

PUBLISHABLE SUMMARY

Local Content in a Europeana Cloud

Annual report 2014-2015



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

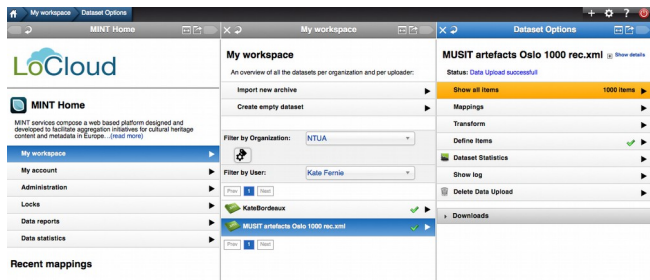
During year 2 of the project, LoCloud has focussed on:

- Completing the implementation of the LoCloud aggregation infrastructure
- Developing and testing the micro-services and tools (geolocation enrichment, geocoding service, metadata enrichment, vocabulary services, historic place names service, Wikimedia application and the Crawler Ready Tagging Tools)
- Developing and testing LoCloud Collections
- Integrating the major components, micro-services and tools into the MORE aggregator
- Establishing the support portal, documentation and help desk to meet the needs of content partners
- Delivering training for LoCloud content partners
- Preparing content for harvesting and delivering the first datasets to Europeana
- Disseminating news and information about the project and promoting the new services.

A screenshot of the Europeana search interface. At the top, there are navigation links for 'Home' and 'My Europeana', and a language selection dropdown. The main header features the Europeana logo with the tagline 'think culture', a search bar with a search icon and 'Help' link, and a search filter dropdown. Below the header, the search results are displayed in a grid. The first result is 'Bobnarske "neuradne" uniforme' with a thumbnail image of a group of people in green uniforms. Other visible results include 'Dekle, ki bi raje bilo drugje', 'Svečnica in kurentov skok', 'Dornavski cigani na ptujskem karnev...', 'Kardelj na veleseljmu', 'Meje deželskega sodišča okoli let...', 'Jože de Gleria', and 'Zgodba Božene Uravič'. On the left side, there are filters for 'Matches for:' (By provider: LoCloud, -UGC: true), 'Refine your results:' (Add more keywords), and various criteria like 'By media type' (IMAGE, TEXT, VIDEO, SOUND), 'By language of description', 'By year', 'By providing country', 'Can I use it?', 'By copyright', and 'By provider'.

LoCloud Aggregation Infrastructure

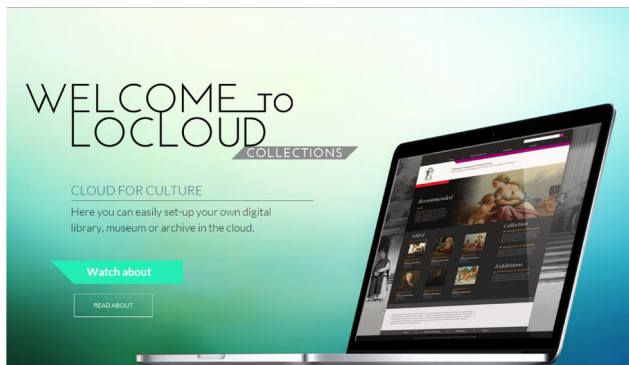
The implementation of the LoCloud Aggregation infrastructure was completed during 2014-15 with the development of a series of new services and improvements to existing services. The core of the LoCloud aggregation infrastructure consists of MINT, MORE services and LoCloud Collections (formerly known as the Lightweight Digital Library). MORE provides the hub, connected with both MINT and LoCloud Collections and a central point of access to the micro-services developed by the project: Geolocation API, Geocoding application, Background link micro-service, Vocabulary mapping micro-service, Vocabulary service, Historic place names service, Wikimedia application and the Crawler Ready Tagging Tools. These services were developed based on specifications established by the project and tested by LoCloud content partners before being implemented in the LoCloud Aggregation infrastructure.



<http://mint-projects.image.ntua.gr/locloud/>

MORE

Provides services for harvesting, ingesting, validating, transforming, enriching and publishing metadata. MORE has a cloud architecture which is scalable. An intuitive user interface offers users quick statistics and analyses as their content is ingested. All of the LoCloud microservices are integrated in MORE alongside metadata validation tools. Enrichment and validation plans help users to prepare and quality assure their metadata in preparation for harvesting by Europeana. MORE was established by Athena RC for LoCloud.



<https://locloudhosting.net>

Enrichment micro-services

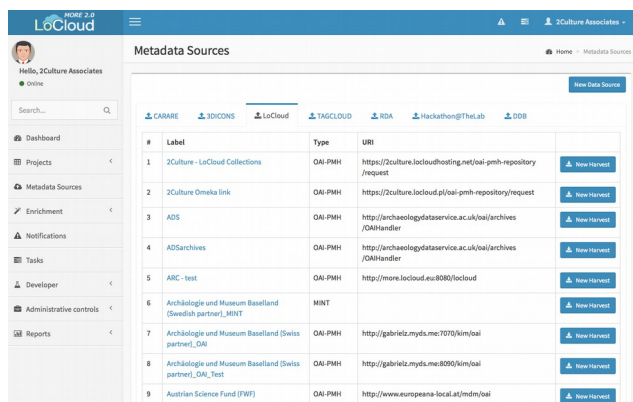
The Background links micro-service automatically creates links from content items to background information in DBpedia.

