Deliverable 5.1

DCBox Training & Report

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About DCbox

DCbox "Digital Curator Training & Tool Box" works to create a new generation of European professionals working in the cultural heritage sector, equipped with a recognised, cross-cutting and high-level digital skillset. The project is funded by the Erasmus+ programme of the European Union during the period November 2021 - May 2024.

DCbox is implemented by:

- Università Politecnica delle Marche (Italy) - coordinator
- Sinergia Consulenze Srl (Italy)
- University of Cordoba (Spain)
- The Cyprus Institute (Cyprus)
- Universidade Lusófona/COFAC – Training and Cultural Animation Cooperative (Portugal)
- UNIMED – Mediterranean Universities Union (Italy)
- University of NIS (Serbia)

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Executive Summary

This document represents Del 5.1, DCBox training & report. The present document is a collection of reporting tools that were used by academic partners to report about the DCBOX learning and training activities at their institution.

Each academic partner filled it in by providing information on qualified students (namely those students involved by the partner and enrolled in the partner University).

Following the phases of the learning experience, the report is divided in three parts:

- Report about the student participation in the MOOC
- Report about the prototyping activity carried out during the Living Labs
- Report about the traineeship (for those students that have done it)

In addition, in order to depict completely the achievements of DCbox, a paragraph of this document summarizes numbers and feedback by the so-called LMS Unqualified learners. This group of students is basically composed by self-enrolled people in the MOOC or belonging to the new Associated Academic Partners (University of Montenegro and Accademia di Belle Arti di Roma).

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1. An overview of the learning and training results in the partnership

In order to give an overview of the DCBox learning and training results inside the partnership and to depict the impact of all the achievements on the HE students target group initially foreseen; this paragraph summarizes facts and numbers.

The HE piloting students were involved in a learning path articulated in 3 main activities: acquiring knowledge and simple abilities via the MOOC "Supporting the Digital Transformation of Museums. The DCBox approach", applying the knowledge and developing practical and theoretical skills in the Living Lab developing a prototype and localize competencies and abilities in a specific scenario, thanks to possible traineeships. Although the number of the students initially foreseen was reasonable not all partner reached the goal to have a minimum of 4 students in the Living Lab, considering that the path is quite demanding for them. Even though all the efforts in finding tailored solutions for each student is testified by different communication activities (on line and physically at the premises of the partners), local and general bootcamps and dissemination events able to raise awareness and interest in the students, it was difficult for some academic partner synchronize all the tasks and engage the sufficient number of students in Living Labs. In addition not all the students were sufficiently motivated to dedicate time to the traineeships. The little shortfall in student participation can be attributed to a combination of awareness issues, competing commitments, and lack in the initial perceptions of the program. This deviation do not reflect on the intrinsic value or quality of the program itself. Although the target number of student participants was not completely met by all PPs, the learning experience was successful in delivering high-quality innovation and competency development. The insights gained from this experience will inform future efforts to enhance student engagement and participation. By addressing the challenges identified, future iterations of the program can achieve both broader participation and continued excellence in outcomes.

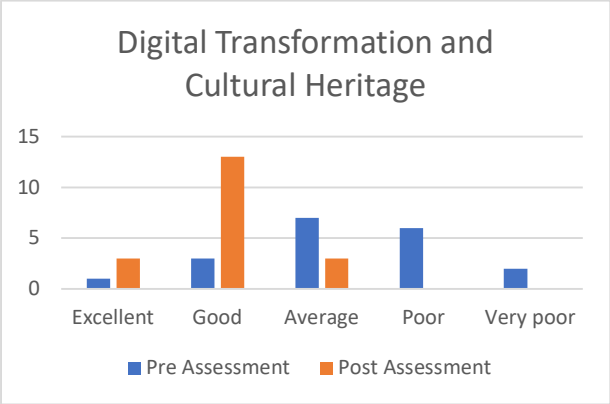
Regarding the MOOC it was carried out as a learning path, divided in areas and modules interdependent, so it will be possible to enroll in specific courses in an ordered manner. The choice was asking HEIs students to follow a precise order would be better to guarantee their full comprehension and engagement. Opening the Moodle to a large audience can jeopardise some functionalities such as the tutoring and the work based activites, on the other hand, closing the accesses to a limited number of students would narrow the impact and the sustainability of the final outputs. So it was decided to create 2 parallel groups: one for HEIs "official and qualified" students (who will be involved also in the R4 and the piloting activities) and another one for every person who will be willing to enrol and take the online course. The number in the following table refers to the "qualified students" i.e. the students who piloted the whole learning path of DCbox.

