DELIVERABLE

Project Acronym:	**LINKED HERITAGE**
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Project Title:	**Coordination of standard and technologies for the enrichment of Europeana**

D 7.3 Training Materials

Revision: version 1.0

Authors:

Antonella Zane (UNIPD)
Elena Bianchi (UNIPD)
Gianluca Drago (UNIPD)

Contributors:

Lisa Dainese (UNIPD)
Cristiana Bettella (UNIPD)

Reviewers:

Maria Teresa Natale (ICCU)

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Revision History

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0.5	05/04/2013	Antonella Zane Elena Bianchi Gianluca Drago	CAB/UNIPD	Final version
1.0	07/04/2013	Claudio Prandoni	PROMOTER	Formal check

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This deliverable contains original unpublished work except where clearly indicated otherwise.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.

D7.3: IMPORTANT NOTE

This deliverable is divided into two parts:

A) a description of the work done so far (chapters 1 - 7)

B) the image of the actual deliverable: PDF files representing all the Learning Objects web pages, the related readings and training materials and the questionnaires (evaluation and the assessment) captured by Print pages to Pdf (Annex 2).

This document is an intermediate version of the D7.3 Training Materials.

The are several reasons for this:

1- our work is strictly connected with the outputs of work packages n. 2-7. We cannot provide a final version of D7.3 at this stage as we are waiting for WP2, 3, 4, 6, 7 deliverables to be released on 1st April 2013. Starting from that date, a new phase of the project will start, during which we will plan and develop the missing multimedia Learning Objects and the associated further readings such as training materials and bibliography;

2- during the 3rd session of the evaluation test held in Padua on 6th march 2013, participants gave us a lot of valuable feedback that we will be using for Linked Heritage Learning Objects upgrade. The deadline for this activity is 30th april.

3- as of today, all the University of Padua learning sites, including our Linked Heritage courseware which hosts the Training materials, are migrating from Moodle version 1.9 to the new 2.2. This will have improved functions/functionalities, a new admin interface and an innovative user interface which is graphically consistent with the brand-new Website of the University of Padua.
The updated version of our Virtual Learning Environment, specifically customised for the Linked Heritage project needs, will be released on 30th April 2013.

The final and complete version will therefore be released by the end of the project.

TABLE OF CONTENTS

EXECUTIVE SUMMARY

This Deliverable gives a detailed description of the comprehensive training programme and of the open educational content that the University of Padua has accomplished up to now for the Linked Heritage project.

The final version of D7.3 will be released by the end of the project, when all the Learning Objects will be finished.

In fact, the Task 7.2 "Training":

- plays on the results and outputs of all the other Work Packages:
    - WP2: Linking Cultural Heritage information (last deliverable due by M24)
    - WP3: Terminology (last deliverable due by M24)
    - WP4: Public Private Partnership (last deliverable due by M24)
    - WP5: Technical integration
    - WP6: Coordination of content
- acts in synergy with the Task 7.2 Dissemination.

In addition we would like to draw the attention to the point that **D7.3 Training materials** (focused on the content of the Syllabus) **is complementary to D7.4 Virtual Learning Environment** (focused on the web platform which hosts the Syllabus).

Both the Deliverables are released by the University of Padua on behalf of the Linked Heritage project at Month 24, as stated in the Description of Work (Annex I). They will subsequently be upgraded and enhanced and released in their final version by the end of the project.

The deliverable is structured as follows:

- Chapter 1 gives the background and an overall description of the Linked Heritage project with regard to main goals, expectations and target audience. It introduces the tasks WP7.1 Dissemination and WP7.2 Training.
- Chapter 2 describes the relationship between D7.3 / D7.4 and the correlation with the other WPs.
- Chapter 3 presents the target user groups to whom the Linked Heritage comprehensive training programme is intended for.
- Chapter 4 outlines in details the Comprehensive training programme (Syllabus)
- Chapter 5 deals with all the issues related with authoritative educational content - selected and collected with the support of LH partners - and with the process of creating new learning resources.
- Chapter 6 summarises the next steps and conclusions

Moreover the deliverable includes a bibliography and two Annexes:

- Annex 1, with the list of videos used in the Learning Objects
- Annex 2, with the screenshots of the Learning Objects and related training materials

1 INTRODUCTION

1.1 BACKGROUND

Linked Heritage is a project funded by the European Union as part of its Competitiveness and Innovation Programme Framework Programme (CIP, 2007 – 2013). The project began on 1 April 2011 and will finish on 30 September 2013. It involves 38 partners from 20 countries, including EU member states, Israel and Russia.

1.2 THE MAIN GOALS OF THE PROJECT

Linked Heritage has 3 main goals:

- to contribute large quantities of new content to Europeana, from both public and private sectors;
- to enhance the quality and richness of Europeana metadata;
- to improve the functionalities available for search, retrieval and use of Europeana content.

1.3 EXPECTATIONS

The project seeks to enable a significant expansion and enrichment of Europeana content and services by:

- providing access to 3 million new content;
- facilitating the comprehension and spread of key Digital Library concepts through the creation of new dissemination, information and training tools (websites, posters, booklets, leaflets and learning objects);
- developing new free software web applications to facilitate the flow of data to Europeana.

1.4 ROLE OF THE PADUA UNIVERSITY LIBRARIES CENTRE IN THE PROJECT

Padua University Libraries Centre (CAB) is the Leader of Work Package 7 which consists of WP7.1 “Dissemination” (whose activities are carried out by ICCU) and WP7.2 “Training”. It is also the coordinator of the Linked Heritage e-learning Working Group created to support training activities.

The Centre is responsible for coordinating the dissemination of results achieved by the Linked Heritage project, and for training. It is also entrusted with:

- the preparation of a training programme focused on key aspects of the project (Europeana, metadata standards, linked data, permanent identifiers, multilingual terminologies, public-private partnerships);
- the design and creation of a set of learning objects in collaboration with participants of the Linked Heritage international Working Group on e-learning;
- the creation of a Virtual Learning Environment devoted to the Linked Heritage training programme.

1.5 PRESERVATION OF TRAINING MATERIALS AND LEARNING OBJECTS IN PHAIDRA

All the learning objects and training materials will be preserved in PHAIDRA (Permanent Hosting, Archiving and Indexing of Digital Resources and Assets), the technological platform for long-term management and archiving of digital objects designed by the University of Vienna and adopted by Padua Library System in 2010 as part of a collaboration agreement and joint software development venture (see § 6.6).

Main Goals of WP7:

They can be summarised as follows:

- to increase the size of the best practice network by attracting new members;
- to stimulate the contribution of content to Europeana by raising awareness of the tools, facilities and best practice provided by Linked Heritage;
- to raise awareness of the Linked Heritage work across the Europeana ecosystem, and to encourage Europeana itself, as well as content providers and aggregators to take full advantage of the outcomes of the project;
- to build stronger links between the public and private sectors;
- to build technical skills and knowledge in the cultural heritage sector, especially in terms of Europeana and Linked Heritage technologies, also with the help of reusable Open Educational Resources designed and developed for multiple learning approaches;
- to create, deliver and publish training materials; the training materials will focus on facilitating the process for the content ingestion into Europeana.

1.6 WP7.1 - DISSEMINATION. GOALS AND TARGET AUDIENCE

WP7 has two main tasks: dissemination and training. Before going into details on the WP7.2 Training which is the subject of this deliverable, it is useful to remind the main goals of the Linked Heritage WP7.1 dissemination activities:

Raise awareness, Inform, Engage, Promote

The target audience of Linked Heritage is very specific and includes the following categories: the content providers and aggregators community, government and policy bodies, the private (publishing) sector, the digitisation professionals, the libraries, archives, museums research community, Europeana Labs (see D.7.5 § 3.8).

1.7 WP7 .2 - TRAINING

As stated by the DOW, the main goals of WP7.2 training consist in designing, developing and implementing a comprehensive training syllabus about the most relevant topics of the project.

In the context of this deliverable we refer to the “comprehensive training syllabus” also as a “comprehensive training programme”.

WP7.2 main activities can be summarized as follows:

- to gather training materials from different authoritative sources; the training materials will also include the results of the experimental work done by the WP2 and WP3;
- to plan and realise a set of new Learning Objects;
- to make available all the materials through several dissemination channels and, in addition, also through a Virtual Learning Environment.

In the context of the WP7.2 Training we set up a **thematic Working Group (WG) on e-learning** that should act both as a locus for sharing ideas and discussions on e-learning issues and as a studio where participants will contribute to the development of LOs testing the first “prototypes” and providing content translation.

The Working Group members were asked to:

- cooperate in defining the Table of Contents of the training syllabus, build up a list of Learning Objects and assign a priority to them;
- test the Learning Objects produced by UNIPD as we go along;

- provide translation of the Learning Objects from English into the native language of WG members; as we believe that the availability of the contents in different languages would facilitate a wider dissemination to the potentially interested audience, partners interested in providing translation of learning objects for their native-speaker users were warmly invited to join the WG.

In addition, we asked **WP 2-6 Leaders and Linked Heritage specialized professionals** to contribute to Learning Objects' content curation.

2 THE TARGET AUDIENCE

The target users of the Training syllabus were initially identified in institutions contributing to Europeana as data providers or aggregators, as it is stated in the Description of Work (AnnexI) of WP7-Task 7.2 Training: "Linked Heritage will offer a comprehensive training syllabus to content providers and aggregators, both those who are using Linked Heritage technologies and those who are having difficulties with contributing content to Europeana".

The kick-off meeting held in Rome in April 2011 brought a fruitful discussion among partners on the scope of the programme, the contents to be included and the intended audience for the educational resources being created. We took under careful consideration the partners' feedback. In fact the current comprehensive training programme is the result of all the proposals presented and discussed during the plenary and agreed upon with the WP7 e-learning Working Group[1].

The Linked Heritage training programme is targeted to four user groups:

A. cultural institution managers and decision-makers as potential Europeana content providers:

B. teachers, educators, scholars who could benefit from the Europeana's content exploitation;

C. Library and Information Science (LIS) professionals, entry-level students, museums, libraries and archives technicians, who need to keep up-to-date on the forefront of digital libraries development (self-taught and lifelong learner);

D. market players from the private sector.

[1] Kick-off meeting, Roma, 29 April 2011, http://www.linkedheritage.eu/getFile.php?id=109
2nd plenary and WG meetings, Barcelona, 23-24 November 2011, http://www.linkedheritage.eu/getFile.php?id=217
3rd plenary and WG meetings, Stockholm, 24-25 May 2012, http://www.linkedheritage.eu/getFile.php?id=308
4th plenary and WG meetings, Lisbon, 29-30 November 2012, http://www.linkedheritage.eu/getFile.php?id=416
5th plenary and WG meetings, Padova, 6-8 March 2013, http://www.linkedheritage.eu/getFile.php?id=446

3 THE COMPREHENSIVE TRAINING PROGRAMME

The definition of the programme has been carried out with the essential support and contribution of the Linked Heritage e-learning Working Group participants.

At the first e-learning Working Group meeting held in Barcelona on 24 November 2011, UNIPD presented the first draft of the structure of the comprehensive training programme.

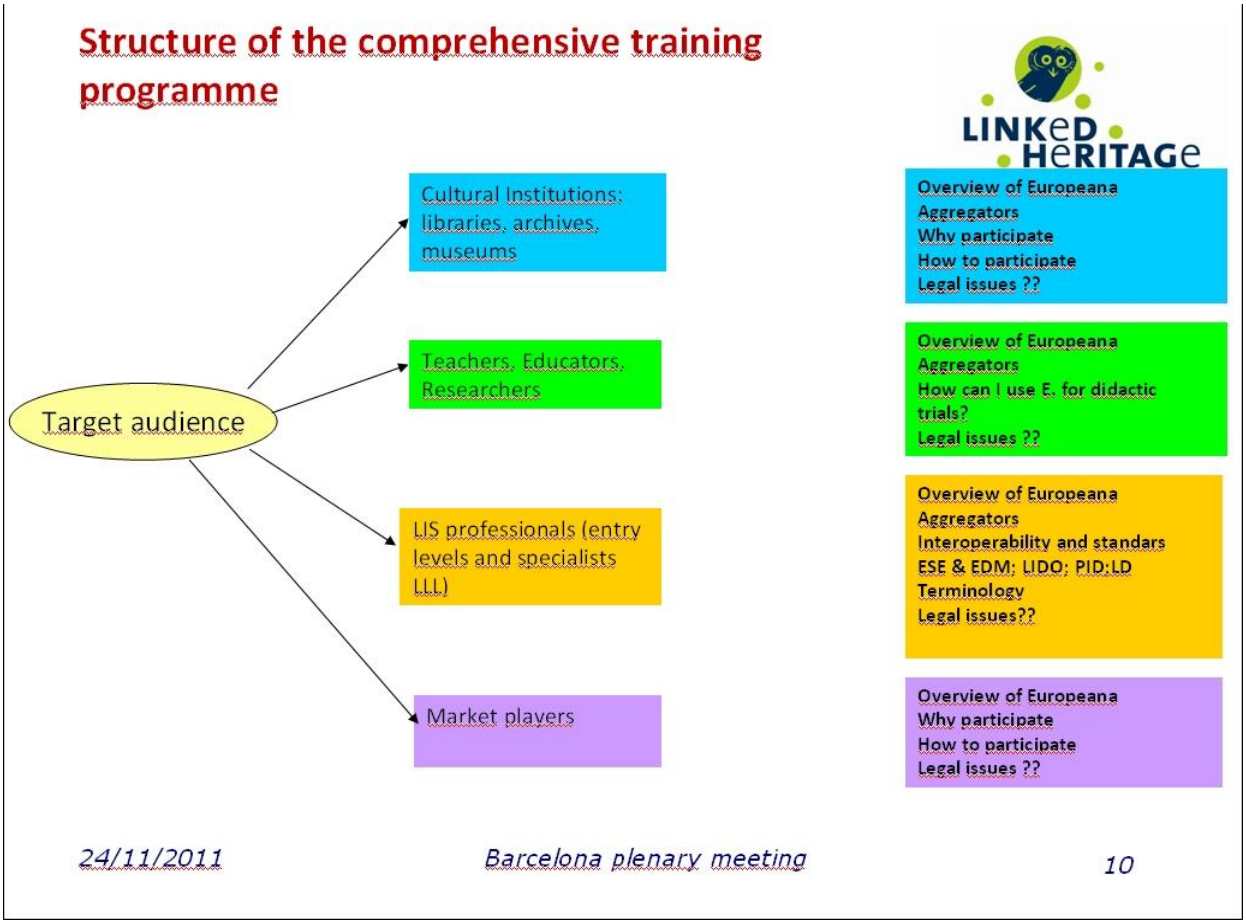

Figure 1 - the first draft of the structure of the Linked Heritage comprehensive training programme

In Barcelona the e-learning Working Group participants were divided into 4 groups according to the structure in figure 1. All the groups included participants representing the specific category of users (Cultural Institutions Decision Makers, Teachers and Researchers, Library and Information Science Professionals, Market Players) or were able to identify their needs. Each group deepened the possible users' scenarios, discussed their training needs and prioritised the LOs to be developed.

At the second e-learning Working Group meeting held in Stockholm in May 2012, UNIPD described the revised version of the "Structure of the comprehensive programme" (v.2.0) including the participants' suggestions on the topics to be included in the programme:

A. Cultural institutions decision makers

- Aggregation;
- Why participate & How to participate;
- Overview of Europeana (general context, the European Commission);
- Policies (Comité des sages report, Recommendation of the 28th October 2011, etc.);
- Legal issues (Linked Heritage in the Europeana context, presentation of the Linked Data).

- Persistent Identifiers (included by UNIPD)

B. Teachers and researchers

- General overview of Europeana (specific presentation of the content of Europeana, with regards to scholar programmes and to research fields);
- Tutorial for searching on Europeana;
- Users scenarios for educational purposes;
- Information on legal issues: how to re-use contents?

C. LIS professionals

- Ontology;
- URI;
- RDF;
- API;
- Data quality – consistency;
- XML;
- Data reuse (in practice): APIs, Mash-ups, Linked data, Data visualisation;
- SKOS;
- Search techniques;
- Digitisation life cycle;
- Case studies on the subjects
- Persistent Identifiers (included by UNIPD)

D. Market players

- Overview of Europeana;
- Why participate & How to participate ;
- Legal issues;
- Interoperability and standards.

In the following months the structure of the programme evolved, also on the base of the results of the project and UNIPD review it with the aim to refine and categorise the list of topics.

The **latest version** of the training programme has been presented at the Linked Heritage events held in Padua from 6th to 8th March 2013. It consists of **four modules** specifically targeted to the user groups A, B, C, D cited above. Each module is **composed by** a **set of topics** suitable for each target group of users:

A. Cultural institutions decision makers

- Overview of Europeana
- Persistent Identifiers
- Digitisation Life Cycle
- Why and how contribute to Europeana

B. Teachers and researchers

- General overview of Europeana
- Tutorial for searching on Europeana
- Users scenarios for educational purposes
- Legal issues: how to reuse contents?

C. LIS professionals

- Persistent Identifiers
- Digitisation life cycle
- Terminology
- Linked data
- MINT Services

D. Market players

- Overview of Europeana
- Why participate & How to participate
- Legal issues
- Persistent identifiers
- Interoperability and standards

The modules provide autonomous learning paths and individuals can attend only those topics which are of particular interest for them.

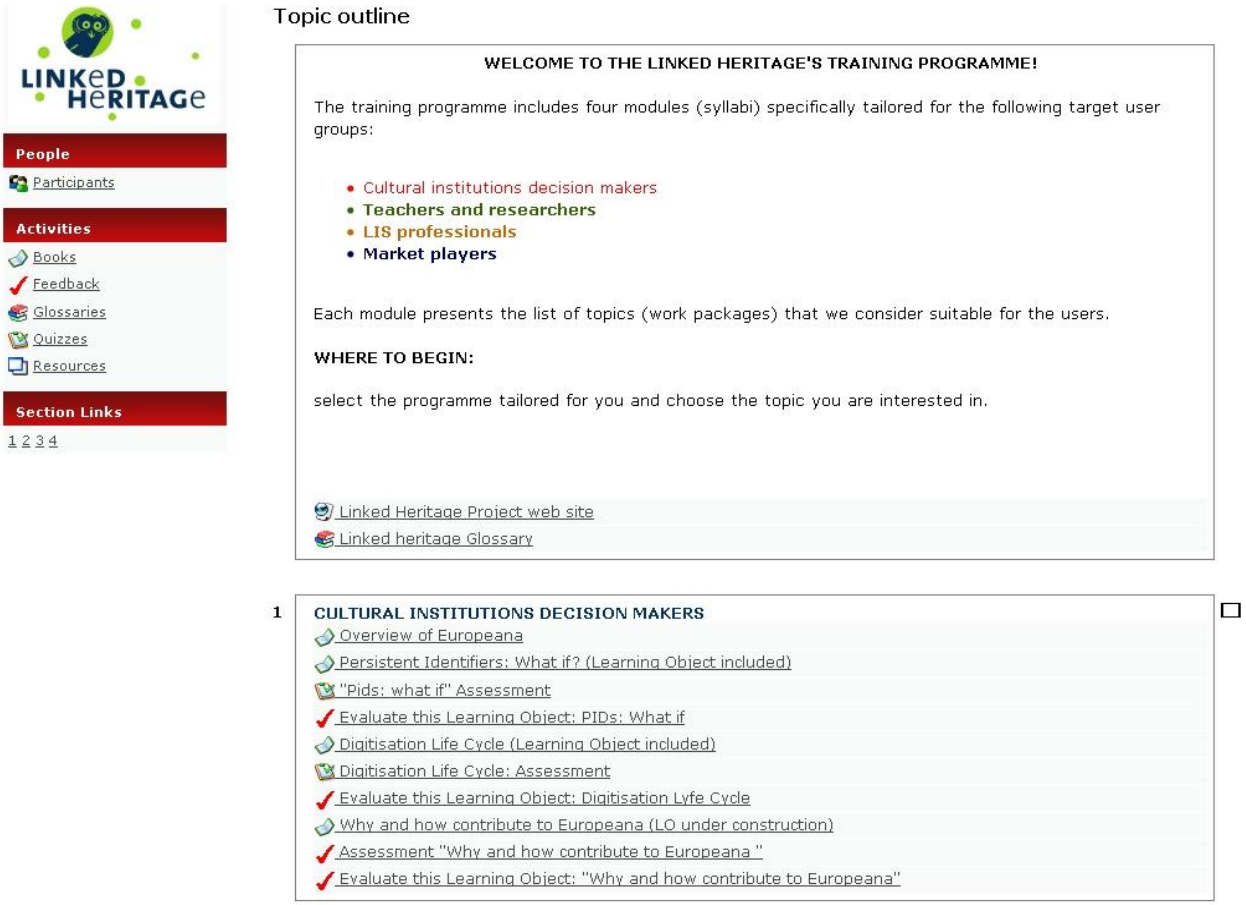

Figure 1 – set of topics for the module n. 1 "Cultural Institutions Decision Makers" in the Moodle Linked Heritage Course

Each topic proposes a **learning package** including: Case studies, Training materials and Bibliography. Some topics also include a multimedia Learning Object that comes with two questionnaires (assessment and evaluation) and other important information: About the Learning Object (summary), Using the Learning Objects, Aim: skill to develop.

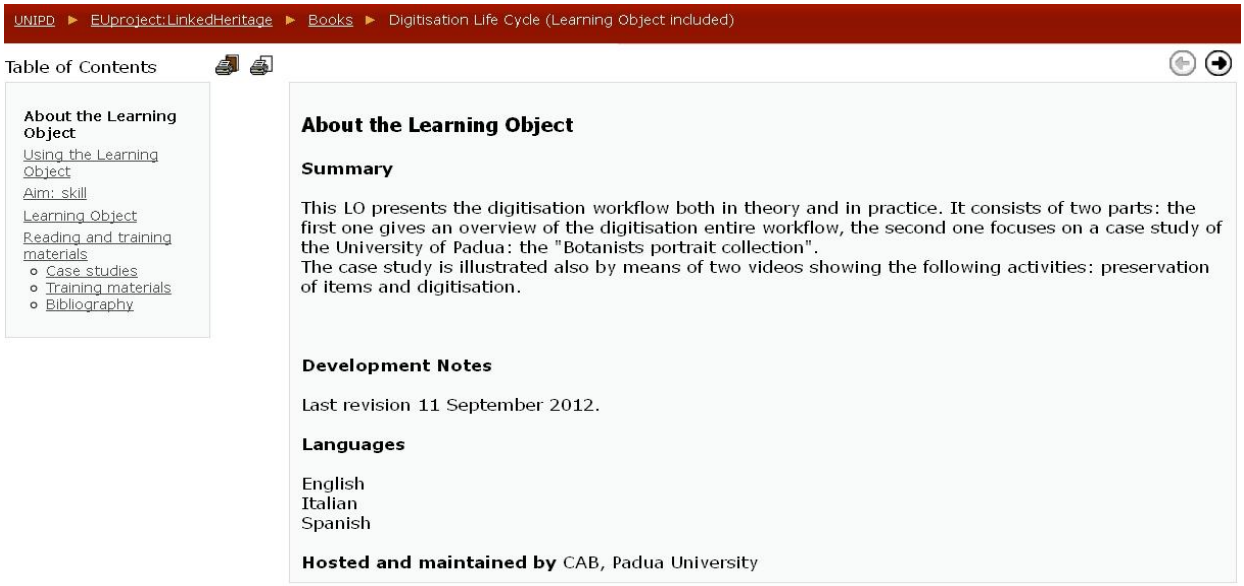

Figure 2 – the learning package for the topic "Persistent Identifiers" in the Moodle Linked Heritage Course

4 TRAINING MATERIALS

What does it mean training materials? “Material used by instructors, facilitators, and students in a training environment. These materials store the information needed by the learner to perform tasks.” http://wiki.answers.com/Q/What_is_the_definition_of_training_materials

In the Linked Heritage Virtual Learning Environment the term “training material” encompasses four different types of resources with educational purposes:

- **Learning objects**
- **Training materials *senso strictu***
- **Case study**
- **Bibliography**

5.1 LEARNING OBJECTS

They can be defined as “small digital lesson units that can be reused and combined to build tailor-made courses for lessons”[2].

Learning Objects (LO) can have one or more learning objectives and may contain different digital resources (text, audio, video, animations, images). LOs usually are managed into and accessed through a Virtual Learning Environment.

We presented our first pilot LO “Persistent Identifiers: What if?” at the Stockholm plenary meeting (May 2012). The pilot LO was a video with animation, cartoon-style text balloons, sound effects. The protagonists are two awlets taken from Linked Heritage logo. The Flash animation was developed by CMELA, Centro Multimediale e di E-Learning di Ateneo of the University of Padua.

Figure 3 – the comic strip of the first pilot LO “Persistent Identifiers: What if?”

[2] European Commission (2006), *Information Society and Education: Linking European Policies*, http://www.fp7.org.tr/tubitak_content_files/308/dokuman/education.pdf

Based on the usability results of the pilot LO and on feedback from the e-learning Working Group, a new, HTML-based, LO layout has been designed with the aim to: provide users with an interactive approach, to be easily translated into the partners' native languages, to facilitate the reuse and access of LH LOs not only through the VLEs but also through web sites and multimedia web channels.

Afterwards the new layout, called "Linked Heritage Learning Objects", has been adopted as a template for the other LOs.

5.1.1 How we implemented the Linked Heritage Learning Objects template

Objectives

Following the analysis of the characteristics of the site – purpose, content, target – the following objectives have been set:

- the creation of a standalone environment, clearly identifiable, but not distracting
- suitable to accommodate the Learning Objects, with their texts, images, external links and videos
- allowing to break down the Learning Objects into smaller units linked by sequential progression buttons
- allowing the reuse of the Learning Objects in different contexts
- allowing the implementation of translations into other languages

Page layout

The page features a fixed layout (the classical 960px wide), divided into two columns. The width of the right column was defined by the need to include videos. The richness of content in some areas is counterbalanced by the insertion of large gaps.

The separation of the chapters inside the page is clearly marked by the graphics used as background. From top to bottom, we meet the following areas:

- **Header**, including the logotype carrying the site name
- **Navigational buttons**
- **Title of current Learning Object**
- **Title of current page**
- **Left column**. It includes auxiliary links to *Reading and training materials* on the Virtual Learning Environment and, in the presence of videos, the texts accompanying them, the transcripts of speeches, a link to high definition versions
- **Right column**. it includes the main content of the Learning Object
- **Navigational buttons**
- **Footer**, with logos of project contributors

Figure 4 – the Linked Heritage Learning Objects Layout

Style, fonts, colours, graphics

The style is light and bright. The choice of colors, of graphical components, the spatial arrangement of the objects, the size of the empty space aim to create a peaceful but vivid look. Left alignment of the components, the use of sans-serif font, soft shadows and web-fonts for the headlines, impalpable textures in backgrounds and delicate reflections in the graphical panes should contribute to the perception of an up-to-date taste. A limited palette of colors has been adopted, consistent with the colors used in Linked Heritage's logo and booklets. Graphics are well represented, but not overwhelming. From time to time, they have an ornamental function, or they emphasize the page structure and its individual elements, or they reinforce the meaning of certain links. In addition to the main CSS, a style optimized for printing is made available.

Directory structure

Since Learning Objects have to be easily ported to other contexts, for each Learning Object was created a specific directory including all the files required for proper web display: HTML, CSS, JavaScript, accompanying texts (video transcripts and subtitles), images, videos in high definition. Any translation of the Learning Object is contained in its own subdirectory.

Other notes

All the Learning Objects are and will be hosted and maintained,even after the end of the LH project, by the server farm of Padua University Centre for Libraries, CAB. All the embedded videos (n.40 so far) are hosted under a proper account by YouTube which offer streaming services not yet available at CAB (see D7.4, fig. 10).

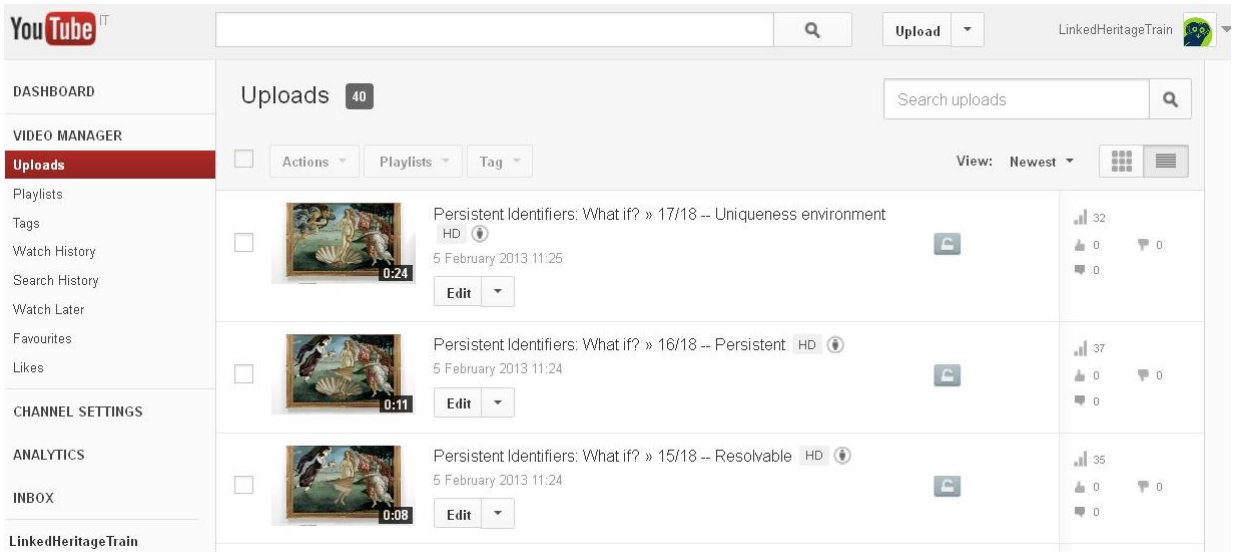

Figure 5 – YouTube hosts the Linked Heritage Learning Objects embedded videos

The pages have been created with openness, portability and standards in mind, starting from the tools chosen to produce code, images and videos. A particular effort has been made to create pages compliant with website accessibility recommendations.

5.1.2 Learning Objects realised

Realisation of Linked Heritage Los: several kinds of expertise and skills

Setting up a LO requires a great effort from different points of view: content, resources and technical skills. In fact many activities, and related expertises, are strictly necessary in order to realise one LO: concept, storyboard, graphic design, content draft, linguistic revision, sound effects collation, music editing and recording, and video editing. Furthermore, legal issues has to be kept in careful considerations: before using a sound track or a picture it is always necessary to ascertain whether or not copyright subsists in them.

The realisation of LH LOs were possible thanks to the concrete support of Music composers and performers, Multimedia project experts, young Geeks, Photographers, Camera operators, Set designers and illustrators, who gave the project their talents, availability and work for free.

Figure 6 – experts who gave the project their talent and availability for free

Learning object. Persistent Identifiers: What if?

The current status of this Learning Object is: finished, reviewed, to be updated.

Although this Learning object is aimed at managers of cultural institutions, it is also interesting for entry level LIS professionals.

Its contents, supplemented by training materials and further readings, raise awareness and provide users with basic information on PIDs and their applications in digital collections of cultural institutions.

This Learning object deals with Persistent identifiers (PIDs). Texts are based on the Athena project booklet *Persistent Identifiers (PIDs): recommendations for institutions* by Gordon McKenna and Roxanne Wyns and present the main results of the Athena Project 2008-2011.

It is divided into 17 sub-units each of which consists of two parts: a dialogue between two owlets (on the left of the screen) introducing PIDs, and a video (on the right of the screen) representing the concepts.

The idea was to use the famous painting by Botticelli, *The Birth of Venus*, as a metaphor. Each PID functional requirement is represented by a visual metaphor associated with a musical metaphor: uniqueness, persistency, resolvability, reliability, authoritativeness, flexibility, interoperability and cost effectiveness.

The section “Readings and training materials”, inside the Virtual Learning Environment, includes a bibliography and booklets by ATHENA WP3 Working Group and by Work package 2 of the Linked Heritage project.

Currently, *Persistent Identifiers: What if?* comes in two languages: English and Spanish.

