

Fostering Open Access usage by creation of the library aggregator for  
Europeana: project Europeana libraries

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**Abstract.** LIBER, CERL and CELN have teamed up with The Europeana foundation in order to implement the project "Europeana libraries". This CIP ICT PSP project started in January 2011 and by 2013 a brand new library aggregator of Europeana will be operational and 5 million new items will be added to the digital portal of the European cultural heritage.

To achieve these goals, twenty-five partners across Europe, including some of the oldest and most famed university and public libraries of the continent, will be aggregating research library content for Europeana, extending The European Library aggregation infrastructure and enhancing searchability of existing library content of Europeana.

New metadata model – EDM (Europeana Data Model) will be developed, and it will allow for enhanced possibilities in describing composite objects. Dissemination activities will be fostering usage of Europeana and promoting the Open Access principle that is the basis for Europeana operations.

University library "Svetozar Markovic", the only partner in the Europeana libraries project from a non-EU state, is a firm proponent of the Open Access principle and had joined the project in order to contribute to furthering of this principle by making digital content of academic libraries accessible to the vast audience of Europeana. The particular aim this library will try to achieve in the course of the project is creation of the library aggregator for university libraries of the Western Balkans countries.

## 1. Introduction

University library “Svetozar Marković” has been involved in projects that promote Open Access in the past. The Library successfully coordinated the 2002-2004 Tempus project, [Building a Cooperative Library Network in Serbia](#) [1] and acts as a coordinator for the ongoing Tempus project – [“New library services in the Western Balkan Universities”](#) .[2]

The ongoing Tempus project is being implemented through a net of partners. Regional partners include University of Belgrade, University of Nis, University of Kragujevac, University of Sarajevo, University of Tuzla, and University of Montenegro. EU partners are as follows: University of Vienna, Austria, Middlesex University, London, England and University of Maribor, Slovenia.

This Project is intended to provide technological modernization, functional integration and institutional expansion of academic library systems in Serbia, Montenegro and Bosnia nad Hercegovina. Among other objectives, building a repository of universities’ electronic publications is planned. [2-3] Research theses can only gain more visibility when available in electronic format, preferably in Open Access. This is good for research and good for the researcher, which has been proved through the DART – Europe portal, which is supported by LIBER – the principal gateway for access to Open Access European research theses. As of 1 January 2011, there are 190,178 full-text theses indexed in the portal from 300 universities in 19 countries. [4]

[University Library “Svetozar Markovic”](#) promotes Open Access resources on its website, through “recommended links”. Librarians from the Department for Scientific Information and Education regularly search for quality Open Access resources on the Internet, collect the links, write a short description of the available resources and put them on the list for the adequate subject group. [5]

The Library is presently involved in the important European project – *Europeana Libraries*, that promotes principles of Open Access and aims at making the scientific and cultural heritage of Europe widely available to scientists, researchers, students and the wider audience.

### 1. The European Library and Europeana

[The European Library](#) is a service of the Conference of European National Librarians (CENL). Founded in 1987 as a foundation under Dutch law, CENL aims to increase and reinforce the role of national libraries in Europe. On the 18<sup>th</sup> anniversary of CENL’s foundation, the first fully operational version of The European Library was launched in March 2005. The European Library has been aggregating the collections of Europe’s national libraries since its launch as an operational service. Currently, The European Library aggregates the collections of Europe’s 49 national libraries. [6] The experience of

pan-European working, the international team, the proven infrastructure, and the base in the Koninklijke Bibliotheek – the national library of The Netherlands – in The Hague, gave it firm foundations on which to develop the European digital portal project. [7]

[Europeana](#) is an online portal that contains over 15 million digitised objects from Europe’s museums, libraries, archives and audiovisual sources. It connects to Europe’s cultural heritage by providing access to items from over 1,000 heritage collections.

