



DELIVERABLE

Project Acronym: LoCloud

Grant Agreement number: 325099

Project Title: Local content in a Europeana cloud

D4.5 Online Course

Revision: 1.0

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Project co-funded by the European Commission within the ICT Policy Support Programme		
Dissemination Level		
P	Public	X
C	Confidential, only for members of the consortium and the Commission Services	

Revision History

Revision	Date	Author	Organisation	Description
0.1	20.06.2015	Marcin Werla Bogna Wróż	PSNC	First version of online course for peer review
0.2	03.09.2015	Marcin Werla Bogna Wróż	PSNC	Final version of online course released
0.3	07.09.2015	Marcin Werla Bogna Wróż	PSNC	First version of accompanying report for review
1.0	08.09.2015	Marcin Werla	PSNC	Final version of accompanying report

Statement of originality:

This deliverable contains original unpublished work except where clearly indicated otherwise. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation or both.

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Executive Summary

A main objective of the LoCloud project is to ease the task of small and medium-sized heritage organisations across Europe in making their contents accessible to Europeana. An important part of LoCloud's efforts is to facilitate the process of taking local data from heterogeneous data sources and transforming it into Europeana compliant data. This process involves understanding and interpreting metadata profiles, extracting data, setting harvesting infrastructure, managing vocabularies, enriching/completing data, mapping metadata profiles and more.

LoCloud has several work packages devoted to the development of software tools and micro-services that aim to simplify the content contribution and ingestion process from the perspective of both content providers and Europeana. Throughout the project, time and resources has been dedicated to the development, improvement and testing prototypes of these tools, and working with content providers.

The E-learning courses described in this report have been made with the intention of helping LoCloud content providing partners and cultural heritage organisations to utilize the technology implemented in LoCloud. They aim to offer participants a rich, well-structured mean to get familiar with services and tools offered by the project.

This report documents the creation process of the courses as well as their contents and structure. The courses were created on the basis of other material provided to the LoCloud Support Portal, including documentation and videos, as well as on the basis of training delivered to partners at the end of the second year of the project. The LoCloud courses were developed in the first half of the third year of the project. Later, these were reviewed by the project partners (both technical and content-providing), which resulted in a series of improvements being made before the release of the final version of the courses.

In total, three courses were made available, two renewed and updated versions of courses from previous projects (AccessIT/AccessITPlus) and the third one created specifically to cover the LoCloud offerings. The total amount of lessons in these courses is 41 and they correspond to a workbook of around a thousand pages in size. Beside text contents, these courses include also multimedia (including the LoCloud training videos) and interactive elements such as self-assessment quizzes.

All the LoCloud courses can be found in a dedicated e-learning sub-portal, available at <http://support.locloud.eu/courses/>.

1 Introduction

This report describes final element of LoCloud Support Centre (<http://support.locloud.eu>), an e-learning sub-portal with a series of courses addressed at smaller memory institutions. In this portal, available at <http://support.locloud.eu/courses/> there are three courses as follows:

- Digital Repositories for Small Memory Institutions (DRSMI)
- Cooperation with Europeana (CE)
- LoCloud Services and Tools (LST)

The first two courses were initially created by PSNC in the AccessIT and AccessIT Plus projects, co-funded by European Union under the CULTURE program. They were addressed to small institutions in Greece, Serbia and Turkey (AccessIT project) and Croatia, Albania and Bosnia and Herzegovina (AccessIT Plus project). In the LoCloud project these two courses were reviewed and updated. The most significant changes were made in the course devoted to Europeana, as it is a dynamic, quickly evolving environment. Consideration was given to whether the services and tools developed during LoCloud should be included in the first course (DRSMI) or if they should have their own course. Finally it was decided that it would be better to describe the LoCloud outcomes in a separate course, as it will allow more experienced participants to focus on the new services that LoCloud is offering, instead of going through the basic course and trying to extract LoCloud specific elements.

The second section of this report provides the overall information about the LoCloud Courses and how they are connected with other elements of the support portal.

The third section provides basic information about each course. More detailed information about the courses' content can be found in Appendix 1.

The Report concludes with licensing information and a set of conclusions.

2 LoCloud E-learning Courses Overview

As stated above, the LoCloud e-learning courses are the final part of the implementation of the LoCloud Support Portal. The portal consists of (see Figure 1):

- Documentation wiki
- Questions and Answers Community Support System
- Help Desk
- Training Videos
- E-learning Courses



Figure 1. LoCloud Support Center Menu (<http://support.locloud.eu>)

After clicking in the *E-learning Courses* option, the user is redirected to the e-learning subportal available at <http://support.locloud.eu/courses>. This portal is shown in Figure 2.

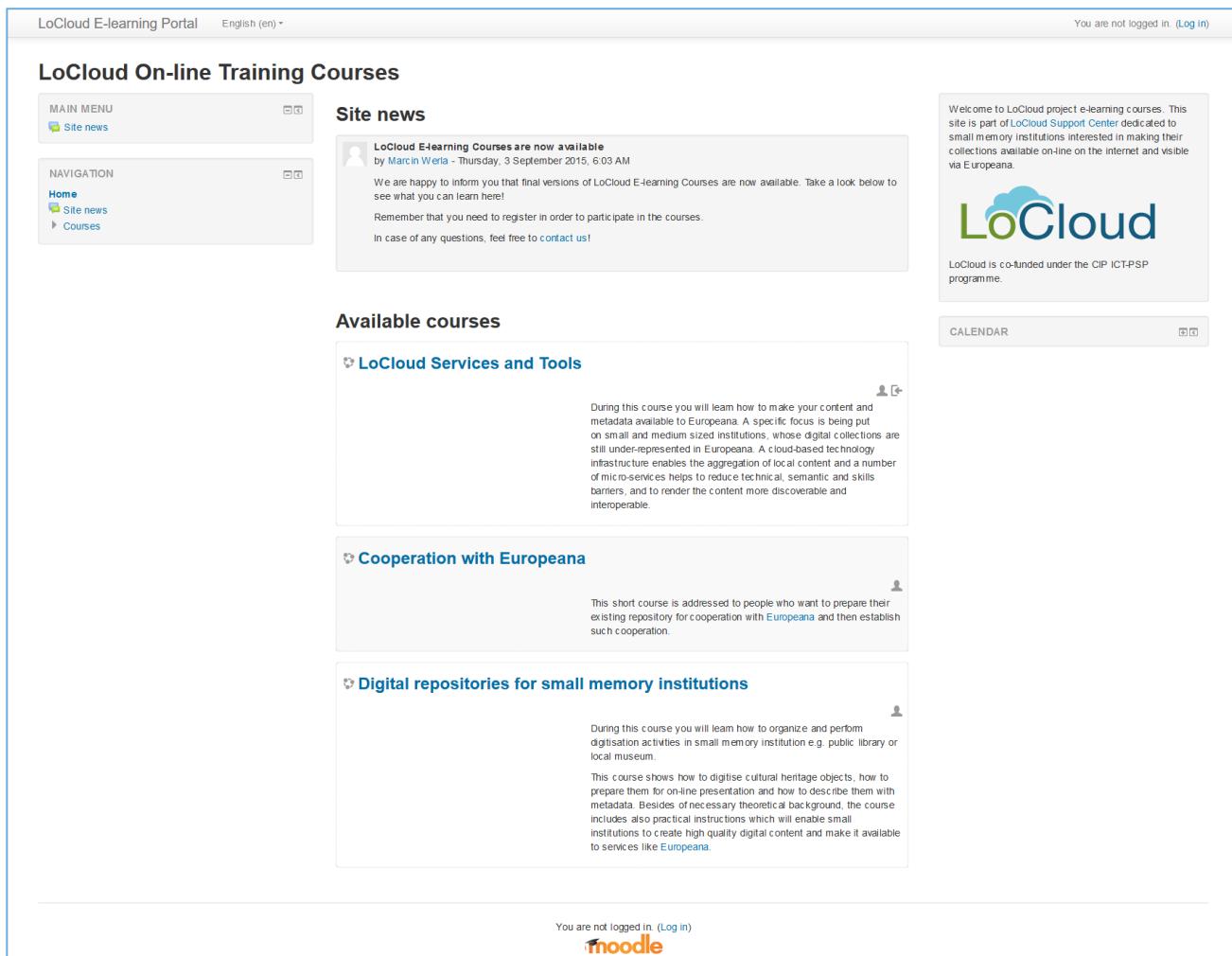
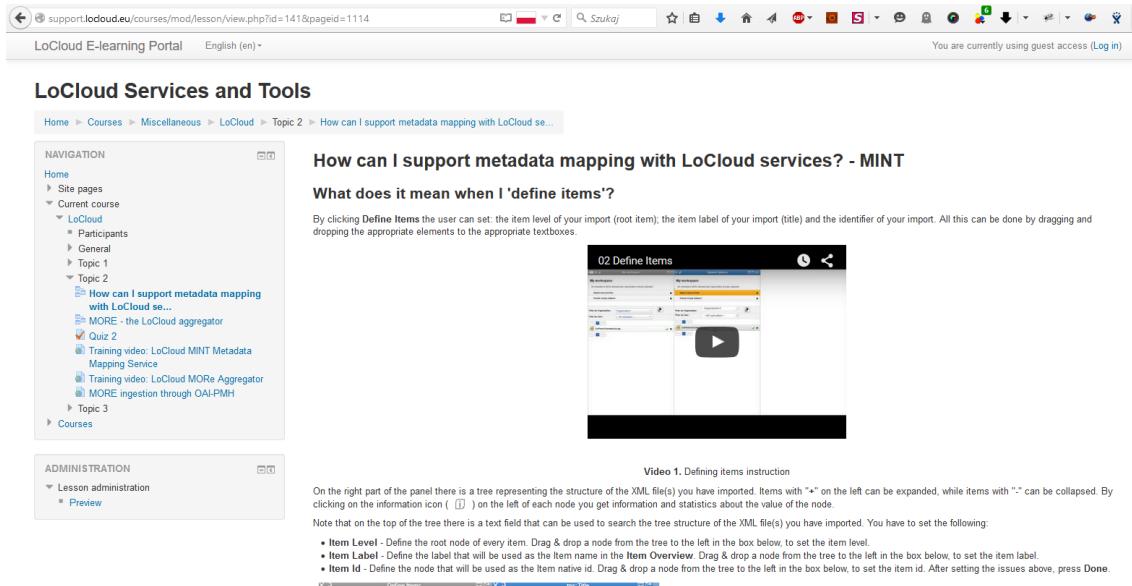