	MOOC (registered)	MOOC (concluded)	LIVING LAB & TRAINEESHIP PROTOTYPE DEVELOPMENT	
Cyprus Institute	6	4	4	2
Universidade Lusófona	4	2	3	1
Universidad de Córdoba	5	3	4	4
University of Niš	4	2	2	2
Università Politecnica delle Marche	9	8	5	3

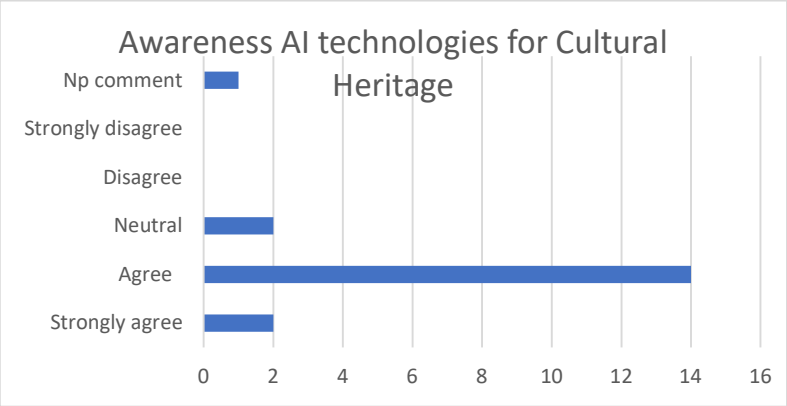
Table_Number of students enrolled for each academic partner

The MOOC had 28 participants, but only 19 completed all modules and questionnaires, affected by issues like graduation and university transfers, along with natural dropout rates. An analysis of the post assessment questionnaires, in deep reported in the chapter 4.5 of the Handbook (D 5.3) and based on these 19 students, arose in evaluation of the qualitative feedback with high satisfactory results, although we acknowledge the limited statistical significance of the sample. This feedback provided valuable insights for the DCBOX consortium on improving the course and its future adaptations. The analysis also covers the sample's characteristics and the perceived impact of the course on skills improvement, as well as feedback on course structure, module quality, and assessment methods. Here we report some figures, for the full detailed information see the following DEL 5.3.

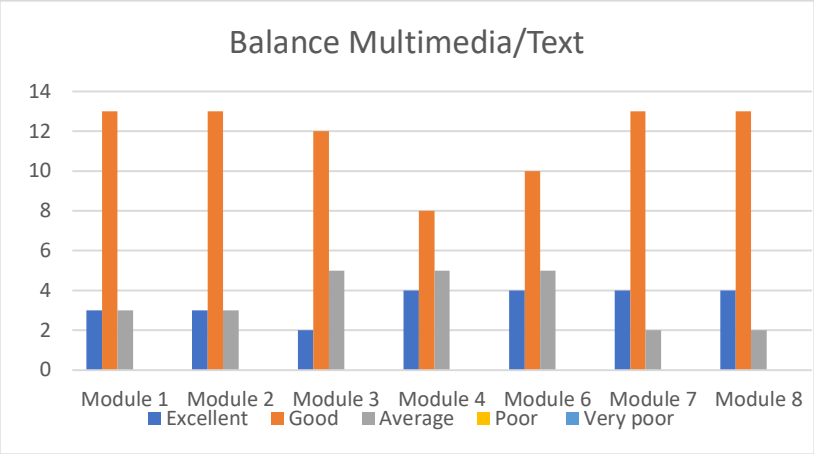
The pre-course awareness level of the concept Digital Transformation and Cultural Heritage was quite evenly distributed across all levels (ranging from excellent to very poor). Post course self-assessment positions awareness levels in the positive side of the graph, with a significant concentration in the “good” awareness level.



Most respondents agree with the fact that their awareness of AI technologies for Cultural Heritage and their capacity to develop AR applications has increased.



Regarding the feedback to the MOOC, all modules were appreciated by respondents. As shown below though, some modules show room for improvement in terms of the balance multimedia/text, of the new competences acquired and of the usefulness of the activities.



By the qualitative point of view the feedback of students enrolled in the whole path was collected in the form of interviews, visible in the Youtube channel of DCbox. You can hear the voices of:

Ruben Domingo	Martina Manfroni	Daniele De Luca and Nicolette Vollero Levy
Edson Lourenco	Ludovica Leonardi and Sofia Diomedi	Aleksandra Stojkovic and Ana Janackovic

2. Cyprus Institute training reporting tool

Section 1 – General Information

Name of the partner	The Cyprus Institute
Name of the person(s) filling in this report	Antonia Agapiou
Date of completion of the report	12 June 2024
List of students registered in the MOOC	6
List of students involved in the prototyping exercise	4
List of students involved in the internships	2