“Europeana is the EU's most visible expression of our digital heritage, and a reference point for European culture on the Internet. It reflects the ambition of Europe’s cultural institutions to make our common and diverse cultural heritage more widely accessible to all” – Neelie Kroes, Vice President of the European Commission, responsible for the Digital Agenda reference. [8]



Fig. 1 Europeana logo

The objective of Europeana is to give free access to the digital resources of Europe's museums, libraries, archives and audio-visual collections, enriching the end-user knowledge, towards the shaping of cultural thinking – thus the motto “Think culture”. Europe is ‘par excellence’ a rich diversity of languages, traditions and cultures. Europeana is also a multilingual space of a variety of cultural and scientific heritage, where ideas and inspirations can be found within more than 15 million items. [9]

Around 1500 institutions across Europe have contributed to Europeana. These range from major international names like the [Rijksmuseum in Amsterdam](#), the [British Library](#) and the [Louvre](#), to regional archives and local museums from every member of the EU and many non-EU countries of Europe. [10]

## **2. Project “Europeana Libraries: Aggregating digital content from Europe’s libraries”**

The project Europeana libraries has brought together 25 partners, out of which 24 come from countries that are members of the European Union, and the only partner from a non-EU country is the University library “Svetozar Markovic” from Belgrade, Serbia.

This two-year project is financed by the European Commission through its CIP ICT PSP program (Competitiveness and Innovation Framework Programme, Information and Communications Technologies, Policy Support Programme) with a total of 3.100.000.00 euros planned for the years 2011 and 2012.



Fig. 2 Europeana Libraries logo

The most important library associations [LIBER](#) , [CENL](#) , [CERL](#) and [Europeana networks](#) represent cornerstones of the Europeana Libraries project.

There is a huge willingness on the part of all four networks to make Europeana Libraries successful and to create a library aggregator for Europeana. All three library associations; LIBER, CENL and CERL are members of the Board of the Europeana Foundation. They therefore understand the requirements of Europeana and are fully behind the goals of giving access to more content and simplifying the workflows involved. There is a shared, common vision between all parties. The Coordinator of Europeana Libraries, the KB, is also present in the Board of the Europeana Foundation and has taken on this proposal as the host organisation and legal entity of The European Library Office. This gives both ready access to the content of the libraries but also a superb dissemination network for the work of Europeana Libraries and its ultimate purpose of producing content and tools for The European Library as the library aggregator for Europeana. [11]

Coordinator of Europeana Libraries is the [Koninklijke Bibliotheek \(KB\)](#), and the scientific coordinator is the University College London.

The KB has been a host for The European Library under a Service Level Agreement with CENL for the last 5 years. It has employed individuals to work on The European Library and associated projects including EDL.net to produce the Europeana Prototype. [13]

One of the goals of this project that is considered by many as one of the most important projects in librarianship in the next two years, is building a library aggregator for the portal of digital objects – Europeana. The aim of Europeana Libraries is to scale The European Library’s existing aggregation infrastructure to manage the large-scale aggregation of digital content from Europe’s research libraries. The aim is to work closely with the Europeana Ingestion Team to develop a single, end-to-end ingestion workflow and to enable the smooth and ongoing ingestion of content into Europeana.

The European Library has been the training ground of many of the new Europeana Foundation employees bringing experience of managing collaborative human networks and the technology into the delivery of Europeana. The European Library and Europeana continue to share the same Director and have a technical and interoperability team of considerable experience. Additionally, the head offices of LIBER and CERL are also in the KB alongside The European Library Office and the Europeana Foundation and Europeana Office. The project management makes use of these long-term relationships to the benefit of Europeana Libraries. [11]

## **2.1 Europeana Libraries' beneficiaries and structure**

The beneficiaries of Europeana Libraries are as follows:

- 1 Koninklijke Bibliotheek from the Netherlands
- 2 Bayerische Staatsbibliothek from Germany
- 3 European Digital Library Foundation from the Netherlands
- 4 Katholieke Universiteit Leuven from Belgium
- 5 Biblioteca Academiei Române from Romania
- 6 Rob Davies MDR Partners from the United Kingdom
- 7 Llyfrgell Genedlaethol Cymru from the United Kingdom
- 8 LIBER Foundation from the Netherlands
- 9 The Provost Fellows & Scholars of the college of the Holy and Undivided Trinity of Queen Elizabeth near Dublin Trinity College from Ireland
- 10 Universitaet Wien from Austria
- 11 Universiteit Gent from Belgium
- 12 University College London from the United Kingdom
- 13 The Chancellor, Masters and Scholars of the University of Oxford from the United Kingdom
- 14 Tartu Ülikool from Estonia
- 15 Uppsala Universitet from Sweden
- 16 The Wellcome Trust Limited from the United Kingdom
- 17 Consortium of European Research Libraries CERL from the United Kingdom
- 18 Loughborough University Enterprises Ltd from the United Kingdom
- 19 Instituto Superior Técnico from Portugal
- 20 Országgyűlés Hivatala from Hungary
- 21 Lunds Universitet from Sweden
- 22 Universidad Complutense de Madrid from Spain
- 23 Zentralbibliothek Zürich from Switzerland