Figure 2. Main page of LoCloud E-learning Courses (<http://support.locloud.eu/courses/>)

The e-learning portal is based in the well-known open source platform Moodle (<http://moodle.org>), which allows professional creation and provisioning of e-learning courses. Each Moodle-based portal can include several courses, which are further divided into topics and lessons. These courses can include also various multimedia (see Figure 3) and interactive elements, including self-assessment components like quizzes (see Figure 4). The Moodle platform was chosen during AccessIT project and following very positive experiences, it was agreed that Moodle would also be used in the LoCloud developments



How can I support metadata mapping with LoCloud services? - MINT

What does it mean when I 'define items'?

By clicking Define Items the user can set: the item level of your import (root item), the item label of your import (title) and the identifier of your import. All this can be done by dragging and dropping the appropriate elements to the appropriate textboxes.

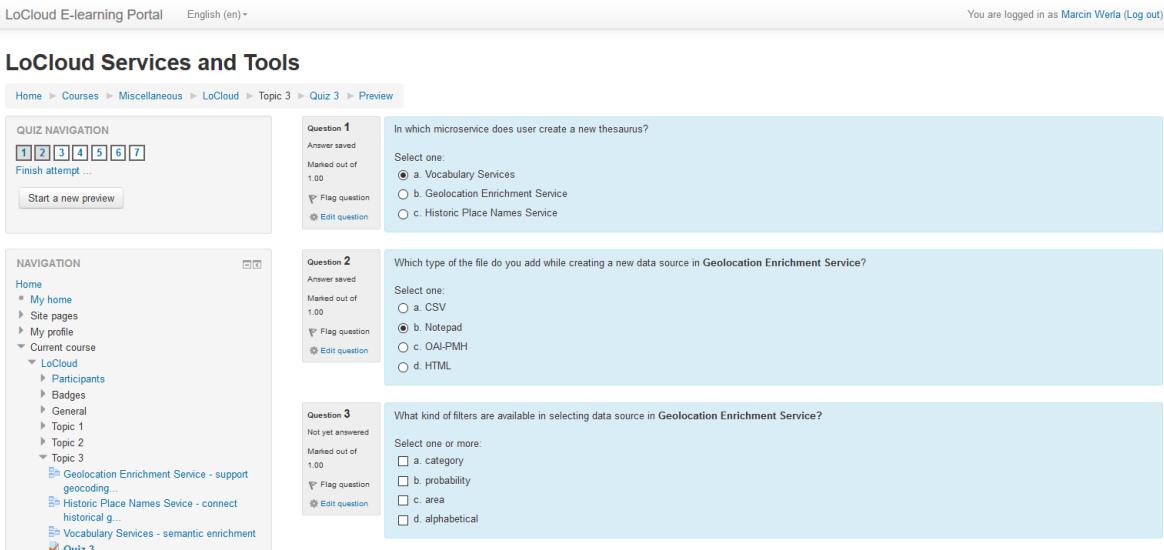
Video 1. Defining items instruction

On the right part of the panel there is a tree representing the structure of the XML file(s) you have imported. Items with "+" on the left can be expanded, while items with "-" can be collapsed. By clicking on the information icon (ⓘ) on the left of each node you get information and statistics about the value of the node.

Note that on the top of the tree there is a text field that can be used to search the tree structure of the XML file(s) you have imported. You have to set the following:

- Item Level - Define the root node of every item. Drag & drop a node from the tree to the left in the box below, to set the item level.
- Item Label - Define the label that will be used as the item name in the Item Overview. Drag & drop a node from the tree to the left in the box below, to set the item label.
- Item Id - Define the node that will be used as the item native id. Drag & drop a node from the tree to the left in the box below, to set the item id. After setting the issues above, press Done.

Figure 3. Part of lesson about MINT service with YouTube video embedded in the page content



QUIZ NAVIGATION

1 2 3 4 5 6 7
Finish attempt ...
Start a new preview

Question 1
Answer saved
Marked out of 1.00
Flag question
Edit question

In which microservice does user create a new thesaurus?

Select one:
 a. Vocabulary Services
 b. Geolocation Enrichment Service
 c. Historic Place Names Service

Question 2
Answer saved
Marked out of 1.00
Flag question
Edit question

Which type of the file do you add while creating a new data source in Geolocation Enrichment Service?

Select one:
 a. CSV
 b. Notepad
 c. OAI-PMH
 d. HTML

Question 3
Not yet answered
Marked out of 1.00
Flag question
Edit question

What kind of filters are available in selecting data source in Geolocation Enrichment Service?

Select one or more:
 a. category
 b. probability
 c. area
 d. alphabetical

Figure 4. Quiz summarizing Topic 3 of LoCloud Services and Tools course.

