

## PUBLISHABLE SUMMARY

### Local Content in a Europeana Cloud

Annual report 2015-2016



*LoCloud is a Best Practice network that brings together technical partners, Ministries, National and Regional organisations responsible for archives, libraries, museums and the archaeological heritage, research institutions and cultural memory institutions from across Europe. LoCloud started on 1 March 2013 and runs for 3 years. The project's main objectives are:*

- 1. Exploring the potential of cloud computing technologies for enhancing Europeana, working on the development of a cloud infrastructure and the creation of software services aimed to benefit both content providers and users.*
- 2. Facilitating the role of small and medium sized institutions by supporting them in making their content available to Europeana and using the cloud to provide services and tools that help to reduce technical, semantic and skills barriers.*

#### Summary of activities

During year 3 of the project, LoCloud has focussed on:

- Maintaining the LoCloud aggregation infrastructure and micro-services
- Maintaining the support portal and help desk to serve the needs of the content partners
- Publishing the training videos and online course
- Evaluating the operational outcomes and impact of the LoCloud infrastructure and services
- Evaluating the impact of LoCloud on end-users and participating institutions
- Recommendations on future development of cloud-based services for small and medium sized institutions
- Monitoring the preparation of content by LoCloud partners and completing the delivery of more than 4 million metadata records representing more than 6.5 million digital objects to Europeana
- Running a competition to promote LoCloud and Europeana
- Organising conference workshops and the final project event
- Disseminating news and information about the project
- Planning for sustainability and exploitation

A screenshot of the Europeana Collections search results page. The page shows a search for 'Tableau' with 48 results out of 4,139,558. The results are displayed in a grid view. The first three results are: 'Tableau, photo | Inconnu', 'Tableau « E.Morange » | G.Braquessac', and 'Tableau, gravure | Inconnu'. The page includes a search bar, a 'REFINE YOUR SEARCH' sidebar with filters for media types and usage rights, and navigation links like 'OUR SITES' and 'SETTINGS'.

LoCloud content in Europeana

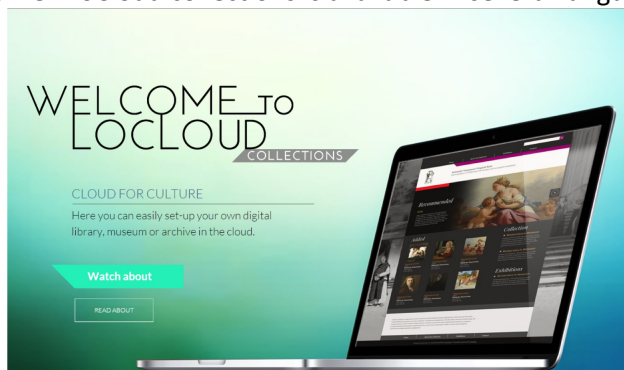
## LoCloud Infrastructure and Services

The main components of the LoCloud infrastructure, MINT, MORE and LoCloud Collections, were fully operational during 2015-16. MINT, MORE and LoCloud Collections were in active use throughout the year as partners prepared their content for delivery to Europeana and performed well.

**MINT**- Used by partners to map their native metadata to the reference models adopted by the project: EDM, CARARE and LIDO. Additional support has been provided during the year for partners mapping datasets in Omeka XML and EAD to EDM.

**MORE** - Used by partners for harvesting metadata from MINT, LoCloud Collections and native OAI-PMH repositories. The integration of the enrichment micro-services in MORE has enabled partners to enrich their metadata before publication to Europeana. The benefits of the improved workflow to Europeana have been realised as partners delivered 4 million metadata records in batches for publication. The MORE platform was enhanced during the year with updates to the Vocabulary Matching micro-service and the addition of new Vocabularies and two new enrichment services from Pleiades and Pelagios.

**LoCloud Collections** - By February 2016, 265 instances of LoCloud collections has been established by institutions from 36 countries; Poland, Ireland, France, Norway, Greece and Croatia are the top users. LoCloud collections has been actively used by institutions to deliver content to Europeana during the year. It is supporting multiple collections and has enabled users to publish their collections online via their own websites often for the first time. LoCloud collections is available in several languages.



LoCloud Collections welcome screen

The LoCloud **micro services**, Geolocation enrichment tools, Metadata enrichment services, Vocabulary services, Historic place names services, a Wikimedia application and a set of Crawler Ready Tagging tools, were also fully operational in 2015-16. The micro services have been for use by partners both through their integration in the MORE platform and independently.

The **Vocabulary Matching Service** has been used via MORE on a almost constant basis throughout the year, with peaks of 500,000 enrichments in a week. In total, the service has produced more than 2.5 million enrichments. The service was updated to optimize the initial loading stage and to reduce the time taken to process large datasets.

The **Vocabulary Service** was used by partners to SKOSify existing vocabularies from the DISCMARC consortium and from Ireland. The service was actively used throughout the year with more than 3 million requests to the service. The Vocabulary Service was also optimized to return both the persistent URI for a concept and the internal project url.