24 Univerzitet u Beogradu from Serbia

25 Universitatea Lucian Blaga din Sibiu from Romania

This project is being implemented through 6 work packages.

*WP 1 Project management, coordination and monitoring.*

Lead beneficiary is the Rob Davies MDR Partners (MDR) from the United Kingdom.

This work package involves coordinating the work of Europeana Libraries and monitoring progress in order to maintain focus on successful delivery of the expected results and on the accomplishment of the objectives, on time and to budget.

*WP 2 Modelling the library landscape.*

Lead beneficiary is the University College London (UCL) from the United Kingdom.

Aim of this work package is to model the library landscape in Europe in order to recommend a sustainable, domain-wide framework for aggregating library content into Europeana, building on the mechanisms developed in the project, in an efficient, scalable and cost-effective way. A new and enhanced business model and business plan for The European Library in support of its role, as the libraries domain aggregator for Europeana will be developed.

*WP 3 Aggregating research library content for Europeana*

Lead beneficiary is the Koninklijke Bibliotheek (KB) from the Netherlands.

This work package aims to aggregate the digital content from all content partners, to facilitate its ingestion into Europeana and to ensure that all the aggregation-related work of the project is carried out cohesively and efficiently.

KB and The European Library will work with the content providers to establish a realistic schedule for the ingestion of the research library content into The European Library and then Europeana.

*WP 4 Extending The European Library aggregation Infrastructure*

Lead beneficiary is Instituto Superior Tecnico (IST) from Portugal.

This work package will extend The European Library's existing aggregation infrastructure to enable the aggregation of digital content from libraries in Europe for Europeana, including full-text content. It will also promote and build consensus on the adoption of standards related to the aggregation of digital content and represent the European library-domain within the Europeana network and beyond.

*WP 5 Enhancing searchability of existing library content*

Lead beneficiary is the Koninklijke Bibliotheek from the Netherlands.

This work package involves enhancement of searchability of existing library-domain content in Europeana by defining transformations from ESE metadata to EDM and establishing best practice taking into account the different types of libraries contributing to Europeana.[11]

KB and Europeana will investigate how national library metadata can be aligned with the Europeana Data Model (EDM). This investigation will be validated using a sample of metadata from national libraries that has already been provided to Europeana in Europeana Semantic Elements (ESE) format. [13]

## **2.2 The Europeana Data Model**

The Europeana Data Model is the new proposal for structuring the data that Europeana will be ingesting, managing and publishing. It will help enable users to browse the content in Europeana in new ways and will facilitate Europeana's participation in the semantic web. EDM is intended to build on, and be backwardly compatible with, ESE. The philosophy behind EDM is that it should not build on any particular community standard but rather adopt an open, cross-domain semantic web-based framework that can accommodate the range and richness of particular community standards. The research library content which will be provided to Europeana as part of the Europeana Libraries project should be provided in EDM format, if everything goes as planned.

The European Library has been both actively involved in the validation of EDM and will continue to follow progress during the prototyping stage. This involvement will form the basis of the continued library-domain involvement in the development and implementation of EDM. [13]

### *WP 6 Dissemination, communication and promotion*

Lead beneficiary is the European Digital Library Foundation from the Netherlands.

Aim of this work package is to communicate the activities of the Europeana Libraries project using the research library networks in Europe, at both national and institutional level, highlighting the value of the project and its considerable benefits to all stakeholders, including library intermediaries and end users.

Standards established for metadata and digital content provision will be published and communicated. The use and reuse of integrated digitised content by researchers, innovators, the education sector and special interest groups among the wider public will be promoted. An important aim of this work package is also to increase usage of Europeana and The European Library by researchers, librarians and end-users. [11]

## 4.2 Aggregating content

Europeana foundation aims at making digital collections of European cultural institutions visible to users of Europeana, and making those collections much more available, thus

enhancing possibility of those collections being used by researchers, students, scientists and the wider public.