Section 2 – MOOC report

Please indicate the timeframe when the MOOC delivery took place at your institution	30/03/2023 – 19/10/2023
Please indicate the total number of students who registered to the training	6
Please indicate the total number of students who completed the MOOC Area A	5

Please indicate the total number of students who completed the MOOC Area B	4
Please indicate the total number of students who completed the MOOC Area C	4
Please indicate the total number of students who completed the MOOC Area D	4
Please indicate the total number of students who received the "Standard Badge"	3
Please indicate the total number of students who received the "Full Badge" (include Standard badge)	1
Please indicate how tutoring was organised in your institution	Rahaf Orabi our tutor responsible for certain lessons was committed to checking the platform for any questions from students. She was usually contacted directly by students when they had questions. Alternatively, we advised the students to post their questions to the announcement board so that the tutor would reply to all, in cases of multiple students having the same questions.
Do you have any personal reflection on the MOOC learning experience?	The MOOC learning experience was focused on upskilling the students that were registered to the course of digital cultural heritage and museum curation. The courses were able to go into extensive detail in a short amount of time and expand the knowledge and the potential of the users. It analysed all aspects of digital heritage from various angles such as policies and documentation to virtual realities and website building. This was integral in the building of a rounded knowledge for the students to gain I definitely felt like the MOOC experience was able to open up the field of digital cultural heritage and museum curation to many students from various backgrounds but that shared a common interest – therefore making the learning experience more accessible.

Section 3 – Prototyping by the Living Labs

Student name	**Nicolette Vollero Levy**
Name of the case study	Nicosia
Name of the prototype (if any)	Behind the wood-lattice veil: Moving through Ottoman Nicosia from a woman's point of view
Description of the prototype (aim/requirements of the prototype, technology involved)	Using archival material including photographs, architectural plans, drawings, paintings, traveller accounts and contemporary literature, the user navigates the historic of Nicosia and discovers Ottoman – era balconies, both present today and those lost to time. As the user traverses the city, they learn more about the unique function of this architectural aspect. The user Is guided from an exterior to interior view as they enter the historic house museum of Hadjigeorgiakis Kornesios to experience a balcony from an alternate perspective. Using the Action Bound platform, users navigate the historic centre of Nicosia and discover Ottoman-era landmarks, following a narrative route designed to bring awareness to the role of gender in the division of space and architecture.
Indicative workload required to design and develop the prototype	N/A
Link to the actual prototype (if available)	Download ActionBound App and Scan QR code:

Student name	**Theo Shaheen McConnell & Sayedeh Soodabeh Sajadi**
Name of the case study	Troodos Mountains Churches
Name of the prototype (if any)	Time Machine – Escape to Machairas
Description of the prototype (aim/requirements of the prototype, technology involved)	Created a game called "Escape to Machairas" to provide a fun and informative immersive experience to locals and tourists alike. The project is based between Nicosia and the North Slope of the Troodos Mountain Range. The story will include descriptions (textual and visual) of past cultural practices that have helped shape the rugged and forested environment we see today. The user will follow in the steps of a monk who travelled Cyprus during the 17th century and wrote extensively on the churches and monasteries of the area. The specific monasteries Barsky visited were identified through his personal journal and the game is able to provide his experiences and observations, and his reasoning for visiting them. The tour is set as a game where at every location a clue must be identified before you are allowed to move onto the next location. ActionBound was the platform chosen to develop a prototype for an interactive tour utilizing a mobile geolocation app. The app's Findspot, Quiz and Mission features were used for each spot.
Indicative workload required to design and develop the prototype	N/A
Link to the actual prototype (if available)	Download ActionBound App and Scan QR code:

Student name	**Natalie Milanese Branca**
Name of the case study	Nicosia
Name of the prototype (if any)	Nicosia: Evolution of a city
Description of the prototype (aim/requirements of the prototype, technology involved)	The aim of the prototype is to allow the user to conduct an interactive tour of Nicosia to learn about locations that existed in the past but are no longer visible. In doing so, the user will be able to experience the evolution of the city through time from prehistory to the present. The prehistoric and historic points of interest were identified by conducting research using archaeological reports, traveller's accounts, archival images and similar published sources. The idea was to identify locations that could form a walkable route whilst still following a chronological pattern. The narrative of the game follows a time-traveller who must return to the present by discovering the past. The research material was adapted to fit the narrative and placed into the bound. Actionbound app was used for playing digitally interactive 'scavenger hunts' to lead the learner on a path of discovery.
Indicative workload required to design and develop the prototype	N/A
Link to the actual prototype (if available)	Download ActionBound App and Scan QR code:

Section 4 - Traineeship report

Please indicate the timeframe when the Traineeship took place (at least one month)	(15/04/24 – 15/05/24)
Please indicate the name of the student	Nicolette Vollero Levy
Please indicate the name of the hosting institution	Kykkos Monastery Cultural Foundation
Please report on the training program and activities carried out by the student during the traineeship	Collaboration activities between APAC Labs and the Conservation Laboratory of the Kykkos Monastery Cultural Foundation. Assisted the team with conservation efforts of some of the most important icons in the collection through the use of digital technologies.
Please highlight key competences obtained by the student during the traineeship	• To be able to plan and collect data according to the most appropriate methodology. • To be able to process data and deliver accurate results. • Excellent capacity to manage all phases of the work from concept to implementation. • An excellent demonstration to adapt herself to the host institution of the traineeship;
Please report on any challenge met and/or issue that arose during the traineeship?	• The need for necessary collaboration between professionals with different skillsets was highlighted.

Please indicate the timeframe when the Traineeship took place (at least one month)	(08/04/24 – 13/05/24)
Please indicate the name of the student	Natalie Milanese Branca
Please indicate the name of the hosting institution	CVAR - Severis Foundation
Please report on the training program and activities carried out by the student during the traineeship	Working and analysing of digital archival and bibliographic documentation regarding the history of Nicosia.

Please highlight key competences obtained by the student during the traineeship	• To be able to plan and collect data according to the most appropriate methodology. • To be able to process data and deliver accurate results. • Carried out historical research directly related to the development of the prototype which would benefit the foundation in return. • Provide cultural content to different types of visitors through development of app with archival material from the foundation. • An excellent demonstration to adapt herself to the host institution of the traineeship
Please report on any challenge met and/or issue that arose during the traineeship?	• The need for necessary collaboration between professionals with different skillsets was highlighted.

3. Universidade Lusófona training reporting tool

Section 1 – General Information

Name of the partner	**Universidade Lusófona**
Name of the person(s) filling in this report	Carlos Smaniotto Costa, Catarina Patrício, Isabel Dantas dos Reis
Date of completion of the report	10 June 2024
List of students registered in the MOOC	4
List of students involved in the prototyping exercise	3
List of students involved in the internships	1

Section 2 – MOOC report

Please indicate the timeframe when the MOOC delivery took place at your institution	(30/03/2023 – 19/10/2023) 10/04/2023 - 12/12/2023
Please indicate the total number of students who registered to the training	4
Please indicate the total number of students who completed the MOOC Area A	3
Please indicate the total number of students who completed the MOOC Area B	3
Please indicate the total number of students who completed the MOOC Area C	3
Please indicate the total number of students who completed the MOOC Area D	2
Please indicate the total number of students who received the "Standard Badge"	2
Please indicate the total number of students who received the "Full Badge" (include Standard badge)	0
Please indicate how tutoring was organised in your institution	At Lusófona, we had as tutors Ricardo Geraldes (PhD student of communication sciences (until August 23) and Isabel Dantas dos Reis from (October 23) - MA student in Photograpy, both helped the Lusófona team to enhance the knowhow available in the team and provide support for the students on their prototypes on storytelling. Different meetings were organised, in person or online to clarify

	different issues and in particular to bring students in contact with the associated partners in order to enable the development of the prototypes. In particular, the coordination the interests of the associated partners, students and the project had to be well managed. The three students who prepared the prototypes counted with strong support of a local tutor designated by the associated partners. These are two members of the Museu da Lourinhã, each one from a specific working area (Expography and Paleoethology), and of the CEHL (Ethnography). The collaboration between the DCbox tutor (Isabel) and the associated partners tutors were essential to pave the way for the prototypes.
Do you have any personal reflection on the MOOC learning experience?	The MOCC and single lectures are very valuable and recommended to further students. The three students who completed the MOOC reported on the usefulness of the topics and how the contents are systematically and consequently well build up. From the experiences of the tutors and the teaching team of Lusófona, preparing the MOOC and following its development was a unique opportunity to learn from another, and a wonderful chance to get deeper into the possibilities on the use of digital technologies for cultural heritage sector.