The user interface of Moodle can be multilingual, but the courses cannot be offered in multiple language versions in parallel (at least not in an easy way). As the documentation of LoCloud services and tools was created initially in English, the courses were also created in English, but LoCloud partners can undertake the effort of translation of all support materials into their own language

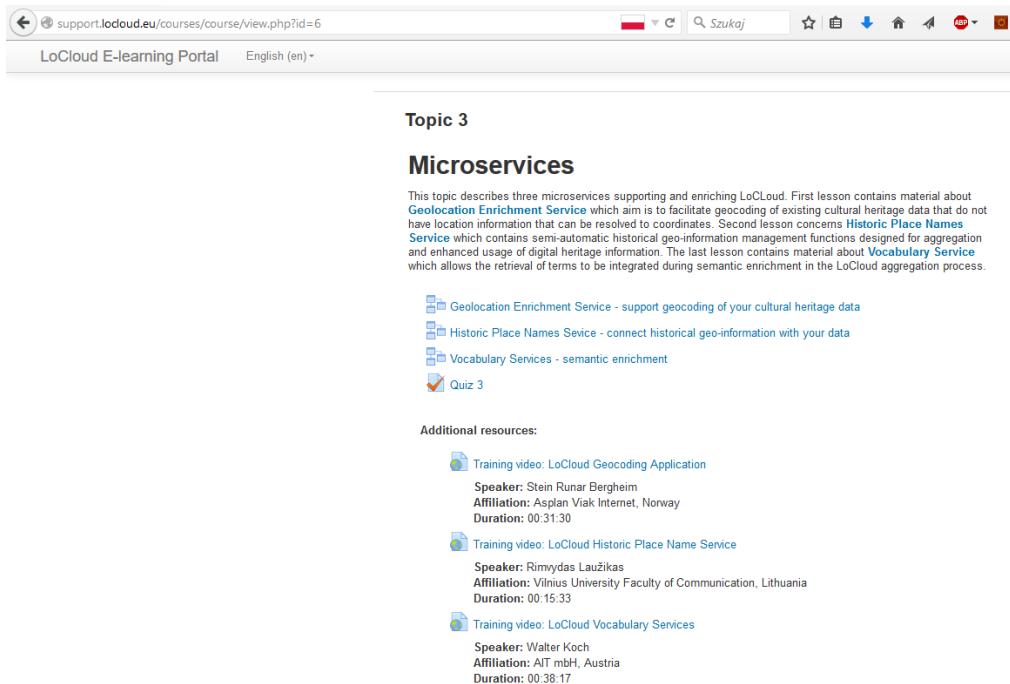
(although officially this is out of the scope of the LoCloud project). The easiest way for translation of the courses is to set up a national clone of the e-learning subportal and translate the content there. This approach worked very well in AccessIT/AccessIT Plus projects (e.g. the Polish adaptation of the courses is available at <http://fbc.pionier.net.pl/elearning/pl/>).

To provide at least minimal support for LoCloud multilingual partners, the interface of LoCloud's Moodle installation is currently provided in the following languages:

- German
- English
- Spanish
- French
- Croatian
- Italian
- Romanian
- Polish
- Serbian

Other languages can be added upon partners' requests.

The content of *LoCloud Services and Tools* course was developed by PSNC based on information which was provided by technical project partners in the documentation which they delivered to the support portal and in the presentations which they gave during a series of LoCloud Training Workshops. Additionally, LoCloud training videos were embedded in the courses as supplementary support material (see Figure 5).



Topic 3

Microservices

This topic describes three microservices supporting and enriching LoCloud. First lesson contains material about **Geolocation Enrichment Service** which aim is to facilitate geocoding of existing cultural heritage data that do not have location information that can be resolved to coordinates. Second lesson concerns **Historic Place Names Service** which contains semi-automatic historical geo-information management functions designed for aggregation and enhanced usage of digital heritage information. The last lesson contains material about **Vocabulary Service** which allows the retrieval of terms to be integrated during semantic enrichment in the LoCloud aggregation process.

[Geolocation Enrichment Service - support geocoding of your cultural heritage data](#)
[Historic Place Names Service - connect historical geo-information with your data](#)
[Vocabulary Services - semantic enrichment](#)
[Quiz 3](#)

Additional resources:

- [Training video: LoCloud Geocoding Application](#)
Speaker: Stein Runar Bergheim
Affiliation: Asplan Viak Internet, Norway
Duration: 00:31:30
- [Training video: LoCloud Historic Place Name Service](#)
Speaker: Rimvydas Laužikas
Affiliation: Vilnius University Faculty of Communication, Lithuania
Duration: 00:15:33
- [Training video: LoCloud Vocabulary Services](#)
Speaker: Walter Koch
Affiliation: AIT mbH, Austria
Duration: 00:38:17

Figure 5. Example of training videos linked as additional educational resources.

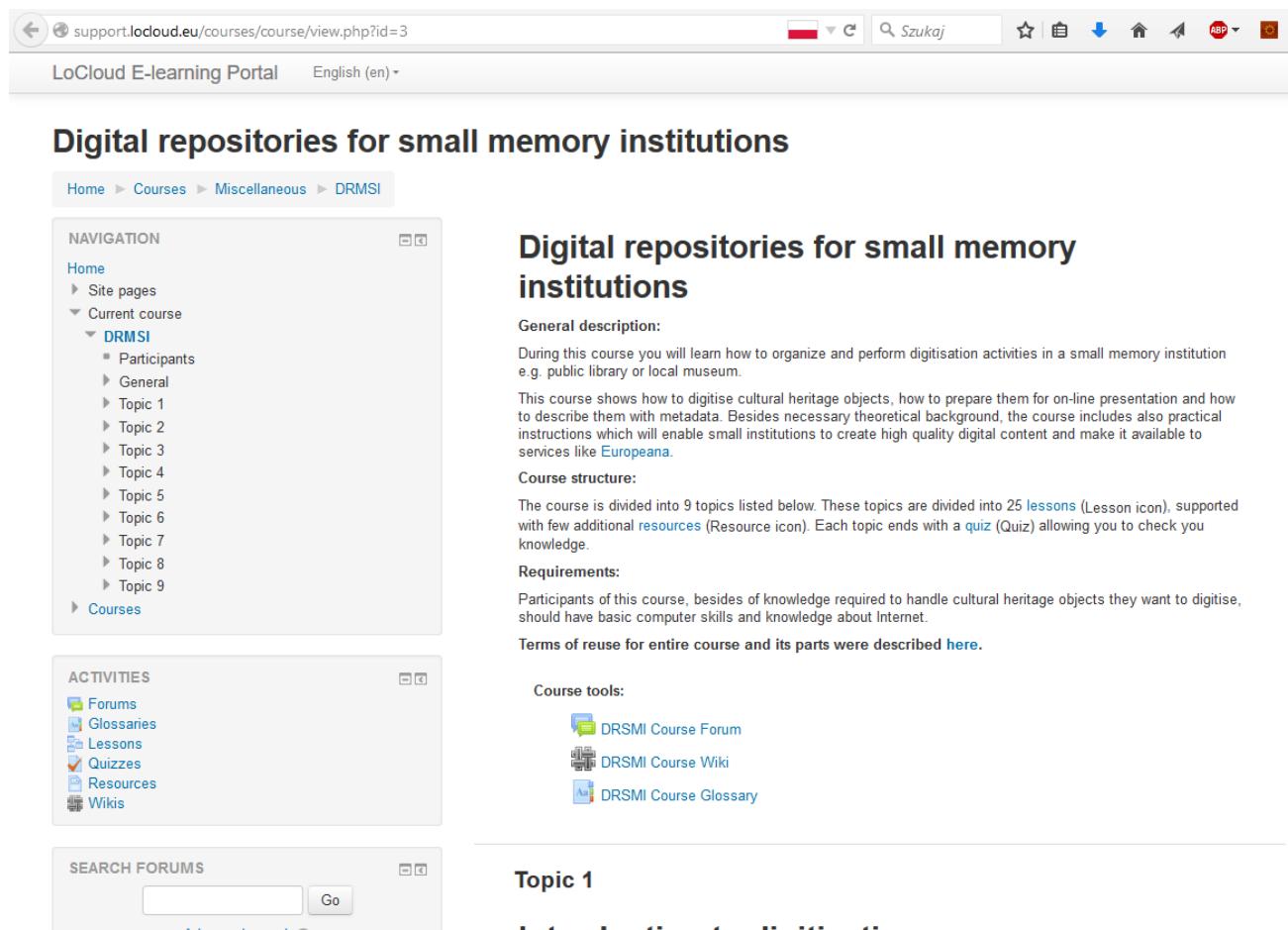
3 Contents of LoCloud E-learning Courses

3.1 Course “Digital repositories for small memory institutions”

During this course participants will learn how to organize and perform digitization activities in a small memory institution e.g. public library or local museum. This course shows how to digitise cultural heritage objects, how to prepare them for on-line presentation and how to describe them with metadata. Besides necessary theoretical background, the course includes also practical instructions which will enable small institutions to create high quality digital content and make it available to services like Europeana.