The idea is that institutions involved in Europeana projects deliver metadata of digital objects from their collections, and Europeana shows the way to repositories of those institutions based on the metadata provided, where users can access digital objects they are interested in.

As far too many institutions were interested in collaboration with Europeana, a system of aggregation of content came up as the best solution.

Aggregator refers to a web site or computer software that aggregates a specific type of information from multiple online sources. In this case, aggregator is an institution which promotes Europeana and the possibilities it presents to European cultural and scientific institutions, enabling them to digitize their collections and to create metadata that are going to help present those collections on Europeana. Most importantly, this aggregator collects those metadata and forwards them to the higher level aggregator. Sally

Europeana's approach to aggregation is very reasonable: aggregate the metadata, but access the digital objects from the providers' sites. This allows the provider to brand the content with their own identity and to offer up navigation and context pertinent to the content. It also precludes the need for Europeana to have to centrally store all of the digital objects and the responsibility for preservation remains with the owning institution. [14]

Metadata from libraries, museums and archives throughout Europe are being delivered to Europeana. Therefore, creation of four main aggregators is planned for Europeana: library, museum, archival and audio-visual aggregator. Main aggregator, which includes all lower level aggregators for libraries of Europe will be created as a result of the "Europeana Libraries" project by 2013.

This new aggregator will start functioning instead of the existing aggregator in which TEL (The European Library) represents the main aggregator for library content of Europeana.

### **3. University library "Svetozar Markovic" in the Europeana Libraries project**

University library "Svetozar Marković" has been invited to participate in this important project as a member of LIBER and because it achieved excellent results in the past and successfully disseminated those results at international gatherings, conferences and meetings of librarians. The Library also coordinated two Tempus projects with great success, the 2002-2004 Tempus project, [Building a Cooperative Library Network in Serbia](#) [1], and the ongoing Tempus project – ["New library services in the Western Balkan Universities"](#) [2].

[University library "Svetozar Markovic"](#) is the biggest University library in Serbia. It is the central library for the University of Belgrade, the University of Arts and the main



library for all the other university-level and specialized libraries in Serbia. The Library collection contains 1,5 million bibliographic units of printed material.

University library “Svetozar Markovic” is going to be involved in most of the tasks of the work packages in the Europeana Libraries project. It is the only partner in this important project coming from a non-EU country and the region of SE Europe.

Two important collections from the holdings of the University Library “Svetozar Markovic”, comprising 160.000 pages of old and rare books from the Ottoman collection and collection on Alexander the Great will be made available to international patrons through Europeana. This will be the most important and the most visible result of the Library’s participation in the Europeana Libraries project.

Librarians from Belgrade will also be collaborating with colleagues from Europe on developing new metadata standard EDM (Europeana Data Model) [13] and enhancing full-text searching capabilities and features of Europeana, which is a planned activity of the WP 5, *Enhancing searchability of existing library content*. [11]

The University library “Svetozar Markovic” will present Heinrich Christensen’s library of books and volumes about Alexander the Great, and a collection of oriental manuscripts.

The Library came into possession of the valuable collection of books and volumes about Alexander the Great when this collection was bought in Germany based on war reparation, after the World War I, in 1928. These books were written in different European languages and published in various European cities from 15th until 19th century. The oldest book from this collection dates back to 1494.

This collection also contains ten doctoral dissertations relating to Alexander the Great. 28.000 pages in PDF format will be made available for users through Europeana.eu search engine, and users will be able to download these pages from the digital repository of the University library “Svetozar Markovic”.

The collection of oriental manuscripts holds 166.000 pages in 686 works and 395 volumes. These manuscripts were created between 13<sup>th</sup> and 18<sup>th</sup> century and they were written in three Oriental languages: Arabic, Ottoman Turkish and Persian.

Most of the manuscripts were written in Arabic – 525, 149 are in Turkish and 13 in Persian. A large number of manuscripts were created on the territories of Serbia and the region, therefore the influence of local language and culture can be recognized in the content and the style in which these manuscripts were written.