Section 3 - Prototyping by the Living Labs

Student name	**Edson Lourenço**
Name of the case study	Storytelling on Paleoethology
Name of the prototype (if any)	Living palaeontology: Sharing stories about a rare dinosaur fossil *Paleontologia Viva: Partilhando Histórias sobre Fóssil de Dinossauro Raro*
Description of the prototype (aim/requirements of the prototype, technology involved)	The aim of the prototype is to create a short documentary on a unique fossil of a rare dinosaur species (Dinheirosaurus) found in Lourinhã. The workflow encompassed:

	- Development of a storyboard with a script plan, recording of interviews, and narrating the story. - Laboratory work - consisted of building the digital archive with audio description for the podcast, for this digitized data from the fossil and the finding places were collected, and prepared to be included in the prototype. - Fieldwork for collecting testimonies and selecting fossil pieces. Interviewed were two researchers of the museum who describes the palaeontologic and historic relevance of the area and the fossil - Digital lab - compile the information for structuring and producing the video, which is short but informative, and interactive. - Programming and developing the interactive digital interface to enable the audience to explore the asset, with features such as timeline, image galleries, and informative hotspots. - Producing the final video (digital archive with audio description for the podcast The work flow involved thus lab as well as field activities. As a final result, a short documentary and a digital archive are created, which users can download (possibly from the Museum's website.
Indicative workload required to design and develop the prototype	188 hours
Link to the actual prototype	https://youtu.be/k33pdB9nGeE?si=iM72FNn32ZJJWpwT

Student name	**Isaac Santo**
Name of the case study	Storytelling on Ethnography
Name of the prototype (if any)	Lime route of Lourinhã
Description of the prototype (aim/requirements of the prototype, technology involved)	Prepare a short description of processing of lime stone and its role in vernacular architecture in Lourinhã.

	The use of lime stone has a long history in the region of Lourinhã, with remotes the roman period. The workflow consisted of collecting and compiling information and data about the town history and the extraction and use of lime stone. This means organising a comprehensive story board that provides in short, the relevance of the lime, from the quarry, to kilns, uses by the citizens. A 3D model of a kiln is used to show how the lime stones were further processed - a step a route of lime that connects different stations.
Indicative workload required to design and develop the prototype	250 hours
Link to the actual prototype	https://youtu.be/zb6_vKdYO88?si=euTpnnzanHNoHQrn

Student name	**Ruben Domingos**
Name of the case study	Storytelling on Expography
Name of the prototype (if any)	40 years of the Museu da Lourinhã
Description of the prototype (aim/requirements of the prototype, technology involved)	The prototype tells the 40 years of history of the museum with a focus on the Gruta da Feteira (Feteira cave) where the first historical assets were found. The prototype involves the design of a platform or application that allows the public to explore, learn and engage in an interactive way with the pieces and exhibitions of the museum. The workflow consisted of collecting information about the cave and the assets found there, preparing a story board and narrating the results.
Indicative workload required to design and develop the prototype	228 hours
Link to the actual prototype	https://youtu.be/KlJI8pOJlqs?si=-rUCXy1yxTou9gNc

Section 4 - Traineeship report

Please indicate the timeframe when the Traineeship took place (at least one month)	13/11/23 -28/11/23 in presence 04/12/23 - 12/12/23 virtual 08/01/24 - 20/02/2024
Please indicate the name of the student	Edson Lourenço
Please indicate the name of the hosting institution	Museu da Lourinhã
Please report on the training program and activities carried out by the student during the traineeship	Discussion with the contact person and local tutor on relevant issues to be used in the prototype, clarifying technical issues. Discussion with the museum team to understand the objectives, content to be highlighted, and the target audience of the storytelling. Gathering information about the dinosaur and its fossil, conducting interviews with palaeontologists, collecting images and videos, and researching historical material. Developing sketches and storyboards to define the visual structure of the storytelling, including illustrations, infographics, and presentation layout.
Please highlight key competences obtained by the student during the traineeship	Better use of museum resources to provide a more comprehensive understanding of the potential of the fossil for storytelling and museum needs, and negotiation of contents
Please report on any challenge met and/or issue that arose during the traineeship?	Limitation of time to prepare the prototypes and lack of resources

4. Universidad de Córdoba training reporting tool

Section 1 – General Information

Name of the partner	Universidad de Córdoba
Name of the person(s) filling in this report	Massimo Gasparini Antonio Monterroso Checa
Date of completion of the report	13 June 2024
List of students registered in the MOOC	5
List of students involved in the prototyping exercise	4
List of students involved in the internships	4

Section 2 – MOOC report

Please indicate the timeframe when the MOOC delivery took place at your institution	(30/03/2023 – 19/10/2023)
Please indicate the total number of students who registered to the training	5
Please indicate the total number of students who completed the MOOC Area A	4
Please indicate the total number of students who completed the MOOC Area B	4
Please indicate the total number of students who completed the MOOC Area C	3
Please indicate the total number of students who completed the MOOC Area D	3
Please indicate the total number of students who received the "Standard Badge"	2
Please indicate the total number of students who received the "Full Badge" (include Standard badge)	1
Please indicate how tutoring was organised in your institution	One tutor (Massimo Gasparini) was committed to monitor the LMS and to reply to the students' questions. It is observed that the students use to ask directly to the tutor both via email and not trough the forum of the MOOC. The tutor was especially asked to clarify the way to accomplish with the activity of the Module C of the Learning Modules.