The course is divided into nine topics. These topics are divided into twenty five lessons, supported with a few additional resources. Each topic ends with a quiz allowing participants to check their newly-acquired knowledge.

Participants of this course, besides the knowledge required to handle cultural heritage objects they want to digitise, should have basic computer skills and knowledge about the Internet.



The screenshot shows the main page of the 'Digital repositories for small memory institutions' course. At the top, there is a navigation bar with links for Home, Courses, Miscellaneous, and DRMSI. Below the navigation bar, there is a sidebar titled 'NAVIGATION' containing links for Home, Site pages, Current course (with DRMSI expanded), Participants, General, Topic 1 through Topic 9, and Courses. Another sidebar titled 'ACTIVITIES' contains links for Forums, Glossaries, Lessons, Quizzes, Resources, and Wikis. A search bar at the bottom left is labeled 'SEARCH FORUMS' with a 'Go' button. The main content area is titled 'Digital repositories for small memory institutions'. It includes a 'General description' section with text about the course's purpose and objectives, a 'Course structure' section mentioning 9 topics and 25 lessons, a 'Requirements' section with a note about basic computer skills and Internet knowledge, and a 'Terms of reuse' section with a link to a separate page. Below the main content, there is a 'Topic 1' section with a link to 'Introduction to digitisation'.

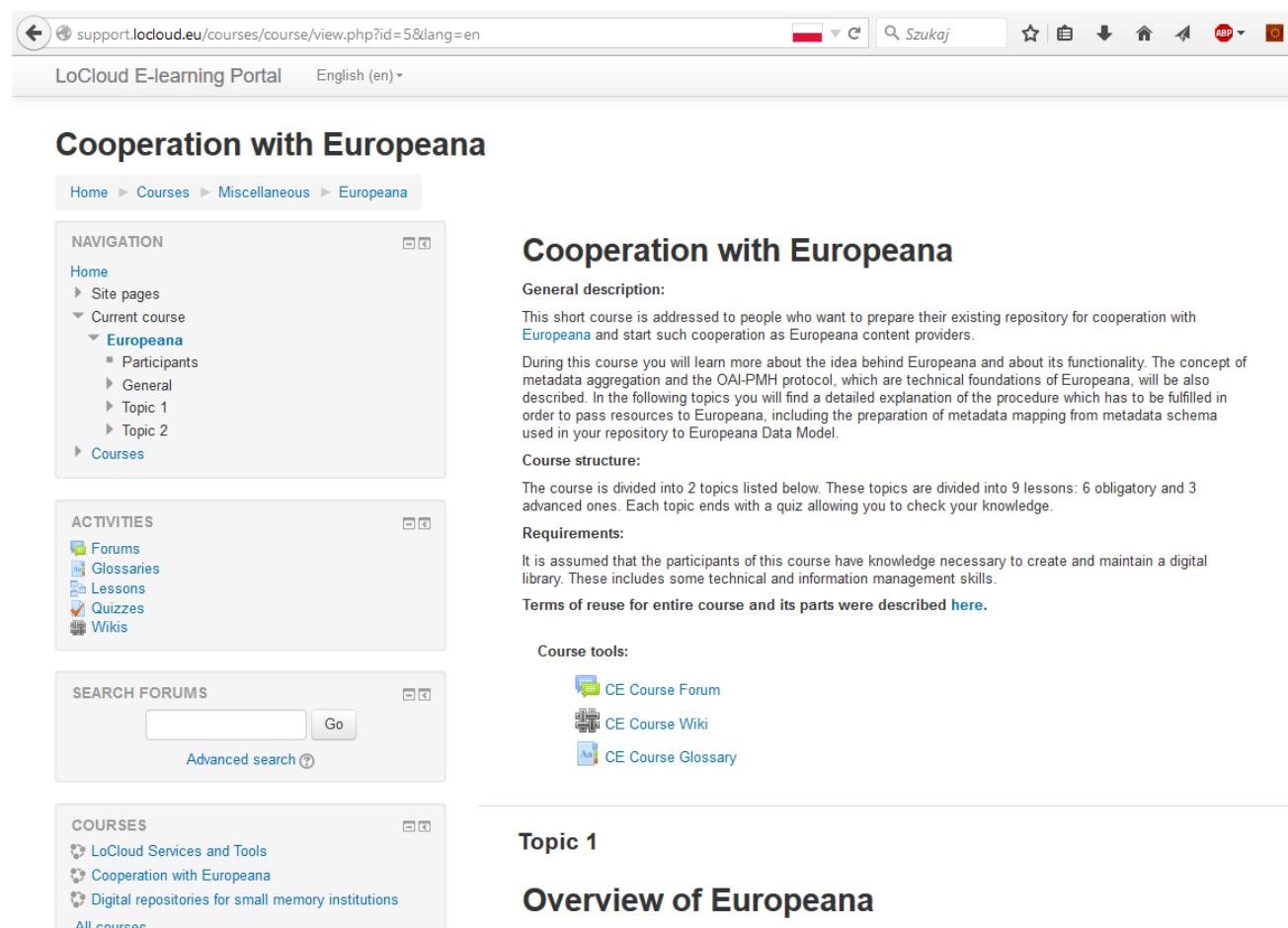
*Figure 6. Digital repositories for small memory institutions course main page
(<http://support.locloud.eu/courses/course/view.php?id=3>)*

3.2 Course “Cooperation with Europeana”

This short course is addressed at people who want to prepare their existing repository for inclusion in Europeana and start their cooperation as Europeana content providers. During this course, participants will learn more about the ideas behind Europeana and about its functionality. The concept of metadata aggregation and the OAI-PMH protocol, which are technical foundations of Europeana, is also described. Participants will find a detailed explanation of the procedure which has to be fulfilled in order to pass resources to Europeana, including the preparation of metadata mapping from metadata schema used in their repository to the Europeana Data Model (EDM).

The course is divided into two topics. These topics are divided into nine lessons: six obligatory and three advanced ones. Each topic ends with a quiz allowing participants to check their knowledge.

It is assumed that the participants of this course have the knowledge necessary to create and maintain a digital library (this can be gained by going through the first course). This includes some technical and information management skills.



The screenshot shows the main page of the 'Cooperation with Europeana' course. At the top, there is a navigation bar with links for Home, Courses, Miscellaneous, and Europeana. Below the navigation bar, there is a sidebar titled 'NAVIGATION' containing links for Home, Site pages, Current course (with a sub-section for Europeana), Participants, General, Topic 1, Topic 2, and Courses. Another sidebar titled 'ACTIVITIES' contains links for Forums, Glossaries, Lessons, Quizzes, and Wikis. A third sidebar titled 'SEARCH FORUMS' includes a search input field and a 'Go' button. The main content area is titled 'Cooperation with Europeana' and includes sections for 'General description', 'Course structure', 'Requirements', and 'Course tools'. The 'General description' section provides an overview of the course's purpose and content. The 'Course structure' section indicates the course is divided into 2 topics with 9 lessons. The 'Requirements' section states that participants should have knowledge to create and maintain a digital library. The 'Course tools' section lists CE Course Forum, CE Course Wiki, and CE Course Glossary. Below the main content, there is a section titled 'Topic 1' with the heading 'Overview of Europeana'.