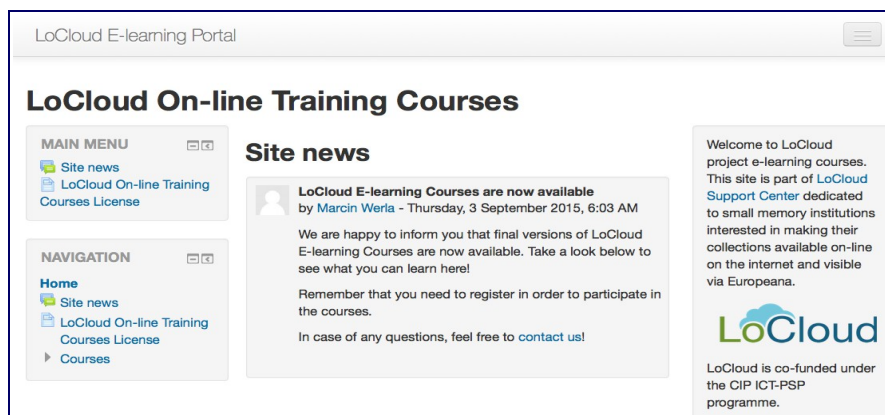
The **LoGeo API** also saw a high level of demand from users with more than 1.1 million requests to the server. The LoGeo API is implemented in the LoCloud **Geo-Coding** application. During the year, the Ministry of Tourism of the Sultanate of Oman chose the Geo-Coding application, developed by AVINET, to add geo-locations to their existing collection database.

The **Historic Place Names Service** was also in active use throughout the year, with around 22,439 hits and around 1000 files returned to users each month. The peak in usage for the Historic Place Name Service following presentation of the service at the Europeana Tech conference.

The **Wikimedia application** was used successfully to harvest metadata for content published by Paul Mayeart on Wikimedia Commons. The application enables the metadata created in Wikimedia, which does not contain the minimum information required for Europeana, to be completed with manually defined information being added. The application is integrated in MORE.

## Training and support

The support portal and help desk (<http://support.locloud.eu>) have been in active use throughout 2015-16 with partners making use of the service to access documentation, training materials and to lodge requests for help.



### LoCloud on-line training courses

The portal saw some new developments during the year with updates to the documentation and the addition of a set of training videos and the launch of the LoCloud online course “LoCloud Services and Tools”: <http://support.locloud.eu/courses/>. The course is accompanied by updates of two courses “Digital repositories for small memory institutions” and “Cooperation with Europeana” developed in the Access-IT project. During the year the project's content partners have delivered a number of workshops and events for institutions in their countries, making translations and adaptations of the materials provided in English on the LoCloud support portal.

The project's technical partners have continued to offer support to partners answering requests for help lodged in the ticket system, the question and answer service and by direct email messages.

## Dissemination

The consortium has continued to play an active role in disseminating news and information about LoCloud. During the year partners' have presented the project and its results at a large number of national and international conferences and events.

Highlights of the year were the international project workshops at Digital Heritage 2015, TPDL 2015 and Eva/Minerva Jerusalem, and the final project conference in Amersfoort in the Netherlands in February 2016. In addition to these events there were a large number of national workshops, including a series of training events organised in four of the Balkan countries, that were delivered by partners to staff from cultural institutions in their countries.

The LoCloud competition was a great opportunity to disseminate the project, its services and the availability of content in Europeana widely across Europe. Partners issued a number of press releases and circulated news about the competition within their countries, which succeeded in raising awareness about the project and the potential of Europeana for local history. We received 37 entries to the competition from 12 different countries, with some highly interesting and engaging entries.



### Winners of the My Local Heritage competition

The winners of the competition were announced at the final project conference. Details of the competition and the entries can be seen online at: <http://locloud.eu/LoCloud-Competition>.

## Evaluation and Impact assessment

During 2015-16 the project has carried out and evaluated the project's operational outcomes and its impact.

LoCloud has provided a series of modular services that can be implemented by data providers, aggregators and developers. The operational outcomes and impacts of LoCloud's SaaS and IaaS were evaluated by consulting LoCloud's technical developers, partners, aggregators, small and medium sized cultural institutions and Europeana.

The findings of the evaluation show that LoCloud's approach of developing modular cloud-based services is very flexible. It provides the perfect starting point for a joint market place scenario, and a good basis for further technical achievements and enhanced products. LoCloud's services are adapted for the wide cultural heritage community and have already received attention from institutions, aggregators, projects, developers and Europeana. Several of the services are being exploited by external organisations and projects.

Both cultural institutions and aggregators reported improvements in the process of providing content to Europeana as a result of using LoCloud's services. There is an increase in the capacity of smaller cultural institutions to carry out digitisation and participate in Europeana as a direct result of LoCloud's work. The establishment of the support portal, documentation and training materials, and work by LoCloud's partners to roll out the support and training to their local partners in their national languages have all been important. For Europeana there is an increased availability of local cultural heritage content of higher quality as a result of LoCloud.

The surveys highlighted the importance of securing the sustainability of the services and continuing to offer support to users in smaller cultural institutions. The project has prepared a sustainability and exploitation plan covering both the individual services and potential joint activities.

## Conclusion

The consortium has achieved the objectives for year 3 of the project. LoCloud has delivered a range of services that give cultural institutions and aggregators new tools to capture, enrich and share their data with online audiences and Europeana. During the course of the year, these services have been actively used by project partners to engage with cultural institutions whilst sourcing, preparing and adding new data to Europeana. LoCloud met and exceeded its target of delivering four million items of cultural heritage content to Europeana by the end of February 2016.

LoCloud's partners have delivered support and training for staff and volunteers working in small and medium sized cultural institutions by providing materials online but also in person through workshops and meetings.

The project has delivered content and has also encouraged the use and creative re-use of Europeana's digital heritage content, particularly amongst students, through the "My Local Heritage" competition.

LoCloud has continued to build a strategic collaboration with Europeana, Europeana Cloud and other key projects. Following the end of the project LoCloud partners will continue to participate in the Europeana Digital Service Infrastructure and will actively promote exploitation of LoCloud services.

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