Do you have any personal reflection on the MOOC learning experience?	The DCBox Massive Open Online Course (MOOC) is innovative because analyses all the facets of the management of Digital Cultural Heritage, from the acquisition to the dissemination through digital applications and environments, analysing between these two aspects also the needs and technical requirements necessary to avoid technological obsolescence through which digital data is inevitably subject to. It is an experience through which, although in a cursory manner due to the depth of the arguments discussed, the participants are able to detect the skills required to guarantee a lasting use of digital resources and they are also able to internalize the real potential of the Digital Cultural Heritage in the field of management, research and dissemination, without falling into the common mistake of focusing on the technical execution of the digitization processes as main purpose.

Section 3 - Prototyping by the Living Labs

Student name	Paola Osuna Lozano
Name of the case study	Local Museum of Fuente Obejuna (Córdoba, Spain)
Name of the prototype (if any)	Digital Library of roman epigraphies from the Roman *Municipium* of *Mellaria* (Fuente Obejuna. Córdoba).
Description of the prototype (aim/requirements of the prototype, technology involved)	Thematic 3d digital library on roman epigraphies by the roman town of *Mellaria* on Sketchfab platform that implements the sources that the platform offers (annotations, guided tours). In this way, all the epigraphic elements related to the roman town of Mellaria and to the *Ager Mellariensis* (preserved in the local museum and some reused in the church of the town), will be observed and analyse in a unique thematic collection that will be also implemented in the future with new epigraphy that could be discovered in the archaeological

	excavations that University of Córdoba is realizing in these years in the archaeological site. The workflow process includes the creation of catalogue datasheet of the finds, data acquisition and photogrammetric workflow of the preserved roman epigraphy, creation of the digital collection on the Sketchfab platform.
Indicative workload required to design and develop the prototype	80 hours
Link to the actual prototype (if available)	https://www.youtube.com/watch?v=q--4_M7yxqM&list=PLqd6hOCBhPvin4GwserteTLd0wG_LAvH-&index=1 https://sketchfab.com/ucodcboxprototype2/collections/roman-epigraphies-from-the-municipium-of-mellaria-ca55669201e640f6835bfb6f44da1b54

Student name	Álvaro Castillo Arteche
Name of the case study	Local Museum of Fuente Obejuna (Córdoba, Spain)
Name of the prototype (if any)	Digital Library of roman sculptures from the Roman *Municipium* of *Mellaria* (Fuente Obejuna, Córdoba)
Description of the prototype (aim/requirements of the prototype, technology involved)	Thematic 3d digital library of fragments of roman sculptures from the roman town of *Mellaria* on Sketchfab platform that implements the sources that the platform offers (annotations, guided tours). In this way, all the fragments of roman sculptures that could be related to the roman town of *Mellaria* and to the *Ager* can be observed and analyse in a unique thematic collection that will be also implemented in the future with new finds that could be discovered in the archaeological excavations that University of Córdoba is realizing in these years in the archaeological site.

	The workflow process includes the creation of catalogue datasheet of every element, data acquisition and photogrammetric workflow of the preserved fragments of roman sculptures, creation of the digital collection on the Sketchfab platform.
Indicative workload required to design and develop the prototype	80 hours
Link to the actual prototype (if available)	https://www.youtube.com/watch?v=Je-jTiOtukU&list=PLqd6hOCBhPvin4GwserteTLd0wG_LAvH-&index=4 https://sketchfab.com/ucodcboxprototype3/collections/roman-sculptures-from-the-municium-of-mellaria-59b9b50b16334df3aebdb6f85ff348e1

Student name	Francisco Rafael Bueno Lozano
Name of the case study	Local Museum of Fuente Obejuna (Córdoba, Spain)
Name of the prototype (if any)	Digital library of lithic archaeological elements from the Chalcolithic site of "Cerro de Los Castillejos" (Fuente Obejuna, Córdoba)
Description of the prototype (aim/requirements of the prototype, technology involved)	Thematic 3d digital library (lithic chalcolithic industry) on Sketchfab platform that implements the sources that the platform offers (annotations, guided tours). The archaeological finds come from the important site, but still hidden beneath the surface, of the Cerro de los Castillejos, few kilometres far from the village of Fuente Obejuna. The workflow process includes the creation of catalogue datasheet of the finds, data acquisition and photogrammetric workflow of some of the preserved finds of lithic chalcolithic industry, creation of the digital collection on the Sketchfab platform.
Indicative workload required to design and develop the prototype	50 hours