Figure 7. Cooperation with Europeana course main page
(<http://support.locloud.eu/courses/course/view.php?id=5>)

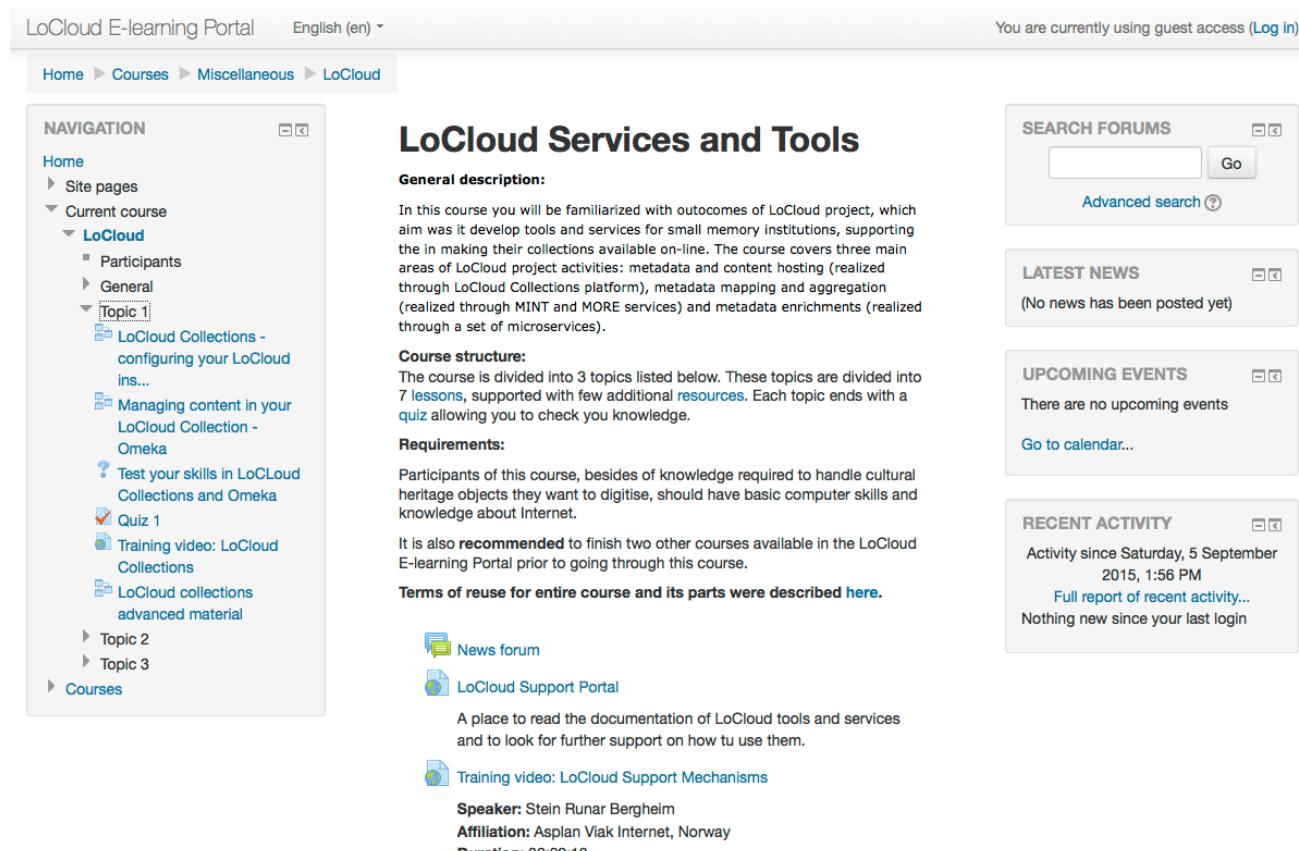
3.3 Course “LoCloud Services and Tools”

In this course, participants will be familiarized with the outcomes of the LoCloud project: tools and services developed for small memory institutions, supporting these organisations in making their collections available on-line. The course covers the three main areas of LoCloud project activities: metadata and content hosting (realized through LoCloud Collections platform), metadata mapping and aggregation (realized through MINT and MORE services) and metadata enrichment (realized through a set of micro-services).

The course is divided into the three topics listed below. These topics are each divided into seven lessons, supported with a few additional resources. Each topic ends with a quiz allowing the participant to check their knowledge.

Participants of this course, besides the knowledge required to handle cultural heritage objects they want to digitise, should have basic computer skills and knowledge about the Internet.

For less experienced participants, it is also recommended to complete the two other courses available in the LoCloud E-learning Portal prior to going through this course.



NAVIGATION

- Home
- Site pages
- Current course
- LoCloud
 - Participants
 - General
 - Topic 1
 - LoCloud Collections - configuring your LoCloud ins...
 - Managing content in your LoCloud Collection - Omeka
 - Test your skills in LoCloud Collections and Omeka
 - Quiz 1
 - Training video: LoCloud Collections
 - LoCloud collections advanced material
 - Topic 2
 - Topic 3
- Courses

LoCloud Services and Tools

General description:

In this course you will be familiarized with outcomes of LoCloud project, which aim was to develop tools and services for small memory institutions, supporting them in making their collections available on-line. The course covers three main areas of LoCloud project activities: metadata and content hosting (realized through LoCloud Collections platform), metadata mapping and aggregation (realized through MINT and MORE services) and metadata enrichments (realized through a set of microservices).

Course structure:

The course is divided into 3 topics listed below. These topics are divided into 7 lessons, supported with few additional resources. Each topic ends with a quiz allowing you to check your knowledge.

Requirements:

Participants of this course, besides of knowledge required to handle cultural heritage objects they want to digitise, should have basic computer skills and knowledge about Internet.

It is also recommended to finish two other courses available in the LoCloud E-learning Portal prior to going through this course.

Terms of reuse for entire course and its parts were described [here](#).

News forum

LoCloud Support Portal

A place to read the documentation of LoCloud tools and services and to look for further support on how to use them.

Training video: LoCloud Support Mechanisms

Speaker: Stein Runar Bergheim
Affiliation: Asplan Viak Internet, Norway
Duration: 00:09:18

Figure 8. LoCloud Services and Tools course main page (<http://support.locloud.eu/courses/course/view.php?id=6>)

4 LoCloud On-line Training Courses License

All LoCloud e-learning courses are licensed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License ((CC BY-NC-SA 3.0)).

In practice it means that anyone is allowed to:

- use any of the LoCloud e-learning courses in their own copy of Moodle as it is,
- modify/adapt/translate any part of the LoCloud course content,
- include any part of the LoCloud content into their existing courses.

Anyone who decides to perform any of these activities needs to remember to mention (in form of text and link) Poznan Supercomputing and Networking Center and the LoCloud project participants as creators of the original version of the course/course's part. Beside, all derivatives should be also available under the terms of the same license as the original work.

Anyone willing to develop any kind of paid certification program on top of LoCloud courses, or any other form of business-oriented activity, should respect the non-commercial or non-for-profit character of this undertaking.

5 Conclusions

The first draft version of the LoCloud courses was made available to partners at the end of May 2015. Both technical and content partners were asked to go through courses and provide feedback. After a month, at the beginning of July, all the received remarks were summarized and applied to the course in order to achieve a final version of the content. The following major changes were made to the courses after analyzing the feedback:

- Titles of lessons and pages were changed to be more detailed and problem-oriented, addressing specific problems that users might have with different functions of LoCloud to emphasize the learning aspect of the course.
- Beside the basic assessment mechanism (quizzes at the end of each topic), a number of true/false questions was introduced after the pages in the lessons. The aim of this was to encourage participants to pay more attention to details during the courses.
- Several changes in the introductions/beginnings of lessons were made to emphasize the aims, meaning, and reasons for using certain services.
- Some technical problems with screenshot presentation and text layout were resolved.
- Additional learning material was divided into pages (initially each material was presented as a single long pages of text).
- In the content of lessons, links to services were introduced when the service names appear in text.
- A simple optional task was added after the LoCloud Collections section to make a suggestion of a way to practice the theory that was mentioned during these lessons.
- A few updates in the part of Vocabulary Service were made along with some screens and new versions of introduction.
- A few updates of screens/pictures (with more detailed captions below them to avoid gaps and misunderstandings) and the style of a few descriptions
- The part about user roles in LoCloud Collections/Omeka and suggested workflows were rearranged to be more understandable.