The Vocabulary matching micro-service automatically creates links from metadata items to classes in vocabularies provided via the LoCloud Vocabulary service.

Both services were developed by UPV/EHU for LoCloud and are implemented as REST services.

MINT

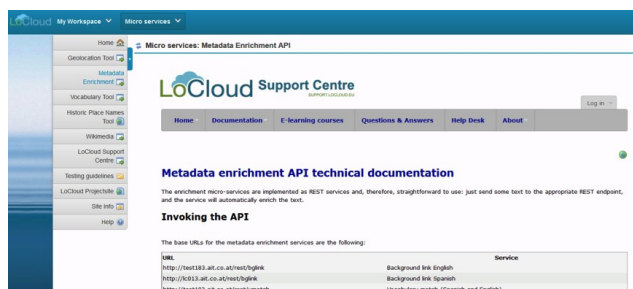
Provides users with the ability to map their metadata to reference models supported by the project: EDM, ESE, CARARE and LIDO. MINT includes statistics and reporting modules that help users to prepare and quality assure their metadata prior to submission to MORE and Europeana. MINT was established by NTUA for LoCloud.



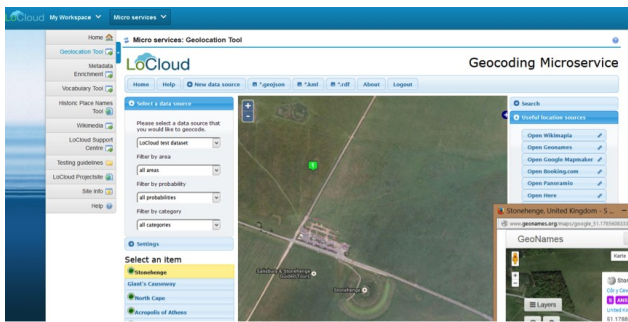
<http://store.locloud.eu/>

LoCloud Collections

A lightweight, out of the box repository, which is provided as a cloud-based service. LoCloud collections is designed for small memory institutions, is simple and easy to start. It supports multiple collections and many data formats, is multilingual and allows users to create and customize the public interface to their collections online. LoCloud collections is compatible with Europeana and is integrated with MORE. LoCloud Collections was implemented by PSNC for LoCloud.



[http://support.locloud.eu/Metadata enrichment API technical documentation](http://support.locloud.eu/Metadata%20enrichment%20API%20technical%20documentation)



<http://support.locloud.eu/Geolocation> Enrichment Tools

Vocabulary Service

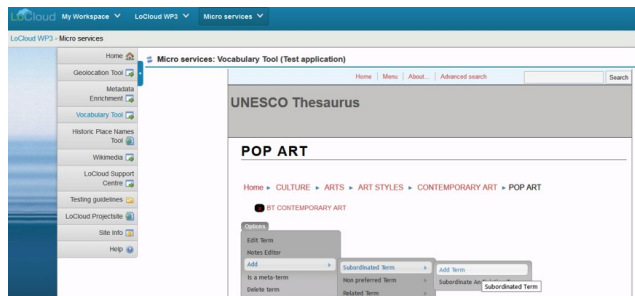
Provides a vocabulary application that incorporates multilingual vocabularies and supports collaborative work by content providers in creating and updating vocabularies. The service is made available via a REST API. It is integrated into MORE where it is used in metadata enrichment. The service can also be used online by cultural institutions or via its API for integration in content management systems.

The Vocabulary Service was developed by AIT for LoCloud.

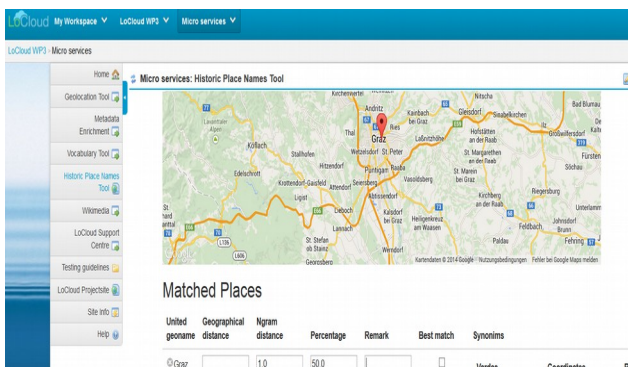
Geographic enrichment services

The Geolocation API (LoGeo) developed by IPCHS allows users to resolve a search term into candidate place names with spatial coordinates.

The Geocoding application developed by AVINET enables users to enrich metadata records with geographical coordinates via a map-based user interface. The application uses the LoGeo API but may also be implemented as a stand-alone application for crowd sourcing projects.