Link to the actual prototype (if available)	https://www.youtube.com/watch?v=awHkyWcYuzQ&list=PLqd6hOCBhPvin4GwserteTLd0wG_LAvH-&index=3 https://sketchfab.com/ucodcboxprototype1/collections/cerro-de-los-castillejos-industria-litica-dbca729f56af44be862d1c8220587915

Student name	Manuel Ordoñez Sojo
Name of the case study	Local Museum of Fuente Obejuna (Córdoba, Spain)
Name of the prototype (if any)	Digital Library of bronze archaeological finds preserved in the Local Museum of Fuente Obejuna (Córdoba)
Description of the prototype (aim/requirements of the prototype, technology involved)	Thematic 3d digital library of diachronic bronze archaeological finds on Sketchfab platform that implements the sources that the platform offers (annotations, guided tours). The workflow process includes the creation of catalogue datasheet of the finds, data acquisition and photogrammetric workflow of some of the preserved bronze archaeological finds of different eras, creation of the digital collection on the Sketchfab platform.
Indicative workload required to design and develop the prototype	50 hours
Link to the actual prototype (if available)	https://www.youtube.com/watch?v=ZpjQGc3AEfE&list=PLqd6hOCBhPvin4GwserteTLd0wG_LAvH-&index=2 https://sketchfab.com/ucodcboxprototype4/collections/bronze-finds-in-the-local-museum-of-fuente-obejuna-4ec0db5cd66d4b6daf4fb48e125c9103

Section 4 - Traineeship report

Please indicate the timeframe when the Traineeship took place (at least one month)	(15/01/24– 15/02/24)
Please indicate the name of the student	Paola Osuna Lozano
Please indicate the name of the hosting institution	Local Museum of Fuente Obejuna (Córdoba, Spain)
Please report on the training program and activities carried out by the student during the traineeship	Digitisation of the epigraphic section of the museum through photogrammetric technique. Analysis of the archival and bibliographic documentation regarding the epigraphies preserved in the collection.
Please highlight key competences obtained by the student during the traineeship	**DIGITIZATION** • To be able to complete 3D modeling related projects exploiting passive sensors (DSLR cameras). • To be able to plan and collect data according to the most appropriate methodology. • To be able to process data and deliver accurate results. **3D MODELLING AND DATA IMPLEMENTATION** • To be able to post process and optimize 3D data for different kind of purposes **POLICIES RULES AND LICENSING** • To be able to guarantee the interchanging and preservation of Digital Cultural Heritage using the Open Formats.
Please report on any challenge met and/or issue that arose during the traineeship?	The staff of the Department of Culture and Tourism of the Municipality of Fuente Obejuna were newbie regarding the Digital Cultural Heritage and its management. It was necessary to use tools that could be easy implemented both by the students - with an exclusively humanistic education- and by the staff of the Department of Culture and Tourism of the Municipality.

	Therefore, it was chosen to use the consolidated methodology of digitizing the archaeological finds through digital photogrammetry. In this way, the student was able to: ▪ to generate 3D models in open format (.ply) that can be easily managed by the staff of the municipality through simple 3D viewers integrated into the most common operating systems ▪ to implement the creation of thematic galleries on the commercial platform Sketchfab (that is already widely used by national and international cultural organizations) to facilitate the digital dissemination of the museum's collection by the staff of the Municipality. The students had the first-hand opportunity to analyse the difficulties to implement protocols and techniques for the production and management of Digital Cultural Heritage in small-scale and rural communities, where the resources available for the management of their vast Cultural Heritage are inadequate. In this way, the student was able to focus the internship on the aim to offer digital contents that are easy to use and maintained by small local administrations.

Please indicate the timeframe when the Traineeship took place (at least one month)	(15/01/24– 15/02/24)
Please indicate the name of the student	Álvaro Castillo Arteche
Please indicate the name of the hosting institution	Local Museum of Fuente Obejuna (Córdoba, Spain)
Please report on the training program and activities carried out by the student during the traineeship	Digitisation of the fragments of roman sculptures of the museum through photogrammetric technique.