The final result of this work was made available at the end of August, according to the project schedule. This ends the initial developments of content for LoCloud Support Portal, but of course as LoCloud tools and services will be further developed, the content of training materials should be accordingly updated. Another path of development is also the re-use and adaptation of this content by project partners for creation of local educational and promotional materials supporting small heritage institutions on their way to a digital on-line presence.

Appendix 1. Structure of LoCloud E-learning Courses

Structure overview

Each course is divided into general topics. Each topic consists of lessons and ends with a quiz. Each lesson contains a number of steps which may include text, multimedia, questions and other interactive elements.

In the lists below the structure is represented in the following way:

1. Topic
 - 1.1. Lesson
 - 1.1.1. Step

Course “Digital repositories for small memory institutions”

1. Topic 1: Introduction to digitisation

1.1. What is the rationale for digitisation activities in the cultural heritage domain?

- 1.1.1. Introduction
- 1.1.2. Henry III Fine Rolls Project
- 1.1.3. Discover Domesday
- 1.1.4. Australian Newspapers Digitisation Program
- 1.1.5. The Great War Archive
- 1.1.6. Lesson summary

1.2. How can the basic digitisation workflow look like?

- 1.2.1. Introduction - why is digitisation hard?
- 1.2.2. Example 1 – Low resolution
- 1.2.3. Example 2 – Where is Mr. Smith?
- 1.2.4. Example 3 – How to open this file?
- 1.2.5. Summary – why may digitization be hard?
- 1.2.6. Digitisation workflow
- 1.2.7. Choosing objects for digitisation
- 1.2.8. When is digitisation outsourcing a solution?
- 1.2.9. Preparing object metadata
- 1.2.10. Metadata classification
- 1.2.11. Terminology standards
- 1.2.12. Scanning equipment
- 1.2.13. Types of the scanning equipment
- 1.2.14. How to choose a suitable scanner?
- 1.2.15. Graphical post-processing
- 1.2.16. Capturing text
- 1.2.17. What is important for OCR software performance?
- 1.2.18. Web delivery version of scanned object
- 1.2.19. Publication of object in the web
- 1.2.20. Publication of object in the digital library
- 1.2.21. Born-digital materials
- 1.2.22. Lesson summary - How to organize all those things?

2. Topic 2: Digitisation equipment and software

2.1. What should I know about digitisation equipment?

- 2.1.1. Digital image anatomy
- 2.1.2. Compression of the digital image
- 2.1.3. Digital image anatomy – summary
- 2.1.4. Scanning equipment
- 2.1.5. Flatbed scanners
- 2.1.6. Other types of scanners
- 2.1.7. Digital cameras
- 2.1.8. How to choose an appropriate scanner?
- 2.1.9. General overview of technical features associated with scanning equipment
- 2.1.10. Lesson summary

2.2. What should I know about software used in digitisation process?

- 2.2.1. Introduction to digitisation software
- 2.2.2. What kind of software do we need?
- 2.2.3. Computer programs in the digitization process
- 2.2.4. Free graphical software

- 2.2.5. Paid graphical software
 - 2.2.6. Audio and video free editing software
 - 2.2.7. Audio and video paid editing software
 - 2.2.8. Free software for textual documents edition
 - 2.2.9. Free software for Optical Character Recognition
 - 2.2.10. Paid software for Optical Character Recognition
 - 2.2.11. Software supporting creation of web delivery version
 - 2.2.12. Publication of object in the digital library
 - 2.2.13. Lesson summary
- 2.3. What is Digitlab?
- 2.3.1. What is Digitlab?
 - 2.3.2. What tools does Digitlab contain?
 - 2.3.3. How to prepare and start Digitlab on your computer?
- 2.4. When should I create my own digitisation lab?
- 2.4.1. May outsourcing be a better solution?
 - 2.4.2. May outsourcing be a better solution? (2)
 - 2.4.3. When should I avoid outsourcing?
 - 2.4.4. What can be outsourced?
 - 2.4.5. Digital imaging technology
 - 2.4.6. Optical Character Recognition (OCR)
 - 2.4.7. Zoning and segmentation
 - 2.4.8. Metadata extraction
 - 2.4.9. Searchability and web delivery systems
 - 2.4.10. Case studies
 - 2.4.11. Lesson summary
 - 2.4.12. Lesson summary (2)
3. Topic 3: Digital libraries basics
- 3.1. What should I know about digital libraries?
- 3.1.1. What is a digital library?
 - 3.1.2. What is the purpose of a digital library?
 - 3.1.3. How does a digital library work?
 - 3.1.4. What are the benefits of using a digital library?
 - 3.1.5. Who interacts with a digital library?
 - 3.1.6. Examples of popular digital libraries
 - 3.1.7. Basic functionality of a digital library
 - 3.1.8. Lesson summary
- 3.2. Case study: Digital libraries infrastructure in Poland
- 3.2.1. Introduction
 - 3.2.2. Digital libraries in Poland
 - 3.2.3. Examples of Polish digital libraries
 - 3.2.4. Typical organisational models of Polish digital libraries
 - 3.2.5. What is Polish Digital Libraries Federation?
 - 3.2.6. What is the OAI-PMH protocol?
 - 3.2.7. Digital Libraries Federation and Europeana
 - 3.2.8. Lesson summary
- 3.3. When should I create my own digital library and how to do it?
- 3.3.1. Introduction
 - 3.3.2. Building one's own digital library
 - 3.3.3. Demands of the software for the digital libraries creation
 - 3.3.4. Keeping the servers of the digital library

- 3.3.5. Software for the digital libraries creation
 - 3.3.6. Digital library initiation and the work organization
 - 3.3.7. Choosing a schema
 - 3.3.8. An example of the digital object description
 - 3.3.9. Other issues
 - 3.3.10. The release of the digital library
 - 3.3.11. Promotion of the digital library
 - 3.3.12. Contributing to the existing library as the alternative option
 - 3.3.13. Lesson summary
- 3.4. Digital libraries – advanced material
- 3.4.1. First things first – a digital object
 - 3.4.2. Digital library – an overview
 - 3.4.3. Models, frameworks and software for digital libraries
 - 3.4.4. Interoperability of digital libraries
 - 3.4.5. Searching digital libraries
 - 3.4.6. Examples of popular digital libraries
4. Topic 4: Building digital collections
- 4.1. How to create good collections?
 - 4.1.1. What should be taken into consideration while creating a good digital collection?
 - 4.1.2. NISO principles of good collection
 - 4.1.3. Case studies: some examples of existing collections - National Library of France - Gallica
 - 4.1.4. Case studies: some examples of existing collections – The Herblock Collection
 - 4.1.5. Case studies: some examples of existing collections – Manuscriptorium
 - 4.1.6. Case studies: some examples of existing collections – Darwin 200
 - 4.1.7. Case studies: some examples of existing collections – CBN Polona
 - 4.1.8. Case studies: some examples of existing collections – DART Europe
 - 4.1.9. Case studies: some examples of existing collections - Public Digital Archive of Agnieszka Osiecka
 - 4.1.10. Lesson summary
 - 4.2. What should I know about Intellectual Property Rights?
 - 4.2.1. Overview of Intellectual Property Rights
 - 4.2.2. Public Domain and its charter
 - 4.2.3. Manifesto and Charter of the Public Domain
 - 4.2.4. International Treaties regarding IPR issues
 - 4.2.5. Infringing copyright and fair use
 - 4.2.6. Defining ownership of copyright
 - 4.2.7. Calculators and defining rights for objects
 - 4.2.8. Licensing
 - 4.2.9. Public Domain and Creative Commons in Poland
 - 4.2.10. Digital Rights Management
 - 4.2.11. Lesson Summary
5. Topic 5: Preparing digital versions of the cultural heritage objects
- 5.1. How to digitize photographs/drawings/posters and prepare them for web delivery?
 - 5.1.1. Introduction
 - 5.1.2. Digital image anatomy once again
 - 5.1.3. Scanning resolution
 - 5.1.4. How to choose scanning parameters?
 - 5.1.5. Choosing scanning equipment
 - 5.1.6. The scanning process

- 5.1.7. How to choose the archival format?
 - 5.1.8. How to choose the web delivery format for images?
 - 5.1.9. How to perform basic image post-processing?
 - 5.1.10. How to convert a digital image between formats?
 - 5.1.11. How to digitise oversized materials?
 - 5.1.12. How to present large images over the web?
 - 5.1.13. Using Irfanview for batch processing
 - 5.1.14. Lesson summary
- 5.2. How to digitize and prepare for the web delivery objects with textual content?
- 5.2.1. Introduction
 - 5.2.2. Digital text
 - 5.2.3. How to create a digital text?
 - 5.2.4. Optical character recognition
 - 5.2.5. Choosing scanning parameters
 - 5.2.6. The scanning process
 - 5.2.7. How to choose archival and web delivery formats?
 - 5.2.8. How to use OCR?
 - 5.2.9. Correcting results of the OCR
 - 5.2.10. Preparation of web delivery version
 - 5.2.11. Batch processing of textual content
 - 5.2.12. Lesson summary
- 5.3. How to prepare audio and video for web delivery?
- 5.3.1. Introduction
 - 5.3.2. Introduction to digital audio
 - 5.3.3. Introduction to digital video
 - 5.3.4. Getting content from device to computer
 - 5.3.5. Choosing archival formats for digital video and audio
 - 5.3.6. Choosing a web delivery format for digital video and audio
 - 5.3.6.1. Choosing a web delivery format for digital audio
 - 5.3.6.2. Choosing a web delivery format for digital video
 - 5.3.7. Processing of digital audio and video
 - 5.3.8. How does web delivery work?
 - 5.3.9. Introduction to "how to"s
 - 5.3.9.1. How to prepare audio for online publication?
 - 5.3.9.2. How to convert digital audio files?
 - 5.3.9.3. How to add metadata to the media file?
 - 5.3.9.4. How to publish audio on the web?
 - 5.3.9.5. How to prepare video for online publication?
 - 5.3.9.6. How to convert digital video between formats?
 - 5.3.9.7. How to publish video on the web?
 - 5.3.10. Lesson summary
- 5.4. How to digitise and prepare for web delivery sculptures/monuments and other 3-D objects?
- 5.4.1. Introduction
 - 5.4.2. Why digitise in 3D?
 - 5.4.3. How to digitise non-flat objects?
 - 5.4.4. Geometry-based models
 - 5.4.5. Image-based presentations
 - 5.4.6. How do 3D digitizers work?
 - 5.4.7. How to choose the archival format for 3D objects?
 - 5.4.8. How to deliver 3D models over the web?

- 5.4.9. How to create object presentation using Photosynth?
- 5.4.10. How to create object presentation using HTML and Javascript?
- 5.4.11. Lesson summary
- 5.5. Preparing material for digitization
 - 5.5.1. Preparation of digitization project
 - 5.5.2. Practical preparation of objects
 - 5.5.3. What should I be aware of?
- 6. Topic 6: Describing digital objects
 - 6.1. What is metadata?
 - 6.1.1. Introduction
 - 6.1.2. What is metadata?
 - 6.1.3. Examples of metadata
 - 6.1.4. What defines a metadata standard?
 - 6.1.5. What is controlled vocabulary?
 - 6.1.6. What is interoperability?
 - 6.1.7. Where does metadata live?
 - 6.1.8. How to classify metadata?
 - 6.1.9. Dublin Core is not the only one
 - 6.1.10. Dublin Core Metadata Element Set(DCMES)
 - 6.1.11. Lesson summary
 - 6.2. How to prepare descriptive metadata?
 - 6.2.1. Introduction
 - 6.2.2. What does metadata creation look like?
 - 6.2.3. Who creates metadata?
 - 6.2.4. Are controlled vocabularies really so important?
 - 6.2.5. Record standards of description values
 - 6.2.6. What is folksonomy?
 - 6.2.7. Where and how to store metadata?
 - 6.2.8. How can I describe collections?
 - 6.2.9. How to evaluate metadata quality?
 - 6.2.10. Do I really have to prepare internal metadata guidelines?
 - 6.2.11. Lesson summary
 - 6.3. What should I know about Dublin Core Terms?
 - 6.3.1. Introduction
 - 6.3.2. Introduction to Dublin Core
 - 6.3.3. What does Dublin Core metadata look like?
 - 6.3.4. Introducing Dublin Core Terms
 - 6.3.5. Overview of Dublin Core Terms schema
 - 6.3.6. Using Dublin Core Terms
 - 6.3.7. Using Dublin Core Terms (cont.)
 - 6.3.8. Using Dublin Core Terms (cont. 2)
 - 6.3.9. Using Dublin Core Terms (cont. 3)
 - 6.3.10. Lesson summary
- 7. Topic 7: Publishing objects on-line
 - 7.1. How to publish an object in a digital library?
 - 7.1.1. Digital library software platforms
 - 7.1.2. Preparing content and metadata
 - 7.1.3. Publishing digital object with DSpace
 - 7.1.4. Publishing digital object with Greenstone
 - 7.1.5. Publishing digital object with dLibra

- 7.1.6. Lesson summary
 - 7.2. How to promote digital objects on the Internet?
 - 7.2.1. Why to promote digital objects?
 - 7.2.2. Promoting the digital library
 - 7.2.3. Promoting the digital library - SEO
 - 7.2.4. Promoting the digital library - community
 - 7.2.5. Providing users with the digital objects
 - 7.2.6. Searching digital objects
 - 7.2.7. Lesson summary
 - 7.3. What is a Digital Master Copy and why it is so important?
 - 7.3.1. Introduction
 - 7.3.2. Digital Master Copy
 - 7.3.3. Long term digital preservation – what is it?
 - 7.3.4. Where to store digital master copies?
 - 7.3.5. Storing on a physical carrier
 - 7.3.6. Storage outsourcing
 - 7.3.7. Checksums
 - 7.3.8. How to choose the archival format?
 - 7.3.9. Suggested archival formats and parameters
 - 7.3.9.1. Still images
 - 7.3.9.2. Textual content
 - 7.3.9.3. Audio and video content
 - 7.3.10. File naming conventions
 - 7.3.11. Lesson summary
 - 7.4. Things to remember
- 8. Topic 8: Digital library evaluation and monitoring
 - 8.1. How to test the usability of digital library user interface?
 - 8.1.1. What is the usability and why is it important?
 - 8.1.2. Usability in the context of the digital libraries
 - 8.1.3. How to evaluate the usability of a website?
 - 8.1.4. The digital library software packages – usability “out of the box”?
 - 8.1.5. Modification of the default digital library user interface – case study
 - 8.1.6. Usability and learnability
 - 8.1.7. Accessibility
 - 8.1.8. Lesson summary
 - 8.2. How to evaluate the information retrieval capabilities of a digital library?
 - 8.2.1. Information retrieval basics
 - 8.2.2. The digital library information architecture
 - 8.2.3. Searching and browsing - basic techniques of the digital library exploration
 - 8.2.4. Analysis of a digital library effectiveness from the end user point of view
 - 8.2.5. Lesson summary
 - 8.3. How to monitor the usage of digital library?
 - 8.3.1. Introduction, or what can be monitored in a digital library?
 - 8.3.2. The accuracy of the digital objects usage statistics
 - 8.3.3. Usage metrics provided by the digital library system
 - 8.3.4. Google Analytics
 - 8.3.5. Lesson summary
 - 9. Topic 9: Course summary
 - 9.1. What have you learnt?
 - 9.1.1. Why digitise?