<http://support.locloud.eu/LoCloud%20Vocabulary%20Microservice>



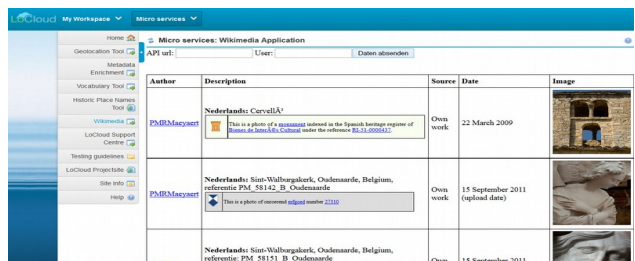
Historic Place Names Service

A prototype application developed by VUKF to enable content institutions to collaborate in the development of a historic place names thesaurus. The service integrate historic place names data sets provided by LoCloud partners. It allows for the visualisation of historic place names on a map base, and for the enrichment of metadata records.

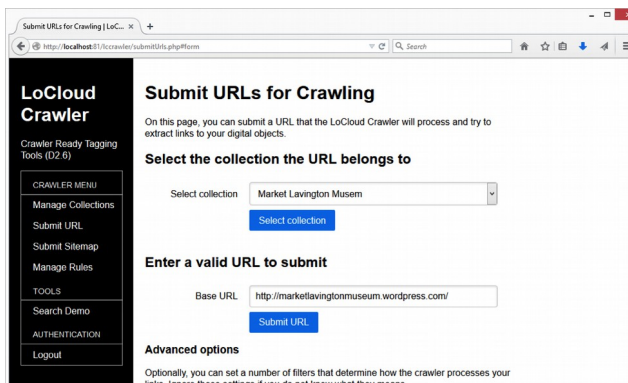
[http://support.locloud.eu/LoCloud Historical Placenames Microservice](http://support.locloud.eu/LoCloud%20Historical%20Placenames%20Microservice)

Wikimedia application

A web service that uses a REST interface to communicate with Wikimedia commons to capture core metadata about images. The service is designed to be used to enable content published by independent photographers or small cultural institutions in Wikimedia commons to be provided to Europeana.



<http://support.locloud.eu/Wikimedia>



Crawler Ready Tagging Tools

A set of experimental web tools developed by AVINET that can be used to automatically extract structured metadata from HTML web pages using the crawling method of mainstream search engines. The tools include a web application for submitting URLs for crawling, a scheduled crawler task and a scheduled indexer task. Tests demonstrated the CRTT is a viable way of aggregating an index for free-text searches, with optimization for search engines qualified EDM objects can be produced.

<http://support.locloud.eu/>

Training and support

During 2014-15 a support portal and help desk were established for LoCloud. The support portal (<http://support.locloud.eu>) provides users with access to the technical and user documentation for LoCloud services provided by the technical partners. The portal is publicly available online and incorporates a question and answer service to provide access to frequently asked questions and also to enable members of the LoCloud network to share their expertise and experience of digitisation, metadata, vocabularies, using particular systems and so on. The support portal provides a point of access to the eLearning resources that are currently being developed by LoCloud, and a point of access to the LoCloud Help Desk. The Help Desk is a ticket system that allows LoCloud content partners to lodge requests for support from our technical partners on specific questions about their content or use of LoCloud services.

Three training workshops were delivered during 2014-15 for LoCloud partners to introduce the new LoCloud services and to offer support in preparing their content for harvesting. The presentations were video-recorded during the workshop at Poznan; the videos demonstrating LoCloud services will be incorporated into the online training course being developed by PSNC.

Dissemination

The consortium has continued to play an active role in disseminating news and information about LoCloud. Statistics from the project website and social networks show a steady growth in interest with peaks in activity being linked to major events.

During the year partners' have presented the project and its results at a large number of national and international conferences and events. Highlights were the project workshop (which took place in Florence as part of the ICOMOS 2014 general assembly) and the Europeana Tech conference and the LoCloud hackathon. The hackathon, which took place at the Google Culture Institute in Paris, offered developers a first opportunity to experiment with using the LoCloud Services in new applications.



Monitoring and evaluation

The first LoCloud datasets were provided to Europeana for harvesting and publication this year. Throughout 2014-15 the project has been monitoring activities by partners to prepare their content for aggregation, and working with partners to quality assure their metadata before it is submitted to Europeana. All of the services developed by LoCloud were tested during 2014-15. Work is underway to prepare to monitor and evaluate the project's outcomes during the coming year.

Conclusion

The consortium has achieved the planned objectives for year 2 of the project. The project's aggregation infrastructure has been completed and a range of new services made available to content providers. The content workflow from cultural institutions to Europeana via LoCloud has been tested. The first LoCloud datasets have been aggregated, quality assured, enriched and provided to Europeana where they are now online at www.europeana.eu. LoCloud has continued to build a strategic collaboration with Europeana Cloud and other key projects, which are critical to ensuring the future sustainability of LoCloud services and Europeana itself. In the third year of the project the aggregation of content provided by LoCloud partners through the infrastructure and delivery to Europeana will continue. The LoCloud competition, designed to promote the use of Europeana for local history and best uses of LoCloud services, will also be launched.

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