The collection consists of 8 subject groups: legal sciences, linguistics and related subject areas, literature, medicine, mathematics and algebra, Muslim dogmatism and Kuran studies, Sufism and historiography.

By the end of 2013, both of these valuable collections will be digitized, made searchable through the Europeana.eu portal and made accessible and available in the digital repository of the University library “Svetozar Markovic” in Belgrade. [15]

#### **4. Conclusion**

The Europeana Libraries project promises to give more visibility and accessibility to collections of scientific and cultural institutions in Serbia, with the University library “Svetozar Markovic” paving the path for other scientific and cultural institutions of the region and making it possible to include our cultural heritage in the Europeana.eu portal, which has the potential of becoming the most important reference point for researchers, scientists and students from all over the world.

Project Europeana Libraries is very important for Serbian librarians and for other librarians in the region. University librarians will be directly involved in this project, but other librarians from the region will have a chance to learn from them and to start their own digitization projects, based on experiences acquired through the Europeana Libraries project that our librarians will be more than willing to share.

Other libraries in the region will be able to gain a lot from the participation of University library “Svetozar Markovic” in this project, since one of the important aims is to create an aggregator for research libraries of the Western Balkan countries. In the course of achieving this, research libraries from the region will be getting help on kick-starting their own digitization projects, creating digital repositories and preparing metadata for ingestion into Europeana.

#### **5. Literature**

[1] Building a Cooperative Library Network in Serbia <http://www.lr.mdx.ac.uk/tempus/> (Accessed April 01, 2011)

[2] New Library Services in the Western Balkan Universities [http://www.westbulnet.com/AmplioCMS2/public/EnterPublic.cms2?langId=74&request\\_locale=sr\\_CS](http://www.westbulnet.com/AmplioCMS2/public/EnterPublic.cms2?langId=74&request_locale=sr_CS) (Accessed April 01, 2011)

[3] B. Mazic, “Tempus 2009: New library services in the Western Balkan Universities“, INFOTHECA, year XI, vol.2, 67-71. December 2010

[4] P. Ayris, “University and Research Libraries in Europe Working towards Open Access“, Liber Quarterly 20 (3/4), March 2011

[5] S. AntoniĆ, A. Popovic, S.F. Matutinović, “Open Access in a developing country“, INFORUM 2010, 16th Conference on Professional Information Resources

[6] F. Stigter, "Virtual communities in Europe: the European Library approach", Program: electronic library and information systems, Vol. 43 Iss: 3, pp.299 – 310, 2009

[7] J. Purday, "Think culture: Europeana.eu from concept to construction", Electronic Library, The, Vol. 27 Iss: 6, pp.919 – 937, 2009

[8] Europeana.eu Strategic plan 2011-2015  
[http://version1.europeana.eu/c/document\\_library/get\\_file?uuid=c4f19464-7504-44db-ac1e-3ddb78c922d7&groupId=10602](http://version1.europeana.eu/c/document_library/get_file?uuid=c4f19464-7504-44db-ac1e-3ddb78c922d7&groupId=10602) (Accessed April 2, 2011)

[9] R. Volovici, I.I. Visa and C. Obancea, "Europeana Libraries – The Aggregation of European Cultural Heritage through Data Standardisation" The Second International Conference in Romania, Sibiu, 2011

[10] Europeana Partners, <http://europeana.eu/portal/partners.html>. (Accessed April 4, 2011)

[11] Europeana Libraries Grant Agreement No 270933

[12] Europeana prototype <http://www.cgi.br/publicacoes/palestras/cgibr-europeana-prototype-8-11-2009.pdf>.

[13] S. Chambers, W. Schallier, "Bringing Research Libraries into Europeana: Establishing a Library-Domain Aggregator", Liber Quarterly 20 (1), September 2010

[14] R. Erway, "A view on Europeana from the US perspective", Liber Quarterly Volume 19 (2), 2009

[15] A. Sofronijevic, "Europeana Libraries: 24 European libraries and the University library "Svetozar Markovic" building a library aggregator for Europeana", Visokoskolske biblioteke, year VIII (1) (in Serbian)  
<http://www.zbus.rs/cir/index.php?a=visokoskolske&b=cirilica&c=osam&d=jedan#2>

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