THE DIGITAL COLLECTIONS OF THE LBUS LIBRARY IN THE EUROPEANA CLOUD 2013-2016 PROJECT, AN OPENING TO SCIENTIFIC RESEARCH ACTIVITY. CASE STUDY: THE IMPACT ON CONSUMER OF INFORMATION

Rodica Volovici¹, Camelia Volosciuc², Elena Marginean³, Ioan Visă⁴

¹²³⁴⁵“Central University Library, “Lucian Blaga” University of Sibiu, Romania

Abstract
This spring (2016) ends Europeana Cloud, a project of great importance for the development of the digital platform Europeana.eu (1). The LBUS Library is the only contributor from Romania, with three digital collections, which covered the topic of multicultural coexistence of the ethnics in Sibiu’s historic past. The paper emphasizes our contribution, quantitative and especially qualitative through its cultural value and diversity of materials. The next step is to disseminate the most important aspects of the project, the structure, technical requirements, a description of the entire environment and the way of working in order to achieve objectives. The major orientation envisaged was supporting the scientific research, providing working-tools for user-consumer of information. As a case study, it was presented the questionnaire conducted in the LBUS on library users.

Keywords: Europeana Cloud, digital library, cloud platform, research tools.

1. About the project

Funded by the European Union and coordinated by the Europeana Foundation, the Europeana Cloud is the strategic project for the years 2013-2016. It aimed to create a new data infrastructure for cultural content in digital format, to be used by the Europeana and its partners. More, this shared data are opened both to the professional community of European institutions and to the users.

“This infrastructure will exploit latest technological advances in the domain of cloud computing to provide new abilities for efficiently storing metadata and content, easily sharing cultural assets between institutions, improving abilities to access these assets and research them using innovative tools.” [2]
The Digital Library **Europeana**, has continuously grown quantitatively and existing infrastructure has become insufficient and complicated, a conglomeration of various technologies and multiple standards with costs.

It needed a new infrastructure for maintaining and distributing the European cultural content.

In addition, they were required new tools to facilitate research and how to access this repository of culture, the primary consumers of digital content.

So, the project has the ambition to share data handling tools, to enrich, transform and preserve - which will allow some institutions that do not have these resources, to benefit from them and to enrich their data and services.

"**Europeana** has become a network, a community. This community shares its experience professional, scientific and technical, but also the motivation to get involved and to make widely accessible to European culture, thanks to digitization". [2]

![Diagram of Europeana Cloud environment](image)

**Fig.1 The Europeana Cloud environment**

The project was focused precisely on these aspects:

- To follow the basic needs of data providers and researchers,
- To develop a new technical solution based on cloud technology,
- To develop useful research tools,
- Research economic and legal aspects related to efficiency and sustainability of the project.

Work packages in the project were aligned to these issues.
2. Project objectives:

- „contribution with new records, preparing and adding new data (2.4 million new metadata records and 5 million digital objects)
- creating a new workflow between content providers and aggregators for processing, storing data efficiently, plus provide access to digital cultural heritage
- orientation to researchers with new services and tools for access, work on and share the content stored in the Cloud
- allowing loading back into the cloud of new works from research and data enriched by scholars to be used by the institutions and researchers alike”.[3]

The project was divided into seven main areas of interest, known as work packages:

- “WP1 - Assessing Researcher Needs in the Cloud and Ensuring Community Engagement
- WP2 - Developing the Infrastructure for Europeana Cloud
- WP3 - Exploiting Europeana Cloud with services and tools for researchers
- WP4 - Ingestion of Content and Metadata Development
- WP5 - Sustaining the Europeana Cloud: Legal, Strategic and Economic Issues
- WP6 - Dissemination and Networking
- WP7 - Project Management”.[2]

![Fig.2. Europeana Cloud Architecture](image)

3. LBUS Library participation in the project

Following the successful participation in the previous project "Europeana Libraries 2011-2012" (4) and joining the professional network "The European Library“(5), the Library of the LBUS was included as a partner - data provider.
The working team of specialized librarians, initially approached two digital collections of an overall theme, specific area of Sibiu, namely multicultural and multiethnic coexistence of residents, reflected in old books and periodicals.