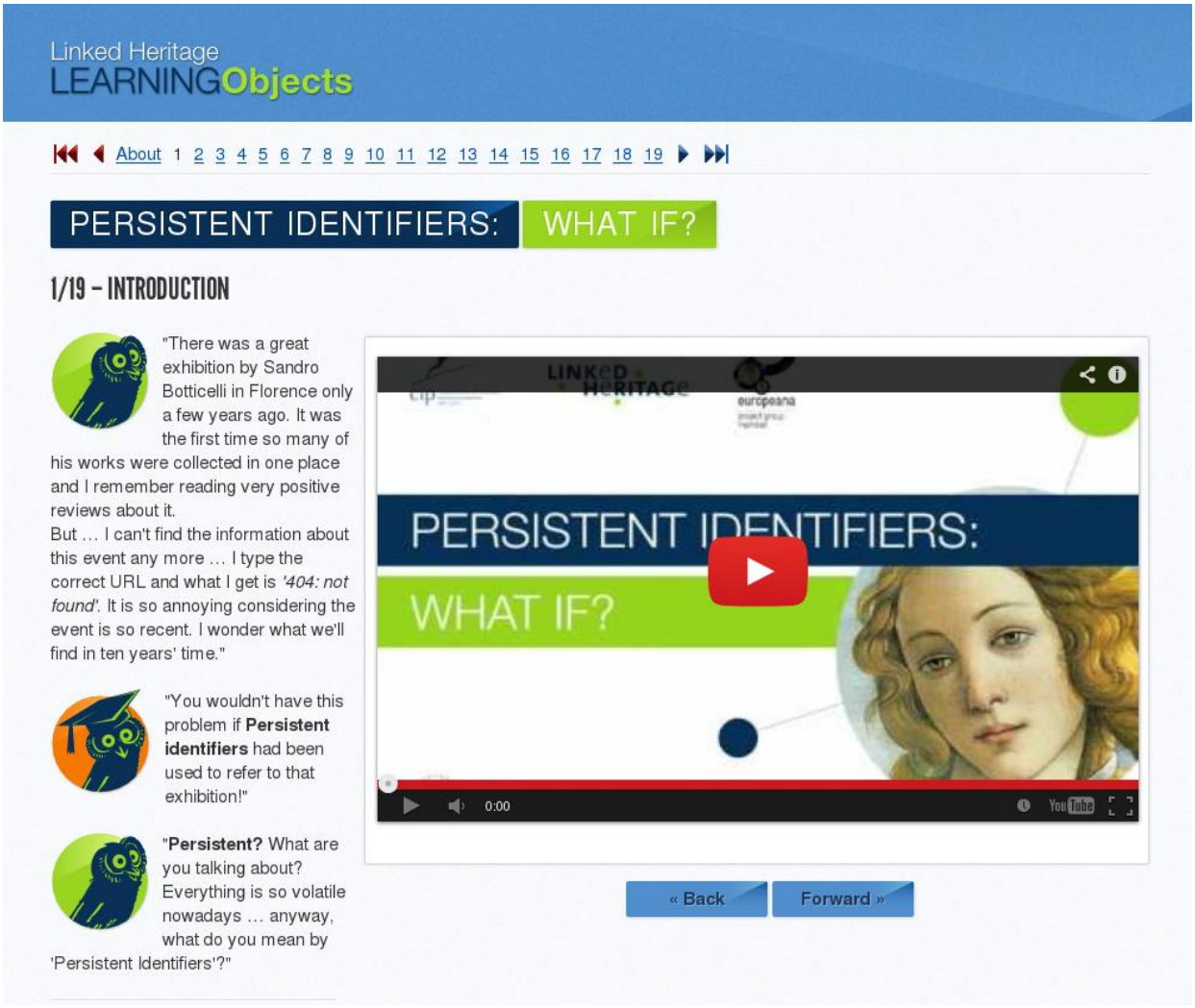

Figure 7 – The introduction page of the Persistent Identifiers: What if Learning Object

Learning object. Digitisation Life Cycle

The current status of this Learning Object is: finished, reviewed, to be updated.

This Learning object is both for managers of cultural institutions and technicians involved in digitisation projects.

Managers can have an overview of the entire workflow while librarians, archivists, technicians are given practical examples of activities/situations they might face in the digitisation process which nowadays affects many institutions.

Its content supplemented by training materials and further readings, raises awareness and, at the same time, provides technical information on digitisation workflow of collections of cultural institutions.

This LO presents the digitisation workflow both in theory and in practice. It consists of two parts: the first one gives an overview of the digitisation entire workflow base on the digitisation guidelines of the University of Padua Library System realised by the Phaidra working group. The second section focuses on a case study of the University of Padua: the "Botanists portrait collection".

The case study is illustrated also by means of two videos showing the following activities: preservation of items and digitisation.

The section “Readings and training materials”, inside the Virtual Learning Environment, includes a bibliography and guidelines by ATHENA WP3 Working Group and by MINERVA-eC project.

As of today, Digitisation Life Cycle comes in three languages: English, Italian and Spanish.

Figure 8 – The introduction page of the Digitisation Life Cycle Learning Object

Learning object. MINT Services

The current status of this Learning object is: advanced draft, reviewed.

It is aimed at technicians (librarians, archivists, museum curators) involved in metadata mapping procedures. It could be a useful resource also for managers of cultural institutions because they can gauge the necessary skills their staff should have and decide if they can contribute to Europeana independently or with the help of an aggregator.

The resource comprises 4 sections: Aggregators, the Linked Heritage aggregator, the MINT[3] platform and practical tips.

[3] MINT (Metadata Interoperability) Services, is the Linked Heritage technological platform,

The mapping workflow in MINT, developed by the National Technical University of Athens (NTUA), is described in detail in the training materials and further readings, and visualised through screencasts created by NTUA team. The LO also gives practical tips to technicians working on the mapping activities.

The section “Readings and training materials”, inside the Virtual Learning Environment, includes a bibliography and guidelines and manuals by MINT.

As of today, MINT Services comes only in English language.

Figure 9 – The Aggregators page of the MINT Services Learning Object

Learning object. Why and how contribute to Europeana

The current status of this Learning object is: draft, reviewed.

It is specifically tailored for cultural institutions decision makers. Why and how contribute to Europeana describes the motivations for which cultural heritage institutions should contribute to Europeana. It also presents the University of Padua experience. The Learning Object contains the description of our Atheneum’s main technical steps, its workflow and some administrative information.

http://mint-projects.image.ntua.gr/linkedheritage/

As of today, Why and how contribute to Europeana comes only in English language.

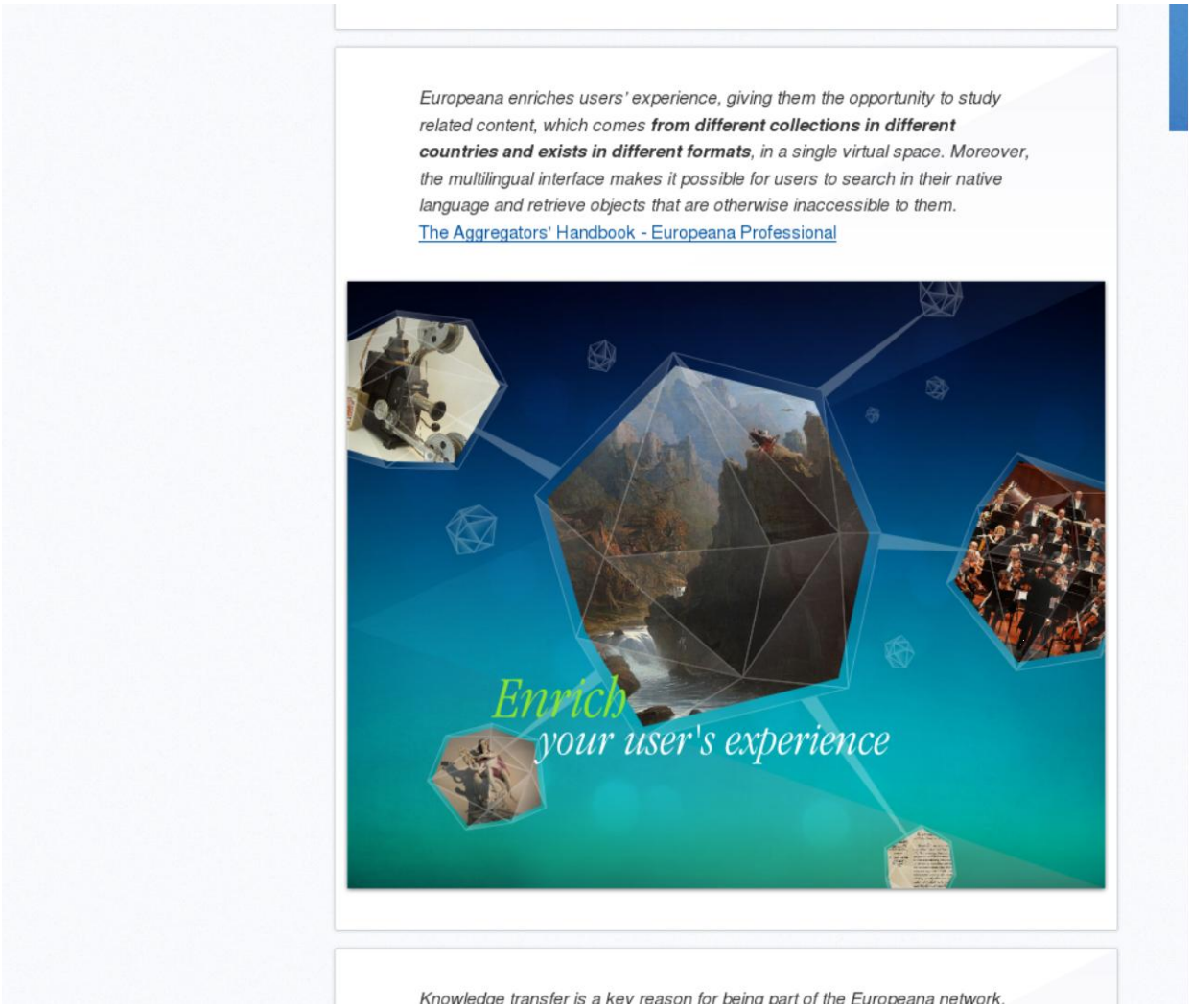

Figure 10 – The Why and How to contribute to Europeana Learning Object

5.1.3 Evaluation test: sessions and results

The objective of the evaluation test was to elicit comments and suggestions on the LOs usability in order to improve it.

From September 2012 to 6th March 2013 we organised three sessions of evaluation tests:

- September 2012: a first session (observational method: test monitoring) was carried out in Padua by 6 librarians of our Atheneum on the LOs already implemented ("Persistent Identifiers: What if?"; "Digitisation Life Cycle");
- January 7-25 2012: a second session was extended to the LH e-learning Working Group by means of a dedicated questionnaire. The evaluation test was presented at the WP7 e-learning Working Group meeting in Lisbon on 30 November 2012. A VLE “business card” with the URL of the Linked Heritage course in Moodle was handed-out to each participant, together with a

personal account to log in the VLE. Participants performed the evaluation test by themselves connecting remotely. Thirteen questionnaires were filled in;

- March 6th 2013: eventually, a third session took place at the Emeroteca Ca' Borin of the University of Padua (6th March 2012). It involved two groups of users: 1) librarians, museum curators, university students attending the Italian Workshop on Linked Heritage and 2) Linked Heritage partners attending the project Training Workshop on Learning Objects. The session was focused on the following Learning Objects: why and how to participate in Europeana, metadata and mapping, linking data and terminology, digitisation life cycle, and persistent identifiers. Each participant was invited to explore the available tools (e-learning platform, Learning Objects and related contents) and to fill in the evaluation questionnaires. Fifty-nine questionnaires were filled in.

All the comments and suggestions received by the participants will be analysed in order to improve our LOs by the end of April 2013.

5.1.4 Translation to other languages

Some WP7 e-learning WG members agreed to translate LOs into the following languages: German (SPK) Swedish (RA), Polish (ICIMSS), Italian (UNIPD), Greek (HMC), Spanish (i2CAT), Latvian (KIS), English proofreading (Editeur).

The translation process is quite simple. Participants are asked to carry out the following activities:

- Decompress Learning Object ZIP file
- Duplicate the sub-folder (“en”) and rename it "lang"
- Translate all the HTML pages inside the newly created "lang" folder. It is highly recommended to use an editor that doesn't add any extra code
- Translate all the files inside the sub-folder "text" (transcript of HTML pages and videos; SRT files for subtitles in YouTube)
- Send us back the zipped folder, so that we can update the Linked Heritage web pages and YouTube subtitles

Texts, video frames and subtitles of the Digitisation Life-Cycle LO are already available in English, Italian and Spanish.

5.1.5 Assessment and Evaluation

Each Learning object is accompanied by two questionnaires:

- the **Assessment:** it establishes how much users have learned from the proposed LO;
- the **Evaluation:** it establishes what users think of the LO and aims to evaluate the work done by the LOs implementers.

Assessment questionnaires

The assessment of the LO was designed with the aim both of giving a learning self-assessment tool and stimulating the revision of the concepts dealt with in the LO.

The concepts covered in the LOs were identified, re-examined and made object of questions, often with multiple choice answers. The same concepts were also made object of more questions, with True/False answers, in order to strenghten their acquisition. We felt that a successful outcome of the assessment required a careful study of the LO and this makes it a fundamental accompanying tool to maximise learning results.

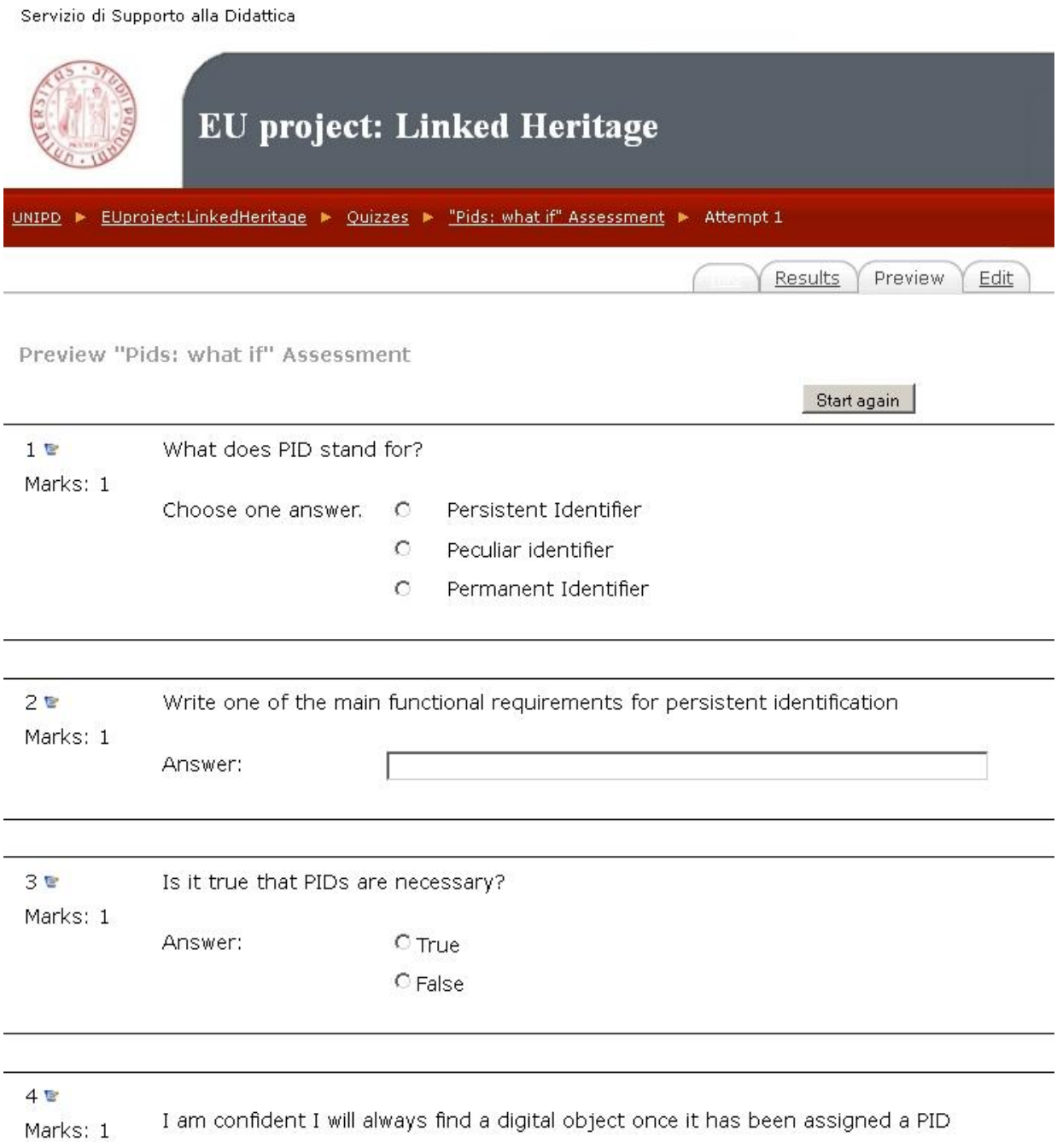

Figure 11 – Screenshot of the the "PIDs: What if" assessment questionnaire. The full text is available in Annex 2

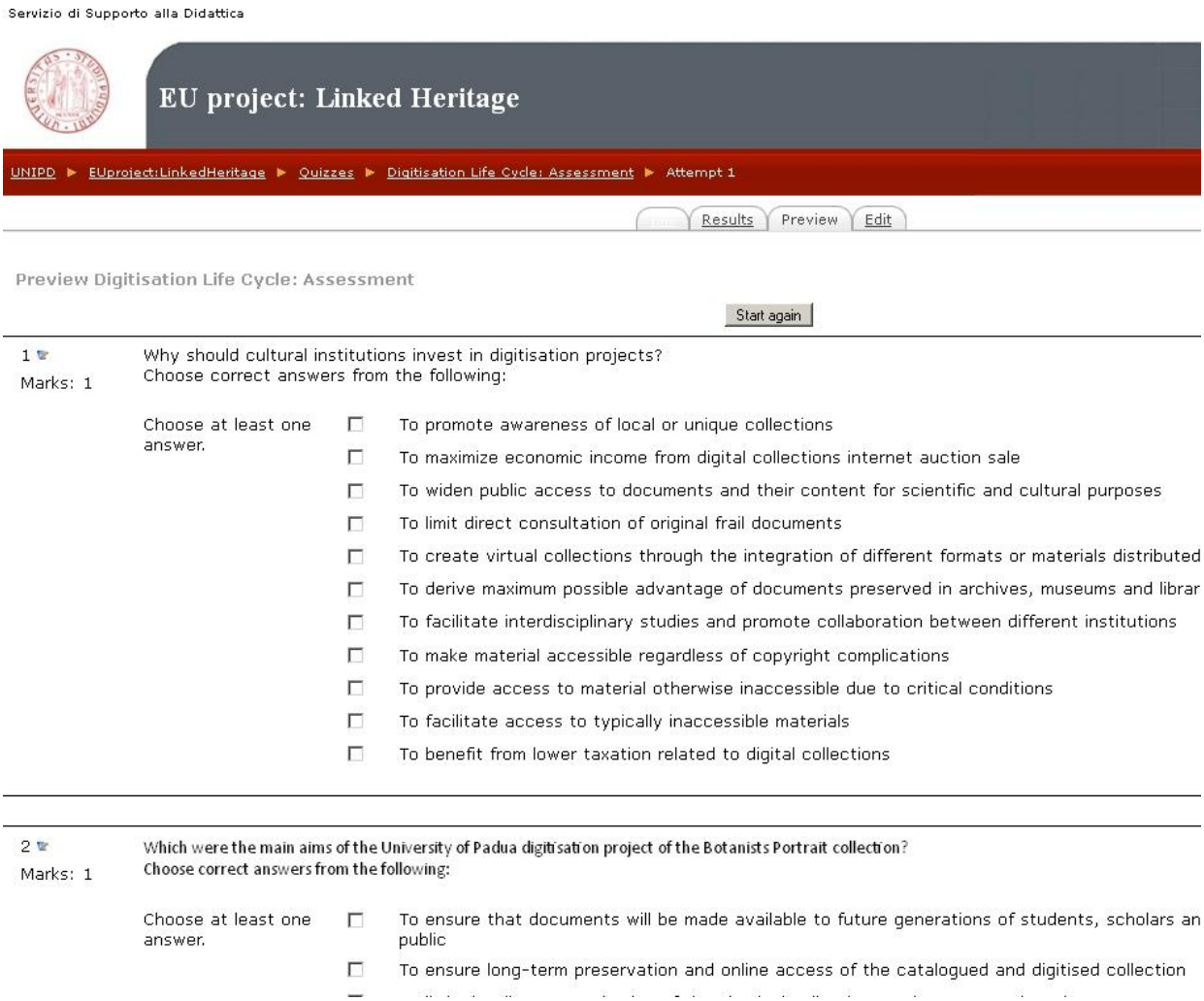

Figure 12 – Screenshot of the "Digitisation Life Cycle" assessment questionnaire. The full text is available in Annex 2

Evaluation questionnaires

The LO evaluation questionnaire has the aim to gather users' feedback on technical and conceptual aspects of the learning objects through questions on: the adequacy and clarity of the content, the appropriateness / adequacy of the accompanying documentation, the extent to which technical issues support the efficacy of the LO: audio, fonts, colors, subtitles, video editing aspects, navigation tools, interaction.

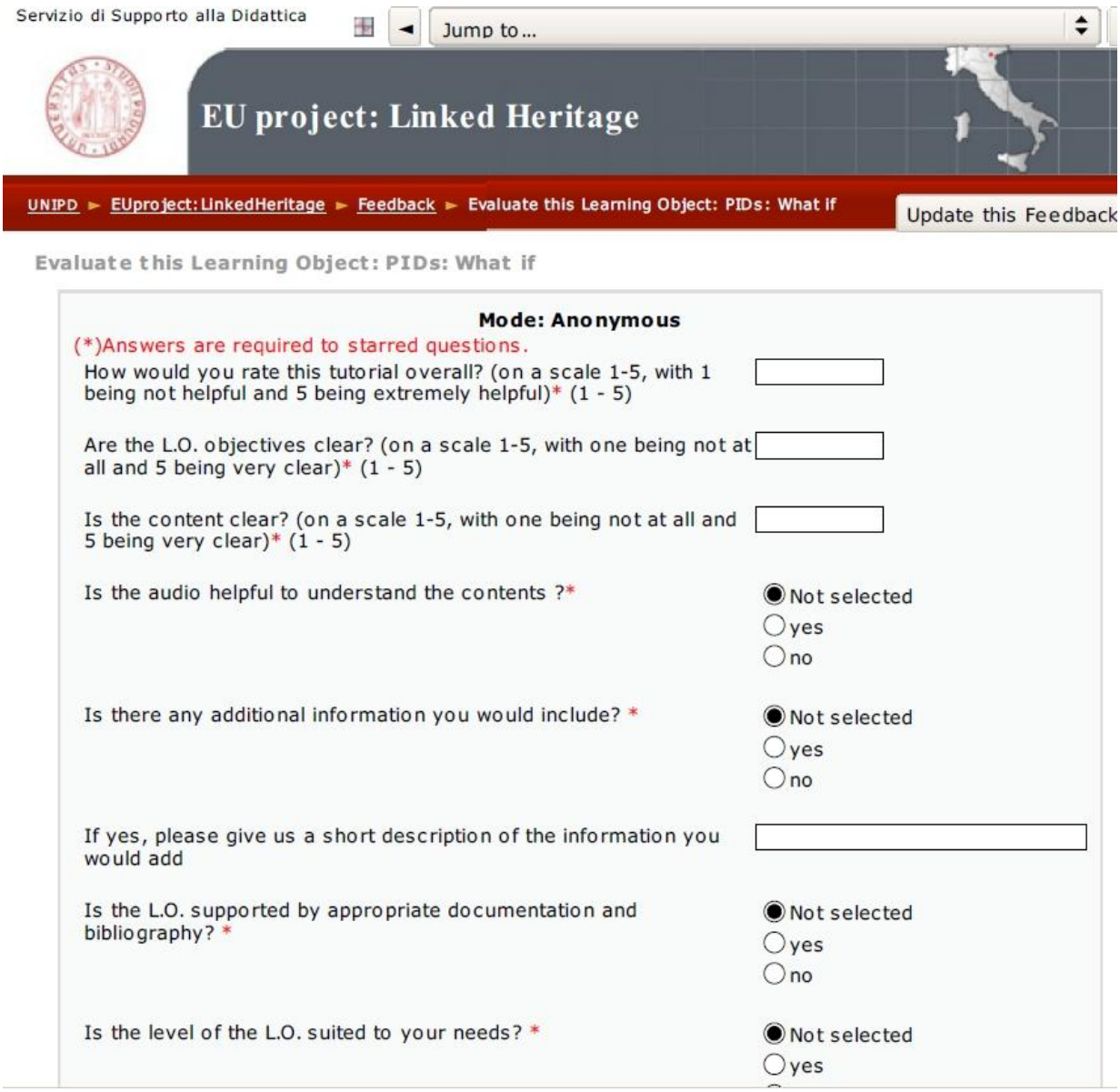

Figure 13 – Screenshot of the "PIDs: What if" evaluation questionnaire. The full text is available in Annex 2

5.2 TRAINING MATERIALS STRICTO SENSU

These materials are essential educational resources as they improve knowledge and understanding of one or more specific subjects.

They include:

1) **public deliverables and booklets** created within the LH project;
2) **guidelines, manuals edited by Linked Heritage WP Leaders** and other subject experts both in English and in their native language that they consider relevant as reference materials to be included in the LH course in Moodle;
3) **guidelines, manuals and booklets edited by EU funded sister projects** e.g. Athena and Minerva.

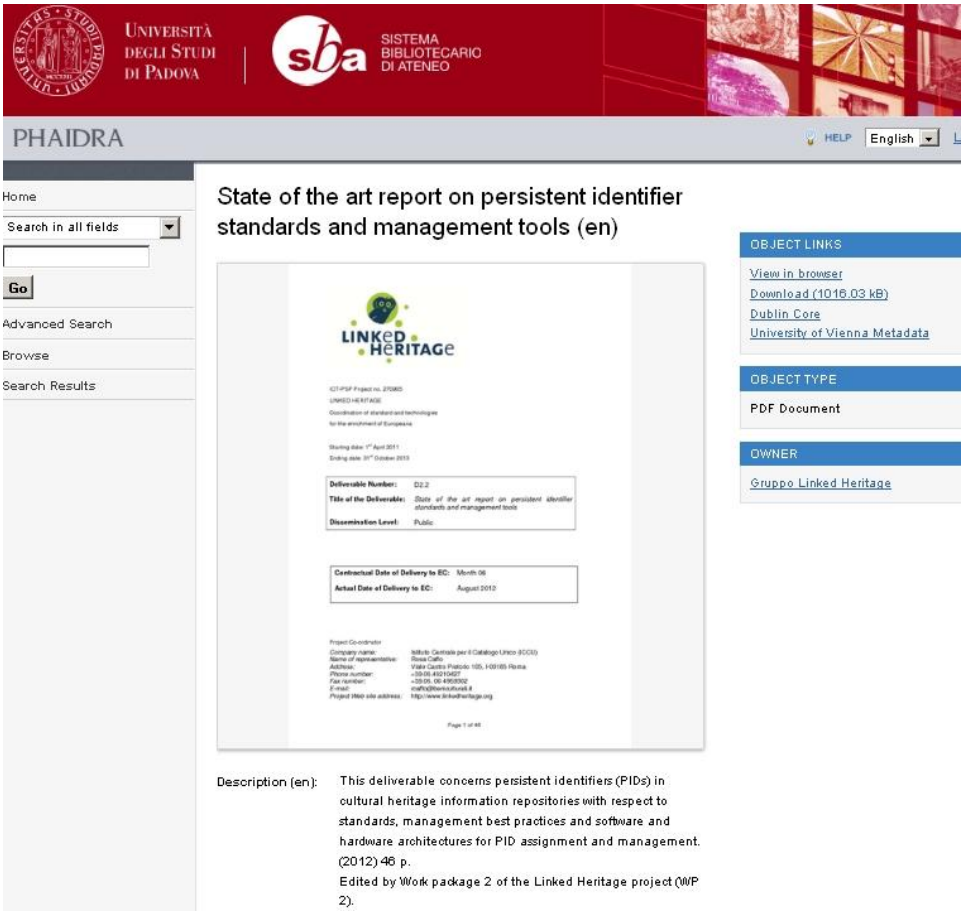

*Figure 14 - Example of **public deliverable** created within the LH project*

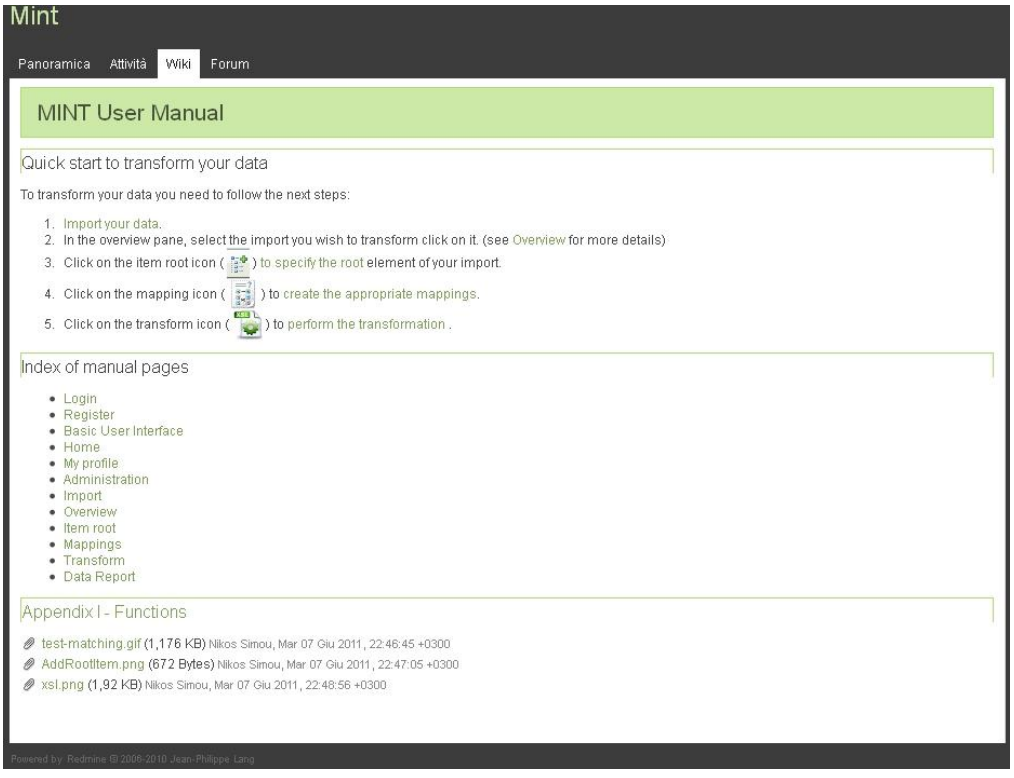

Figure 15 - Example of manual edited by Linked Heritage WP5 Leader

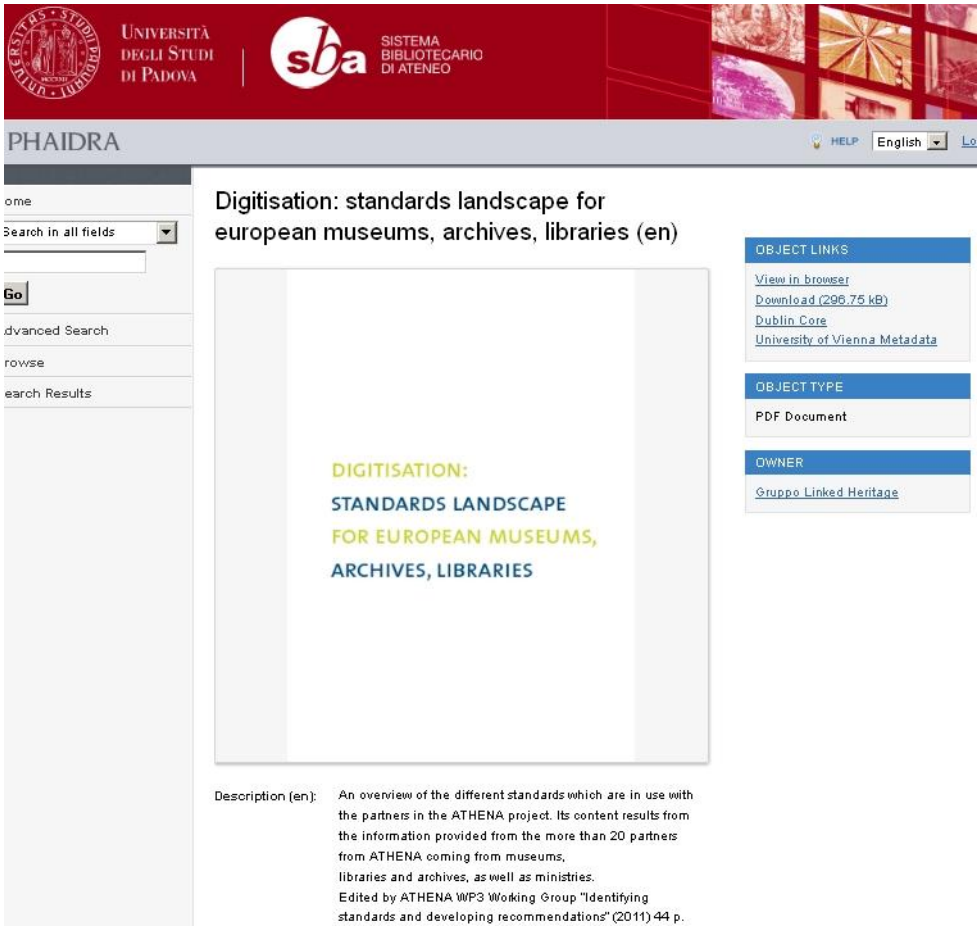

Figure 16 - Example of booklet edited by sister projects (Athena)

If the material is in languages other than English, partners are asked to provide also a short description in English using the following format:

Document description: please fill in the following form:	
Title:	
Author:	
Institution:	
Project name:	
Description:	
Language of the document:	
Target users:*	
Contacts:	
Rights (license):	
* A=Cultural institutions decision makers; B=Teachers and researchers; C=LIS professionals; D=Market players	

5.3 CASE STUDIES

We considered necessary to include, in addition, documentation (articles published in journals, technical reports, papers and posters in conference proceedings) dealing with instructive examples of digitisation projects, persistent identifiers systems adoption, Linked Data production, metadata mapping, etc. as it could be a useful resource to improve the learners' know-how and skills.


JLIS.it
Italian Journal of Library and Information Science
Rivista italiana di biblioteconomia, archivistica e scienza dell'informazione

HOME ABOUT REGISTER CATEGORIES SEARCH CURRENT ARCHIVES
ANNOUNCEMENTS SUBSCRIPTIONS THESIS ABSTRACTS

Home > Vol 4, No 1 (2013) > **Agnoloni**

Publishing Value Vocabularies and Standard as Linked Data

Annotation schema for legal doctrine: a case study on DoGi database

Tommaso Agnoloni, Ginevra Peruginelli, Maria Teresa Sagri, Daniela Tiscornia

Abstract

Interoperability today is the key term for the enhancement of databases published on the web: the data, when isolated, have little value, on the contrary, their value increases significantly when different datasets, produced and published independently by different providers, can be reused and freely mashed by third parties. The use of data for new purposes not foreseen by organizations and individuals who publish "raw data" is one of the advantages of linked open data model. To achieve these benefits content and relationships between the entities described in the dataset should be explicitly represented in standard web formats (XML, RDF, URI). The DoGi-Legal Literature database, one of the most valuable sources for online access to legal doctrine, created and managed by the Institute of Legal Information Theory and Techniques of the CNR is following this direction. This paper will define the schema of the data representing the database in RDF format. This will make the DoGi database interoperable between different data and service providers (libraries, publishers, information services for accessing national and European legal information), allowing the creation of new advanced services to be made available on the web of data. In particular, the contribution will focus on the goal to promote semantic interoperability between the DoGi classification schema and other semantic indexing tools in legal domain.

Figure 17 - Example of training material: article dealing with a case study

5.4 BIBLIOGRAPHY

All the topics included in the training programme are provided with bibliography that help learners to deepen subjects that are of a particular interest. The bibliography comprises:

- Europeana Documentation
- European Projects' booklets bibliography
- Lists of documents provided by experts on the topics addressed by the project
- Papers and posters published in recent Conference Proceedings.


Reading and training materials
Bibliography

PLANNING

McKenna, G., De Loof, C. 2009, *Digitalization: standards landscape for European museums, archives, libraries*. ed. by ATHENAWP3. Available at: http://www.athenaeurope.org/getFile.php?id=435 [accessed 11/9/2012]

Cohen, Daniel J., Rosenzweig, R. 2005, *Digital history : a guide to gathering, preserving, and presenting the past on the web*. Available at: http://chnm.gmu.edu/digitalhistory/index.php [accessed 11/9/2012]

Europeana's professional knowledge-sharing platform. Available at: http://pro.europeana.eu/web/guest/home [accessed 11/9/2012]

Figure 18 - screenshot of the bibliography in the Moodle Linked Heritage Course

5.5 EXPECTED LEARNING OUTCOMES

On successful completion of the Linked Heritage programme:

A: cultural institution managers and decision-makers will have an appreciation of the opportunity to contribute to Europeana and how to apply to it.

B: teachers, educators, scholars will gain knowledge and understanding of the scope of Europeana and of its content, how to search and exploit it for educational purposes.

C: LIS students, professionals and technicians will appreciate the importance of professional development and of the educational resources available in the Web to keep up to date with the most advanced issues on digital libraries.

D: market players will have an appreciation of the main results of Linked Heritage, in particular experimental work on metadata enrichment for Europeana, and will be able to analyse potential benefits for the private sector.

5.6 ACCESS AND PRESERVATION IN PHAIDRA

At the end of the project users will be able to **access** the LOs and related training materials senso strictu. in many ways in order to boost the dissemination of LH educational resources and improve their retrieval in the Web:

- in the Virtual Learning Environment Moodle of the University Of Padua (Cfr. Deliverable 7.4 by UNIPD);
- on the Linked Heritage project Web site;
- on Internet video channels (i.e. iTunes);
- through YouTube which hosts the LOs videos linked to the Moodle platform;
- on the University of Padua Digital Library Portal;
- on the partners' institutions Web sites and multimedia channels.

In addition, the Learning objects and training materials senso strictu. will also be hosted and obtainable by download (ZIP files for Los and PDF files for documents with text and images) in **PHAIDRA**[4] **(**please, see Linked Heritage deliverable D7.4, figure 10**).**

Phaidra is the acronym for **Permanent hosting, archiving and indexing of digital resources and assets**. It is a digital asset management system with long-term archiving functions.

Describing and indexing digital objects in Phaidra is simple and fast. Each resource in the database can be easily cited thanks to a permanent link.

The platform is based on the Fedora Commons Repository software. The formats adopted for the metadata and the digital objects guarantee long-term data archiving and interoperability with other systems, i.e. Europeana, as requested by DOW. Security is guaranteed both by the well-defined terms of use and the licensing system that regulates the upload of the digital objects.

5.6. 1 Why the University of Padua adopted Phaidra?

Following various digitization projects carried out by the Padova University Library System, a need to find a comprehensive system emerged in order to:

- manage a long-term digital assets archiving service;
- give value to Padova University current and past intellectual production not subject to private economic interest;
- manage wide collections of multimedia objects via an access control system

Hence, the University of Vienna Phaidra project was selected and a profitable collaboration with Padova University started in 2010[5].

5.6.2 Who has access to Phaidra?

Everyone has open access to the searching and browsing of the archived digital objects while the uploading and management of the different digital objects (images, documents, books, audios, videos, collections, teaching resources) requires authorization. Scholars from either other universities or research institutions will be able to upload their contributions to Phaidra via a guest account.

Moreover, it is possible to create e-books with the Phaidra Importer application, making the publishing of books, leaflets, and pamphlets on the Internet easier.

All the digital object catalogued in Phaidra are provided with a permanent identifier and a rich set of metadata (Learning Object Model format). We created in Phaidra a collection entitled "Linked Heritage: booklets and other resources" in order to gather all the LOs and the training materials senso strictu created or selected for the Linked Heritage Training Programme.

[4] http://phaidra.cab.unipd.it

[5] http://www.phaidra.org/

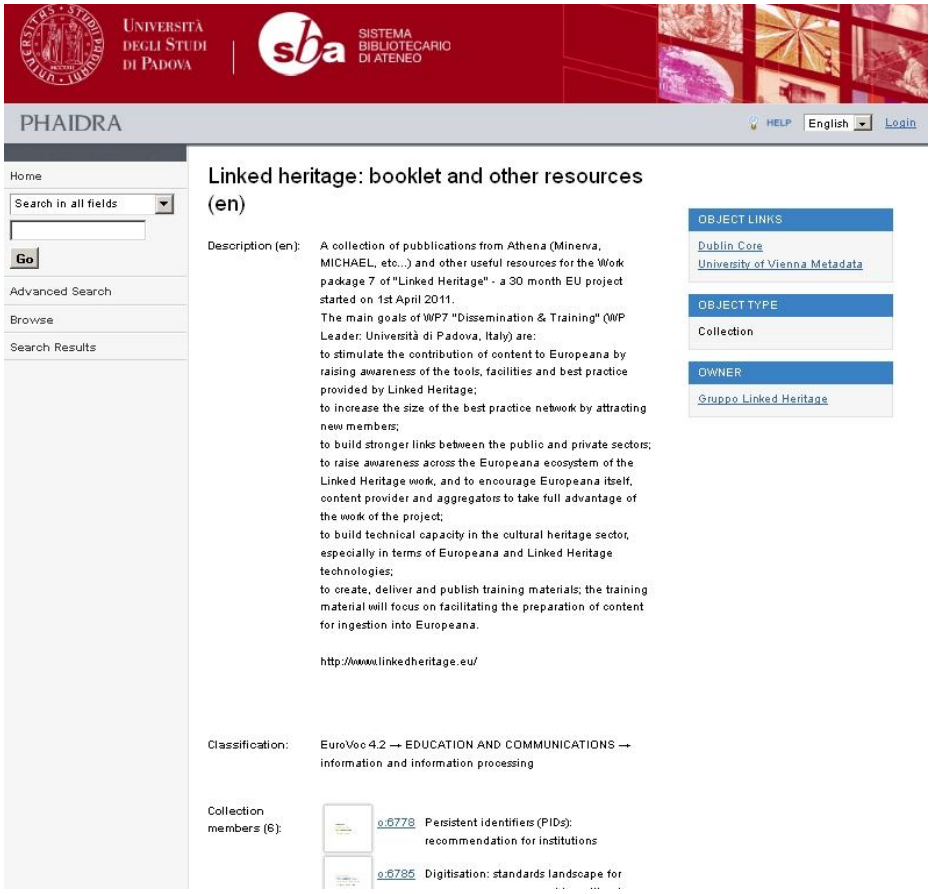

Figure 19 – Screenshot of the the Linked Heritage Training Materials collection in Phaidra.

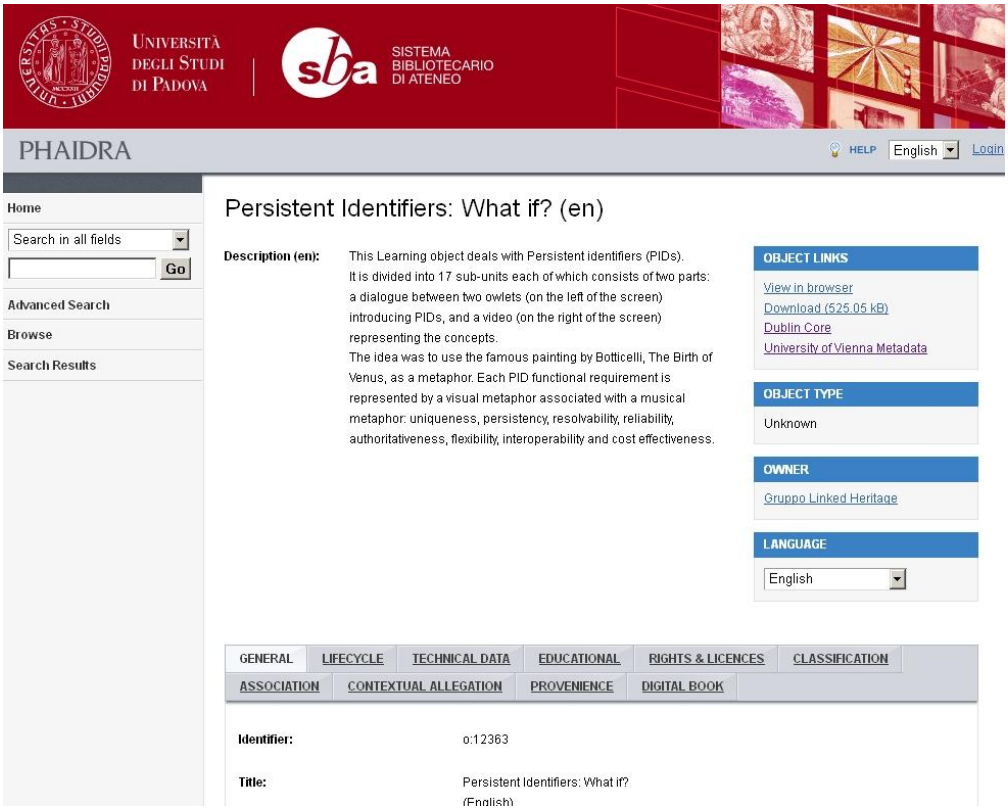

Figure 20 – Example of a Linked Heritage Learning Object view in Phaidra.

5.7 IPR

The booklets, public deliverables, learning objects and training materials created within the project, will be published under a CC-BY-NC-SA license.

All the software programs used for the production of the LOs are Free Software/Open Source (GNU Project and/or OSI definition).

5 NEXT STEPS AND CONCLUSIONS

Next action items and deadlines are summarised in the following Table:

Deadlines	Unipd activities	Partners activities
30th April	•Partners' feedback analysis and revision feasibility; •Pids, Digitisation …, Why & How: update following your feedback; •Migration of the Course to the new Moodle release (new layout).	Provide unipd with **new LO content** on: Linked Data (CT), Terminology (MCC), Pids: case study (Editeur)
31st May	Implementation of the new LO content into the LH Learning Object Template. New LOs will be progressively released and submitted to partners for testing and review.	•New **LOs test, review** and provide feedback to unipd. •Provide unipd with **case studies, training materials and bibliography**
15th June	•Partners' feedback analysis and revision feasibility; • Linked Data, Terminology, Pids-case study: update following your feedback; •Revised LOs will be progressively released and submitted to partners for translation.	Start LOs **translation**
15th July		Submission of the **translations** to unipd

In the last phase of the project 15 July - 30 September 2013, the WP7 Task 7.2 Training will be in strong coordination with the WP7 Task 7.1 Dissemination in order to promote outputs among partners and external communities.

By the end of the project we expect that Linked Heritage Training Programme, also thanks to the strong dissemination activity, will be able to achieve the following results:

- to raise awareness among cultural institutions decision makers on Linked Heritage main outputs and how to participate to Europeana and share best practices,
- to inform, build knowledge and promote Europeana among teachers
- to introduce entry-level users to hot topics from the cutting edge of digital libraries,
- to provide authoritative reference sources and contents to library, museum and archive specialists, validated by the Linked Heritage experts.
- to promote a mutual understanding between the public and commercial sectors on metadata, persistent identifiers standards, and best practices.

The final version of this deliverable will be released by the end of the project.

6 REFERENCES

Akeroyd, A. (2005), "Information management and e-learning: some perspectives", *Aslib Proceedings: New Information Perspectives*, Vol. 57, No. 2, pp.157-167.

Blaschke, L. M. (2012), "Heutagogy and Lifelong Learning: A Review of Heutagogical Practice and Self-Determined Learning", The International Review of Research in Open and Distance Learning, Vol.13, No.1, pp. 56-71. Retrieved from http://www.irrodl.org/index.php/irrodl/article/view/1076/2087

European Commission (2008), *Explaining the European Qualifications Framework for Lifelong Learning*, Luxembourg : Off. for Official Publ. of the Europ. Communities, 10 p.

European Commission (2006), *Information Society and Education: Linking European Policies*, Luxembourg : Off. for Official Publ. of the Europ. Communities, 15 p. http://www.fp7.org.tr/tubitak_content_files/308/dokuman/education.pdf

Fidishun, D. (no date, circa 2005), *Andragogy and technology: Integrating adult learning theory as we teach with technology*, Malvern, PA: Penn State Great Valley School of Graduate Professional Studies.

ANNEX 1: LIST OF THE VIDEOS INCLUDED IN THE LINKED HERITAGE LEARNING OBJECTS

PERSISTENT IDENTIFIERS: WHAT IF?

Introduction
http://www.youtube.com/watch?feature=player_embedded&v=2RgQpWPfFik

What if: Global uniqueness
http://www.youtube.com/watch?feature=player_embedded&v=F_58boTFDK4

What if: Persistence
http://www.youtube.com/watch?feature=player_embedded&v=xZUwMIfjPis

What if: Resolvability
http://www.youtube.com/watch?feature=player_embedded&v=ODlw137fZ_4

What if: Reliability
http://www.youtube.com/watch?feature=player_embedded&v=6oY7JOICkzU

What if: Authoritativeness
http://www.youtube.com/watch?feature=player_embedded&v=1bUUjcA-HUg

What if: Flexibility
http://www.youtube.com/watch?feature=player_embedded&v=uFL2NtkjdPA

What if: Interoperability
http://www.youtube.com/watch?feature=player_embedded&v=RHvXfONthfE

What if: Cost effectiveness
http://www.youtube.com/watch?feature=player_embedded&v=rDTUL-FZ6Nw

Cost effective
http://www.youtube.com/watch?feature=player_embedded&v=4SFjRyBSz5w

Interoperable
http://www.youtube.com/watch?feature=player_embedded&v=Joha79WtekQ

Flexible
http://www.youtube.com/watch?feature=player_embedded&v=8AKUDn8eonA

Authoritative
http://www.youtube.com/watch?feature=player_embedded&v=XQ5fEXskqP0

Reliable
http://www.youtube.com/watch?feature=player_embedded&v=0L0QvcsaRYs

Resolvable
http://www.youtube.com/watch?feature=player_embedded&v=SEEhucX5R3w

Persistent
http://www.youtube.com/watch?feature=player_embedded&v=P6ygaThSbuY

Uniqueness environment
http://www.youtube.com/watch?feature=player_embedded&v=JNBFd3_tipM

DIGITISATION LIFE CYCLE

Preservation of items
http://www.youtube.com/watch?v=2iTYI7TxwpE&feature=player_embedded

Video transcription (English translation):

==Housing and photographic restoration of the Botanists portrait collection==

===Housing===

The item is removed carefully from the original envelope. First, any loose dust is blown away using a rubber bulb syringe, then both sides are cleaned with a soft bristle brush, applying no pressure whatsoever to the surface. The location is marked in pencil on the original, and the item is then placed in a preservation-quality envelope.

===Restoration of glass plate negatives====

First, the plate is observed under a horizontal beam of light, on both sides; the characteristics of the item â€" and any damage â€" are recorded on a special chart. In this instance, inspection reveals the presence of silver mirroring and traces of graphite.

The glass side is cleaned with a solution of surfactants in water to remove surface dirt (such as dust and grease).
The emulsion side is cleaned with solvent, which can help to reduce the visual impact of the silver mirroring at least in part.
The plate is dusted off with an antistatic brush, housed in a suitable four-fold enclosure, and placed in a preservation-quality box.

In this instance the plate is broken and has been patched up with adhesive tape to keep the pieces together. The adhesive has degraded, and the tape must first be peeled away dry from both sides.

The next step is to take a strip of adhesive tape with a backing material and a type of glue suitable for contact with photographic material, and prepare a number of small transparent sticking plasters that will not show up in prints; these are applied to the glass side only, and will hold the fragments together.

===Restoration of positives===

Here are some positive photographic prints that have been mounted in frames. The problems created by poor preservation are immediately clear from the type of mounting: not only is the material unsuitable, but there is a lack of uniformity in the supports utilized.

All the photographs restored were in general dirty, with clearly visible traces of dust, insect droppings, and in some cases larvae, which were also found on the backing materials.
First, the dirt is removed from all of the materials; the prints, in particular, are cleaned using a Wishab sponge.
In this instance the item is a crayon photo, and must be dusted even more gently so as not to remove the charcoal retouches.
The photograph is remounted in the original frame with the addition of a preservation-quality passe-partout to ensure that the photograph remains detached from the glass. In this instance the photograph is mounted on two different cardboard backing pieces, which are retained, and there is a good deal of silver mirroring in evidence. Localized cleaning is carried out to

remove grease and dust, and reduce the effect of the mirroring to some extent.

Here, the restorer is working on an image with original colouring applied by hand, which now presents widespread areas of dotted fading. The visual unity of the image is restored by retouching with watercolours.
In this case the original passe-partout has been retained, and a shaped clearance space created between the image and the passe-partout with barrier paper.

Restoration by Lorenza Fenzi
Video made by Lorisa Andreoli

Cutting and editing by Lorisa Andreoli and Alessandra Angarano

Script: Lorenza Fenzi
Voice: Alessandra Angarano

Music: Farid Zehar and Bruno Chauveaux

ANNEX 2: PDF FILES REPRESENTING ALL THE LEARNING OBJECTS WEB PAGES, THE RELATED READINGS AND TRAINING MATERIALS AND THE QUESTIONNAIRES (EVALUATION AND THE ASSESSMENT) CAPTURED BY "PRINT PAGES TO PDF" APPLICATION

Moodle-home-UI.pdf

Digitisation_life_cycle.pdf (finished)

Digitalizzazione-_ciclo_di_vita.pdf (finished)

Ciclo_de_vida_de_la_digitalizacion.pdf (finished)

Persistent_Identifiers-_What_if.pdf (finished)

Identificadores_persistentes.pdf (finished)

Mint_services.pdf (advanced draft)

Why_and_How_contribute_to_Europeana.pdf (draft)

PIDs-book.pdf

Digitisation-book.pdf

Mint-book.pdf

Why-how-book.pdf

PIDs-assessment.pdf

Evaluation-questionnaire.pdf

Digitisation-assessment.pdf

EU project: Linked Heritage

People
Participants

Activities
Books
Feedback
Glossaries
Quizzes
Resources

Section Links
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Topic outline

WELCOME TO THE LINKED HERITAGE'S TRAINING PROGRAMME!

The training programme includes four modules (syllabi) specifically tailored for the following target user groups:

- Cultural institutions decision makers
- **Teachers and researchers**
- **LIS professionals**
- **Market players**

Each module presents the list of topics (work packages) that we consider suitable for the users.

WHERE TO BEGIN:

select the programme tailored for you and choose the topic you are interested in.

Linked Heritage Project web site
Linked heritage Glossary

1

CULTURAL INSTITUTIONS DECISION MAKERS

Overview of Europeana
Persistent Identifiers: What if? (Learning Object included)
"Pids: what if" Assessment
Evaluate this Learning Object: PIDs: What if
Digitisation Life Cycle (Learning Object included)
Digitisation Life Cycle: Assessment
Evaluate this Learning Object: Digitisation Lyfe Cycle
Why and how contribute to Europeana (Learning Object - draft)
Assessment "Why and how contribute to Europeana " (under construction)
Evaluate this Learning Object: "Why and how contribute to Europeana"

2

TEACHERS AND RESEARCHERS (under construction)

General overview of Europeana
Tutorial for searching on Europeana
Users scenarios for educational purposes
Legal issues: how to re-use contents?

3

LIBRARY AND INFORMATION SCIENCES PROFESSIONALS

Persistent Identifiers: What if? (Learning Object Included)
"PIDs: What if" Assessment
Evaluate this Learning Object: "PIDs what if"
Persistent identifiers: case study (LO under construction)
Digitisation life cycle (Learning Object Included)
Digitisation Life Cycle: assessment
Evaluate this Learning Object: "Digitisation life cycle"

Administration
Unenrol me from EUproject:LinkedHeritage
Profile

- Terminology (LO under construction)
- Linked data (LO under construction)
- MINT Services (Learning Object - draft)
- Evaluate this Learning Object: MINT Services

4

MARKET PLAYERS (under construction)

- Overview of Europeana
- Why participate & How to participate
- Legal issues
- Persistent identifiers: case study (LO under construction)
- Interoperability and standards

CMELA Centro Multimediale di E-Learning di Ateneo, Servizio di Supporto alla Didattica
e-mail: moodle.elearning@unipd.it
You are logged in as user eu (Logout)

Linked Heritage
LEARNINGObjects

DIGITISATION LIFE CYCLE

ABOUT THE LEARNING OBJECT

Readings and training materials (login required – User: usereu, Password: usereu)

Summary

This Learning Object presents the digitisation workflow both in theory and in practice. It consists of two parts: the first one gives an overview of the digitisation entire workflow, the second one focuses on a case study of the University of Padua: the "Botanists portrait collection".
The case study is illustrated also by means of two videos showing the following activities: preservation of items and digitisation.

Languages

- English
- Italian
- Spanish

Forward »

Linked Heritage
LEARNINGObjects

DIGITISATION LIFE CYCLE

1/5 – INTRODUCTION

Readings and training materials (login required – User: usereu, Password: usereu)

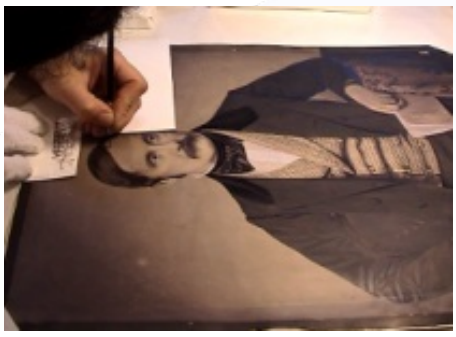
Workflow

The purpose of this resource is to delineate the range of procedures for the digitisation of two-dimensional documents, in conformity with best practices and with national and international standards for quality reproduction of documents.

In essence, digitisation projects should be consistent with one or more of the following general aims:

- deriving maximum possible advantage from documents preserved in archives, museums and libraries
- widening public access to documents and their content for scientific and cultural purposes
- facilitating interdisciplinary studies and promoting collaboration between different institutions
- promoting awareness of local or unique collections, through large-scale dissemination of their content
- creating virtual collections through the integration of different formats or materials distributed in different locations
- limiting direct consultation of original documents in particularly critical conditions
- facilitating access to typically inaccessible material
- ensuring that documents will be made available to future generations of students, scholars and members of the general public

A case study at the University of Padua



The Botanists portrait collection includes 2,380 portraits of Italian and foreign botanists from the second half of the 17th century to the first half of the 20th century. The collection is made up of photographs (salted paper prints, albumen prints, aristotypes, platinum prints, gelatin silver prints), glass negatives, engravings, watercolours, drawings, paintings and photomechanical prints. The collection is preserved in the Padua Botanical Garden Library.

In 2005, the Botanical Garden Library and the Ancient and special collections section of the Padua University Library System initiated a project designed to derive maximum benefit from the collection. The aims of the project are to ensure long-term preservation and on-line access of the catalogued and digitised collection. The project envisages six steps: inventory and selection, legal aspects, preservation, cataloguing, digitisation, on-line access.

EXPLORE

Information of the Botanists portrait collection

Examples from the Botanists portrait collection: Nadar's photographs:

- Digitised images in Phaidra:
  - Giovanni Antonio Maria Zanardini
  - Pierre Edmond Boissier
- Bibliographic records from On-line Public Access Catalogue (OPAC) of the Padua University Library System:
  - Giovanni Antonio Maria Zanardini
  - Pierre Edmond Boissier
- Nadar: authority record

« Back Forward »

Linked Heritage LEARNINGObjects

DIGITISATION LIFE CYCLE

2/5 – WORKFLOW

Readings and training materials (login required – User: usereu, Password: usereu)

Page Index

Selection

The selection of documents will normally take into consideration the growth of the collection, added value, protection, technical feasibility, and ability to sustain the long term costs of digitisation. In reality, the best selection will be based on a combination of criteria.

Selection criteria will generally take account of:

- historic and cultural value
- uniqueness and rarity
- high demand
- documents free of legal constraints, or with permission to digitise already secured
- limited access due to state of preservation, value and location
- value added by providing access on line; creation of virtual collections
- increased level of interest generated in little-known or unknown material

In certain cases it may be worth conducting a survey of the material so as to determine the quantity, type and format of the documents, and their state of preservation. This information may come in useful during subsequent preservation, cataloguing and digitising operations.

EXPLORE

Selection for digitising: a decision-making matrix

Top

Legal aspects

When digitising documents, serious attention must be given to issues concerning copyright, in respect both of original material and of digital resources.

Points to examine are: characteristics of the work to be processed, rights ownership (who owns the rights – is the work protected – what type of protection?), the actions to be performed on the work (what are they – what rights are involved – has authorization been obtained?), likely critical areas and possible solutions.

Works that must be excluded are those subject to copyright and those digitised in other collections and accessible to the public on the web, in this instance so as to avoid duplication and minimize costs.

EXPLORE

Arrow
IPR Helpdesk
Step-by-step IPR Guide

Top

Preservation of items

Digitisation is no substitute for commitment to care and preservation of original documents. It is important to assess the state of preservation of original documents before proceeding with digitisation, and to ensure that any treatment of original specimens is carried out only after they have been inspected by experts.

EXPLORE

IFLA Principles for the care and handling of library material
The Library of Congress, Preservation – Collections care resources
Northeast Document Conservation Center (NDCC) – Resources: Preservation leaflets

Top

Digitisation

To guarantee the safety of originals and ensure good digitising quality, particular care must be taken over the choice of acquisition methods and equipment (capture system, lighting, software).

The nature and the dimensions of the originals will determine the selection of the capture system and the lighting system.

The hardware and software requirements of the capture system are determined by the image quality expectation, as are the timescales for acquisition and processing of the images, and the amount of storage space occupied in allocated memory locations.

As a general rule, the key to quality does not lie in scanning at the maximum resolution obtainable, but performing the scan at a level commensurate with the information contained in the original.

In general, the aim of digitisation is to produce master files suitable for long-term preservation. Files for viewing on the web are derived from the master files.

In-house or outsourced digitisation

The decision as to whether documents should be digitised by the institution (in-house), or

entrusted to an outside service provider (outsourcing) will depend on the advantages and drawbacks of the two methods.

	In-house	Outsourcing
Advantages	• keeping direct control over the entire process • learning by doing • improving standards as work proceeds, rather than setting targets beforehand • ensuring safety, proper handling and accessibility of materials	• institution pays for the end product, generally on the basis of an agreed price per image • costs are kept down, and risks limited • service provider can handle large quantities of material • rovider shoulders the costs of specialization, training and technological obsolescence • wide range of options and services available
Drawbacks	• rather than paying for the product, institution shoulders the costs, including training, technological obsolescence and down time • outlay on purchase and maintenance of equipment • need for skilled human resources • cost per image not defined	• by eliminating a step of the process, institution does not develop thorough knowledge of digitisation • problems with safety, transportation and handling of original specimens
Recommendations	In-house is best if: • the collection cannot be moved outside of the institution • the digitising process is a very simple one • reliance can be placed on specialist human resources and equipment already on site	Outsourcing is best if: • original specimens cannot be digitised in-house for whatever reason • schedule involves processing large quantities of material in the short term • there are constraints in terms of space, infrastructure and human resources

If the decision is made to **entrust the service to a company**, the institution must:

- determine the digitisation parameters
- draw up a detailed invitation to bid
- evaluate the products and services offered
- define the contractual responsibilities of the institution and of the company
- carry out a final quality control on the product

The **cost of digitisation** depends on a number of variables, namely the size, type and nature of the document for digitisation and the envisaged use of the digital object, hence an assessment of the costs can be requested from the digitisation service provider, or alternatively, based on previous digitisation projects. It may help to consult existing literature on the topic.

Selection of equipment

General indications on the capture system:

- **Flatbed scanners** are used for single sheet documents, or bound documents that can be opened out flat without difficulty, of dimensions up to paper size A3 (420 x 297 mm). These documents include: printed matter (e.g. flyers, posters, brochures), manuscripts (e.g. letters), maps in good condition, sheet music, prints (e.g. engravings, etchings, lithographs), pen-and-ink drawings with no added water colour or tempera (e.g. cartoons), photographic material (e.g. black-and-white and colour gelatine prints, albumen prints).
- **Scanners for films and transparencies** are used for films, negatives and transparencies.
- **Planetary scanners or Digital cameras** are used for bound documents, documents of a special nature, and documents larger than size A3.
  These documents include: bound volumes (e.g. books, albums, sheet music, atlases), fragile documents, oil paintings, most works of art on paper (e.g. watercolours, drawings), graphic material and works of art created with flaky and friable substances (e.g. crayons, charcoals, soft pencil), watercolours applied thickly, with tempera or varnishes, large or fragile maps, manuscripts (e.g. bound diaries, folded documents), parchments, photographic material (e.g. large size prints; historic photographic processes such as daguerreotypes or ambrotypes), three-dimensional material (e.g. fabrics, sculptures, objects).

In the case of antique and fine art originals, the lighting system must be fitted with lamps emitting cold light and ultra-low levels of IR and UV radiation.

Digital acquisition

Bearing in mind the resources available, the decision on image quality should be based on the needs of users, on the method of delivery and use of images, and on the nature of the materials being digitised (size, format, type of material, colour, etc.).
There are various reasons for creating a high quality master: preservation, access and cost, and the need to ensure that the digitisation process will not need to be repeated in future. The master can be used to prepare files in smaller sizes or alternative formats for the different uses envisaged. Standard formats should always be used.

Indications on the master file:

- this is the file in which the single digital object is created and preserved, and from which derivatives can be generated (JPEG, PDF etc.); enables high quality printing
- the master file represents the informative content of the original, as closely as possible
- the original must be captured in its entirety. A border must be left around the document, so that the outline of the image can be identified
- if the original is mounted on a backing that carries information, the digitisation should also include the backing
- the master file is archived exactly as reproduced by the acquisition tool
- the file should be in a standard format, such as TIFF
- the title of the file should incorporate a colour profile
- if the original is digitised and accompanied by colour scale, grey scale and gauge, these shall be located outside the borders of the reproduced image and within the overall perimeter of the surround

Indications on derivative files:

- these are used in place of the master for the purposes of LAN or WAN access, and accordingly, the dimensions will depend on the envisaged uses
- derivative files should be of suitable proportions for fast download, without requiring a high speed connection, of acceptable quality for general research purpose, and presented in a compressed format for speed of access
- the usual formats are JPEG or PDF

File naming

Before commencing any acquisition procedures, file-naming criteria must be established. In general terms, the name of each file will consist in a string of characters that must contain the information needed to identify the element of the collection to which the image belongs, uniquely and unambiguously. Filenames will be completed with the appropriate extension, such as ".tif", “.jpg”, etc.

Storage of data

The collection of the images, consisting in directories and files, will be memorized on optical or magnetic storage media such as CDs, DVDs, and external hard disks.
It is important that data should be saved to at least two such elements of storage media, preserved at two distinct locations, and that the data should be checked and refreshed periodically. The life of the storage media is in any event influenced by a variety of factors (ISO 18923:2000 and 18925:2002 standards indicate the parameters for proper preservation of storage media).

Quality control

Quality control should be documented and conducted throughout the entire digitising process on all material captured, and in particular on master files.

Planning of the quality control system should include:

- appropriate preparation of the environment (hardware configuration, viewing software, viewing conditions, etc.)
- *a priori* definition of “acceptable” and “not acceptable” characteristics
- verification procedure (entire collection or sample, all files or master files only, visual quality on screen, in print, etc.)

EXPLORE

California Digital Library (CDL) - Guidelines for Digital Images
Cornell University Library - Moving theory into practice: digital imaging tutorial
Digital Library Federation (DFL) - Draft benchmark for digital reproductions of printed books and serial publications
Digital Library Federation (DLF)- Guides to quality in visual resource imaging
Federal Agencies Digitisation Initiative (FADGI), Still Image Working Group - Technical Guidelines for Digitizing Cultural Heritage Materials: Creation of Raster Image Master Files
S. Hubbard, D. Lenert (edited by) - Introduction to Imaging
National Archives and Records Administration (NARA) - Technical guidelines for digitising archival materials for electronic access: creation of production master files – raster images
Northeast Document Conservation Center (NDCC) - Handbook for digital projects

Top

Metadata

Metadata is structured information relating to any type of resource, used to identify, describe, manage or allow access to the resource in question.

There is no metadata standard that meets all the needs of all types of collections and repositories.
Generally considered, metadata models include the following information:

- Descriptive metadata: data describing the content of a resource and allowing its retrieval
- Administrative metadata: data containing information on the management and administration of a resource (e.g. rights management, preservation metadata, technical metadata)
- Structural metadata: data describing the relations between digital objects (e.g. page order in a digitised book)

From *Good practices handbook* (edited by the Minerva Working Group 6)

“Appropriate Meta-data Standards

Issue Definition

Certain important standards already exist for meta-data. In the bibliographic domain (and increasingly in non-library cultural domains), the Dublin Core standard is of great importance.

Pragmatic Suggestions

- *Review existing meta-data models and standards before creating your own.*
- *Creating a totally new meta-data model for cultural collections should be avoided.*
- *The meta-data work carried out by similar projects in the past is likely to be relevant to your project – meta data models travel well between projects in the cultural area.*
- *Unless your project has good reason not to do so, the Dublin Core fields should be included in the meta-data model. While museums may find the CIMI model better fits their holdings, a common core set of attributes should be aimed for, which will enable cross-collection searching.*
- *If a proprietary meta-data model is to be used, a mapping from this model to the Dublin Core should also be developed.*
- *While a naming scheme or national naming convention may be very useful, a full meta-data model is better, both in terms of the amount of data that can be stored about an item, and also to enable more powerful searching and interoperation with other projects and other countries."*

EXPLORE

ATHENAWP3 (edited by) - Digitisation Standard Landscape
M. Baca (edited by) - Introduction to metadata
Dublin Core Metadata Initiative Wiki - User guide
JISC Digital Media - An introduction to metadata
JISC Digital Media - Medatada standards and interoperability
National Information Standards Organization (NISO) - Understanding metadata

Top

Digital preservation

In any digitisation project, it is essential to maintain digital resources created over time in such a way that burdensome repeats of digitising operations will be avoided. Accordingly, the institution must adopt procedures to ensure that digital objects will remain usable and accessible, irrespective of technological changes in the future.

The usability and accessibility of digital objects over time is guaranteed by the file format (standard for formats, file sizes, web transmission rate, methods of viewing images…), and by the archiving media and digital repository (digital objects with associated metadata will be archived and managed in a digital repository). It is fundamentally important to use open standards, thereby facilitating interoperability with other systems, and allowing access to metadata through other service providers (e.g. Europeana).

EXPLORE

Cornell University Library - Digital preservation management resource
B. F. Lavoie - The Open Archival Information System Reference Model: Introductory Guide

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Linked Heritage LEARNINGObjects

DIGITISATION LIFE CYCLE

3/5 – A CASE STUDY AT THE UNIVERSITY OF PADUA

Readings and training materials (login required – User: usereu, Password: usereu)

Page Index

Selection

Making an inventory of the collection was the first essential step in assessing the quantity, type and size of the items, and their state of preservation.

A survey of the material produced the following data: inventory, location, name of botanist (birth-death), specific designation of material (e.g. postcard, photograph, painting…), method of creation, dimensions, type of material and dimensions of mount, state of preservation, information on duplicates, if any, and notes.

The selection process involved the entire collection, for the following reasons: historical value and uniqueness, preservation, increased access to content, improvement of services and absence of legal constraints.

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Legal aspects

The documents in the collection are subject to Italian Law n° 633 of 22 April 1941 “Protection of copyright and other rights relating to the exercise thereof” and subsequent amendments.

The legal aspects taken into consideration are:

- **Portrait of a person**: in the case of the botanists portrait collection, a search for the heirs of the persons portrayed is impractical. For the publication of images, reference is made to the exception of article 97, Law n° 633/1941 and subsequent amendments.
- **Copyright**: photographs represent 70% of the collection, and in many cases are reproductions of other photographs or other works of art. It is important to highlight the distinction between photography as an *intellectual property* and photography as a *simple reproduction of an existing reality*. The first is an exclusive right and ownership is protected for 70 years following the death of the author; the second is a connected right and ownership is protected for 20 years from the date on which the photograph was produced.
  In any event, all works come into the public domain once 70 years have elapsed following the death of the author, and this is the status of all images in the collection.
- **Acquisition**: there is no formal deed by which the collection was donated; it was Pier Andrea Saccardo (prefect of the Botanical Garden from 1879 to 1915) who had the idea of collecting portraits of botanists. Images have been donated to the Library by private

individuals and by institutions.

EXPLORE

Italian Law n° 633 of 22 April 1941 “Protection of copyright and other rights relating to the exercise thereof”

Top

Preservation of items (video)

The preservation of the portrait collection involved the following operations: dusting and housing of specimens with materials to ISO standard, restoration of negatives and framed photographic prints, and restoration of prints.

Video transcription (English translation):

Housing and photographic restoration of the Botanists portrait collection

Housing

The item is removed carefully from the original envelope. First, any loose dust is blown away using a rubber bulb syringe, then both sides are cleaned with a soft bristle brush, applying no

To turn captions on, start video and click the small icon in video player

Download video in HD

Download transcription (English translation)

Dusting and housing

Items were treated adopting the following procedure:

- removal of items from boxes and from original envelopes
- removal of dust particles from the image with a rubber bulb syringe, and cleaning with a soft bristle brush
- housing of documents in their envelopes or in folders suitable for preservation. Envelopes were placed in boxes to ISO standard
- return to storage: boxes in a cabinet, and folders in a chest of drawers

The quality of the material is in accordance with ISO 10214 (Photography – Processed Photographic Materials – Filing Enclosures for Storage) and ISO 14523 (Photography - Processed Photographic materials - Photographic activity test for enclosure materials).

Restoration

Glass plate negatives and framed photographic prints were entrusted to a professional photograph restorer; prints were entrusted to a paper restorer.

EXPLORE

Photographic documentation on preservation of the portrait collection
Il Progetto di digitalizzazione "Iconoteca dei botanici", p. 32–38




Film about restoration of prints in the portrait collection

Information resources on treatment of photography:

- George Eastman House - Photographic Processes and Terms Glossary
- The Library of Congress - Preservation - Care, Handling, and Storage of Photographs: information leaflet
- State Library & Archives of Florida - Daguerreotype to Digital: A Brief History of the Photographic Process

Top

Digitisation (video)

In accordance with digitising guidelines and best practices, parameter selection covered the size, type, information content and envisaged use of the digital object.
The aim of the digitisation process was to produce master files for preservation; files derived from these master files would then be made available for consultation on local and wide area networks.

In-house or outsourced digitisation

The operation of digitising the Botanists portrait collection was outsourced for the following reasons: the collection is relatively small (2,380 portraits); the Library possesses neither the appropriate equipment, nor the necessary specialist human resources; the work had to be completed by 2008.

The digitisation process was carried out on the Library premises, to avoid the disruption of moving the items and the associated problems of insurance.

The invitation for tenders to provide the digitisation service was conducted in line with Padua University regulations, based on the *Specification for digitisation activity* of OTEBAC (Osservatorio Tecnologico per i Beni e le Attività Culturali – Technological Observatory for Cultural Heritage and Activities), and on the *Request for proposal* of the NDCC (Northeast Document Conservation Center) and the RLG (Research Libraries Group).

Selection of equipment

The Botanists portrait collection is heterogeneous in terms of the type, dimensions and fragility of the various specimens, and accordingly, it was decided to use a digital photo

capture system requiring no contact with the original, comprising:

- Hasselblad CF39 MS digital back with 39 million pixel sensor and control station
- Hasselblad 500 ELX professional cameras with Planar 80 mm and 120 mm lenses, also PK 35 mm wide angle and Nikon AF 60 mm micro lens
- HMI lighting system providing cold light and flat beam
- Backlit slide viewer for transparencies

Digital acquisition

A. General indications for the master file:

- the original is photographed/scanned in its entirety, with no cuts. A border of approximately 4 mm (or in any event approximately 8 pixels), preferably white, is left around the document.
- if the original is applied to a mount or support carrying information (e.g. photograph in visiting card format), the mount must also be digitised
- geometric accuracy must be observed
- the master file is archived exactly as reproduced by the acquisition tool
- the digitised image of the original must be accompanied by colour scale, grey scale and gauge
- the scales and gauge must not overlap the outline of the reproduced images
- the pixel proportion must be square
- the digitised image must be devoid of reflections, especially in the case of photographs, engravings and framed pictures

B. Requirements for size, resolution, format and compression of files:

Resolution
The effective optical resolution of the captures is tied to the physical size of the originals (the set), as indicated in the following table:

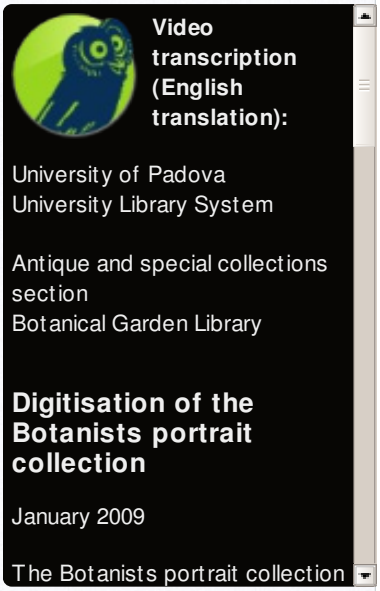
Set	Measurements	Min PPI
1	cm 5x3,75	3664 PPI
2	cm 10x7,50	1832 PPI
3	cm 20x15,01	916 PPI
4	cm 30x22,51	611 PPI
5	cm 40x30,02	458 PPI
6	cm 50x37,52	366 PPI
7	cm 60x45,02	305 PPI

A dedicated post-processing program was defined, with functions that included automatic cropping and automatic positioning on a white background (RGB 255, 255, 255), with a surround corresponding to 102-3% of the dimensions of the object. The automatic process produced a quantity of digital objects which, according to the specific nature of the originals, required a variety of manual treatments.

Format

- Master file for archiving: TIFF uncompressed, colour depth 16 bits per channel (48 bit RGB colour; 16 bit greyscale for negatives), IBM PC byte order, interleaved pixel order, ProPhoto RGB colour profile, with optical resolution depending on the dimensions (see table)

- File derived from master for consultation in LAN or at high speed: JPEG compressed, maximum quality (Adobe Photoshop scale 12) colour depth 8 bits per channel (24 bits RGB), cut out without gauge/Colour, sRGB colour profile to IEC-61966-2.1, resolution 300 ppi
- File derived from master for consultation on Web: JPEG compressed, high quality (Adobe Photoshop scale 8) with colour depth 8 bits per channel (24 bits RGB), cut out without gauge/Colour, sRGB colour profile to IEC-61966-2.1, resolution 96 ppi
- Thumbnails: JPEG compressed medium quality (Adobe Photoshop scale 5) with colour depth 8 bits per channel (24 bits RGB), cut out without gauge/Colour, sRGB colour profile to IEC-61966-2.1, resolution 96 ppi, width fixed at 150 pixels, height proportional



To turn captions on, start video and click the small icon in video player

Download video in HD

Download transcription (English translation)

File naming

File identification was accomplished using the native algorithm from the software owned by the company, already employed in projects of the BDI (Biblioteca Digitale Italiana – Italian Digital Library). The algorithm uses 19 characters plus 4 for the file extension; the encoded characters contain information on the medium, the univocal identifier and the file version.

Storage of data

All files are archived on a server of the CAB (Centro di Ateneo per le Biblioteche – University Libraries Centre) and on two external hard disks, one copy on each. The two hard disks are kept at the Botanical Garden Library and at the Centre (CAB).

Quality control

Using an on-line link to the consulting system of the contracted company, it was possible to check the files during the course of the digitising process and report any defects. Defective files were re-digitised.
Master files underwent sample inspections to check for:

- correct frame alignment and exposure, absence of possible deformations and/or optical aberrations
- containment of chromatic tolerance
- colour depth and profile
- digital size and format
- possible existence of elements having an adverse effect on fidelity of reproduction (e.g. dirt, light reflections, etc.)

In the case of files derived from the master files, the inspection was extended to all available items in order to verify the general quality, and the presence of defects, if any, within and immediately adjacent to the images.

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Metadata

Cataloguing of items

The collection is catalogued in accordance with ISBD(NBM) standard. Authors are identified in accordance with RICA (Regole italiane di catalogazione per autori – *Italian cataloguing rules for authors*.
Cataloguing follows the UNIMARC bibliographic format and was done in Aleph, the management automation system used by the SBA (Sistema Bibliotecario di Ateneo – University Library System).

UNIMARC FIELDS

Show UNIMARC fields

Metadata of digital objects

The metadata schema selected was MAG1 (Metadati Gestionali e Amministrativi – *Management and Administrative Metadata)* – version 2.0.1 - by ICCU (Istituto Centrale per il Catalogo Unico – Central Institute for the Single Catalogue of Italian libraries and bibliographic information).
The sections used are: GEN, BIB, STRU and IMG.

To generate the BIB section, descriptive items of metadata in UNIMARC format were exported by Aleph to a single ISO 2709 file and supplied to the company for importation into its operational database.

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Digital preservation

The Botanists portrait collection is archived in Phaidra (Permanent Hosting, Archiving and Indexing of Digital Resources and Assets), the management system for digital objects with long-term archiving functions used by the SBA (Sistema Bibliotecario di Ateneo – University Library System). Phaidra is Europeana compliant.

Publication on-line using Phaidra involves the following workflow: mapping of MAG / Phaidra metadata, script for bulk upload of the collection, creation of collections for obverse/reverse digitised images, trial upload on Phaidra test, migration of data from Phaidra test to Phaidra production and mapping between Aleph system numbers and Phaidra URL so that the URL can be included automatically in bibliographic records, thereby creating a mutual link between bibliographic records and digital objects in the collection.

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Venezia, Tip. Carlo Ferrari, 1895, pp. 236

Id., *La Botanica in Italia: materiali per la storia di questa scienza,* Vol. 2, Venezia, Tip. Carlo Ferrari, 1901, pp. 172

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Id., *La iconoteca dei botanici del r. Istituto botanico di Padova. Supplemento,* Genova, A. Ciminago, 1902, pp. 22 (estr. da: Malpighia, a.15, v.15)

Settimana della cultura scientifica 2008: filmato sulla mostra *Volti e luoghi dei botanici (Faces and places of botanists)* at the Botanical Garden Library

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Linked Heritage
LEARNINGObjects

DIGITISATION LIFE CYCLE

4/5 – CONCLUSIONS

Thank you for viewing our Learning Object *Digitisation Lyfe Cycle*

We invite you now to answer some questions for your learning assessment and to give us your feedback about the Learning Object by evaluating its quality with Evaluate this Learning Object: Digitisation Lyfe Cycle.

For further details:

Readings and training materials

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LEARNINGObjects

DIGITISATION LIFE CYCLE

5/5 – CREDITS






Project by:
Cristiana Bettella
Elena Bianchi
Lisetta Dainese
Massimo Ferrante
Michele Visentin
Antonella Zane

CAB, University of Padua (Italy)

Texts by Lorisa Andreoli (CAB, University of Padua) based on the documents: *Linee guida sulla digitalizzazione*, Phaidra Working Group, by Lorisa Andreoli and Marina Cimino, May 2011 (Phaidra » Guida alla digitalizzazione); *Il Progetto di digitalizzazione Iconoteca dei Botanici*, by Lorisa Andreoli, July 2011.

Graphic and Web design by Gianluca Drago
CAB, University of Padua (Italy)

Preservation video: filming by Lorisa Andreoli, video editing by Lorisa Andreoli and Alessandra Angarano (CAB, University of Padua), text by Lorenza Fenzi (photograph restorer, Bologna, Italy), voice by Alessandra Angarano, music by Farid Zehar and Bruno Chauveaux.

Digitisation video: filming by Lorisa Andreoli, video editing by Lorisa Andreoli (CAB, University of Padua).

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LEARNINGObjects

DIGITALIZZAZIONE CICLO DI VITA

INFORMAZIONI SUL LEARNING OBJECT

Approfondimenti e materiali per la formazione (autenticazione richiesta – Utente: usereu, Password: usereu)

Sommario

Questo Learning Object presenta il ciclo di vita della digitalizzazione, sia in teoria che in pratica. Si compone di due parti: la prima offre una panoramica dell'intero flusso di lavoro, il secondo si concentra su un caso di studio dell'Università degli Studi di Padova: l'*Iconoteca dei botanici*.
Il caso di studio è illustrato anche attraverso due video che mostrano le seguenti attività: conservazione degli esemplari e digitalizzazione.

Lingue

- Inglese
- Italiano
- Spagnolo

Avanti »

Linked Heritage
LEARNINGObjects

DIGITALIZZAZIONE CICLO DI VITA

1/5 – INTRODUZIONE

Approfondimenti e materiali per la formazione (autenticazione richiesta – Utente: usereu, Password: usereu)

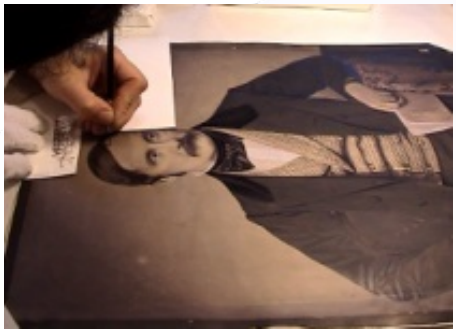
Flusso di lavoro

Questa risorsa intende delineare l'insieme delle procedure per la digitalizzazione di documenti di formato bidimensionale, in conformità con le buone pratiche e standard nazionali e internazionali per una riproduzione di qualità dei documenti.

In linea di principio i progetti di digitalizzazione hanno da essere coerenti con uno o più dei seguenti scopi generali:

- valorizzare il patrimonio documentale conservato in archivi, musei e biblioteche
- ampliare l'accesso del pubblico ai documenti e al loro contenuto a fini scientifici e culturali
- favorire gli studi interdisciplinari e promuovere la collaborazione tra diverse istituzioni
- promuovere la conoscenza di collezioni locali o uniche, mediante la loro diffusione su larga scala
- creare collezioni virtuali attraverso l'integrazione di vari formati o di materiali distribuiti in luoghi diversi
- limitare la consultazione diretta di documenti originali in particolari condizioni di criticità
- facilitare l'accesso a materiale di difficile fruizione
- assicurare che il materiale documentale sia disponibile alle future generazioni di studenti, studiosi, cittadini

Un caso di studio all'Università di Padova



L'*Iconoteca dei botanici* è una collezione di 2.380 ritratti di botanici italiani e stranieri dalla seconda metà del XVII secolo alla prima metà del XX secolo. La collezione è costituita da stampe fotografiche (carte salate, albumine, aristotipi, platinotipi, stampe alla gelatina a sviluppo), negativi in bianco e nero su lastra di vetro e pellicola, incisioni, acquarelli, disegni, quadri ad olio, stampe fotomeccaniche. La collezione è conservata nella Biblioteca dell'Orto botanico di Padova.

Nel 2005 la Biblioteca dell'Orto Botanico ed il Polo bibliotecario delle collezioni antiche e speciali del Sistema Bibliotecario di Ateneo hanno avviato un progetto per la valorizzazione della collezione. Gli obiettivi del progetto sono la conservazione a lungo termine e l'accesso in linea alla collezione, catalogata e digitalizzata. Il progetto consiste di sei fasi: inventariazione e selezione, aspetti legali, conservazione, catalogazione, digitalizzazione, accesso in linea.

ESPLORA

Informazioni sull'Iconoteca dei botanici

Esempi relativi all'Iconoteca dei botanici: le immagini del fotografo Nadar:

- Immagini digitali in Phaidra:
  - Giovanni Antonio Maria Zanardini
  - Pierre Edmond Boissier
- Record bibliografici dal Catalogo del Sistema Bibliotecario Padovano (OPAC):
  - Giovanni Antonio Maria Zanardini
  - Pierre Edmond Boissier
- Il record d'authority di Nadar

« Indietro Avanti »

Linked Heritage LEARNINGObjects

DIGITALIZZAZIONE CICLO DI VITA

2/5 – FLUSSO DI LAVORO

Approfondimenti e materiali per la formazione (autenticazione richiesta – Utente: usereu, Password: usereu)

Indice della pagina

Selezione

La selezione dei documenti di solito prende in considerazione lo sviluppo della raccolta, il valore aggiunto, la tutela, la fattibilità tecnica e la capacità di sostenere i costi della digitalizzazione nel lungo periodo. In realtà la migliore selezione è il frutto di una somma di criteri.

I criteri di selezione in genere valutano:

- valore storico e culturale
- unicità e rarità
- alta richiesta
- documenti senza vincoli legali o con permessi di digitalizzazione ottenuti
- accesso ristretto dovuto allo stato di conservazione, al valore e alla localizzazione
- valore aggiunto tramite l'accesso in linea, la creazione di collezioni virtuali
- aumento di interesse per materiale poco o non conosciuto

In alcuni casi può essere utile effettuare una ricognizione del materiale per determinare la quantità, la tipologia, il formato e lo stato di conservazione dei documenti. Queste informazioni possono servire per le successive attività di conservazione, catalogazione e digitalizzazione.

ESPLORA

Selection for digitizing: a decision-making matrix

Torna su

Aspetti legali

Per digitalizzare dei documenti è fondamentale porre attenzione alla problematica relativa al diritto d'autore sia per i materiali originali che per le risorse digitali.

è necessario prendere in esame: le caratteristiche dell'opera da trattare, la titolarità dei diritti (chi è il titolare dei diritti, esiste una tutela e di che tipo), le azioni che si vogliono compiere sull'opera (quali sono, quali diritti intervengono, si è autorizzati a procedere), le eventuali criticità e le possibili soluzioni.

è necessario escludere le opere che ricadono sotto la tutela del diritto d'autore e le opere già digitalizzate in altre raccolte e accessibili al pubblico mediante la rete al fine di evitare le duplicazioni e contenere i costi.

ESPLORA

Arrow
IPR Helpdesk
Step-by-step IPR Guide

Torna su

Conservazione degli esemplari

La digitalizzazione non sostituisce l'impegno alla cura e alla conservazione degli originali. È importante che la valutazione dello stato di conservazione degli originali venga effettuata prima della digitalizzazione e che qualsiasi eventuale trattamento sui materiali originali venga eseguito dopo un sopralluogo di personale esperto.

ESPLORA

IFLA Principles for the care and handling of library material
The Library of Congress, Preservation – Collections care resources
Northeast Document Conservation Center (NDCC) – Resources: Preservation leaflets

Torna su

Digitalizzazione

Per garantire la sicurezza degli originali e una buona qualità di digitalizzazione, è necessario prestare particolare attenzione nella scelta della metodologia di acquisizione e della strumentazione (sistema di ripresa, sistema di illuminazione, software).

La natura e le dimensioni degli originali determinano la scelta del sistema di ripresa e del sistema di illuminazione.

La qualità delle immagini definita nel progetto determina i requisiti hardware e software del sistema di ripresa, i tempi di acquisizione ed elaborazione delle immagini, l'occupazione di memoria nei supporti di memorizzazione da gestire e conservare.

Come regola generale, la chiave per la qualità non è quella di eseguire la scansione alla massima risoluzione possibile, ma di eseguire la scansione ad un livello che corrisponda al contenuto informativo dell'originale.

In genere la digitalizzazione mira ad ottenere dei file master per la conservazione di lungo periodo. Dai file master si creano i file derivati per la consultazione in rete.

Digitalizzazione in-house o in outsourcing

La scelta della digitalizzazione all'interno dell'istituzione *(in-house)* o l'affidamento del servizio all'esterno *(outsourcing)* ha da considerare i vantaggi e gli svantaggi delle due modalità.

	Servizio all'interno *(in-house)*	Servizio all'esterno *(outsourcing)*
Vantaggi	• detenere il controllo diretto di tutto il processo • imparare facendo *(learning by doing)* • migliorare i requisiti in corso d'opera piuttosto che stabilirli in anticipo • provvedere a sicurezza, maneggio adeguato e accessibilità dei materiali	• l'istituzione paga il prodotto, di solito a un prezzo stabilito per immagine • contenimento del costo e rischio limitato • il fornitore può trattare grandi quantità di materiale • il fornitore assorbe i costi di specializzazione, formazione e obsolescenza tecnologica • disponibilità di un'ampia gamma di opzioni e servizi
Svantaggi	• l'istituzione paga le spese al posto dei prodotti, che includono i costi formazione, l'obsolescenza tecnologica e i tempi morti • investimento nell'acquisto e nel mantenimento dell'attrezzatura • richiesta di personale specializzato • costo per immagine non definito	• l'istituzione elimina una fase del processo; non sviluppa una conoscenza approfondita sulla digitalizzazione • problemi di sicurezza, trasporto e maneggio degli esemplari
Raccomandazioni	Il servizio all'interno è indicato se: • la collezione non può essere spostata all'esterno dell'istituzione • il lavoro di digitalizzazione è molto facile • si può fare affidamento su personale specializzato e attrezzatura già presente	Il servizio all'esterno è indicato se: • gli originali non consentono la digitalizzazione all'interno dell'istituzione • la programmazione è su grande quantità nel breve periodo • ci sono vincoli di spazio, infrastrutture e personale

Se si sceglie di affidare il servizio a una ditta, è necessario:

- determinare i parametri di digitalizzazione
- predisporre una dettagliata richiesta di offerta
- valutare i prodotti e i servizi offerti
- definire le responsabilità dell'istituzione e della ditta a livello contrattuale
- operare il controllo di qualità finale sul prodotto

Il costo della digitalizzazione dipende da diverse variabili quali le dimensioni, il tipo, la natura del documento da digitalizzare e l'uso previsto per l'oggetto digitale, quindi una stima dei costi può essere richiesta ai fornitori del servizio di digitalizzazione, oppure può basarsi su precedenti progetti di digitalizzazione. Può essere d'aiuto consultare documentazione sull'argomento.

Scelta della strumentazione

Si riportano alcune indicazioni generali sul sistema di ripresa:

- **Scanner a letto piano** sono usati per documenti a fogli singoli, o documenti rilegati che possono essere aperti con facilità, più piccoli o uguali al formato A3 (420 x 297 mm). Questi documenti comprendono: materiale a stampa (es. volantini, manifesti, brochures), manoscritti (es. lettere), mappe in buone condizioni, musica a stampa, stampe (es. incisioni, acqueforti, litografie), disegni a penna e inchiostro senza aggiunta di acquarello o tempera (es. vignette), materiale fotografico (es. stampe alla gelatina in bianco e nero e a colori, stampe all'albumina).
- **Scanner per pellicole e diapositive** sono usati per pellicole, negativi e diapositive.
- **Scanner planetario o Fotocamera digitale** sono usati per documenti rilegati, documenti di particolare natura, documenti più grandi del formato A3.
  Questi documenti comprendono: volumi rilegati (es. libri, album, musica a stampa, atlanti), documenti fragili, quadri ad olio, la maggior parte delle opere d'arte su carta (es. acquarelli, disegni), materiale grafico e opere d'arte realizzate con sostanze sfaldabili e friabili (es. pastelli, carboncini, matita morbida), acquarelli con stesura spessa, a tempera o con vernici, mappe grandi o fragili, manoscritti (es. diari rilegati, documenti ripiegati), pergamene, materiale fotografico (es. stampe di grandi dimensioni; procedimenti fotografici storici, come dagherrotipi o ambrotipi), materiale tridimensionale (es. tessuti, sculture, oggetti).

Nel caso di originali antichi e di pregio, si raccomanda che il sistema di illuminazione sia con lampade a luce fredda e a bassissima emissione di raggi IR e UV.

Acquisizione digitale

Tenendo conto delle risorse a disposizione, la decisione sulla qualità dell'immagine dovrebbe essere basata sulle esigenze degli utenti, sulle modalità di consegna e di utilizzo delle immagini, sulla natura dei materiali da digitalizzare (dimensioni, formato, tipo di materiale, colore, ecc.).
Le ragioni per creare un master di alta qualità sono relative a conservazione, accesso e costo economico e hanno la finalità di assicurare di non dover ripetere la digitalizzazione in futuro. Dal master si potranno derivare file di dimensioni più piccole o di formati alternativi per i diversi usi previsti. Si raccomanda l'uso di formati standard.

Indicazioni sul file master:

- si intende quel file di creazione del singolo oggetto digitale destinato alla conservazione ed alla generazione di file derivati (JPEG, PDF ecc.); serve per la stampa di alta qualità
- rappresenta il più vicino possibile il contenuto informativo dell'originale
- l'originale deve essere ripreso nella sua interezza. Attorno al documento, si lascia un bordo che permetta di leggere il contorno dell'immagine
- se l'originale è montato su un supporto che riporta informazioni, la digitalizzazione dovrebbe comprendere anche il supporto
- è archiviato così come lo restituisce lo strumento di acquisizione
- dovrebbe essere in un formato standard, come TIFF
- l'intestazione del file dovrebbe avere incorporato un profilo di colore
- se l'originale è digitalizzato affiancato da scala cromatica, scala di grigi e scala metrica, allora le scale saranno poste all'esterno dell'immagine riprodotta e all'interno dell'inquadratura complessiva

Indicazioni sul file master:

- sono utilizzati al posto del master per l'accesso in rete locale o web e quindi le dimensioni dipenderanno dagli usi previsti
- sono utilizzati al posto del master per l'accesso in rete locale o web e quindi le dimensioni dipenderanno dagli usi previsti
- di solito i formati sono JPEG o PDF

Nomenclatura dei file

Prima di iniziare l'attività di acquisizione, è necessario stabilire un criterio di nomenclatura dei file. In generale il nome di ciascun file sarà formato da una stringa di caratteri che dovranno contenere le informazioni necessarie ad identificare in maniera univoca l'elemento della collezione a cui l'immagine si riferisce. I *filename* saranno completati con l'estensione fissa più opportuna ".tif", ".jpg", ecc.

Memorizzazione dei dati

La collezione delle immagini consistente in directories e file sarà memorizzata su supporti di

memorizzazione ottici o magnetici, come CD, DVD, disco rigido esterno. Si raccomanda di salvare i dati in un duplice supporto, conservare i supporti in due luoghi distinti, verificare periodicamente i dati, operare un *refreshing* periodico. La durata dei supporti è comunque influenzata da diversi fattori (le norme ISO 18923:2000 e 18925:2002 indicano i parametri per la buona conservazione dei supporti).

Controllo della qualità

Il controllo della qualità dovrebbe essere documentato ed effettuato durante l'intero processo di digitalizzazione su tutto il materiale acquisito, in particolare sul master.

La pianificazione del controllo di qualità dovrebbe comprendere:

- la preparazione adeguata dell'ambiente (configurazione hardware, software di visualizzazione, condizioni di visualizzazione, ecc.)
- la definizione a priori delle caratteristiche di "accettabile" e "non accettabile"
- le modalità di verifica (tutto il prodotto o un campione, tutti i file o solo i master, qualità visuale a schermo e a stampa, ecc.)

ESPLORA

California Digital Library (CDL) - Guidelines for Digital Images
Cornell University Library - Moving theory into practice: digital imaging tutorial
Digital Library Federation (DFL) - Draft benchmark for digital reproductions of printed books and serial publications
Digital Library Federation (DLF)- Guides to quality in visual resource imaging
Federal Agencies Digitization Initiative (FADGI), Still Image Working Group - Technical Guidelines for Digitizing Cultural Heritage Materials: Creation of Raster Image Master Files
S. Hubbard, D. Lenert (edited by) - Introduction to Imaging
National Archives and Records Administration (NARA) - Technical guidelines for digitizing archival materials for electronic access: creation of production master files – raster images
Northeast Document Conservation Center (NDCC) - Handbook for digital projects

Torna su

Metadati

I metadati sono informazioni strutturate su qualsiasi tipo di risorsa, che vengono usate per individuare, descrivere, gestire o consentire l'accesso a quella risorsa.

Non c'è uno standard di metadati che soddisfi tutti i bisogni di tutti i tipi di collezioni e *repositories*.
In genere, gli schemi di metadati includono le seguenti informazioni:

- Metadati descrittivi: descrivono il contenuto di una risorsa e ne consentono il recupero
- Metadati amministrativi: contengono informazioni sulla gestione e sull'amministrazione di una risorsa (es. gestione dei diritti, metadati di preservazione, metadati tecnici …)
- Metadati strutturali: descrivono le relazioni tra gli oggetti digitali (es. l'ordine delle pagine in un libro digitalizzato)

Da *Good practices handbook* (edited by the Minerva Working Group 6)

> ***"Appropriate Meta-data Standards***
>
> ***Issue Definition***
>
> *Certain important standards already exist for meta-data. In the bibliographic domain (and increasingly in non-library cultural domains), the Dublin Core standard is of great importance.*
>
> ***Pragmatic Suggestions***
>
> - *Review existing meta-data models and standards before creating your own.*
> - *Creating a totally new meta-data model for cultural collections should be avoided.*

- *The meta-data work carried out by similar projects in the past is likely to be relevant to your project – meta data models travel well between projects in the cultural area.*
- *Unless your project has good reason not to do so, the Dublin Core fields should be included in the meta-data model. While museums may find the CIMI model better fits their holdings, a common core set of attributes should be aimed for, which will enable cross-collection searching.*
- *If a proprietary meta-data model is to be used, a mapping from this model to the Dublin Core should also be developed.*
- *While a naming scheme or national naming convention may be very useful, a full meta-data model is better, both in terms of the amount of data that can be stored about an item, and also to enable more powerful searching and interoperation with other projects and other countries."*

ESPLORA

ATHENAWP3 (edited by) - Digitisation Standard Landscape
M. Baca (edited by) - Introduction to metadata
Dublin Core Metadata Initiative Wiki - User guide
JISC Digital Media - An introduction to metadata
JISC Digital Media - Medatada standards and interoperability
National Information Standards Organization (NISO) - Understanding metadata

Torna su

Conservazione digitale

In un progetto di digitalizzazione è fondamentale mantenere le risorse digitali create nel tempo al fine di evitare di rifare l'oneroso lavoro di digitalizzazione. Pertanto è necessario mettere in atto procedure per assicurare che gli oggetti digitali rimangano usabili e accessibili indipendentemente dai cambiamenti tecnologici futuri.

L'usabilità e l'accessibilità degli oggetti digitali nel tempo è garantita dal formato dei file (standard per i formati, dimensioni del file, tempo di trasmissione in rete, modalità di visualizzazione delle immagini…), dai media di archiviazione e dal deposito digitale (gli oggetti digitali con i metadati associati saranno archiviati e gestiti in un *digital repository*). E' di fondamentale importanza l'utilizzo di standard aperti per facilitare l'interoperabilità con altri sistemi e quindi l'accesso ai metadati attraverso altri *service provider* (es. Europeana).

ESPLORA

Cornell University Library - Digital preservation management resource
B. F. Lavoie - The Open Archival Information System Reference Model: Introductory Guide

Torna su

« Indietro Avanti »

Linked Heritage
LEARNINGObjects

DIGITALIZZAZIONE CICLO DI VITA

3/5 – UN CASO DI STUDIO ALL'UNIVERSITÀ DI PADOVA

Approfondimenti e materiali per la formazione (autenticazione richiesta – Utente: usereu, Password: usereu)

Indice della pagina

Selezione

La ricognizione della collezione è stato il primo passo necessario per valutare la quantità, la tipologia, le dimensioni e lo stato di conservazione dei documenti.

La ricognizione ha rilevato i seguenti dati: inventario, collocazione, nome del botanico (nascita-morte), designazione specifica del materiale (es. cartolina, fotografia, dipinto…), tecnica di realizzazione, dimensioni, tipo di materiale e dimensioni della montatura, stato di conservazione, informazioni sugli eventuali duplicati e note.

La selezione ha compreso l'intera collezione per i seguenti motivi: il valore storico e l'unicità, la conservazione, la maggiore accessibilità ai contenuti, il miglioramento dei servizi e l'assenza di vincoli legali.

Torna su

Aspetti legali

I documenti della collezione sono soggetti alla legge italiana "Protezione del diritto d'autore e di altri diritti connessi al suo esercizio" (Legge 22 aprile 1941 n. 633 e successive modifiche).

Gli aspetti legali presi in considerazione sono:

- **Ritratto di una persona**: nel caso dell'Iconoteca dei botanici non è fattibile una ricerca degli eredi delle persone ritratte. Per pubblicare le immagini si fa riferimento all'eccezione prevista dall'art. 97, L. 633/1941 e successive modifiche.
- **Diritto d'autore**: le fotografie rappresentano il 70% della collezione; in molti casi sono riproduzione di altre fotografie o opere d'arte. È importante evidenziare la distinzione tra fotografia come opera dell'ingegno e fotografia come semplice riproduzione di una realtà già esistente. Nel primo caso si tratta di un diritto esclusivo e la durata della protezione è di 70 anni dalla morte dell'autore; nel secondo caso si tratta di un diritto connesso e la durata della protezione è di 20 anni dalla produzione della fotografia. Comunque, tutte le opere diventano di dominio pubblico dopo 70 anni dalla morte dell'autore: le immagini della collezione rientrano in questa fattispecie.
- **Acquisizione**: non c'è un atto formale di donazione della raccolta: l'idea di raccogliere ritratti di botanici è di Pier Andrea Saccardo (prefetto dell'Orto botanico dal 1879 al 1915). Le immagini sono state donate alla Biblioteca da privati e da istituzioni.

ESPLORA

Legge 22 aprile 1941 n. 633 – Protezione del diritto d'autore e di altri diritti connessi al suo esercizio

Torna su

Conservazione degli esemplari

La conservazione dell'Iconoteca ha riguardato le seguenti attività: spolveratura e condizionamento degli esemplari con materiale a norma, restauro di negativi e stampe fotografiche in cornice e restauro di stampe.

Trascrizione del video:

Il condizionamento e il restauro fotografico dell'Iconoteca dei botanici.

Il condizionamento

Facendo attenzione si estrae l'esemplare dalla busta originale. Si provvede quindi a rimuovere la polvere con uno schizzetto e con un pennello a setole morbide senza esercitare alcuna pressione sull'originale, sia sul

Per visualizzare i sottotitoli, avvia il video e clicca l'iconcina nel video player

Scarica video in HD

Scarica trascrizione

Spolveratura e condizionamento

Gli esemplari sono stati trattati nel seguente modo:

- rimozione degli esemplari dalle scatole e dalle buste originali
- rimozione delle particelle di polvere dall'immagine con uno schizzetto e spolveratura con pennello a setole morbide
- condizionamento dei documenti nelle buste o nelle cartelle idonee per la conservazione. Le buste sono state riposte nelle scatole a norma
- collocazione delle scatole in un armadio e delle cartelle in una cassettiera.

La qualità del materiale è conforme alle norme ISO 10214 (Photography – Processed Photographic Materials – Filing Enclosures for Storage) e ISO 14523 (Photography – Processed Photographic materials – Photografic activity test for enclosure materials).

Restauro

I negativi su lastra di vetro e le stampe fotografiche in cornice sono stati restaurati da una restauratrice di fotografia; le stampe sono state restaurate da una restauratrice di carta.

ESPLORA

Documentazione fotografica sulla conservazione dell'Iconoteca
Il Progetto di digitalizzazione "Iconoteca dei botanici", p. 32–38




Filmato sul restauro di stampe dell'Iconoteca

Risorse sul trattamento della fotografia:

- George Eastman House - Photographic Processes and Terms Glossary
- The Library of Congress - Preservation - Care, Handling, and Storage of Photographs: information leaflet
- State Library & Archives of Florida - Daguerreotype to Digital: A Brief History of the Photographic Process

Torna su

Digitalizzazione

In conformità a linee guida e buone pratiche di digitalizzazione, la selezione dei parametri ha preso in considerazione le dimensioni, il tipo, il contenuto informativo dell'originale e l'uso previsto per l'oggetto digitale.
La digitalizzazione ha mirato a ottenere file master per la conservazione; dai file master sono stati derivati i file per la consultazione in rete locale e geografica.

Digitalizzazione in-house o in outsourcing

La digitalizzazione dell'Iconoteca è stata affidata all'esterno *(outsourcing)* per i seguenti motivi: la collezione è di piccole dimensioni (2.380 ritratti); la Biblioteca non possiede l'attrezzatura per la digitalizzazione, né ha a disposizione personale specializzato; l'attività doveva concludersi entro il 2008.

La digitalizzazione è stata fatta nei locali della Biblioteca per evitare lo spostamento degli esemplari, con i correlati problemi assicurativi.

La procedura di gara ufficiosa per il servizio di digitalizzazione si è conformata alle disposizioni dell'Università di Padova e si è basata sullo *Schema di capitolato per attività di digitalizzazione* dell'Osservatorio Tecnologico per i Beni e le Attività Culturali (OTEBAC) e su *Request for proposal* di Northeast Document Conservation Center (NDCC) e Research Libraries Group (RLG).

Scelta della strumentazione

L'Iconoteca dei botanici è una collezione eterogenea per tipologia, dimensioni e delicatezza degli originali, e quindi si è scelto un sistema di ripresa fotodigitale, senza contatto con

l'originale, costituito da:

- Dorso digitale Hasselblad CF39 MS da 39 milioni di pixel con stazione di controllo
- Fotocamere professionali Hasselblad 500 ELX con ottiche Planar 80 mm e 120 mm e PK-Wide 35 con obiettivo Nikon AF 60 mm
- Sistema di illuminazione HMI a luce fredda lamellare
- Banco retroilluminato per diapositive

Acquisizione digitale

A. Indicazioni generali per il master:

- l'originale è ripreso/scandito nella sua interezza, senza alcun taglio. Attorno al documento, si lascia un contorno di circa 4 mm (o comunque di circa 8 pixel) possibilmente bianco
- se l'originale è montato su un supporto che riporta informazioni (es. cartoncino della fotografia formato carta da visita), la digitalizzazione comprende anche il supporto
- l'accuratezza geometrica deve essere rispettata
- il file master è archiviato così come lo restituisce lo strumento di acquisizione
- l'originale deve essere digitalizzato affiancato da scala cromatica, scala di grigi e scala metrica
- la presenza delle scale non deve sovrapporsi al contorno delle immagini riprodotte
- la proporzione dei pixel deve essere quadrata
- l'immagine digitalizzata non deve riportare riflessi, in particolare per le fotografie, le incisioni e i quadri in cornice

B. Requisiti per dimensione, risoluzione, formato e compressione dei file:

Risoluzione
Le riprese hanno la risoluzione ottica effettiva legata alle classi di dimensione fisica degli originali *(set)*, secondo la seguente tabella:

Set	Misure	PPI min.
1	cm 5x3,75	3664 PPI
2	cm 10x7,50	1832 PPI
3	cm 20x15,01	916 PPI
4	cm 30x22,51	611 PPI
5	cm 40x30,02	458 PPI
6	cm 50x37,52	366 PPI
7	cm 60x45,02	305 PPI

È stato definito un programma di post-processing dedicato, che ha incluso funzioni di scontornamento automatico e posizionamento su fondo bianco automatico (RGB 255, 255, 255), con cornice pari al 102-3% delle dimensioni del soggetto. Dal processo automatico è residuata una quota di oggetti digitali che per specificità degli originali ha richiesto diversificati trattamenti manuali.

Formato

- File master per l'archiviazione: TIFF non compresso, profondità colore di 16 bit per canale (48 bit RGB colore; 16 bit greyscale per i negativi), ordine byte "PC IBM", ordine pixel interlacciato, profilo colore ProPhoto RGB, con risoluzione ottica dipendente dalle dimensioni (cfr. tabella)

- File derivato per la consultazione in rete locale o ad alta velocità: JPEG compresso qualità massima (12 scala Adobe Photoshop) con profondità colore di 8 bit per canale (24 bit RGB), ritagliato senza scale metrica/Colore, profilo colore sRGB IEC-61966-2.1, risoluzione 300 ppi
- File derivato per la consultazione su Internet: JPEG compresso qualità alta (8 scala Adobe Photoshop) con profondità colore di 8 bit per canale (24 bit RGB), ritagliato senza scale metrica/Colore, profilo colore sRGB IEC-61966-2.1, risoluzione 96 ppi
- File derivato vedette: JPEG compresso qualità media (5 scala Adobe Photoshop) con profondità colore di 8 bit per canale (24 bit RGB), ritagliato senza scale metrica/Colore, profilo colore sRGB IEC-61966-2.1, risoluzione 96 ppi, larghezza fissa 150 pixel, altezza proporzionale

Trascrizione del video:

Università di Padova
Sistema Bibliotecario di Ateneo

Polo delle collezioni antiche e speciali
Biblioteca dell'Orto botanico

La digitalizzazione dell'Iconoteca dei botanici

Gennaio 2009

L'Iconoteca dei botanici è una

Per visualizzare i sottotitoli, avvia il video e clicca l'iconcina nel video player

Scarica video in HD

Scarica trascrizione

Nomenclatura dei file

Per l'identificazione dei file si è usato l'algoritmo nativo dal software di proprietà della ditta, già impiegato in progetti della Biblioteca Digitale Italiana (BDI). L'algoritmo impiega 19 caratteri più 4 per l'estensione dei file; i caratteri codificati riportano informazioni sul supporto, l'identificativo univoco e la versione del file.

Memorizzazione dei dati

Tutti i file sono archiviati in un server del Centro di Ateneo per le Biblioteche (CAB) e su disco fisso esterno, in doppia copia. I due dischi fissi sono conservati presso la Biblioteca dell'Orto botanico e il CAB.

Controllo della qualità

Grazie al collegamento in linea con il sistema di consultazione della ditta, nel corso della digitalizzazione è stato possibile controllare i file, segnalando i difetti riscontrati. I file difettosi sono stati rifatti.
Si è proceduto all'esame a campione dei file master per verificarne:

- correttezza dell'inquadratura e dell'esposizione, assenza di eventuali deformazioni e/o aberrazioni ottiche
- contenimento della tolleranza cromatica
- profondità e profilo colore
- dimensione e formato digitale
- eventuali presenze di elementi che compromettono la fedeltà della riproduzione (es.: presenza di sporco, riflessi luminosi, ecc.)

Mentre, per i file derivati l'esame si è esteso su tutta la produzione disponibile al fine di verificare la qualità generale residuale, le eventuali presenze di difetti all'interno e nell'immediato esterno delle immagini.

Torna su

Metadati

Catalogazione degli esemplari

La catalogazione della collezione è conforme allo standard *ISBD(NBM)*. Per l'intestazione degli autori si sono seguite le *Regole italiane di catalogazione per autori* (RICA).
La catalogazione è nel formato bibliografico UNIMARC ed è stata fatta in Aleph, il sistema di automazione gestionale dello Sistema Bibliotecario di Ateneo (SBA).

CAMPI UNIMARC

Visualizza campi UNIMARC

Metadati degli oggetti digitali

È stato scelto lo schema di metadati MAG (Metadati Gestionali e Amministrativi) – versione 2.0.1 – di ICCU (Istituto Centrale per il Catalogo Unico delle biblioteche italiane e per le informazioni bibliografiche).
Le sezioni usate sono: GEN, BIB, STRU e IMG.

Per la generazione della sezione BIB, i metadati descrittivi in formato UNIMARC sono stati esportati da Aleph in un unico file ISO 2709 e forniti alla ditta per l'importazione nel suo database di lavoro.

Torna su

Conservazione digitale

L'Iconoteca dei botanici è archiviata in Phaidra (Permanent Hosting, Archiving and Indexing of Digital Resources and Assets), il sistema di gestione degli oggetti digitali con funzioni di archiviazione a lungo termine del Sistema Bibliotecario di Ateneo (SBA). Phaidra è Europeana compliant.

La pubblicazione in linea su Phaidra secondo il seguente flusso di lavoro: la mappatura dei metadati MAG / Phaidra, lo script per il caricamento massivo della collezione, la creazione di collezioni per le immagini digitalizzate recto/verso, il test di caricamento su Phaidra test, la migrazione dei dati da Phaidra test a Phaidra produzione e la mappatura tra numeri di sistema Aleph e ULR di Phaidra per inserire in automatico l'URL nei record bibliografici, creando così il collegamento reciproco tra record bibliografici e oggetti digitali della collezione.

Torna su

Bibliografia

Andreoli, Lorisa, *L'Iconoteca dei botanici e il fotografo Luigi Caporelli,* "AFT : semestrale dell'Archivio Fotografico Toscano", n. 47, a. XXIV (giugno 2008)

Id., Il Progetto di digitalizzazione "Iconoteca dei Botanici" Rapporto tecnico, Padova, luglio 2011

Beguinot, Augusto, *I materiali di archivio del r. Istituto ed Orto Botanico di Padova,* "Boll. dell'Ist. Bot. della R. Univ. di Sassari", vol. 1, mem. X (1922)

Minelli, Alessandro (a cura di), *L'Orto botanico di Padova 1545-1995,* Venezia, Marsilio, 1995, pp. 311

Saccardo, Pier Andrea, *La Botanica in Italia: materiali per la storia di questa scienza*, Vol. 1,

Venezia, Tip. Carlo Ferrari, 1895, pp. 236

Id., *La Botanica in Italia: materiali per la storia di questa scienza,* Vol. 2, Venezia, Tip. Carlo Ferrari, 1901, pp. 172

Id., *La iconoteca dei botanici nel r. Istituto botanico di Padova,* Genova, Tip. Ciminago, 1899, pp. 35 (estr. da: Malpighia, a.13, v.13)

Id., *La iconoteca dei botanici del r. Istituto botanico di Padova. Supplemento,* Genova, A. Ciminago, 1902, pp. 22 (estr. da: Malpighia, a.15, v.15)

Settimana della cultura scientifica 2008: filmato sulla mostra *Volti e luoghi dei botanici* alla Biblioteca dell'Orto botanico

« Indietro Avanti »

Linked Heritage
LEARNINGObjects

DIGITALIZZAZIONE: CICLO DI VITA

4/5 – CONCLUSIONI

Ti ringraziamo per aver seguito il nostro Learning Object *Digitalizzazione: ciclo di vita*.

Ora ti invitiamo a rispondere ad alcune domande di valutazione dell'apprendimento (Digitisation Life Cycle: Assessment) e ad esprimere il tuo giudizio sulla qualità del Learning Object alla pagina Evaluate this Learning Object: Digitisation Lyfe Cycle.

Per approfondimenti:

Readings and training materials

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DIGITALIZZAZIONE: CICLO DI VITA

5/5 – CREDITI






Progetto di:
Cristiana Bettella
Elena Bianchi
Lisetta Dainese
Massimo Ferrante
Michele Visentin
Antonella Zane

CAB, Università di Padova

Testi di Lorisa Andreoli (CAB, Università di Padova) basati sui documenti: *Linee guida sulla digitalizzazione*, Gruppo di lavoro Phaidra, di Lorisa Andreoli e Marina Cimino, Maggio 2011 (Phaidra » Guida alla digitalizzazione); *Il Progetto di digitalizzazione Iconoteca dei Botanici*, di Lorisa Andreoli, Luglio 2011.

Grafica e web design di Gianluca Drago
CAB, Università di Padova

Video sulla conservazione: riprese di Lorisa Andreoli, montaggio di Lorisa Andreoli e Alessandra Angarano (CAB, Università di Padova), testi di Lorenza Fenzi (fotografa restauratrice, Bologna), voce di Alessandra Angarano, musiche di Farid Zehar e Bruno Chauveaux.

Video sulla digitalizzazione: riprese di Lorisa Andreoli, montaggio di Lorisa Andreoli (CAB, Università di Padova).

Ringraziamenti:

Si ringraziano Gabriella Valentini (fotografa, Trento), autrice dei sottotitoli nel video sulla digitalizzazione, e Lorenza Fenzi, autrice dei sottotitoli nel video sulla conservazione.

Con il finanziamento di Competitiveness and Innovation Framework Programme, 2011.

« Indietro

Linked Heritage
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DIGITALIZACION DEL CICLO DE VIDA

ACERCA DE LA HERRAMIENTA DIDÁCTICA

Lecturas y materiales de aprendizaje (login requerido – Usuario: usereu, Password: usereu)

Resumen

Esta herramienta didáctica presenta los flujos de trabajo en la digitalación tanto a nivel teórico como práctico. Esta consta de dos partes: la primera visualiza en un modo general todo el proceso, la segunda se centra en un caso de estudio de la Universidad de Padua: la "Colección de retratos de botánicos".
El caso de estudio se ilustra mediante dos vídeos que muestran las siguientes actividades: Preservación de objetos y digitalización.

Lenguas

- Español
- Inglés
- Italiano

Adelante »

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Sumario 1 2 3 4 5

DIGITALIZACIÓN DEL CICLO DE VIDA

1/5 – INTRODUCCIÓN

Lecturas y materiales de aprendizaje (login requerido – Usuario: usereu, Password: usereu)

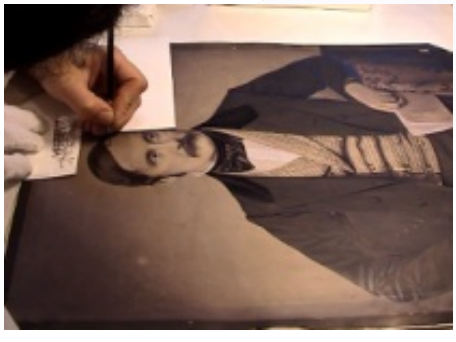
Flujo de trabajo

El propósito de este recurso es el de delinear el rango de procesos para la digitalización de documentos bi-dimensionales, conforme con las buenas prácticas y con estándares nacionales e internacionales para la calidad de reproducción de documentos.

En essencia, los proyectos de digitalización deberían consistir en uno o más de los siguientes objetivos:

- obtener la máxima ventaja posible de los documentos preservados en archivos, museos y bibliotecas
- ampliar el acceso público a documentos y a sus contenidos con propósitos científicos y culturales
- facilitar estudios interdisciplinários y promover la colaboración entre diferentes instituciones
- promover el reconocimiento de colecciones locales o únicas, mediante la diseminación a gran escala de esos contenidos
- crear colecciones virtuales mediante la integración de diferentes formatos o materiales distribuidos en distintas localizaciones
- limitar la consulta directa de documentos originales, especialmente de aquellos en estados críticos
- facilitar el acceso a material típicamente inaccesible
- asegurar que los documentos estarán disponibles para futuras generacions de estudiantes, escolares y sociedad en general

El caso de estudio en la Universidad de Padua



La colección incluye 2,380 retratos de botánicos Italianos e internacionales de la segunda mitad del siglo XVII hasta la primera mitad del XX. La colección está formada por fotografias (hojas de impresión con sales de plata, impresiones de álbumes, aristotypes, impresiones con platino, impresiones con gelatina de plata), negativos en vidrio, gravados, acuarelas, dibujos, pinturas e impresiones fotomecánicas. La colección se preserva en la Biblioteca del Jardín Botánico de Padua.

En 2005, la Biblioteca del Jardín Botánico y lo Antiguo, y secciones de las colecciones especiales del Sistema de Bibliotecas de la Universidad de Padua iniciaron un proyecto diseñado para obtener el máximo beneficio de la colección. Los objetivos del proyecto eran asegurar la preservación a largo plazo y el acceso online a la colección catalogada y

digitalizada. El proyecto estaba estructurado en seis fases: inventariar la selección, aspectos legales, preservación, catalogar, digitalizar y acceso online.

EXPLORAR

Información sobre la colección de Retratos Botánicos

Ejemplos de retratos botánicos de la colección: Fotografías de Nadar:

- Imágenes digitalizadas en Phaidra:
  - Giovanni Antonio Maria Zanardini
  - Pierre Edmond Boissier
- Registro bibliográfico del acceso público online al Catálogo (OPAC) del Sistema de Bibliotecas de la Universidad de Padua:
  - Giovanni Antonio Maria Zanardini
  - Pierre Edmond Boissier
- Nadar: registro de autoridad

« Atrás | Adelante »

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DIGITALIZACIÓN DEL CICLO DE VIDA

2/5 – FLUJO DE TRABAJO

Lecturas y materiales de aprendizaje (login requerido – User: usereu, Password: usereu)

Índice de página

Selección

La selección de documentos se tendrá normalmente en consideración para el crecimiento de la colección, añadir valor, protección, viabilidad técnica, y capacidad para sostener los costes de digitalización a largo plazo. En realidad, la mejor selección será basada en la combinación de criterios.

Los criterios de selección que generalmente serán tomados en consideración son:

- valor histórico y cultural
- singularidad y rareza
- alta demanda
- documentos libres de restricciones legales, o con permiso para digitalizar asegurado
- acceso limitado debido al estado de preservación, valor y localización
- valor añadido para proveer de acceso online; creación de colecciones virtuales
- elevado nivel de interés generado en material poco conocido o desconocido

En ciertos casos seria mejor realizar un estudio del material para así determinar la cantidad, tipo y formato de los documentos y su estado de preservación. Esta información podría resultar útil durante la subsecuente preservación, catalogación y operacions de digitalización.

EXPLORAR

Selección para digitalizar: la matriz de la toma de decisiones

Arriba

Aspectos legales

Cuando se digitalizan documentos, se debe poner mucha atención en los aspectos referentes al copyright, tanto del material original como de las fuentes digitales.

Los puntos a examinar son: características del trabajo a procesar, derechos de propiedad (¿quién tiene los derechos – está protegido el trabajo - qué tipo de protección?), las acciones a desarrollar en el trabajo (¿qué son- qué derechos están involucrados- se ha obtenido autorización?), probablemente identificar áreas críticas y posibles soluciones.

Los trabajos excluidos son aquellos sujetos a copyright y/o aquellos digitalizados en otras colecciones y accesibles al público en la web, en este caso para evitar duplicidad y minimizar costes.

EXPLORAR

Arrow
IPR Helpdesk
Guía paso a paso sobre IPR

Arriba

Preservación de objetos

La digitalización no es un substituto del compromiso a la cura y preservación de documentos originales.
Es importante valorar el estado de preservación de los documentos originales antes de proceder a la digitalización, y asegurarse que cualquier tratamiento de especímenes originales es realizado solo después de haber sido inspeccionados por expertos.

EXPLORAR

Los principios del IFLA para el cuidado y manejo de material de la biblioteca
La Biblioteca del Congreso, Preservación – Recursos para el cuidado de colecciones
Centro de conservación de documento del noreste (NDCC) – Recursos: Folletos de preservación

Arriba

Digitalización

Para garantizar la seguridad de originales y asegurar la buena calidad digitalizando, se debe tener especial cuidado en la elección de los métodos y equipos de adquisición (sistema de captura, iluminación, software).

La naturaleza y dimensiones de los originales determinarán la selección del sistema de captura e iluminación.

Los requerimientos de hardware y software para el sistema de captura están determinados por la calidad de imagen esperada, como también los plazos para la adquisición y procesado de las imágenes, y la cantidad de espacio para almacenar ocupado en las localizaciones de memoria asignadas.

Como norma general, la clave de la calidad no reside en el escanear en la máxima resolución obtenible, sino realizarlo a un nivel proporcional con la información contenida en el original.

En general, el objetivo de digitalizar es producir ficheros máster adecuados para la preservación a largo plazo. Los ficheros para visualizar en la web son derivados de los ficheros máster.

Digitalización própria o externalizada

La decisión de si estos documentos deben ser digitalizados por las propias instituciones, o si se debe confiar a un proveedor exterior del servicio, dependerá de las ventajas y desventajas de los dos métodos.

	Internamente	Externalizado
Ventajas	• mantener control directo sobre todo el proceso • aprender mientras se realiza • mejorar estándares mientras se procede con el trabajo, en lugar de establecer objetivos de antemano • asegurar la seguridad, manejo adecuado y accesibilidad a los materiales	• la institución paga por el producto final, generalmente en base a un acuerdo de precio por imagen • los costes son bajos, y los riesgos limitados • el proveedor del servicio puede trabajar con grandes cantidades de material • los proveedores cargan con el coste de especialización, formación y obsolescencia tecnológica • amplio rango de opciones y servicios disponibles
Desventajas	• mas que pagar por el producto, la institución carga con los costes, incluido formación, obsolescencia tecnológica y paradas • desembolso en la compra y mantenimiento de equipo • necesidad de recursos humanos cualificados • coste por imagen no definido	• eliminando un paso en el proceso, la institución no se desarrolla exhaustivamente en el conocimiento de la digitalización • problemas con seguridad, transporte y manejo de especímenes originales
Recomendaciones	Internamente es mejor si: • la colección no puede ser movida fuera de la institución • el proceso de digitalización es muy simple • la dependencia se puede depositar en recursos humanos especialistas y equipamientos internos	Externalizar es mejor si: • los especímenes originales no pueden ser digitalizados internamente por cualquier motivo • es necessario programar grandes cantidades de material en un corto plazo • existen restricciones en términos de espacio, infraestructura y recursos humanos

Si la decisión que ha sido tomada es **confiar el servicio a una empresa**, la institución debe:

- determinar los parámetros de digitalización
- elaborar una convocatória detallada para licitar
- evaluar los productos y servicios ofrecidos
- definir las responsabilidades contractuales de la institución y de la compañía
- realizar un control de calidad final al producto

El **coste de digitalizar** depende de diferentes variables, como podrían ser el tamñano, tipo y naturaleza del documento a digitalizar, uso para el que está concevido, así que puede ser necesario un asesoramiento sobre los costes por parte del proveedor del servicio de digitalización, o alternativamente, basado en proyectos previos de digitalización. Puede ser

de ayuda consultar con publicaciones sobre el tema.

Selección de equipo

Indicaciones generales en el sistema de captura:

- **Escáner plano** usado para hojas únicas de documentos, o documentos encuadernados que pueden ser abiertos y dejados planos sin dificultad alguna, con hojas de dimensiones máximas A3 (420 x 297 mm).
  Estos documentos incluyen: material impreso (p.ej.: flyers, pósters, folletos), manuscritos (p.ej.: cartas), mapas en buenas condiciones, hojas de música, impresiones (p.ej.: gravados, litografías), dibujos en tinta sin acuarelas o temperas (p.ej.: dibujos animados), material fotográfico (p.ej.: impresiones en gelatina blanco y negro o a color, impresiones de álbumes).
- **Escáners para películas y transparencias** usados para películas, negativos y transparencias.
- **Escáneres "planetary" o cámaras digitales** se usan para documentos encuadernados, documentos de una naturaleza especial, y documentos de tamaños superiores al A3.
  Estos documentos incluyen: volúmenes encuadernados (p.ej.: libros, álbumes, hojas de música, atlas), documentos frágiles, pinturas al óleo, la mayoría de piezas de arte en papel (p.ej.: acuarelas, dibujos), material gráfico y trabajos de arte creados con substancias escamosas y desmenuzables (p.ej.: lápices de cera, carboncillos, lápices blandos), acuarelas tupidas, con témpera o barnices, mapas grandes y frágiles (p.ej.: impresiones de gran tamaño, procesos fotográficos históricos como daguerreotipos o ambrotypes), material tri-dimensional (p.ej.: fábricas, esculturas, objetos).

En el caso de piezas originales antiguas y delicadas, el sistema de iluminación se debe ajustar con lámparas de luz fría y niveles ultra-bajos de radiación UV e IR.

Adquisición digital

Teniendo en cuenta los recursos disponibles, la decisión sobre la calidad de imagen debe basarse en las necesidades de los usuarios, en el método de entrega, el uso de las imágenes y en la naturaleza de los materiales digitalizados (tamaño, formato, tipo de material, color, etc.).
Existen varias razones para crear un máster de alta calidad: preservación, acceso y coste, y la necesidad de asegurar que el proceso de digitalización no necesitará ser repetido en el futuro. El máster se puede usar para preparar ficheros de tamaños pequeños o formatos alternativos para distintos usos previstos. Los formatos estándar se deben usar siempre.

Indicaciones en el fichero máster:

- este es el fichero en el que un objeto digital único es creado y preservado, y del cual se puede generar JPEG, PDF etc.; permite impresiones de alta calidad
- el fichero máster representa la información del contenido original, lo más parecido posible
- el original debe ser capturado en su totalidad. Se debe dejar un borde entorno al documento, para así poder identificar el contorno de la imagen
- si el original es montado en un respaldo que contiene información, la digitalización debe incluir también el soporte
- el fichero máster es archivado exactamente tal y como lo reproduce la herramienta de adquisición
- el fichero debe tener format estándar, p.ej.: TIFF
- el título del fichero debe incorporar el perfil del color
- si el original es digitalizado y acompañado por la escala de color, escala gris y medida, estos se deben encontrar fuera del borde de la imagen reproducida y dentro del perímetro total del marco

Indicaciones sobre archivos derivados:

- se usan en lugar del máster con el propósito de tener acceso LAN o WAN, y acordemente, las dimensiones dependerán de los usos previstos
- los ficheros derivados deben ser de las proporciones adecuadas para una descarga rápida, sin requerir conexiones de alta velocidad, de calidad aceptable para investigación general, y presentado en un formato comprimido para un acceso rápido
- los formatos usuales son JPEG o PDF

Nomenclatura del fichero

Antes de empezar ningún proceso de adquisición, se debe establecer un criterio de nomenclatura. En términos generales, el nombre de cada fichero debe consistir en una lista de caracteres que deben contener la información necesaria para identificar el elemento de la colección a la que pertenece la imagen, de manera única e inequívoca. Los nombres de fichero serán completados con extensiones apropiadas, como ".tif", “.jpg”, etc.

Almacenamiento de datos

La colección de imágenes, consistente en directorios y ficheros, será memorizada en dispositivos de almacenamiento de media ópticos o magnéticos, como CDs, DVDs y discos duros externos.
Es importante que los datos sean guardados en al menos dos elementos distintos de almacenamiento de media, preservado en dos localizaciones distintas, y que los datos sean revisados y chequeados periódicamente. La vida de estos elementos de almacenamiento es en todo evento influenciado por variedad de factores (las ISO 18923:2000 i 18925:2002 indican los parámetros para una correcta preservación del almacenamiento de media).

Control de calidad

El control de calidad debe ser documentado y realizado a lo largo de todo el proceso de digitalización sobre todo el material capturado, en particular sobre los ficheros máster.

La planificación del sistema de control de calidad debe incluir:

- apropiada preparación del ambiente (configuración del hardware, software de visualización, condiciones de visualización, etc.)
- definición de características *a priori* “aceptables” y “no aceptables”
- procedimiento de verificación (colección entera o una muestra, todos los ficheros o solo los máster, calidad visual en pantalla, en impresión, etc.)

EXPLORAR

California Digital Library (CDL) - Guidelines for Digital Images
Cornell University Library - Moving theory into practice: digital imaging tutorial
Digital Library Federation (DFL) - Draft benchmark for digital reproductions of printed books and serial publications
Digital Library Federation (DLF)- Guides to quality in visual resource imaging
Federal Agencies Digitisation Initiative (FADGI), Still Image Working Group - Technical Guidelines for Digitizing Cultural Heritage Materials: Creation of Raster Image Master Files
S. Hubbard, D. Lenert (edited by) - Introduction to Imaging
National Archives and Records Administration (NARA) - Technical guidelines for digitising archival materials for electronic access: creation of production master files – raster images
Northeast Document Conservation Center (NDCC) - Handbook for digital projects

Arriba

Metadatos

Los metadatos son información estructurada relativa a otro tipo de recurso, usados para identificar, que describen, que dirigen o permiten el acceso al recurso en questión.

No existen metadatos estándar que contengan todas las necesidades de todos los tipos de colecciones y repositorios.
Generalmente se considera que los modelos de metadatos incluyen la siguiente información:

- Metadatos descriptivos: datos que describen el contenido de un recurso y que permiten su recuperación
- Metadatos administrativos: datos que contienen información para la gestión y administración de un recurso (p.ej.: gestión de IPR, preservación de metadatos, metadatos técnicos)

- Metadatos estructurales: datos que describen la relación entre objetos digitales (p.ej.: orden de página en un libro digital)

Referencia *Manual de buenas prácticas* (editado por el grupo de trabajo Minerva)

"Estándares de Metadatos apropiados"

Definición de incidéncias

Existen ciertos estándares importantes para los metadatos. En el dominio bibliográfico (e incrementalmente en los dominios culturales fuera de las bibliotecas), el Dublin Core es de gran importancia.

Sugerencias pragmáticos

- *Repasar los modelos de metadatos existentes y los estándares antes de crear el tuyo propio.*
- *Crear un modelo totalmente nuevo de metadatos para una colección cultural debería ser evitado.*
- *El trabajo realizado con los metadatos para proyectos similares en el pasado es probable que sea relevante para tu proyecto - los modelos de metadatos se desplazan bien entre proyectos del ámbito cultural.*
- *A menos que tu proyecto no tenga una buena razón para hacerlo, los campos del Dublin Core deberían ser incluídos en tu modelo de metadatos. Mientras que los museos tendrían que buscar el modelo CIMI que mejor encaje con sus necesidades, un conjunto común de atributos se debería marcar como objetivo, porque éste permitirá la búsqueda cruzada entre colecciones.*
- *Si se quiere usar un modelo patentado de metadatos, se debe mapear de este modelo al de Dublin Core.*
- *Mientras que un esquema de nomenclatura o una convención nacional de nomenclatura podría ser muy útil, un modelo completo de metadatos es mejor, tanto en términos de cantidad de datos que pueden ser almacenados acerca de un objeto, y también permitir búsquedas más potentes y interoperables con otros proyectos o países."*

EXPLORAR

ATHENAWP3 (edited by) - Digitisation Standard Landscape
M. Baca (edited by) - Introduction to Metadatos
Dublin Core Metadatos Initiative Wiki - User guide
JISC Digital Media - An introduction to Metadatos
JISC Digital Media - Medatada standards and interoperability
National Information Standards Organization (NISO) - Understanding Metadatos

Arriba

Preservación digital

En cualquier proyecto de digitalización, es esencial mantener los recursos digitales creados a lo largo del tiempo en un modo que se eviten arduas repeticiones. De acuerdo con la institución se deben adoptar procedimientos que aseguren que los objetos digitales permanecerán útiles y accesibles, independientemente de los futuros cambios tecnológicos en el futuro.

La usabilidad y accesibilidad a objetos digitales a lo largo del tiempo se garantiza por el formato del fichero (estándares para formatos, tamaños de ficheros, ratios de transmisión de web, métodos para visualizar imágenes, etc.), y para archivar media y repositorios digitales (objetos digitales con metadatos asociados serán archivados y gestionados en un repositorio digital). Es fundamentalmente importante usar estándares abiertos, para facilitar la interoperabilidad con otros sistemas, y permitir acceso a metadatos a través de otros proveedores de servicios (p.ej.: Europeana).

EXPLORAR

Cornell University Library - Digital preservation management resource
B. F. Lavoie - The Open Archival Information System Reference Model: Introductory

Guide

Arriba

« Atrás Adelante »

Linked Heritage
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DIGITALIZACIÓN DEL CICLO DE VIDA

3/5 – UN CASO DE ESTUDIO EN LA UNIVERSIDAD DE PADUA

Lecturas y materiales de aprendizaje (login requerido – User: usereu, Password: usereu)

Índice de página

Selección

Hacer un inventario de la colección es el primer paso esencial para evaluar la cantidad, tipo y tamaño de los objetos, y su estado de preservación.

Un estudio sobre el material produjo los siguientes datos: inventario, localización, nombre del botánico (nacimiento-muerte), designación específica del material (p.ej.: postal, fotografía, pintura...) método de creación, dimensiones, tipo de material y dimensiones del passepartout/marco, estado de preservación, información sobre duplicados, si hay, y notas.

El proceso de selección envuelve la colección entera, por las siguientes razones: valor histórico y singularidad, preservación, elevado acceso al contenido, mejora de los servicios y ausencia de impedimentos legales.

Arriba

Aspectos legales

Los documentos en la colección están sujetos a la ley italiana nº 633 del 22 de abril de 1941 “Protección del copyright y otros derechos relacionados con el ejercicio de estos” y sus subsecuentes enmiendas.

Los aspectos legales tomados en consideración son:

- **Retrato de una persona**: en el caso de la colección de retratos de botánicos, una búsqueda de los herederos de las personas fotografiadas no resulta práctico. Para la publicación de imágenes, se ha hecho referéncia a la excepción recogida en el artículo 97, Ley n° 633/1941 y sus subsecuentes enmiendas.
- **Copyright**: los fotógrafos representan el 70% de la colección, y en muchos casos son reproducciones de otras fotografías o obras de arte. Es importante destacar la distinción entre fotografía como una *propiedad intelectual* y fotografía como una *simple reproducción de una realidad existente*. La primera es un derecho y una propiedad exclusiva que está protegida durante 70 años después de la muerte del autor; la segunda es un derecho y propiedad conectada, protegida durante 20 años después de que la foto fueses producida.
  En cualquier evento, todo trabajo se vuelve de dominio público después de un intervalo de 70 años desde a la muerte del autor, y este es el estatus de todas las imágenes de la colección.

- **Adquisición**: no existen hechos formales para que la colección fuese donada; fue Pier Andrea Saccardo (prefecto del Jardín Botánico desde 1879 hasta 1915) quien tuvo la idea de coleccionar retratos de los botánicos. Las imágenes fueron donadas a la Biblioteca por individuos privados e instituciones.

EXPLORAR

Ley italiana n° 633 a 22 de abril de 1941 “Protección del copyright y otros derechos relacionado con el ejercicio de estos”

Arriba

Preservación de objetos (vídeo)

La preservación de colecciones de retratos está relacionada con las siguientes operaciones: limpieza y alojamiento de los especímenes con materiales ISO estándar, restauración de negativos y tomas impresas fotográficas, y restauración de impresiones.

Transcripción del video (Traducción al español):

Custodia y restauración de la colección de retratos de botánicos

Custodia

Los objetos deben ser retirados cuidadosamente de los envoltorios originales. Primero, cualquier mota de polvo debe ser retirada soplando con una pera de goma, luego ambos lados serán limpiados con un cepillo de cerdas blandas, sin

Para activar los comentarios, presione el boton start y el icono pequeño del reproductor

Descargar vídeo en HD

Descargar transcripción (Traducción al español)

Desempolvar y conservación

Los objetos fueron tratados adoptando el siguiente procedimiento:

- quitar los objetos de las cajas y de sus envoltorios originales
- quitar el polvo y las particulas de la imagen usando una pera de goma, y limpiando con un cepillo de cerdas blandas
- el almacenamiento de documentos en sus envolotrios o en carpetas adecuadas para su preservación. Los envoltorios fueron colocados en cajas para la ISO estándar
- devolver al almecenaje: cajas en un archivador, y carpetas en una cómoda

La calidad del material es en concordancia con la ISO 10214 (fotografía – materiales fotográficos procesados – clasificación de recipientes para almacenaje) y ISO 14523 (fotografía – materiales fotográficos procesados – actividad fotográfica para probar cajas de materiales).

Restauración

Negativos en placas de vidrio y fotografías enmarcadas fueron confiadas a un restaurador de fotografía profesional; las copias fueron confiadas a un restaurador de papel.

EXPLORAR

Documentación fotográfica de preservación de la colección de retratos

Il Progetto di digitalizzazione "Iconoteca dei botanici", p. 32–38




Película sobre la restauración de copias en la colección de retratos

Recursos informativos para el tratamiento de fotografías:

- George Eastman House - Photographic Processes and Terms Glossary
- The Library of Congress - Preservation - Care, Handling, and Storage of Photographs: information leaflet
- State Library & Archives of Florida - Daguerreotype to Digital: A Brief History of the Photographic Process

Arriba

Digitalización (vídeo)

De acuerdo con las guías de buenas prácticas existentes, los parámetros de selección cubrían tamaño, tipo, información que contenía y previsión del uso del objeto digital.
El objetivo del proceso de digitalización era el de producir ficheros máster para la preservación; los ficheros derivados de este máster harían posible su consulta en redes locales y del sector.

Digitalización interna o externalizada

La operación de digitalización de la colección de retratos de botánicos fue externalizada por los siguientes motivos: la colección es relativamente pequeña (2.380 retratos); la biblioteca no posee el equipo adecuado ni los recursos humanos especializados; el trabajo tenía que estar finalizado para 2008.

La digitalización fue llevada a cabo en las instalaciones de la biblioteca, para evitar la disrupción de mover los objetos y los problemas asociadas con el seguro.

La convocatoria para la licitación para proveer los servicios de digitalización fue realizada según la regulación de la universidad de Padua, basado en *Especificaciones para la actividad de digitalización* de la OTEBAC (Osservatorio Tecnologico per i Beni e le Attività Culturali – Observatorio tecnológico para los bienes y actividades culturales).

Selección de equipo

La colección de retratos de los botánicos es heterogénea en términos de tipo, dimensiones

y fragilidad de los distintos elementos, por lo que acordemente se decidió usar un sistema de captura con fotografía digital que no requería contacto con el original, compuesto de:

- Hasselblad CF39 MS digital back con 39 miliones de pixeles, sensor y estación de control
- Hasselblad 500 ELX cámara profesional con Planar y lentes de 80 mm y 120 mm, también PK 35 mm ángulo ancho y Nikon AF 60 mm micro lente
- HMI sistema de iluminación con luz fría y flat beam
- Visor retroiluminado para transparencias

Adquisición digital

A. Indicaciones generales para el fichero máster:

- el original fotografiado/escaneado en su totalidad, sin cortes. Un borde de aproximadamente 4mm (o en todo caso de 8 pixeles), preferiblemente en color blanco, se dejará entorno al documento
- si el original tiene una montura o soporte con información (p.ej.: fotografía en formato de tarjeta de visita), la montura también debe ser digitalizada
- se debe observar la precisión geométrica
- el fichero máster se archiva exactamente como se reproduce por la herramienta de adquisición
- la imagen digitalizada del original debe ir acompañada por la escala de color, escala de grises y la medida
- las escalas y medidas no pueden sobreponerse al perfil de la imagen
- la proporción del pixel debe ser cuadrada
- la imagen digitalizada debe carecer de reflejos, especialmente en el caso de fotografías, grabados y fotografías enmarcadas.

B. Requerimientos por tamaño, resolución, formato y ficheros de compresión:

Resolución
La resolución óptica efectiva de las capturas está ligada al tamaño físico de los originales (el set), tal y como se indica en la siguiente tabla:

Set	Medidas	Min PPI
1	5x3,75cm	3664 PPI
2	10x7,50cm	1832 PPI
3	20x15,01cm	916 PPI
4	30x22,51cm	611 PPI
5	40x30,02cm	458 PPI
6	50x37,52cm	366 PPI
7	60x45,02cm	305 PPI

Se definió un programa dedicado al post proceso, con funciones que incluían colecta y posicionamiento automático en un fondo blanco (RGB 255, 255, 255), con un contorno correspondiente al 102-3% de las dimensiones del objeto. El proceso automático produjo una cantidad de objetos digitales, que, acorde con la naturaleza específica de los originales, requirió de distintos tratamientos manuales.

Formato

- El fichero máster para archivar: TIFF sin comprimir, profundidad de color 16 bits por canal

(48 bit RGB, 16 bit en escala de grises y negativos), orden de bits de IBM PC, ordenes de pixel intercaladas, perfil de color ProPhoto RG, con resolución óptica en función de las dimensiones (ver tabla).
- Fichero derivado del máster para consulta vía LAN o en alta velocidad: JPEG comprimido, máxima calidad (Adobe Photoshop escala 12), profundidad de color 8 bits por canal (24 bits RGB), recortado sin medida/Color, perfil de color sRGB para IEC-61966-2.1, resolución 300 ppi.
- Fichero derivado del máster para consulta en Web: JPEG comprimido, alta calidad (Adobe Photoshop escala 8) con color de profundidad 8 bits por canal (24 bits RGB), cortado sin escala/Color, perfil de color sRGB a IEC-61966-2.1, resolución 96 ppi.
- Thumbnails: JPEG comprimido a media calidad (Adobe Photoshop escala 5) con color de profundidad 8 bits por canal (24 bits RGB), cortado sin escala/color, con perfil de color sRGB IEC-61966-2.1, resolución 96 ppi, anchura fija a 150 pixeles, altura proporcional.

Transcripción del video (Traducción en español):

Universidad de Padua
Sistema de bibliotecas universitarias

Sección de colecciones especiales y antiguas
Biblioteca del jardín botánico

Digitalización de la colección de retratos de botánicos

Enero 2009

Para activar los comentarios, pulse start video y clique en el icono del reproductor de vídeo

Descargar vídeo en HD

Descargar transcripción (traducción en español)

Nomenclatura de ficheros

La identificación de ficheros fue conseguida usando un algoritmo nativo del software obtenido por la compañía, que ya disponía de empleados en proyectos de la BDI (Biblioteca Digitale Italiana – Biblioteca digital italiana). El algoritmo usa 19 caracteres más 4 de extensión del fichero; los caracteres codificados contienen información en el medio, el identificador univocal y la versión del fichero.

Almacenaje de datos

Todos los ficheros son archivados en un servidor del CAB (Centro di Ateneo per le Biblioteche – Centro de Bibliotecas Universitarias) y en dos discos duros externos, una copia en cada uno. Los dos discos duros se guardan en la biblioteca del jardín botánico y en el CAB.

Control de calidad

Mediante el uso de un link online hacia el sistema de consulta contratado por la compañía, fue posible verificar los ficheros durante el transcurso del proceso de digitalización para así poder informar de defectos. Los ficheros defectuosos fueron digitalizados de nuevo.
Se realizaron inspecciones en los ficheros máster para:

- correcta alineación y exposición de los fotogramas, absencia de posibles deformaciones y/o errores ópticos.
- confinamiento de la tolerancia cromática
- perfil y profundidad de color
- tamaño digital y formato
- posible existencia de elementos teniendo efecto adverso en la fidelidad de la reproducción (p.ej. suciedad, reflejos de luz, etc.)

En el caso de ficheros obtenidos a partir del máster, la inspección se extendió a todo objeto disponible con tal de verificar la calidad general, la presencia de defectos en la imagen o adyacente.

Arriba

Metadatos

Catálogo de objetos

La colección es catalogada de acuerdo con el estándar ISBD(NBM). Los autores lo identifican en concordancia con el RICA (Regole italiane di catalogazione per autori - *Reglas italianas para la catalogación de autores*.
La catalogación se hizo según el formato de bibliografía de UNIMARC y fue hecho en Aleph, el sistema de automatización de la gestión usado por la SBA (Sistema Bibliotecario di Ateneo – Sistema bibliotecaria de la Universidad).

CAMPOS UNIMARC

Show UNIMARC fields

Metadatos de objetos digitales

El esquema de metadatos seleccionado fué MAG1 (Metadati Gestionali e Amministrativi – *Metadatos de gestión y administración)* – versión 2.0.1 - por el ICCU (Istituto Centrale per il Catalogo Unico – Instituto Central por el Catálogo Único de Bibliotecas Italianas e información bibliográfica).
Las secciones usadas fueron: GEN, BIB, STRU y IMG.

Para generar la sección BIB, metadatos descriptivos de objetos en formato UNIMARC, fue exportado por Aleph a un fichero único ISO 2709 y proporcionado por la compañía para su importación en su base de datos operativa.

Arriba

Preservación digital

La colección de retratos de botánicos está archivada en Phaidra (Permanent Hosting, Archiving and Indexing of Digital Resources and Assets), el sistema de gestión de objetos digitales con funciones de archivo de largo plazo usado por la SBA (Sistema Bibliotecario di Ateneo – University Library System). Phaidra es conforme con Europeana.

La publicación online usando Phaidra comporta el siguiente proceso: mapeado del MAG / metadatos Phaidra, escritura para el grueso de la subida de la colección, creación de colecciones para el anverso/reverso de las imágenes digitalizadas, test de carga en Phaidra, migración de datos del test de Phaidra a la producción de Phaidra con mapeo entre el sistema numérico de Aleph y la URL de Phaidra para poder incluir la URL automáticamente en los registros bibliográficos, creando allí links mutuos entre los registros bibliográficos y los objetos digitales de la colección.

Arriba

Bibliografia

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Minelli, Alessandro (a cura di), *L'Orto botanico di Padova 1545-1995,* Venezia, Marsilio, 1995, pp. 311

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Id., *La iconoteca dei botanici del r. Istituto botanico di Padova. Supplemento,* Genova, A. Ciminago, 1902, pp. 22 (estr. da: Malpighia, a.15, v.15)

Settimana della cultura scientifica 2008: filmato sulla mostra *Volti e luoghi dei botanici (Rostros y lugares de los botánicos)* en la biblioteca del Jardín Botánico

« Atrás Adelante »

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DIGITALIZACIÓN DEL CICLO DE VIDA

4/5 – CONCLUSIONES

Gracias por visitar nuestra herramiento de aprendizaje *Ciclo de vida de la digitalización*

Le invitamos a responder algunas questiones para su evaluación del aprendizaje y a darnos su opinión acerca de la herramienta de aprendizaje evaluando su calidad con Evalúe esta herramienta de aprendizaje: Ciclo de vida de la digitalización.

Para más detalles:

Materiales de lectura y aprendizaje

« Atrás | Adelante »

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DIGITALIZACIÓN DEL CICLO DE VIDA

5/5 – CRÉDITOS






Proyecto:
Cristiana Bettella
Elena Bianchi
Lisetta Dainese
Massimo Ferrante
Michele Visentin
Antonella Zane

CAB, University of Padua (Italy)

Textos por Lorisa Andreoli (CAB, University of Padua) based on the documents: *Linee guida sulla digitalizzazione*, Phaidra Working Group, por Lorisa Andreoli and Marina Cimino, May 2011 (Phaidra » Guida alla digitalizzazione); *Il Progetto di digitalizzazione Iconoteca dei Botanici*, por Lorisa Andreoli, Julio 2011.

Diseño gráfico y Web por Gianluca Drago
CAB, Universidad de Padua (Italia)

Vídeo sobre Preservación: filmación por Lorisa Andreoli, edición de vídeo por Lorisa Andreoli y Alessandra Angarano (CAB, Universidad de Padua), texto por Lorenza Fenzi (restauradora fotográfica, Bologna, Italia), voz por Alessandra Angarano, música por Farid Zehar y Bruno Chauveaux.

Vídeo sobre Digitalización: filmación por Lorisa Andreoli, edición de vídeo por Lorisa Andreoli (CAB, Universidad de Padua).

Traducción al español: Pau Pamplona (Fundació i2CAT)

Agradecimientos:

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Subvencionado por the Competitiveness and Innovation Framework Programme, 2011.

« Atrás

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PERSISTENT IDENTIFIERS: WHAT IF?

ABOUT THE LEARNING OBJECT

Download transcript

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Summary

This Learning object deals with Persistent identifiers (PIDs).
It is divided into 17 sub-units each of which consists of two parts: a dialogue between two owlets (on the left of the screen) introducing PIDs, and a video (on the right of the screen) representing the concepts.
The idea was to use the famous painting by Botticelli, *The Birth of Venus*, as a metaphor. Each PID functional requirement is represented by a visual metaphor associated with a musical metaphor: uniqueness, persistency, resolvability, reliability, authoritativeness, flexibility, interoperability and cost effectiveness.

Languages

- English
- Spanish

Forward »

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PERSISTENT IDENTIFIERS: WHAT IF?

1/19 – INTRODUCTION

"There was a great exhibition by Sandro Botticelli in Florence only a few years ago. It was the first time so many of his works were collected in one place and I remember reading very positive reviews about it.
But ... I can't find the information about this event any more ... I type the correct URL and what I get is *'404: not found'*. It is so annoying considering the event is so recent. I wonder what we'll find in ten years' time."

"You wouldn't have this problem if **Persistent identifiers** had been used to refer to that exhibition!"

"**Persistent?** What are you talking about? Everything is so volatile nowadays ... anyway, what do you mean by 'Persistent Identifiers'?"

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PERSISTENT IDENTIFIERS: WHAT IF?

2/19 – WHAT IF: GLOBAL UNIQUENESS

"Are PIDs really necessary?"

"What if we couldn't rely on **globally unique** identifiers?"

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PERSISTENT IDENTIFIERS: WHAT IF?

3/19 – WHAT IF: PERSISTENCE

"What if we couldn't rely on **permanently unique** identifiers?"

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PERSISTENT IDENTIFIERS: WHAT IF?

4/19 – WHAT IF: RESOLVABILITY

"What if identifiers weren't linked to the current location of the resources?"

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PERSISTENT IDENTIFIERS: WHAT IF?

5/19 – WHAT IF: RELIABILITY

"What if we couldn't be supported by a **reliable** PID system?"

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PERSISTENT IDENTIFIERS: WHAT IF?

6/19 – WHAT IF: AUTHORITATIVENESS

"What if we couldn't rely on an **authoritative** PID system?"

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PERSISTENT IDENTIFIERS: WHAT IF?

7/19 – WHAT IF: FLEXIBILITY

"What if a PID system did not represent collections in sufficient **detail**?"

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PERSISTENT IDENTIFIERS: WHAT IF?

8/19 – WHAT IF: INTEROPERABILITY

"What if we couldn't rely on a **interoperable** PID system?"

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PERSISTENT IDENTIFIERS: WHAT IF?

9/19 – WHAT IF: COST EFFECTIVENESS

"What if we couldn't rely on an **affordable** PID system?"

"What a mess! What happened?"

"Don't worry, you can use PIDs!
PIDs can refer to all the information associated with a real object, including its location, or to any of its potential surrogates, e.g. digital images, a museum collection where it belongs, research documents referring to it and other services. PIDs may be applied to real objects as well as to more abstract concepts like services, transformation issues, aggregation or disaggregation of objects and organizations."

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PERSISTENT IDENTIFIERS: WHAT IF?

10/19 – COST EFFECTIVE

"Due to limited funding allocated to the cultural heritage sector, cultural organisations should use PID systems that are either free or have very low costs"

« Back Forward »

COST EFFECTIVE

Resources, particularly financial resources, are scarce in the cultural heritage sector.
In addition, organisations have a general mission to provide access to their items free of charge for non-commercial use.

Therefore:

- **Cultural organisations should use PID systems that are either free of charge, or have a very low cost in relationship to their available resources.**

Persistent Identifiers (PIDs): recommendations for institutions by Gordon McKenna and Roxanne Wyns.

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PERSISTENT IDENTIFIERS: WHAT IF?

11/19 – INTEROPERABLE

"To enable the greatest number of users to share and use cultural contents, **interoperability** among different PID systems must be achieved mainly through the adoption of **open standards**."

INTEROPERABLE

This is vital to ensuring that cultural content can be shared and used by as a large a set of users as possible.
Many PID solutions were designed for specific domains.

Therefore:

- **Organisations should use intellectually openstandards for the implementation of PIDs.**

Persistent Identifiers (PIDs): recommendations for institutions by Gordon McKenna and Roxanne Wyns.

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PERSISTENT IDENTIFIERS: WHAT IF?

12/19 – FLEXIBLE

"An identifier system should adjust to different requirements of different types of collections, for example it should be able to deal with varying levels of details, from individual objects to aggregations: the granularity of collections should be represented. This is called **flexibility**."

FLEXIBLE

A PID system will work more effectively if it can handle the requirements of different types of collections.
Parts of collections may be curated at different levels of 'granularity', from parts of objects, to individual objects, to collections objects. The latter has an unbounded number of individual elements.

Therefore:

- **Organisations should use PIDs systems that are flexible enough to represent the granularity of their collections.**

Persistent Identifiers (PIDs): recommendations for institutions by Gordon McKenna and Roxanne Wyns.

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PERSISTENT IDENTIFIERS: WHAT IF?

13/19 – AUTHORITATIVE

"Organisations should establish the **authority** and credibility of a PIDs system's provider before adopting that system."

AUTHORITATIVE

Some PID systems are dependent on responsible organisations who: manage the system, assign identifier; and resolve the identifiers to resources.
Some services are provided by public institutions like national libraries and archives.
For a system to be effectively supported the responsible organisation must be able to demonstrate its commitment.

Therefore:

- **Organisations should evaluate and be assured of the authority and credibility of a PIDs system's provider before adopting that system.**

Persistent Identifiers (PIDs): recommendations for institutions by Gordon McKenna and Roxanne Wyns.

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PERSISTENT IDENTIFIERS: WHAT IF?

14/19 – RELIABLE

"The **reliability** of PID systems should be certified by institutions by means of redundant technology and register updates (preferably automatic)."

« Back Forward »

RELIABLE

For a PIDs system to function reliably these issues have to be assessed:

1. It should always be active (e.g. backed up, with redundant technology)
2. The register of PIDs should be updated (preferably automatically)

Therefore:

- **Organisations should evaluate and be assured of the technical reliability of a PID system (including their own) before adopting it.**

Persistent Identifiers (PIDs): recommendations for institutions by Gordon McKenna and Roxanne Wyns.

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PERSISTENT IDENTIFIERS: WHAT IF?

15/19 – RESOLVABLE

"... you see ... the location has changed, how lucky I am I can still trace it!"

"Yes you are! As a matter of fact **resolution** services guarantee that PIDs are linked to their current resource URLs even when the latter change.
So, don't mix up resolution with retrieval, which is the ability of systems to access and download digital resources by clicking on URLs."

RESOLVABLE

Choice to use PIDs does not imply that an external human user will be able to access anything that they can use effectively.

Therefore:

- **Organisations should be clear, and make public, information about which, if any, their PIDs resolve to an available resource.**

Persistent Identifiers (PIDs): recommendations for institutions by Gordon McKenna and Roxanne Wyns.

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PERSISTENT IDENTIFIERS: WHAT IF?

16/19 – PERSISTENT

"You see, **persistence** refers to a number of aspects which are not only technical, but also related to the policies and commitments of institutions. They should be committed to creating and maintaining their PIDs in order to give exhaustive information about their collections, no matter what."

« Back Forward »

PERSISTENT

Persistence refers to the lifetime of an identifier, during which it should not possible to reassign it to another resource or to delete it.
If an organisation can guarantee that a PID will be managed so that it will survive changes to ownership and PID system, then an external user can be confident of its persistency.

Therefore:

- **Organisations should commit themselves to the persistence of their PIDs and make clear to others what they mean by 'persistent' and how this will be implemented.**

Persistent Identifiers (PIDs): recommendations for institutions by Gordon McKenna and Roxanne Wyns.

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PERSISTENT IDENTIFIERS: WHAT IF?

17/19 – UNIQUENESS ENVIRONMENT

"A PID is a label associated with something in a particular environment. On the Internet it should be **globally unique**, but it may only be so within a specified context. At any rate, it must be unique within the institution's own system."

"Oohhh, what a masterpiece!"

« Back Forward »

UNIQUENESS ENVIRONMENT

A PID is label that is associated with something in a particular environment.
On the Internet it should be globally unique, but may only be unique in combination with a limited name space. In the 'worse' case it may only be unique within an organisation's own systems.

Therefore:

- **Organisations should be clear, and make public, in which environment their PIDs are unique.**

Persistent Identifiers (PIDs): recommendations for institutions by Gordon McKenna and Roxanne Wyns.

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PERSISTENT IDENTIFIERS: WHAT IF?

18/19 – CONCLUSIONS

Thank you for viewing our Learning Object *Persistent Identifiers: What if?*

We invite you now to answer some questions for your learning assessment and to give us your feedback about the Learning Object by evaluating its quality with Evaluate this Learning Object: PIDs: What if.

For further details:

Readings and training materials

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PERSISTENT IDENTIFIERS: WHAT IF?

19/19 – CREDITS








Project by:
Cristiana Bettella
Elena Bianchi
Lisetta Dainese
Massimo Ferrante
Michele Visentin
Antonella Zane

CAB, University of Padua (Italy)

Texts based on the Athena project booklet *Persistent Identifiers (PIDs): recommendations for institutions* by Gordon McKenna and Roxanne Wyns.

Graphic and Web design by Gianluca Drago
CAB, University of Padua (Italy)

Technical support and Flash development by Angelo Calò, Cecilia Dal Bon
CMELA, University of Padua (Italy)

Audio by Lodovico Bollacasa, Padua (Italy)

Music from:
Wolfgang Amadeus Mozart, *Piano Sonata No.16 in C major, K.545, "Sonata facile"*
Sergej Sergeevič Prokof'ev, *Peter and the Wolf*
Frederic Chopin, *Valtz in A flat Major op.69 n.1*
Lodovico Bollacasa, *Petite fille*

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Funded by the Competitiveness and Innovation Framework Programme, 2011.

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IDENTIFICADORES PERSISTENTES: ¿Y SI...?

ACERCA DE LA HERRAMIENTA DE APRENDIZAJE

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Sumario

Esta herramienta de aprendizaje trata sobre los Identificadores persistentes (PIDs).
Está dividida en 17 sub-unidades contando cada una con dos partes: un diálogo entre dos búhos (a la izquierda de la pantalla) presentando las PIDs, y un vídeo (a la derecha de la pantalla) representando los conceptos.
La idea es usar el famoso cuadro de Botticelli, *El nacimiento de Venus*, como metáfora. Cada requerimiento funcional del PID se representa con una metáfora visual asociada a una metáfora musical: único, persistente, resolubilidad, fiabile, autoridad, flexibilidad, interoperabilidad y rentabilidad.

Lenguas

- Inglés
- Español

Adelante »

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Sumario 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

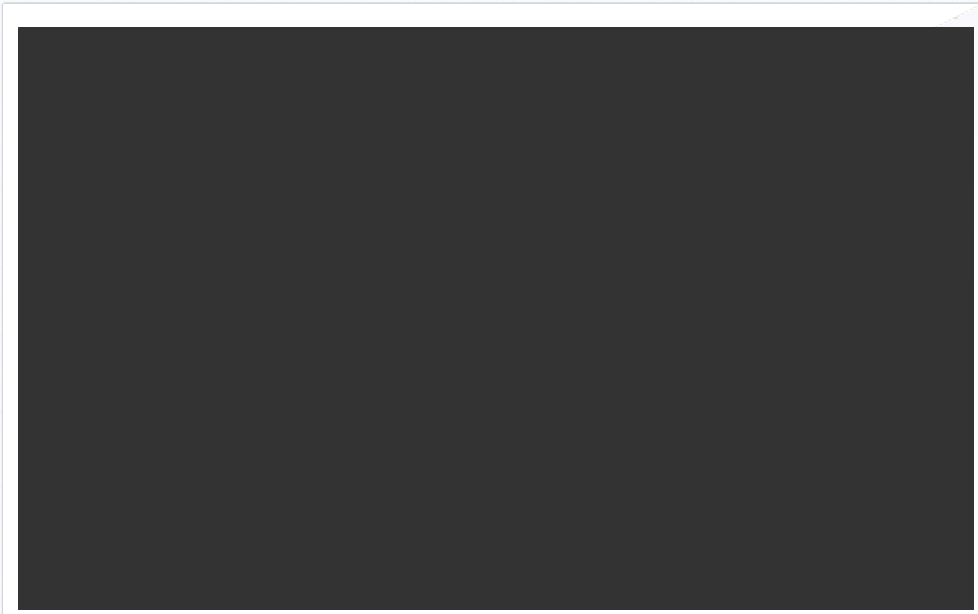
IDENTIFICADORES PERSISTENTES: ¿Y SI...?

1/19 – INTRODUCCIÓN

"Hubo una gran exposición de Sandro Boticelli en Florencia hace pocos años. Era la primera vez que se juntaban tantas obras suyas en un solo lugar y que yo recuerde, obtuvo muy buenas críticas.
Pero ... ya no puedo encontrar información acerca de este evento ... he escrito la URL correcta y lo que obtengo es *'404:not found'*. Es muy molesto pensar esto de un evento que es tan reciente. Me pregunto qué encontraremos en 10 años."

"No habrías tenido este problema si los **Identificadores persistentes** se hubieran usado para referenciar esa exposición!"

"**¿Persistente?** ¿De qué estas hablando? Todo es muy volátil hoy en día ... de todas formas, a qué te refieres con 'Identificadores persistentes'?"



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IDENTIFICADORES PERSISTENTES: ¿Y SI...?

2/19 – Y SI: SINGULARIDAD GLOBAL

"¿Son realmente necesarios los PIDs?"

"Y si no podemos fiarnos de la **singularidad global** de los identificadores?"

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IDENTIFICADORES PERSISTENTES: ¿Y SI...?

3/19 – Y SI: PERSISTENCIA

"¿Y si no podemos fiarnos de que los identificadores **permanezcan únicos**?"

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IDENTIFICADORES PERSISTENTES: ¿Y SI...?

4/19 – Y SI: RESOLUBILIDAD

"¿Y si los identificadores no están vinculados con la localización actual de los recursos?"

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IDENTIFICADORES PERSISTENTES: ¿Y si?

5/19 – Y SI: FIABILIDAD

"¿Y si no tenemos el apoyo de un sistema PID **fiable**?"

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IDENTIFICADORES PERSISTENTES: ¿Y SI...?

6/19 – Y SI: AUTORIDAD

"¿Y si no nos podemos fiar de un sistema PID **con autoridad suficiente**?"

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IDENTIFICADORES PERSISTENTES: ¿Y SI...?

7/19 – Y SI: FLEXIBILIDAD

"¿Y si un sistema PID no representa colecciones con suficiente **detalle**?"

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IDENTIFICADORES PERSISTENTES: ¿Y SI...?

8/19 – Y SI: INTEROPERABILIDAD

"Y si no podemos confiar en un sistema PID **interoperable**?"

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IDENTIFICADORES PERSISTENTES: ¿Y SI...?

9/19 – Y SI: RENTABILIDAD

"¿Y si no podemos confiar en **permitirnos** un sistema PID?"

"¡Que desastre! ¿Qué pasa?"

"¡No te preocupes, puedes usar PIDs! Los PIDs pueden hacer referencia a toda la información asociada con un objeto real, incluyendo su localización o a cualquier otro sustituto, p.ej.: imágenes digitales, una colección de museo dónde pertenece, documentos de investigación refiriéndose a este y a otros servicios.
Los PIDs pueden aplicarse a objetos reales como también a conceptos más abstractos como servicios, cuestiones de transformación, agregación o disgregación de objetos y organizaciones.

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IDENTIFICADORES PERSISTENTES: ¿Y SI...?

10/19 – RENTABLE

"Debido a los bajos presupuestos asignados al sector del patrimonio cultural, las organizaciones culturales deben usar sistemas PID que son libres o a muy bajo coste"

RENTABLE

Los recursos, particularmente los financieros, son escasos en el sector del patrimonio cultural. Además, las organizaciones tienen una misión general de proporcionar acceso, libre de cargos, a sus objetos para usos no comerciales.

Por la tanto:

- **Las organizaciones culturales deben usar sistemas PID que o bien son libres de cargo, o tienen muy bajo coste en relación con los recursos disponibles.**

Identificadores persistentes (PIDs): recomendaciones para instituciones por Gordon McKenna y Roxanne Wyns.

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IDENTIFICADORES PERSISTENTES: ¿Y SI...?

11/19 – INTEROPERABLE

"Para permitir a un gran número de usuarios compartir y usar contenidos culturales, **la interoperabilidad** entre distintos sistemas PID debe conseguirse principalmente mediante la adopción de **estándares abiertos**."

INTEROPERABLE

Esto es vital para asegurar que los contenidos culturales pueden ser compartidos y usados por un número de usuarios lo más grande posible.
Muchas soluciones PID fueron diseñadas para dominios específicos.

Por eso:

- **Las organizaciones deberían usar estándares abiertos para la implementación de los PIDs.**

Identificadores permanentes (PIDs): recomendaciones para instituciones por Gordon McKenna y Roxanne Wyns.

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IDENTIFICADORES PERSISTENTES: ¿Y SI...?

12/19 – FLEXIBLE

"Un sistema identificador debería ajustarse a diferentes requisitos de diferentes tipos de colecciones. Por ejemplo, debería ser capaz de tratar con diferentes niveles de detalle, desde objetos individuales hasta agregaciones: la granularidad de las colecciones debe ser representada. Esto se llama **flexibilidad**."

FLEXIBLE

Un sistema PID trabajará más efectivamente si puede manejar los requisitos de diferentes tipos de colecciones.
Partes de colecciones pueden ser conservadas a distintos niveles de "granularidad", desde partes de objetos, a objetos individuales, o colecciones de objetos. Lo último tiene un infinito número de elementos individuales.

Por eso:

- **Las organizaciones deberían usar sistemas PID que son lo suficientemente flexibles para representar la granularidad de sus colecciones.**

Identificadores persistentes (PIDs): recomendaciones para instituciones por Gordon McKenna y Roxanne Wyns.

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IDENTIFICADORES PERMANENTES: ¿Y SI...?

13/19 – AUTORIZADO

"Las organizaciones deben establecer la **autoridad** y credibilidad de los proveedores de sistemas PIDs antes de usar ese sistema."

AUTORIZADO

Algunos sistemas PID dependen de responsables de organizaciones que: gestionan el sistema, asignan identificadores, y deciden qué identificadores van a qué recursos.
Algunos servicios son provistos por instituciones públicas como bibliotecas y archivos nacionales. Para dar soporte efectivo, el responsable de una organización debe ser capaz de demostrar su compromiso.

Por eso:

- **Las organizaciones deben evaluar y estar seguras de la autoridad y credibilidad de los proveedores de sistemas PIDs antes de adoptar ese sistema.**

Identificadores persistentes (PIDs): recomendaciones para instituciones por Gordon McKenna y Roxanne Wyns.

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IDENTIFICADORES PERSISTENTES: ¿Y SI...?

14/19 – FIABILIDAD

"La **fiabilidad** de un sistema PID debe ser certificada por instituciones por medio de tecnología redundante y actualizaciones de registro (preferiblemente automáticas)."

FIABILIDAD

Para que un sistema PID pueda funcionar de manera fiable debe atender los siguientes requisitos:

1. Debe estar siempre activo (p.ej. hacer copias de seguridad, con tecnología redundante).
2. Los registros de los PIDs deben ser actualizados (preferiblemente automáticamente).

Por eso:

- **Las organizaciones deben evaluar y estar seguras de la fiabilidad técnica del sistema PID (incluyendo el suyo mismo) antes de adoptarlo.**

Identificadores persistentes (PIDs): recomendaciones para instituciones por Gordon McKenna y Roxanne Wyns.

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IDENTIFICADORES PERSISTENTES: ¿Y SI...?

15/19 – RESOLUBLE

"... ya ves ... la ubicación ha cambiado, que afortunado que aún lo puede seguir!"

"Si que lo eres! De hecho los servicios de **solución** garantizan que los PIDs están vinculados con sus recursos URL actuales incluso si el último cambia.
Por lo tanto, no mezcles solución con recuperación, que es la habilidad de los sistema para acceder y descargar recursos digitales clicando en las URLs."

RESOLUBLE

La elección de usar PIDs no implica que un usuario humano externo pueda acceder a todo y que puedan utilizarse eficazmente.

Por eso:

- **Las organizaciones deben ser claras y hacer pública la información relacionada que, si surge, sus PIDs puedan redirigir hacía un recurso disponible.**

Identificadores persistentes (PIDs): recomendaciones para instituciones por Gordon McKenna y Roxanne Wyns.

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IDENTIFICADORES PERSISTENTES: ¿Y SI...?

16/19 – PERSISTENTE

"Como ves, **persistencia** se refiere a un número de aspectos que no son únicamente técnicos, sino que también están relacionados con las políticas y los compromisos de las instituciones. Ellos deberían estar comprometidos en crear y mantener sus PIDs para así dar información exhaustiva acerca de sus colecciones, sin importar cual."

PERSISTENTE

Persistencia se refiere al tiempo de vida de un identificador, durante el cual éste no se podrá reasignar a otro recursos ni tampoco borrarlo.
Si una organización puede garantizar que un PID será administrado correctamente y, por lo tanto, que sobrevivirá a los cambios de propiedad y de sistemas PID, un usuario externo puede confiar en su persistencia.

Por eso:

- **Las organizaciones deben comprometerse en la persistencia de sus PIDs y dejar, lo que quieren decir con 'persistente' y como esto será implementado.**

Identificadores persistentes (PIDs): recomendaciones para instituciones por Gordon McKenna y Roxanne Wyns.

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IDENTIFICADORES PERSISTENTES: ¿Y SI...?

17/19 – SINGULARIDAD

"Un PID es un sello asociado con algo en un entorno específico. En internet esto debe ser **globalmente único**, y también debería serlo dentro de un contexto específico. En cualquier caso, este debe ser único dentro del sistema de su institución."

"Oohhh, que obra maestra!"

« Atrás Adelante »

ENTORNO ESPECÍFICO

Un PID es un sello asociado con algo en un entorno específico. En internet esto debe ser globalmente único, pero debería serlo solo en combinación con un espacio reducido del nombre. En el peor de los casos, sería solo único en el sistema de la propia institución.

Por eso:

- **Las organizaciones deben ser claras, y hacer público, en qué entornos son únicos sus PIDs.**

Identificadores persistentes (PIDs): recomendaciones para instituciones por Gordon McKenna y Roxanne Wyns.

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IDENTIFICADORES PERSISTENTES: ¿Y SI...?

18/19 – CONCLUSIONES

Gracias por consultar nuestra herramienta didáctica *Identificadores persistentes: ¿Y SI...?*

Le invitamos a contestar algunas cuestiones para su evaluación del aprendizaje y darnos su opinión al respecto, evaluando su calidad, con Evalúa esta herramienta de aprendizaje: PIDs: Y SI....

Para más detalles:

Lecturas y material didáctico

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IDENTIFICADORES PERSISTENTES: ¿Y SI...?

19/19 – CRÉDITOS








Proyecto de:
Cristiana Bettella
Elena Bianchi
Lisetta Dainese
Massimo Ferrante
Michele Visentin
Antonella Zane

CAB, University of Padua (Italy)

Textos basados en el folleto del proyecto Athena *Identificadores persistentes (PIDs): recomendaciones para instituciones* por Gordon McKenna y Roxanne Wyns.

Grafismo y diseño de la web por Gianluca Drago
CAB, University of Padua (Italy)

Soporte técnico y desarrollo Flash por Angelo Calò, Cecilia Dal Bon
CMELA, University of Padua (Italy)

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Lodovico Bollacasa, *Petite fille*

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Un especial agradecimiento para Raffaella Traniello (consultora de proyectos multimedia) por su contribución fundamental en el diseño de las herramientas didácticas de Linked Heritage.

Subvencionado por the Competitiveness and Innovation Framework Programme, 2011.

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MINT SERVICES

ABOUT THE LEARNING OBJECT

Readings and training materials (login required – User: usereu, Password: usereu)

Summary

This Learning Object is for technicians (librarians, archivists, museum curators) involved in metadata mapping procedures. It could be a useful resource also for managers of cultural institutions because they can gauge the necessary skills their staff should have and decide if they can contribute to Europeana independently or with the help of an aggregator. The resource comprises 4 sections: Aggregators, the Linked Heritage project aggregator, the MINT platform and practical tips. The mapping workflow in MINT – the technological platform developed by the National Technical University of Athens – is described in detail in the training materials and further readings, and visualised through screencasts. The Learning Object also gives practical tips to technicians working on the mapping activities.

Languages

- English

Forward »

Linked Heritage
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MINT SERVICES

1/6 – AGGREGATORS

Readings and training materials (login required – User: usereu, Password: usereu)

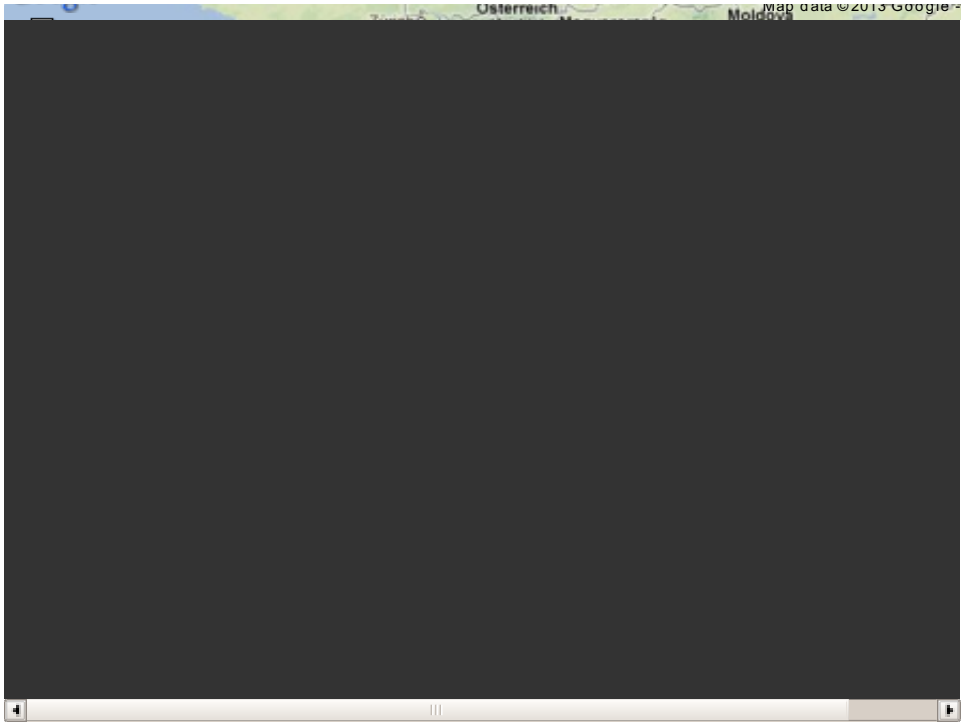
The aggregation landscape: Europeana and the European content aggregators' role

Aggregate is one of the four strategic tracks (*aggregate*, *facilitate*, *distribute* and *engage*) that underpins Europeana's future direction and business success. It is one of the means by which Europeana aims to guarantee:

- Source content that represents the diversity of the European cultural heritage
- Extend the network of aggregators
- Improve the quality of the metadata

A national aggregation initiative in every EU member state is Europeana's aim by 2015.

National initiatives and aggregators – Google Maps



Show National initiatives and aggregators in a bigger map.

This map shows each of the European aggregators who collect data from local institutions to distribute the metadata directly to Europeana.

AGGREGATOR

An aggregator in the context of Europeana is an organisation that collects metadata from a group of content providers and transmits it to Europeana.

CONTENT PROVIDER

A content provider (or data provider) in the context of Europeana is any organisation that provides digital content accessible via Europeana. Europeana only ingests and

indexes the institution's metadata, while the digital objects remains at the original institution.

A full list of Europeana's content providers is available at http://www.europeana.eu/portal/europeana-providers.html

COUNCIL OF CONTENT PROVIDERS AND AGGREGATORS

The Council of Content Providers and Aggregators (CCPA) is a pan-European open forum for all content providers and aggregators across Europe where the views of content holders can be reflected, from big aggregators to individual institutions. It will represent museums, libraries, archives and the audio-visual sector across a wide range of Member States.

CCPA aims to encourage access to Europe's cultural and scientific heritage. Furthermore, CCPA gives the content providers and aggregators a voice in the Europeana Foundation Board.

Full information on joining the CCPA.

Functions

Aggregators **gather** material from individual organisations, **standardise** the formats and the metadata, and **channel** the latter into Europeana according to Europeana guidelines and procedures.

Aggregators also **support** the content providers with **administration**, **operations** and **training** (see: Linked Heritage Project Aggregator).

Roles and responsibilities

Further key roles that aggregators play in other fields are the following:

- Disseminating the vision and the objectives of Europeana to their network of institutions in order to increase support for and involvement with Europeana
- Providing valuable feedback about the issues and discussions from their field
- Promoting and implementing standards farther along the content provision chain
- Providing domain-specific expertise and skills to institutions and Europeana

Aggregators: what are they?

Types of aggregators

- Country Aggregators
  - Regional aggregator
  - National initiatives
  - National aggregator
    Culturaltalia
- Project Aggregators
  Athena
  Linked Heritage
- Independent Organisations

Aggregators representation

DOMAIN	**Cross**	Aggregate data across domains e.g. Erfgoedplus.be
	Single	Data from a single domain at regional, national or

		international levels e.g. Apenet Project
	Thematic	e.g. Collections of Jewish culture project Judaica
GEOGRAPHIC	**Regional or national**	Data at a regional and national level can be either single domain, e.g. national library, or cross-domain, e.g. collectionstrust.org.uk
	Pan-European	Represent a specific segment or sector of cultural heritage by aggregating data on a European level, e.g. TheEuropeanLibrary.org
	National Aggregation Initiatives	Organisation(s) appointed by their Ministry to take on the role as aggregator in the country, and can be cross- or domain-specific. A cross-domain example is Hispana.mcu.es

Source: Europeana. Aggregators and providers.

Accessibility

An aggregator may or may not have a portal where the content is made accessible to the public. For instance, this is the case of the Italian national aggregator Culturaltalia.

If the aggregator's portal is not accessible to the public, it is referred to as a dark portal or a dark aggregator. For instance, this is the case of MINT, the aggregator used within the Linked Heritage project.

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MINT SERVICES

2/6 – THE LINKED HERITAGE PROJECT AGGREGATOR

Readings and training materials (login required – User: usereu, Password: usereu)

The Linked Heritage Project Aggregator

Linked Heritage (2011-2013) is an initiative coordinated by the Central Institute for Union Catalogue of the Italian Libraries, depending on MiBAC that extends and implements the ATHENA results. It is a best practice network funded within FP7 that began in April 2011 and will run for 30 months; it will contribute new content to Europeana, from both public and private sector (mainly publishers), improve the quality of content in terms of richness of metadata, potential reuse and uniqueness, explore the potential of cultural Linked Open Data, and enable better search, retrieval and use of the content published in Europeana.

The Linked Heritage Content Providers

Twenty-two countries are members of the LH consortium: culture ministries, government agencies, museums, libraries, and national aggregators, major research centres, publishers and small businesses, also involving organizations that contribute to Europeana for the first time with a contribution of 3 million records of a wide spectrum of cultural content

Aggregating Content

Metadata Interoperability Services (MINT)

MINT: Metadata Interoperability Services compose a web based platform that was designed and developed to facilitate aggregation initiatives for cultural heritage content and metadata in Europe.

It functions as a server for the content ingestion and is based on open source software developed by the National Technical University of Athens (NTUA) in the context of the ATHENA project.

MINT allows content providers to upload, map, validate and delivery metadata to send to Europeana in a single web environment.

The platform also provides a management system both for user and organisation that allows the deployment and operation of different aggregation schemes with corresponding user roles and access rights.

Mapping Content

LIDO as Linked Heritage metadata reference model

LIDO stands for Lightweight Information Describing Objects. It is the result of a collaborative effort of international stakeholders in the museum sector, starting in 2008, to create a common solution for contributing cultural heritage content to web applications.

LIDO is based on CIDOC-CRM conceptual reference model. It comes from the integration between CDWA Lite and museumdat metadata schemas and it is based on SPECTRUM standard. Being an application of the CIDOC-CRM, it provides an explicit format to deliver (museum's) object information in a standardized way.

MINT implemented LIDO as intermediate harvesting schema. Initially conceived for museum sector needs, it is currently used in cross-domain contexts proving its adaptability and

effectiveness in preserving the integrity of rich metadata.

MINT allows mapping and transformation of metadata into LIDO records.

The ESE Metadata Profile

ESE stands for Europeana Semantic Elements. It is the Europeana data model based on a Dublin Core-based set of fields with additionally 12 specific Europeana elements. Content providers must conform their metadata to ESE profile necessary for records to display correctly in Europeana.

ESE is a subset of the Europeana Data Model (EDM), the new application profile that will be implemented in the coming months.

MINT allows to convert LIDO metadata records into ESE and also supports EDM (see: MINT screencast EDM Ingestion Tool).

Mandatory metadata elements

The ESE metadata mandatory elements are the following:

- dc:title
- dc:type
- europeana:type
- dc:language (mandatory if europeana:type="TEXT")
- dc:identifier
- europeana:dataProvider
- dc:source
- europeana:isShownAt
- europeana:object
- europeana:isShownBy
- europeana:rights
- dc:rights

The complete mapping table LIDO v1.0 to ESE v3.4 by Regine Stein (Philipps-Universitaet Marburg - Bildarchiv Foto Marburg) is available in *Use of Content in Linked Heritage and Europeana (v.5), Annex 3*, prepared by the LH DEA Task Force (see also *Content aggregation: tools & guidelines*).

Licensing Content

Europeana Data Exchange Agreement

Europeana Data Exchange Agreement is the new licence adopted by Europeana in September 2011. DEA foresees that descriptive metadata (not the thumbnails) are subjected to the CC0 license, which effectively means releasing content as public domain and allowing the commercial reuse of metadata.

This implies the possibility for Europeana to support open re-use of data and to publish metadata as Linked Open Data (LOD).

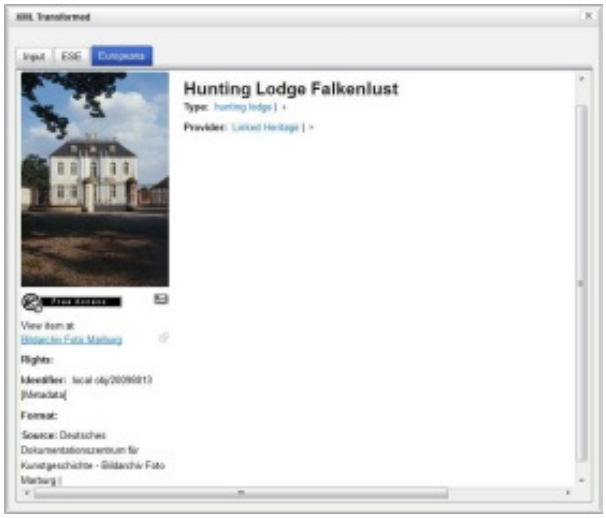
The DEA subscription is mandatory for all content providers to make available their collections in Europeana.

The Linked Heritage DEA Task Force

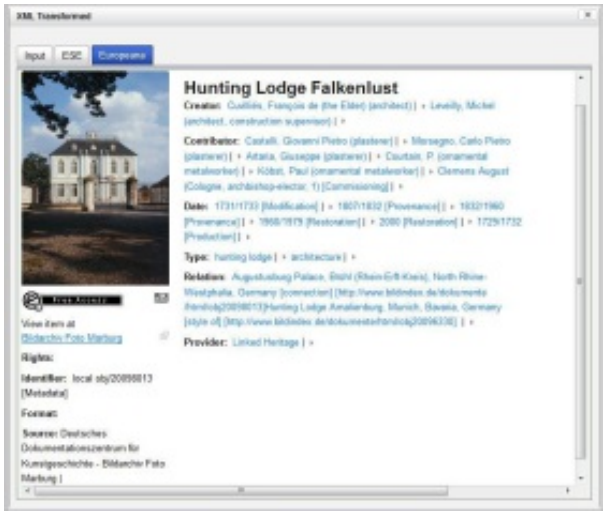
The Linked Heritage DEA Task Force was set up in order to present to the LH consortium practical ways to fulfil the project duties (that implies the DEA subscription) and to keep the integrity of their data.

The task force elaborated a strategy that gives content providers 3 options for the metadata publication:

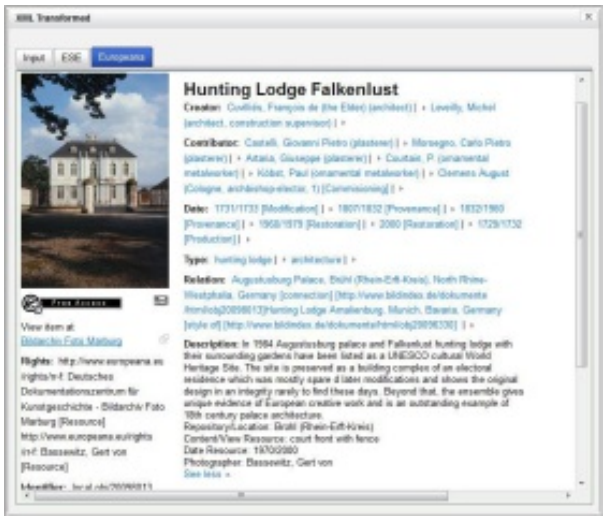
A. Publish a minimal metadata set to Europeana: of the metadata that is supplied to the LH ingestion tool by the Content Provider, only the LIDO & ESE mandatory elements will be transmitted to Europeana under the CC0 public domain dedication



B. Publish an intermediate metadata set to Europeana: of the metadata that is supplied to the LH ingestion tool by the Content Provider, all metadata elements will be transmitted to Europeana under the CC0 public domain dedication, except the LIDO elements that result in dc:description. This means that no object description, the part that most likely contains sensitive or valuable content, will be shown on Europeana



C. Publish a full metadata set to Europeana: of the metadata that is supplied to the LH ingestion tool by the Content Provider, all metadata elements will be transmitted to Europeana under the CC0 public domain dedication.



MINT implemented a filter option in order to allow content providers to select the preferred one during the aggregation process.

At present some Linked Heritage partners subscribed DEA, some other did not yet because

they are not convinced.

Providing Content

The Linked Heritage Methodology: Workflow

Assessing the LH Content Providers' Digital Collections (the LH Survey)
The first step for taking the content into Europeana is assessing the digital collections that content providers described in the Description of Work.

This assessement can be easily done, for example, through a template. LH content providers were asked to answer to a survey providing the following information:

- Country
- Data provider
- Primary contact
- Technical contact
- Collection URL
- Amount of metadata to be aggregate
- Amount of digital objects linked to metadata
- Object types: image, text, sound, video
- Description
- Metadata formats used
- Rights

As Europeana aggregates only metadata, it is of paramount importance to ask separately the amount of metadata and the amount of digital objects because the ratio *1 metadata : 1 digital object* can not be always the rule.

Training and Training Materials
Face-to-face training sessions with the project content providers were organised to inform them on mapping to LIDO and the use of MINT.

After the training workshop a package of documentation were delivered to all project partners.

Moreover, a specific section devoted to *tools* and *guidelines* for content aggregation was contextually published within the Linked Heritage web site.

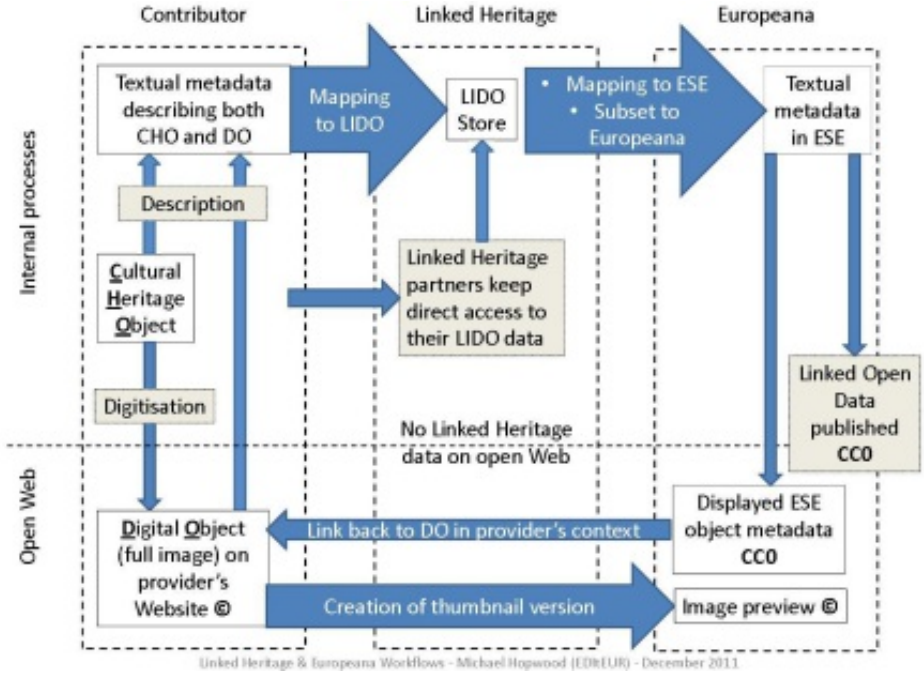
The Help-desk service and Frequently Asked Questions
A help-desk service was set up at the early stage of the project inception in order to face the data providers' problems. Based on the most frequent questions arrived to the help-desk, FAQ were re-elaborated and posted in the LH website.

Community
Workflow and feedback methodology is fundamental to assist content providers and keep under control the aggregation process; it also helps to build a strong community.

Periodical interviews, constant review of the main aggregation issues, the analysis of data report from MINT together with the ongoing updating of training material are crucial tasks to keep in strong consideration for the benefit and the overall success of the project.

Linked Heritage & Europeana Workflows

The figure below summarises the way that metadata are contributed to Europeana through the LH project.



Linked Heritage & Europeana Workflows - Michael Hopwood (EDItEUR) - December 2011

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Linked Heritage
LEARNINGObjects

MINT SERVICES

3/6 – MINT PLATFORM

Readings and training materials (login required – User: usereu, Password: usereu)

MINT (Metadata Interoperability) Services, is the Linked Heritage technological platform that enables the content providers to:

- Upload metadata records, in XML or CSV serialization, from your computer or using the HTTP, FTP and OAI-PMH protocols
- Provide metadata records in a range of source formats (Dublin Core, MARC family, PICO ...)
- Convert metadata to LIDO, the Linked Heritage metadata reference model
- Submit the records to Europeana via the Linked Heritage gateway
- Manage data reports and administration functions

MINT is available at http://mint-projects.image.ntua.gr/linkedheritage/

Ingestion workflow

1. Register your organisation and login
2. Import your data
3. Create the appropriate mappings
4. Validate the metadata mappings
5. Convert metadata records into LIDO records
6. Perform the transformation to ESE
7. Enrich metadata
8. Deliver metadata to Europeana (ESE/EDM compliant)

Features

- MINT uses a visual mapping editor for the XSL language
- Mapping is performed through drag-and-drop and input operations which are translated to the corresponding code
- The editor visualizes the input and target XSDs, providing access and navigation of the structure and data of the input schema, and the structure, documentation and restrictions of the target one
- It supports string manipulation functions for input elements
- Additionally, structural element mappings are allowed, as well as constant or controlled value assignment, conditional mappings and value mappings between input and target value lists
- Mappings can be applied to ingested records, edited, downloaded and shared as templates.

Preview interfaces

Preview interfaces present the steps of the aggregation such as the current input xml record, the XSLT code of mappings, the transformed record in the target schema, subsequent transformations from the target schema to other models of interest (e.g. Europeana's metadata schema), and available html renderings of each xml record. Users can transform their selected collections using complete and validated mappings in order to publish them in available target schemas for the required aggregation and remediation steps.

MINT Screencasts

EDM Ingestion Tool

This video demonstrates the EDM ingestion tool.

DPLA-Beta Sprint Demo

This video demonstrates the MINT platform and how it can be used in DPLA.

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Linked Heritage
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MINT SERVICES

4/6 – PRACTICAL TIPS

Readings and training materials (login required – User: usereu, Password: usereu)

Practical tips: two proposals

- Proposal A:
  1. Elaborate a checklist of MINT/mapping issues arrived to the LH helpdesk managers during the first ingestion phase
  2. Select a sample of relevant mapping tasks (also based on specific metadata source formats, i.e. MARC)
  3. Describe in details the mapping workflow of 2)
  4. Otherwise, realise short screencasts on 2)

- Proposal B:
  1. Describe in details how to state and represent the Europeana rights for all digital objects described in the content providers' datasets
  2. Provide the mapping workflow for rights statement in MINT

Your proposal or suggestions ...

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LEARNINGObjects

MINT SERVICES

5/6 – CONCLUSIONS

Thank you for viewing our Learning Object *Mint services*.

We invite you now to answer some questions for your learning assessment and to give us your feedback about the Learning Object by evaluating its quality with Evaluate this Learning Object: Mint services.

For further details:

Readings and training materials

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MINT SERVICES

6/6 – CREDITS

Project by:

Acknowledgments:

Funded by the Competitiveness and Innovation Framework Programme, 2011.

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LEARNINGObjects

WHY AND HOW CONTRIBUTE TO EUROPEANA

ABOUT THE LEARNING OBJECT

Readings and training materials (login required – User: usereu, Password: usereu)

Summary

This Learning Object describes the motivations for which cultural heritage institutions should contribute to Europeana. It also presents the University of Padova experience. The Learning Object contains the description of our Atheneum's main technical steps, its workflow and some administrative information.

Languages

- English

Forward »

Linked Heritage
LEARNINGObjects

WHY AND HOW CONTRIBUTE TO EUROPEANA

1/6 – WHY PROVIDE DATA?

Readings and training materials (login required – User: usereu, Password: usereu)

Europeana, a prestigious initiative endorsed by the European Commission, is considered one of richest, most authoritative and trusted sources of cultural information which allows exploration and retrieval via a user friendly single access point, to more than 23 million books, journals, pictures, audio, paintings, films, videos, museum objects and archival records digitised throughout Europe.

There are many reasons why to provide data to Europeana is beneficial for your institution. Here are just some of them.

*Europeana adds value to the content by **juxtaposing** related images, texts, videos and audio items, thereby **'repatriating'** content that is geographically dispersed into a single, coherent and contextual virtual space.*
The Aggregators' Handbook - Europeana Professional

*Europeana enriches users' experience, giving them the opportunity to study related content, which comes **from different collections in different countries and exists in different formats**, in a single virtual space. Moreover, the multilingual interface makes it possible for users to search in their native language and retrieve objects that are otherwise inaccessible to them.*

The Aggregators' Handbook - Europeana Professional

Knowledge transfer is a key reason for being part of the Europeana network. ***There are critical issues that all European content providers and aggregators deal with****, including object modelling, semantic and technical interoperability of data, multilingual access, IPR and business models for sustainability.*
Europeana works with digital library experts*, thinkers and practitioners from all over the world in these areas, and knowledge is shared across the network via workshops, publications, seminars and conferences.*
The Aggregators' Handbook - Europeana Professional

Participating in Europeana represented for Padua University a great opportunity to take advantage of the **expertise and experience** of the Best Practice Network represented by Linked Heritage Consortium that favoured the whole process of feeding our collections to Europeana.
The project has been **a stimulus to collect, organise and enrich metadata** and other information on digitised contents, otherwise scattered in local databases or storage systems and thus hard to retrieve on the Web.

Our institution's librarians, curators, archivists and researchers have been prompted to **deepen** their **skills and knowledge** on metadata standards and metadata ingestion process, linked data, persistent identifiers, ontologies and terminologies, legal issues ...

Other benefits are potentially easier to quantify, such as the economic return of increased visibility of our shared heritage.
The Aggregators' Handbook - Europeana Professional

The University of Padua saw the participation in Europeana as an opportunity to integrate its local collections within the European Cultural Heritage Network and increase their visibility.

Besides, it also acted as a catalyser towards other local institutions that contributed to Europeana with novel valuable and unique collections (see: IVSREC Photographs Collection, Nuova Biblioteca Manoscritta, The music manuscript fund of the Church S. Maria della Consolazione in Venice).

Europeana will expose your metadata to search engines, making deep web content accessible.
The Aggregators' Handbook - Europeana Professional

Providing content to Europeana helps improve visibility and accessibility of your content on the web, raise your organisation's profile and increase traffic to your organisation's site ...

... The users find it very useful to view the searched object in its original context, and the majority of them click the View in original context link after they reach the search results page.
The Aggregators' Handbook - Europeana Professional

Padova University saw the participation in Europeana as an opportunity to have access to European calls for proposals and funding, and therefore viewed this project as a cultural and economic long term investment.

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LEARNINGObjects

WHY AND HOW CONTRIBUTE TO EUROPEANA

2/6 – HOW

Readings and training materials (login required – User: usereu, Password: usereu)

How to participate in Europeana

A partner institution interested in participating in Europeana will follow a procedure of subsequent submissions of information about its objects that will lead to the final approval of the request by Europeana Operations Team.

The Operation Team will then supply guidance and support for the harvesting and metadata mapping. Guidelines and technical requirements documents will also be given for the ingestion of the data as well as a Content Checker, a web tool useful for the validation of the mapping.

On publication in the European Portal, but also in case of update or ingestion of new data, the European Operation Team gives notice to the Cultural Heritage Organisation.

The experience of the University of Padua

The University of Padua started to consider the opportunity to participate in Europeana in spring 2010. The selection and description of a number of collections for ingestion in Europeana followed.

The Europeana Date Exchange agreement between Europeana Foundation and the University of Padova Library Center was signed in October 2012

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WHY AND HOW CONTRIBUTE TO EUROPEANA

3/6 – WHO

Readings and training materials (login required – User: usereu, Password: usereu)

Local content providers

University of Padua, Padua Botanical Garden Library

Turola (photography studio), *Padova, R. Orto botanico: la grande serra dell'araucaria*, 1928. Padua, University of Padua, Padua Botanical Garden Library, IO.1E.7.

University of Padua, Philosophy Library

Palazzo del Capitanio, Philosophy Library.

Credits: Dipartimento di Filosofia, Sociologia, Pedagogia e Psicologia applicata.

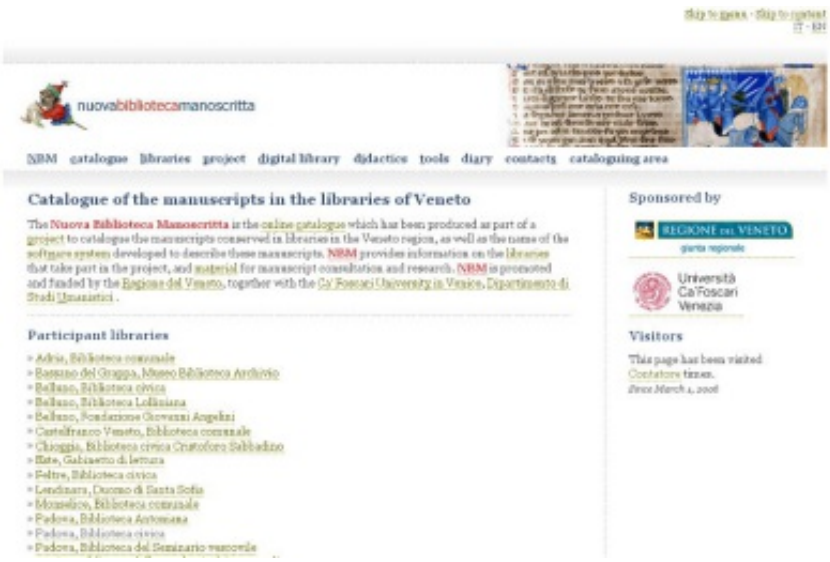
DArIL

University of Padua, Palazzo Bo, Cortile antico.
Credits: Sailko (Wikimedia Commons).

Veneto Institute for the History of the Resistance and the Contemporary Age (IVSREC)

University of Padua, Palazzo Bo, Cortile antico.
Credits: Sailko (Wikimedia Commons).

Veneto Region, Nuova Biblioteca Manoscritta



Nuova Biblioteca Manoscritta, Homepage

Veneto Region, Church S. Maria Consolazione in Venice

Church S. Maria Consolazione in Venice, known as della Fava. Facade.

Credits: Wikimedia Commons.

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WHY AND HOW CONTRIBUTE TO EUROPEANA

4/6 – WHAT

Readings and training materials (login required – User: usereu, Password: usereu)

Content Provider: University of Padua, Padua Botanical Garden Library

The Botanists portrait collection

The Botanists portrait collection includes 2,380 portraits of Italian and foreign botanists from the second half of the 17th century to the first half of the 20th century. The collection is made up of photographs (salted paper prints, albumen prints, aristotypes, platinum prints, gelatin silver prints), glass negatives, engravings, watercolours, drawings, paintings and photomechanical prints.
The collection is preserved in the Padua Botanical Garden Library.
https://phaidra.cab.unipd.it/detail_object/o:4714

Marie Rousseau, (190?).
Padua, University of Padua, Padua Botanical Garden Library, IB.LL.41.

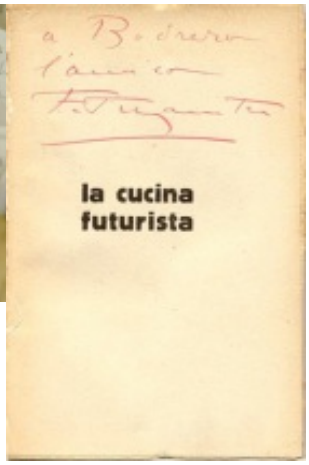
Nadar, *Ed. Boissier*, (187?).
Padua, University of Padua, Padua Botanical Garden Library, IB.F.16.

Content Provider: University of Padua, Philosophy Library

The handwritten dedications of the Bodrero collection

The collection includes 1,340 handwritten dedications generally addressed to the Italian philosopher Emilio Bodrero (1874-1949). The collection is preserved in the Philosophy Library of the University of Padua.
https://phaidra.cab.unipd.it/detail_object/o:8587

Philosophy Library, Emilio Bodrero collection.
Credits: Dipartimento di Filosofia, Sociologia, Pedagogia e Psicologia applicata.



F. T. Marinetti's handwritten dedication in *La cucina futurista*, 1932.
Philosophy Library, FB.E.863.

Content Provider: DArIL

DArIL: Digital Archive of Inaugural Lectures at Renaissance and Early Modern Universities

DArIL aims to facilitate scholars providing them with an access to a digital collection of searchable descriptions, digital photo-reproductions and codified transcriptions of inaugural lectures (also known as *paginae*). At present, DArIL comprises 110 documents preserved in a specific archive series in the Archivio Antico of the University of Padua: a series concerning inaugural lectures held by teachers of the artistae chairs at the Gymnasium Patavinum from the second half of the seventeenth century to the end of the eighteenth. Of these 110 documents, 24 are manuscript texts and 86 printed.
http://www.daril.eu


MATERIES ATQUE ORDO
PHYSICARUM DISCEPTATIONUM,
Q U A S
AN. MDCCLXVII. ET MDCCLXVIII.
PER TRACTABIT
JOANNES DE ROMANIS
PHILOSOPHIÆ
IN PATAVINO ARCHI-LYCEO
PROFESSOR PUBLICUS.
EX TYPOGRAPHIA CONZATTI.

Joannes de Romanis, *Materies atque ordo physicarum disceptationum quas pertractabit*, 1767.
Padua, University of Padua, Historical Archive, ARC.575.13

Content Provider: Veneto Institute for the History of the Resistance and the Contemporary Age (IVSREC)

IVSREC Photographs Collection

The photographs collection of the Veneto Institute for the History of Resistance and the Contemporary Age (IVSREC) comprises 919 images of episodes and events of the Resistance in northern Italy (867 photos, 30 Obituaries, 12 cards, 5 documents, 3

photocopies, 2 photomechanical reproductions and 1 slide).
The photographs were preserved in the Archive of the Institute. Some of them are from the Bundesarchiv in Koblenz.
http://phaidra.cab.unipd.it/o:12257

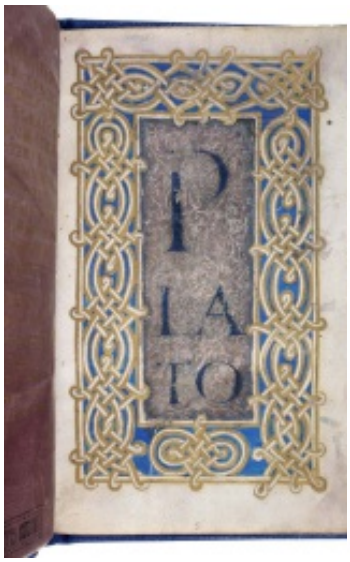
Solenni funerali dei caduti dell'insurrezione a Padova, 1945?. IVSREC Archive, Foto: Scatola 6, n. 480.

Il Duomo di Padova dopo il bombardamento del 22-23/3/1944, 1944.
IVSREC Archive, Foto: Scatola 11, n. 672.

Content Provider: Veneto Region

Catalogue of the manuscripts in the libraries of Veneto: Nuova Biblioteca Manoscritta (NBM)

Nuova Biblioteca Manoscritta (NBM) is the online catalogue of the project of manuscripts cataloguing of Veneto libraries and of the software used for their description. NBM contains information about the libraries participating in the project and materials for manuscripts study and research. NBM is a project funded by the Veneto Region in collaboration with the Department of Classical Studies and Near Eastern Studies at the University Ca' Foscari of Venice.
http://www.nuovabibliotecamanoscritta.it/



Padova, Biblioteca civica, B.P. 1099.
Tavola 1. PDBC_BP_ 1099_5v and Tavola 2. PDBC_BP_1099_5r.

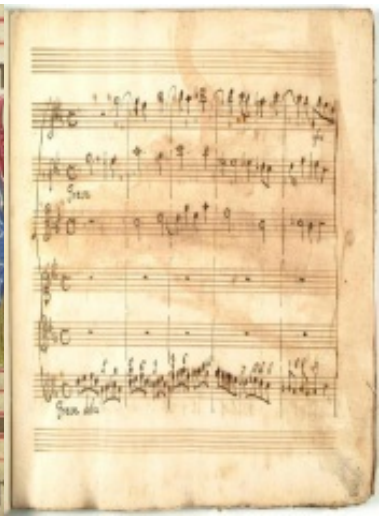
Content Provider: Veneto Region

The music manuscript fund of the Church S. Maria della Consolazione in Venice, known as *della Fava*

The music manuscript fund of the Church S. Maria della Consolazione in Venice, known as

della Fava, includes over 70.212 images of about 760 works, 58 compositions in anthologies, and 896 sheets of fragments, with works, among the others, by Baldassare Galuppi, Niccolò Jommelli, and Johan Adolf Hasse.
The collection, currently guarded by the Redemptorist Fathers, is testimony of the intense activity of oratorios and sacred music representations, peculiar of the Congregation's mission of Filippini Fathers.
http://smcfava.regione.veneto.it

Cod. 72 (= Lit. 1) – Graduale, sec. XIV, primo quarto. Capolettera figurato e abitato "G" (Gaudemus), c. CLVIr, S. Agata; motivi fitomorfi (132 x 84 mm). (Bottega di Neri da Rimini). Venice, S. Maria della Consolazione Church, known as della Fava.



Giovanni Battista Pergolesi, *Stabat Mater*, prima metà 18 sec. Venice, S. Maria della Consolazione Church, known as della Fava, Mus. Ms. 297.

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Linked Heritage
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WHY AND HOW CONTRIBUTE TO EUROPEANA

5/6 – CONCLUSIONS

Thank you for viewing our Learning Object *Why and How contribute to Europeana*.

We invite you now to answer some questions for your learning assessment and to give us your feedback about the Learning Object by evaluating its quality with Evaluate this Learning Object: Why and How contribute to Europeana.

For further details:

Readings and training materials

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WHY AND HOW CONTRIBUTE TO EUROPEANA

6/6 – CREDITS






Project by:

Acknowledgments:

Funded by the Competitiveness and Innovation Framework Programme, 2011.

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EU project: Linked Heritage

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About the Learning Object

Summary

This Learning object deals with Persistent identifiers (PIDs).
It is divided into 17 sub-units each of which consists of two parts: a dialogue between two owlets (on the left of the screen) introducing PIDs, and a video (on the right of the screen) representing the concepts.
The idea was to use the famous painting by Botticelli, the Birth of Venus, as a metaphor. Each PID functional requirement is represented by a visual metaphor associated with a musical metaphor: uniqueness, persistency, resolvability, reliability, authoritativeness, flexibility, interoperability and cost effectiveness.

Development Notes

Last revision 6 September 2012.

Languages

English
Spanish

Hosted and maintained by CAB, Padua University

EU project: Linked Heritage

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Using the Learning Object

This learning object can be accessed by any modern Web browser.
The video can be downloaded in High Definition.
The text can be downloaded as a .txt file.

EU project: Linked Heritage

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Aim: to provide skill

Although this LO is aimed at managers of cultural institutions, it is also interesting for entry level LIS professionals.
Its contents, supplemented by training materials and further readings, raise awareness and provide users with basic information on PIDs and their applications in digital collections of cultural institutions.

EU project: Linked Heritage

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Learning Object

English language version

Spanish language version

EU project: Linked Heritage

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Readings and training materials

Cases studies

Training materials

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EU project: Linked Heritage

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Readings and training materials
Case studies

Under construction
This section will contain reports by cultural institutions and other organisations on PID system implementations

EU project: Linked Heritage

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Readings and training materials
Training materials

This section contains the Linked Heritage Project deliverables and booklets, sister project booklets (Athena, Minerva), slides, guidelines and manuals edited by Linked Heritage partner Institutions (both in English and in their native language) relevant to the topic.

Persistent identifiers (PIDs): recommendation for institutions (en)

A short introduction why "persistent identifiers" are needed and what systems are currently available. Edited by ATHENA WP3 Working Group "Identifying standards and developing recommendations" (2011) 34 p.
http://phaidra.cab.unipd.it/o:6778

State of the art report on persistent identifier standards and management tools (en)

This deliverable concerns persistent identifiers (PIDs) in cultural heritage information repositories with respect to standards, management best practices and software and hardware architectures for PID assignment and management. Edited by Work package 2 of the Linked Heritage project (WP 2), (2012) 46 p.
http://phaidra.cab.unipd.it/o:11908

Readings and training materials
Bibliography

A reference list of websites inspired by the Athena project
Booklet: Persistent Identifiers (PIDs): recommendations for institutions by Gordon McKenna and Roxanne Wyns, 2011. Available at: www.athenaeurope.org/getFile.php?id=779

DEFINITIONS

http://www.ands.org.au/guides/persistent-identifiers-awareness.html
http://prezi.com/d0s1liez5llt/knowledge-exchange-persistent-identifiers/

STANDARDS

- **a. Dublin Core**

  http://dublincore.org/

- **b. Physical objects in museums**

  http://www.collectionslink.org.uk/spectrum-standard

- **c. Digital objects**

  URI: http://info-uri.info/, http://www.rfc-editor.org/rfc/rfc3986.txt
  XRI: https://www.oasis-open.org/committees/tc_home.php?wg_abbrev=xri
  URL: http://tools.ietf.org/html/rfc1738
  URN: http://tools.ietf.org/html/rfc2141

- **d. Services**

  PURL: http://purl.org/docs/index.html,
  http://purl.oclc.org/docs/help.html#overview
  HANDLE system: http://www.handle.net/ , http://www.ietf.org/rfc/rfc3650.txt
  DOI system: http://www.doi.org/ , http://www.doi.org/hb.html
  OPEN URL: http://alcme.oclc.org/openurl/docs/pdf/openurl-01.pdf
  ARK: https://confluence.ucop.edu/display/Curation/ARK
  LCCN: http://lccn.loc.gov
  EPICUR: http://www.persistent-identifier.de/
  NBN Italy: http://www.rinascimento-digitale.it/projects-nbn.phtml
  N2T: http://n2t.net/
  NESTOR:
  http://www.langzeitarchivierung.de/Subsites/nestor/DE/Home/home_node.html,
  http://www.langzeitarchivierung.de/Subsites/nestor/DE/Standardisierung/PI.html
  PILIN: http://www.arrow.edu.au/PILIN.php

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About the Learning Object

Summary

This LO presents the digitisation workflow both in theory and in practice. It consists of two parts: the first one gives an overview of the digitisation entire workflow, the second one focuses on a case study of the University of Padua: the "Botanists portrait collection".
The case study is illustrated also by means of two videos showing the following activities: preservation of items and digitisation.

Development Notes

Last revision 11 September 2012.

Languages

English
Italian
Spanish

Hosted and maintained by CAB, Padua University

EU project: Linked Heritage

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Using the Learning Object

This learning object should be usable with any modern Web browser, but JavaScript must be enabled for many features to work.
The video can be downloaded in High Definition.
The text can be downloaded as a .txt file.

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Aim: to provide skill

This LO is both for managers of cultural institutions and technicians involved in digitisation projects.
Managers can have an overview of the entire workflow while librarians, archivists, technicians are given practical examples of activities/situations they might face in the digitisation process which nowadays affects many institutions.
Its content supplemented by training materials and further readings, raises awareness and, at the same time, provides technical information on digitisation workflow of collections of cultural institutions.

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Il Progetto di digitalizzazione Iconoteca dei Botanici (it)

Technical report on the project "Botanists' portraits" of the University of Padua by Lorisa Andreoli, University of Padua, 2011, 71 p.

http://phaidra.cab.unipd.it/o:4855

Restauro, conservazione e digitalizzazione della collezione "Manifesti di propaganda della R.S.I." (it)

Technical report on the project "Restoration, preservation and digitisation of the collection "Propaganda posters of the Italian Social Republic" by Lorisa Andreoli, University of Padua, 2005, 62 p.

http://manifestirsi.cab.unipd.it/docs/Rapporto_tecnico_Manifesti_RSI.pdf

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Reading and training materials
Training materials

This section gathers Linked Heritage Project's deliverables and booklets, sister project booklets (Athena, Minerva), slides, guidelines and manuals edited by Linked Heritage partner Institutions (both in English and in their native language) relevant to the topic.

Digitisation: standards landscape for european museums, archives, libraries (en)

An overview of the different standards which are in use with the partners in the ATHENA project. Its content results from the information provided from the more than 20 partners from ATHENA coming from museums,libraries and archives, as well as ministries. Edited by ATHENA WP3 Working Group "Identifying standards and developing recommendations", 2011, 44 p.

http://phaidra.cab.unipd.it/o:6785

MINERVA Technical Guidelines for Digital Cultural Content Creation Programmes: Version 2.0. (multi-language)

"This document is intended as a resource for policy-makers, for those implementing funding programmes for the creation of digital cultural content and for those managing digitisation projects. Based on a life-cycle approach to the digitisation process, it seeks to provide guidelines for the use of technical standards and identifies areas where there is already a commonality of approach". Editors: Kate Fernie, Giuliana De Francesco and David Dawson, 2008, 92 p. .

http://www.minervaeurope.org/interoperability/technicalguidelines.htm

Good Practice Handbook (multi-language)

Edited by the MINERVA Working group 6 "Identification of good practices and competence centres", 105 p.

http://www.minervaeurope.org/publications/goodhand.htm

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About the Learning Object

Summary

This LO is for technicians (librarians, archivists, museum curators) involved in metadata mapping procedures. It could be a useful resource also for managers of cultural institutions because they can gauge the necessary skills their staff should have and decide if they can contribute to Europeana independently or with the help of an aggregator.
The resource comprises 4 sections: Aggregators, the Linked Heritage aggregator, the MINT platform and practical tips.
The mapping workflow in MINT, developed by the National Technical University of Athens, is described in detail in the training materials and further readings, and visualised through screencasts. The LO also gives practical tips to technicians working on the mapping activities.

Development Notes

Last revision 6 March 2012.

Languages

English

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Aim: to provide skill

It requires basic knowledge of metadata formats, metadata mapping and legal issues.

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MINT Metadata Interoperability Services http://mint.image.ece.ntua.gr/redmine/projects/mint/wiki [accesses 22/2/2013]

MINT User Manual http://mint.image.ece.ntua.gr/redmine/projects/mint/wiki/User_manual [accesses 22/2/2013]

Guidelines on the use of the Linked Heritage aggregator (MINT) http://www.linkedheritage.eu/index.php?en/177/training-material-targeted-to-linked-heritage-content-providers#3 [accessed 22/2/2013]

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EU project: Linked Heritage

About the Learning Object

Summary

This Learning Object describes the motivations for which cultural heritage institutions should contribute to Europeana. It also presents the University of Padova experience. The Learning Object contains the description of our Atheneum's main technical steps, its workflow and some administrative information.

Development Notes

Last revision 6 March 2013.

Languages

English

Hosted and maintained by CAB, Padua University

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Using the Learning Object

This learning object can be accessed by any modern Web browser.
The video can be downloaded in High Definition.
The text can be downloaded as a .txt file.

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Aim: to provide skill

Use of this Learning Object does not require any technical expertise.

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EU project: Linked Heritage

"Pids: what if" Assessment - Attempt 8

1 Marks: 1

What does PID stand for?

Choose one answer.

- ○ Persistent Identifier
- ○ Peculiar identifier
- ○ Permanent Identifier

2 Marks: 1

Write one of the main functional requirements for persistent identification

Answer:

3 Marks: 1

Is it true that PIDs are necessary?

Answer:

- ○ True
- ○ False

4 Marks: 1

I am confident I will always find a digital object once it has been assigned a PID

Choose one answer.

- ○ PID is persistent as long as the ownership of the object does not change
- ○ if always is not an option, the organization responsible for the PID should specify what timespan is granted
- ○ That's right, everlasting access to information is one of the main issues of the PID concept

5 Marks: 1

What do we mean by a "flexible" PID system?

Choose one answer.

- ○ A system that adapts to different platforms
- ○ It refers to the number of elements carried by its metadata
- ○ It refers to the level of granularity it allows

6 Marks: 1

What do we mean by "global uniqueness" for PIDs?

Choose one answer.

- ○ a PID should allow universal retrieval of an item
- ○ a PID should be unique within a specified context (e.g. an organisation)
- ○ the information about an item should be reachable worldwide

7 What does "Resolvability" refer to

7 What does "Resolvability" refer to

Marks: 1

Choose one answer.

- It is the capability of a PID to provide access to the item identified
- It is the capability to give information about the item identified
- It is the information that enables retrieval of the item

8 What is a Persistent Identifier?

Marks: 1

Choose one answer.

- It is a set of data describing a physical or digital item assigned to it at creation
- It is a label univocally identifying a physical or digital item in a particular context
- It is a set of information about a physical or digital item assigned by an organisation when it acquires it

9 What should an affordable PID system take into account?

Marks: 1

Choose one answer.

- The cost should be free or very low cost
- The funds allocated to the project are above 1 million dollars
- The organisation responsible for the management should be international

10 What should an organisation do to grant a reliable PID system?

Marks: 1

Choose one answer.

- The organisation should refer to a sound service organization to manage its PID system
- The organisation should be international
- The organisation should make sure that the PID system is always active and updated

11 Which are the main functional requirements for Persistent Identification?

Marks: 1

Choose at least one answer.

- Cost effectiveness
- Convertibility
- Persistence
- Lightness
- Self explicativeness
- Authoritativeness
- Multilingualism
- Interoperability

12 Which functional requirements allow us to reach a digital object in spite of URL changes?

Marks: 1

Choose one answer.

- Cost effectiveness
- Resolvability
- Responsibility

13

Marks: 1

Why do we need persistent identifiers?

Choose one answer.

- The item we are looking for might have moved
- The organisation responsible for the item might not exist any more
- To make sure the information about an item is maintained whatever happens

14

Marks: 1

A PID always gives access to the digital object it identifies.

Answer:

- True
- False

Save without submitting | Submit all and finish

EU project: Linked Heritage

Evaluate this Learning Object: PIDs: What if

Mode: Anonymous

(*)Answers are required to starred questions.

How would you rate this tutorial overall? (on a scale 1-5, with 1 being not helpful and 5 being extremely helpful)* (1 - 5)

Are the L.O. objectives clear? (on a scale 1-5, with one being not at all and 5 being very clear)* (1 - 5)

Is the content clear? (on a scale 1-5, with one being not at all and 5 being very clear)* (1 - 5)

Is the audio helpful to understand the contents ?*
- (•) Not selected
- ( ) yes
- ( ) no

Is there any additional information you would include? *
- (•) Not selected
- ( ) yes
- ( ) no

If yes, please give us a short description of the information you would add

Is the L.O. supported by appropriate documentation and bibliography? *
- (•) Not selected
- ( ) yes
- ( ) no

Is the level of the L.O. suited to your needs? *
- (•) Not selected
- ( ) yes
- ( ) no

Rank the overall look and feel of the L.O (on a scale of 1-5, with 1 being poor, 5 being excellent)* (1 - 5)

Do fonts and colours make reading easy?*
- (•) Not selected
- ( ) yes
- ( ) no

Is it easy to activate the video subtitles?*
- (•) Not selected
- ( ) yes
- ( ) no
- ( ) not applicable

Video editing: are transitions, timing and animation appropriate? *
- (•) Not selected
- ( ) yes
- ( ) no

Are the navigation tools through the L.O. flexible and intuitive?*
- (•) Not selected
- ( ) yes
- ( ) no

Are the L.O. links clear and useful for the interaction?*

- (●) Not selected
- ( ) yes
- ( ) no

If you have further comments on the L.O. please write them here (max 250 characters)

Submit your answers

Cancel

EU project: Linked Heritage

Digitisation Life Cycle: Assessment - Attempt 2

1

Marks: 1

Why should cultural institutions invest in digitisation projects?
Choose correct answers from the following:

Choose at least one answer.

- ☐ To widen public access to documents and their content for scientific and cultural purposes
- ☐ To derive maximum possible advantage of documents preserved in archives, museums and libraries
- ☐ To facilitate interdisciplinary studies and promote collaboration between different institutions
- ☐ To benefit from lower taxation related to digital collections
- ☐ To limit direct consultation of original frail documents
- ☐ To facilitate access to typically inaccessible materials
- ☐ To make material accessible regardless of copyright complications
- ☐ To maximize economic income from digital collections internet auction sale
- ☐ To create virtual collections through the integration of different formats or materials distributed in different locations
- ☐ To provide access to material otherwise inaccessible due to critical conditions
- ☐ To promote awareness of local or unique collections

2

Marks: 1

Which were the main aims of the University of Padua digitisation project of the Botanists Portrait collection?
Choose correct answers from the following:

Choose at least one answer.

- ☐ To ensure long-term preservation and online access of the catalogued and digitised collection
- ☐ To ensure that documents will be made available to future generations of students, scholars and members of the general public
- ☐ To promote awareness of its local or unique collections, through large-scale dissemination of their contents
- ☐ To limit the direct consultation of the physical collections and consequently reduce museums and libraries opening hours and cut down costs

3

Marks: 1

Which are the main steps of a digitisation project?
Choose correct answers from the following:

Choose at least one answer.

- ☐ Feasibility study
- ☐ Selection
- ☐ Inventory
- ☐ Cataloguing
- ☐ Pasting
- ☐ Web auction sales
- ☐ Digitisation
- ☐ Legal aspects

- [ ] Enframing
- [ ] On-line access
- [ ] Preservation
- [ ] Commercial acquisition of materials

4
Marks: 1

Which are the main selection criteria usually taken into account in a digitisation project?
Choose correct answers from the following:

Choose at least one answer.

- [ ] Historic and cultural value
- [ ] Size of the originals compatible with the pc screen
- [ ] Low demand
- [ ] Lack of legal constraints, or with permission to digitise already secured
- [ ] Enhanced value provided by online access; creation of virtual collections
- [ ] Increased level of interest generated in little-known or unknown material
- [ ] Limited access due to state of preservation, value and location
- [ ] Uniqueness and/or rarity

5
Marks: 1

Which elements are decisive for the image quality of a digitised object?
Choose correct answers from the following:

Choose at least one answer.

- [ ] Scanning at the maximum resolution obtainable
- [ ] Hardware and software of the capture system
- [ ] Use very expensive equipment
- [ ] Scanning at a level adequate with the information contained in the original
- [ ] Make sure to choose proprietary software
- [ ] Available budget
- [ ] Final use of the images
- [ ] Characteristics of the digitised materials
- [ ] The lighting system

6
Marks: 1

When is outsourcing digitisation best?
Choose correct answers from the following

Choose at least one answer.

- [ ] The schedule involves processing large quantities of material in the short term
- [ ] Original specimens cannot be digitised in-house for whatever reason
- [ ] There are constraints in terms of space, infrastructure and human resources
- [ ] The collection cannot be moved outside the institution
- [ ] When the institution decides to assign responsibility for the safety and handling of the specimens to an outside company
- [ ] The digitisation process is a very simple one
- [ ] When the institution can rely on expert personnel and equipment already on site

7
Marks: 1

If the decision is made to entrust the service to a company, the institution must:
Choose correct answers from the following:

Choose at

- [ ] Evaluate the products and services offered

least one answer.

- [ ] Draw up a draft invitation to bid
- [ ] Require from the company the final quality control on the product
- [ ] Define the contractual responsibilities of both the institution and the company
- [ ] Determine the digitisation parameters

8
Marks: 1

If the document you are going to digitise is a bound book, what kind of equipment do you need?
Choose correct answers from the following:

Choose at least one answer.

- [ ] Planetary scanners
- [ ] Digital cameras
- [ ] Scanners for film and transparencies
- [ ] Flatbed scanners

9
Marks: 1

In the case of antique and fine art originals, the lighting system must be fitted with:
Choose correct answers from the following:

Choose at least one answer.

- [ ] Lamps emitting warm light
- [ ] Lamps emitting hot light
- [ ] Lamps emitting cold light

10
Marks: 1

To ensure long-term and completeness of information, cultural institutions should plan digitisation of all the items under their responsibility

Answer:

- ○ True
- ○ False

11
Marks: 1

To proceed with digitisation, the potential enhancement of access to a resource should be taken into account

Answer:

- ○ True
- ○ False

12
Marks: 1

Digitisation may allow the creation of virtual collections with shared responsibility among the institutions and subsequent cost saving

Answer:

- ○ True
- ○ False

13
Marks: 1

Are rights and permissions for electronic distribution an issue to be considered in a feasibility study for a digitisation project?
Choose the correct answer

Choose one answer.

- ○ Yes, this is a crucial issue to overcome in the decision making process of digitization
- ○ No, the new format acquired by a digitised resource removes any constraint to its access and dissemination

14
Marks: 1

Is the existence of the digitised format of a resource in other collections an issue to be considered in the decision making process of digitization?
Choose the correct answer

Choose one answer.

- ○ No, the decision making process about digitisation should not be concerned with issues pertaining to other institutions
- ○ Yes, in order to minimize general costs, duplication of already digitised materials should be avoided

15
Marks: 1

Is the quality of digitisation granted by scanning at the maximum resolution?

Choose the correct answer.

Choose one answer.

- ○ No, not really, the level of the scan should be adequate to the information carried by the original document
- ○ Yes, because only the maximum resolution will allow any subsequent image handling

16
Marks: 1

Is outsourcing the digitisation the best choice for an institution aiming to quality results?
Choose the correct answer

Choose one answer.

- ○ No, it is not a straightforward choice as there are advantages and drawbacks to be considered in both in-house and outsourcing digitization
- ○ Yes, only by outsourcing the digitisation long-term professional quality results are guaranteed

17
Marks: 1

Is the creation of a high quality master file fundamental?
Choose the correct answer

Choose one answer.

- ○ Yes, it ensures that the digitisation process will not need to be repeated in the future
- ○ No, as different needs should rise, a new digitisation process will be performed to comply with them

18
Marks: 1

Is the creation of a high quality master file fundamental?
Choose the correct answers from the following:

Choose at least one answer.

- ☐ may or may not reproduce information on back and margins of the original object
- ☐ includes selected information about the original object
- ☐ is archived exactly as it has been acquired
- ☐ may be produced in a compressed format
- ☐ includes all the information about the original object

19
Marks: 1

A commonly adopted format for a master file is:
Choose the correct answers from the following

Choose at least one answer.

- ☐ JPEG
- ☐ DOC
- ☐ TIFF

- [ ] PNG
- [ ] PPT
- [ ] PDF

20
Marks: 1

Which characteristics should apply to a master file?
Choose the correct answers from the following

Choose at least one answer.

- [ ] Be widely used
- [ ] Be compressed
- [ ] Be a standard
- [ ] Have a proprietary format

21
Marks: 1

A derivative file should:
Choose the correct answers from the following

Choose at least one answer.

- [ ] Have a suitable compressed format
- [ ] Allow high speed download without necessity of a high speed connection
- [ ] Have any quality level provided it can be downloaded quickly
- [ ] Have the best quality

22
Marks: 1

If a proprietary metadata model is adopted, a mapping procedure to Dublin core is recommended

Answer:

- ○ True
- ○ False

23
Marks: 1

What guarantees usability and accessibility of digital objects over time?
Choose the correct answers from the following

Choose at least one answer.

- [ ] The file format chosen
- [ ] The use of open standards
- [ ] The archiving media and digital repository
- [ ] The interoperability of the digital products
- [ ] The amount of information contained

Save without submitting | Submit all and finish