- 9.1.2. Digitisation process
 - 9.1.3. Outsourcing
 - 9.1.4. Metadata standards
 - 9.1.5. Metadata creation
 - 9.1.6. Building the digital collections
 - 9.1.7. Digital image anatomy
 - 9.1.8. Scanning equipment
 - 9.1.9. Preparing the digital version of cultural heritage objects
 - 9.1.10. Capturing the text
 - 9.1.11. Web delivery version
 - 9.1.12. Digital library basics
 - 9.1.13. Publication of object in the web
 - 9.1.14. Digital content marketing
 - 9.1.15. Digital library evaluation and monitoring
 - 9.1.16. What is next?
- 9.2. Where to search for additional information?
 - 9.3. Introduction to Europeana

Course “Collaboration with Europeana”

1. Topic 1: Overview of Europeana
 - 1.1. Why and how was Europeana built?
 - 1.1.1. Introduction
 - 1.1.2. Our cultural heritage in the digital age
 - 1.1.3. Europeana in a nutshell
 - 1.1.4. Exemplary resources in Europeana
 - 1.1.5. Europeana political background
 - 1.1.6. Europeana development
 - 1.1.7. Summary
 - 1.2. What benefits does Europeana bring to users?
 - 1.2.1. Introduction
 - 1.2.2. Overview of Europeana features
 - 1.2.3. Searching in Europeana
 - 1.2.4. Towards semantic web
 - 1.2.5. MyEuropeana
 - 1.2.6. Who are Europeana users?
 - 1.2.7. Professional users and creatives
 - 1.2.8. External applications
 - 1.2.9. Lesson summary
 - 1.3. Why should repository managers bother with Europeana?
 - 1.3.1. Introduction
 - 1.3.2. Increased visibility
 - 1.3.3. New traffic to source repository
 - 1.3.4. Promotion
 - 1.3.5. Reaching new generations of users
 - 1.3.6. Knowledge dissemination
 - 1.3.7. Sharing best practices and common standards
 - 1.3.8. Adding context to data
 - 1.3.9. Open source and Europeana
 - 1.3.10. Europeana Labs
 - 1.3.11. Lesson summary
 - 1.4. How can I cooperate with Europeana?
 - 1.4.1. Introduction
 - 1.4.2. Who can join Europeana?
 - 1.4.3. What is the role of aggregators?
 - 1.4.4. Overview of the cooperation model
 - 1.4.5. From local repository to Europeana
 - 1.4.6. Data submission workflow for a small memory institution
 - 1.4.7. Europeana Data Exchange Agreement
 - 1.4.8. Preparing ad submitting your data to the aggregator
 - 1.4.9. Verification and ingestion of submitted data
 - 1.4.10. Quality of submission
 - 1.4.11. Summary
 - 1.5. Case studies
 - 1.5.1. Introduction
 - 1.5.2. Can you show me some examples of aggregators that cooperate with Europeana?
 - 1.5.3. Polish Digital Libraries Federation
 - 1.5.4. Hellenic aggregator

- 1.5.5. DISMARC
- 1.5.6. Manuscriptorium
- 1.5.7. Summary
- 2. Topic 2: Technical aspects of Europeana
 - 2.1. What is metadata aggregation?
 - 2.1.1. Introduction to the idea of metadata aggregation
 - 2.1.2. Benefits of being a data provider
 - 2.1.3. Types of aggregation
 - 2.1.4. Possible problems, issues and challenges
 - 2.1.5. Lesson summary
 - 2.2. What should I know about EDM?
 - 2.2.1. What is EDM and how is it different from ESE?
 - 2.2.2. Brief RDF introduction
 - 2.2.3. Brief OWL and ontologies introduction
 - 2.2.4. Thesauri, authority files and metadata enrichment
 - 2.2.5. EDM class hierarchy
 - 2.2.6. EDM: representing a resource with an Aggregation
 - 2.2.7. EDM resource representation styles
 - 2.2.8. Proxies (advanced)
 - 2.2.9. Hierarchy and relations (advanced)
 - 2.2.10. Will I have to define a mapping to EDM myself?
 - 2.2.11. Lesson summary
 - 2.3. How does the OAI-PMH protocol work?
 - 2.3.1. Introduction
 - 2.3.2. OAI-PMH protocol basics
 - 2.3.3. OAI-PMH data model and functionality
 - 2.3.4. Types of OAI-PMH requests
 - 2.3.5. Using OAI-PMH
 - 2.3.6. Lesson summary

Course “LoCloud Services and Tools”

1. Topic 1: Content Hosting
 - 1.1. LoCloud Collections - configuring your LoCloud instance
 - 1.1.1. What are the main assumptions of LoCloud Collections?
 - 1.1.2. How can I register to LoCloud Collections?
 - 1.1.3. How can I start building my own digital collection?
 - 1.1.4. Administration of your LoCloud Collections panel
 - 1.1.5. Account settings
 - 1.2. Managing content in your LoCloud Collection – Omeka
 - 1.2.1. How can I log in?
 - 1.2.2. How can I do the first and basic configuration of metadata?
 - 1.2.3. What conveniences does Omeka offer to the administrator? - Simple Vocab
 - 1.2.4. How can I add collections to my digital collections system?
 - 1.2.5. What conveniences does Omeka offer to the administrator? - Adding pages
 - 1.2.6. How can I change the appearance of my digital collections system?
 - 1.2.7. How can I add items to my collections?
 - 1.2.8. What conveniences does Omeka offer to the administrator? - Items on the map
 - 1.2.9. What can the user see in my digital collections system - User's interface
 - 1.3. Test your skills in LoCloud Collections and Omeka
2. Topic 2: Metadata Mapping and Aggregation
 - 2.1. How can I support metadata mapping with LoCloud services? – MINT
 - 2.1.1. Introduction - what are the main features of the MINT mapping tool?
 - 2.1.2. How do I register in MINT?
 - 2.1.3. How can I create a new organization?
 - 2.1.4. How do I create child organizations?
 - 2.1.5. How can I create a new user?
 - 2.1.6. What user rights do the different kinds of users have?
 - 2.1.7. How can I import metadata to the MINT mapping tool?
 - 2.1.8. How does MINT support different upload protocols?
 - 2.1.9. What does it mean when I 'define items'?
 - 2.1.10. Useful option - dataset statistics
 - 2.2. MORE - the LoCloud aggregator
 - 2.2.1. Introduction - what can I use MORE, the LoCloud aggregator for?
 - 2.2.2. How can I register in MORE aggregator?
 - 2.2.3. How can I add new harvest?
 - 2.2.4. How can I ingest the harvest?
 - 2.2.5. How can I enrich my records?
 - 2.2.6. How can I publish my prepared records?
 - 2.2.7. Where can I see the information about the chosen package?
 - 2.2.8. How can I ingest the harvest through Mint?
3. Topic 3: Micro-services
 - 3.1. Geolocation Enrichment Service - support geocoding of your cultural heritage data
 - 3.1.1. Introduction - What can I use the Geolocation Enrichment Service for?
 - 3.1.2. How to use the user's interface?
 - 3.1.3. Which steps should I undertake at the beginning?
 - 3.1.4. How can I select and filter my data source?
 - 3.1.5. How can I edit and update the location and attributes of the item?
 - 3.1.6. How can I add coordinates to the currently selected item?
 - 3.1.7. Can I use external applications in my geocoding work?

3.2. Historic Place Names Service - connect historical geo-information with your data

3.2.1. How can I get around the user interface?

3.2.2. How can I search for a HPN?

3.2.3. Can I propose a HPN?

3.2.4. Can I send a HPN database?

3.3. Vocabulary Services - semantic enrichment

3.3.1. First steps in the Vocabulary Services

3.3.2. How can I search for the certain expressions?

3.3.3. How can I create a new vocabulary? - details

3.3.4. How can I configure my vocabulary?

3.3.5. Can I create new users?

3.3.6. Can I import thesaurus from a file?