The LBUS Digital Collections initially proposed for Europeana Cloud project, were:

1- **Brukenthal National Museum - calendars and journals**
   (The oldest german calendars and journals)

2- **Sibiu - Historical and multicultural coexistence**
   (The oldest romanian journals and books)

Later, were added two other sub-collections:

3- **Sibiu - Hermannstadt - Siebenbürgen, in chronicles and documents**
4- **Luceafărul - revistă literară** (Revistă pentru literatură și artă - tipărită in Sibiu)

<table>
<thead>
<tr>
<th>12.</th>
<th>&quot;Lucian Blaga&quot; University of Sibiu (Romania)</th>
<th>274</th>
<th>274</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Romania)</td>
<td>a1145</td>
<td>9200340</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(187)</td>
<td>(187)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>a1146</td>
<td>9200400</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(53)</td>
<td>(53)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>a1417</td>
<td>9200469</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(34)</td>
<td>(34)</td>
</tr>
</tbody>
</table>

Fig. 3. Initially proposed collection, caption from the Europeana Cloud text project (contain: name of contributor, collections number, items no, sample digital object)
3.1 Digital collections, with titles, amount of pages scanned:

I. Collection 1: Brukenthal National Museum - calendars and journals (7)
   - Neuer Siebenbürgischer ProvinzialKalender, 1787 – 1871
   - Neu und alter Siebenbürgischer Provinzial Kalender, fur das Jahr Christi 1891
   - Der Siebenbürger Bote - (Nr.1, am 3, Januar 1841 - Nr. 97, am 2. December 1841)
   Total = 4231 scanned pages

II. Collection 2: Sibiu - Historical and multicultural coexistence

Old books titles:

1. PUȘCARIU, Ilarion - Biserica Catedrală din Sibiu. Sibiu: Tipografia Arhidiecezana, 1908
2. PUȘCARIU, Ilarion - Metropolia românilor ortodocși din Ungaria și Transilvania, Sibiu 1900
3. XENOPOL, A.D. - Teoria lui Rosler, Iași 1884
4. LAURIANU, Treboniu - Istoria Romanilor, Bucureșci 1862
5. Istoria biblica, pentru prunci, Sibiu 1858
6. BARITIU, Georgie - Istoria Transilvaniei, Sibiu, 1889
7. Mandinescu - Elemente de Istoria Universale
8. Zur Frage über die Herkunft der Sachsen in Siebenburgen, 1856
9. Den Mitgliedern Schaessburg, Hermannstadt, 1867
10. unSächsisches Führertum, Hermannstadt, 1933
11. Episteln und Evangelia, Hermannstadt, 1824
12. Molitvelnik Sibiu, in Tipografia arhieieczana, 1874
13. Puscaru, Ilarion, Dr. - Contributiiuni istorice privitoare la trecutul
Romanilor de pe pamantul craiesc, Sibiu, Tiparul tipografiei
arhieieczane, 1913
14. Puscaru, Ilarion, Dr. - Documente pentru Limba si Istoria - Tom I ,
1889
15. Puscaru, Ilarion, Dr. - Documente pentru Limba si Istoria - Tom II ,
1897
16. Schriftliches Gebetbuch zum Gottesdienstichen Gebrauch der
Evangelischen Gemeinden in Siebenburgen, Hermannstadt,
Buchdruckerei v. Closius'sche Erbin, 1863

Total = 6309 scanned pages

III. Collection 3: Sibiu - Hermannstadt - Siebenbürgen, in chronicles and documents

Scanned pages:

- Old Book = 1043 pages
- Telegraful Român – years: 1868 – 1879, 1887, 1888 = 6450 pages
- Luceafărul 1908 + 1909 = 596 + 572 = 1168 pages
- Luceafărul 1853 - transliterat = 541 pages
- Vatra = 384 pages

Total = 9586 scanned pages
Summary:
Collection1 = 4231 scanned pages
Collection2 = 6309 scanned pages
Collection3 = 9586
Total = 20,126 pages / vs. Initial proposed = 10,000 pages.
3.2 Quiz about the User Profile, LBUS Library

The marketing Department from LBUS Library suggested a questionnaire for library users in order to know how they use the services, how easily find information on traditional or electronic support.

The subjects of this quiz are:

- accessibility to use library services
- communication traditional documents or of electronic documents
- other services (ex. Information retrieval services).
4. Conclusions

The great success of “Europeana” is not only managed to gather a mass of data, but because it gave a huge boost to the European cultural community and digitize heritage. Countries and institutions that lacked a priority digitization, were held to obtain financing and to launch projects. Those who had already begun brought their collections, but also know-how and expertise. This effort was transversal, involving libraries, archives, museums, audiovisual and facilitated the emergence of concerns for interoperability collections.

“A key strand of the Europeana Cloud project is the creation of services and tools targeted at researchers, collectively labelled Europeana Research, to allow scholarly use and re-use of the data held in our newly-built cloud”[3]

The LBUS Library is an active member of the European Library Network (TEL) and is the only romanian data provider in the Europeana Cloud project, with three digital collections in amount of 20.126 pages scanned as digital objects.

Through this article we promote this european cultural treasure of Europeana digital library in the romanian academic area. Also, we invite users to search, process them critically and to use open data in their scientific papers.

5. Bibliography: