevant object types for individual memory institutions.

The other topics need further investigation according to the steps described in Section 3 whether or not it is feasible to include them in future core surveys. Also it is necessary to consider whether other methods of building up a body of intelligence on digital heritage collections and services might be used to fill the needs as expressed by stakeholders, e.g. organising polls, alternating topics in successive surveys, analysing publicly and/or commercially available data on web traffic.

## 4.2 Topics from the Europeana Publishing Framework

Here is the Europeana Publishing Framework in more detail.

TIER	DIRECT LINK TO OBJECT PROVIDED	RIGHTS STATEMENTS	EUROPEANA API DISPLAYS	BENEFITS (CUMULATIVE)
1 Europeana as a <b>search engine</b> . 'I want people to find my collections'	No	Any from the <a href="#">Europeana licensing Framework</a>	Metadata, no direct link to object	<b>Findability</b> - indexed by search engines, linked data technology <b>Web traffic</b> - click-throughs to your site <b>Analytics</b> - from our statistics dashboard
2 Europeana as a <b>showcase</b> . 'I want people to find and view my collections on Europeana'	Yes. Minimum of 800+ pixels wide	Any from the <a href="#">Europeana licensing Framework</a>	Metadata plus direct link to object	<b>Use in thematic collections</b> - providing context and relation to other collections on Europeana <b>More marketing</b> through Europeana
3 Europeana as a <b>distribution platform</b> for non-commercial re-use. 'I want people to find, view and use my collections - but not for commercial gain'	Yes. Minimum of 1,200+ pixels wide recommended	Any from the <a href="#">Europeana licensing framework</a> that allow for some re-use	Metadata plus direct link to object and can filter to show only re-usable objects	<b>Impressions</b> - collections viewed on platforms outside of Europeana <b>Use in Europeana's existing partnerships and projects</b> in e.g. education and research <b>Use in apps and services</b> by third parties
4 Europeana as a <b>free re-use platform</b> . 'I want people to find, view and use my content - however they want'	Yes. Minimum of 1,200+ pixels wide recommended	Any from the <a href="#">Europeana licensing framework</a> that allow free and open access	Metadata plus direct link to object and can filter to show only re-usable objects	<b>Use on open platforms</b> like Wikimedia <b>Use by creative industry and tourism sectors</b> <b>Use in commercial apps and services</b>

From this framework a number of topics can be derived. Some of these topics are already included in the core surveys.

Topics	Possible questions (non-exhaustive)	Already in Core Survey
Connection between the digital object and metadata	<ul style="list-style-type: none"> <li>Is the metadata directly linked to the object?</li> <li>Do you use persistent identifiers?</li> </ul>	No
Quality of the object (note: the framework only refers to the quality of images. The quality of other digital object types could also be of interest for the survey)	<ul style="list-style-type: none"> <li>Describe the quality of the digital object (per object type)</li> <li>Do you provide online access to your digital objects?</li> <li>What is the quality of your digital objects online?</li> </ul>	No
Rights statements, licences and terms of use	<ul style="list-style-type: none"> <li>What kind of licences do you give to your metadata?</li> <li>What kind of licences do you give to your digital objects?</li> <li>Do you allow non-commercial reuse of your metadata?</li> <li>Do you allow non-commercial reuse of your digital objects?</li> <li>Do you allow commercial reuse of your metadata?</li> </ul>	No

	<ul style="list-style-type: none"> <li>Do you allow commercial reuse of your digital objects?</li> </ul>	
Channels	<ul style="list-style-type: none"> <li>Through which channels do you provide access to your metadata and digital objects</li> </ul>	No/Yes

### 4.3 Evaluation of incentives to include new indicators

The latitude to include new indicators in future versions of the Core Survey is limited. A balance must be found between skipping a small number of less relevant questions and adding a few clearly desired questions on topics not covered by surveys so far.

Our evaluation leads to the preliminary intention to include two new indicators to the next core survey. One is directly related to the levels of digital object quality in the Europeana Publishing Framework; the other has to do with the problematic issue of rights.

#### ***Indicators that capture the qualities of digital collections; digital object quality levels***

For the Europeana channels it is essential to have an idea of what quality levels have been achieved in digitisation efforts in EU member states, so far. One of the new core survey questions will therefore be an elaboration of the defined qualities in the four publishing tiers.<sup>1415</sup>

#### ***Indicators that cover conditions of use***

Other urgent information needs related to the European agenda have to do with the percentages of works with restricted access; with restricted access for certain countries (*geoblocking*); and with free access for commercial sharing and reuse.

Actually, over the last couple of years the ENUMERATE Team has received several requests to add questions about the status of rights for - parts of - digital collections. This topic was tentatively covered in one of the experimental ENUMERATE *thematic surveys* but it was never part of one of the core surveys.<sup>16</sup> It is desirable that in future surveys a pragmatic approach to collecting quantitative data on this topic will be added.

For an example see the section on conditions of use, question 15:

#### **SECTION 4/6 - CONDITIONS OF USE**

[15] Under what conditions do you provide access to/allow usage of your digital collections? (Please, check everything that is applicable for at least a part of your online digital collection on one or more platforms.)

	Objects	Metadata
Free restricted access (for instance		

<sup>14</sup>Europeana Publishing Framework. The Hague (2015):

[http://pro.europeana.eu/files/Europeana\\_Professional/Publications/Europeana\\_Publishing\\_Framework.pdf](http://pro.europeana.eu/files/Europeana_Professional/Publications/Europeana_Publishing_Framework.pdf) (link accessed April 19, 2016).

<sup>15</sup>In the 2008 NUMERIC survey some questions about quality were asked, but the phrasing of the questions proved to be problematic and the outcomes for this topic in the survey were disappointing.

<sup>16</sup>D2.8 Thematic Survey Methodology on: <http://pro.europeana.eu/enumerate/enumerate-documentation/enumerate-project-documentation> (link accessed April 26, 2016)

with a login)		
Paid restricted access (for instance with a login)		
Restricted access for certain countries (geoblocking)		
Non-restricted access for viewing		
Paid access for downloads, sharing & reuse		
Free non-commercial downloads, sharing & reuse		
Free commercial downloads, sharing & reuse		

Evaluative remarks to this question:

(Please include any comments that would help us improve the question.)

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Karol J. Borowiecki and Trilce Navarrete. (2016). “*Digitization of heritage collections as indicator of innovation*”, *Economics of Innovation and New Technology*. Online Publishing. Odense: Department of Business and Economics, University of Southern Denmark.

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