	Analysis of the archival and bibliographic documentation regarding the sculptures preserved in the collection.
Please highlight key competences obtained by the student during the traineeship	**DIGITIZATION** • To be able to complete 3D modeling related projects exploiting passive sensors (DSLR cameras). • To be able to plan and collect data according to the most appropriate methodology. • To be able to process data and deliver accurate results. **3D MODELLING AND DATA IMPLEMENTATION** • To be able to post process and optimize 3D data for different kind of purposes **POLICIES RULES AND LICENSING** • To be able to guarantee the interchanging and preservation of Digital Cultural Heritage using the Open Formats.
Please report on any challenge met and/or issue that arose during the traineeship?	The staff of the Department of Culture and Tourism of the Municipality of Fuente Obejuna were newbie regarding the Digital Cultural Heritage and its management. It was necessary to use tools that could be easy implemented both by the students - with an exclusively humanistic education- and by the staff of the Department of Culture and Tourism of the Municipality. Therefore, it was chosen to use the consolidated methodology of digitizing the archaeological finds through digital photogrammetry. In this way, the student was able to: ▪ to generate 3D models in open format (.ply) that can be easily managed by the staff of the municipality through simple

	3D viewers integrated into the most common operating systems ▪ to implement the creation of thematic galleries on the commercial platform Sketchfab (that is already widely used by national and international cultural organizations) to facilitate the digital dissemination of the museum's collection by the staff of the Municipality. The students had the first-hand opportunity to analyse the difficulties to implement protocols and techniques for the production and management of Digital Cultural Heritage in small-scale and rural communities, where the resources available for the management of their vast Cultural Heritage are inadequate. In this way, the student was able to focus the internship on the aim to offer digital contents that are easy to use and maintained by small local administrations.

Please indicate the timeframe when the Traineeship took place (at least one month)	(15/01/24– 15/02/24)
Please indicate the name of the student	Francisco Rafael Bueno Lozano
Please indicate the name of the hosting institution	Local Museum of Fuente Obejuna (Córdoba, Spain)
Please report on the training program and activities carried out by the student during the traineeship	Digitisation of lithic industry from the Chalcolithic site of Cerro de Los Castillejos (Fuente Obejuna) through photogrammetric technique. Analysis of the archival and bibliographic documentation regarding the lithic finds preserved in the collection.
Please highlight key competences obtained by the student during the traineeship	**DIGITIZATION**

	• To be able to complete 3D modeling related projects exploiting passive sensors (DSLR cameras). • To be able to plan and collect data according to the most appropriate methodology. • To be able to process data and deliver accurate results. **3D MODELLING AND DATA IMPLEMENTATION** • To be able to post process and optimize 3D data for different kind of purposes **POLICIES RULES AND LICENSING** • To be able to guarantee the interchanging and preservation of Digital Cultural Heritage using the Open Formats.
Please report on any challenge met and/or issue that arose during the traineeship?	The staff of the Department of Culture and Tourism of the Municipality of Fuente Obejuna were newbie regarding the Digital Cultural Heritage and its management. Therefore, it was necessary to use tools that could be easy implemented both by the students - with an exclusively humanistic education- and by the staff of the Department of Culture and Tourism of the Municipality. It was chosen to use the consolidated methodology of digitizing the archaeological finds through digital photogrammetry. In this way, the student was able to: ▪ to generate 3D models in open format (.ply) that can be easily managed by the staff of the municipality through simple 3D viewers integrated into the most common operating systems ▪ to implement the creation of thematic galleries on the commercial platform Sketchfab (that is already widely used by national and international cultural organizations) to facilitate the digital

	dissemination of the museum's collection by the staff of the Municipality. The students had the first-hand opportunity to analyse the difficulties to implement protocols and techniques for the production and management of Digital Cultural Heritage in small-scale and rural communities, where the resources available for the management of their vast Cultural Heritage are inadequate. In this way, the student was able to focus the internship on the aim to offer digital contents that are easy to use and maintained by small local administrations.

Please indicate the timeframe when the Traineeship took place (at least one month)	(15/01/24– 15/02/24)
Please indicate the name of the student	José Manuel Ordoñez Sojo
Please indicate the name of the hosting institution	Local Museum of Fuente Obejuna (Córdoba, Spain)
Please report on the training program and activities carried out by the student during the traineeship	Digitisation of diachronic bronze archaeological finds of the museum through photogrammetric technique. Analysis of the archival and bibliographic documentation regarding the bronze finds preserved in the collection.
Please highlight key competences obtained by the student during the traineeship	**DIGITIZATION** • To be able to complete 3D modeling related projects exploiting passive sensors (DSLR cameras). • To be able to plan and collect data according to the most appropriate methodology. • To be able to process data and deliver accurate results. **3D MODELLING AND DATA IMPLEMENTATION**

	• To be able to post process and optimize 3D data for different kind of purposes **POLICIES RULES AND LICENSING** • To be able to guarantee the interchanging and preservation of Digital Cultural Heritage using the Open Formats.
Please report on any challenge met and/or issue that arose during the traineeship?	The staff of the Department of Culture and Tourism of the Municipality of Fuente Obejuna were newbie regarding the Digital Cultural Heritage and its management. It was necessary to use tools that could be easy implemented both by the student - with an exclusively humanistic education- and by the staff of the Department of Culture and Tourism of the Municipality. Therefore, it was chosen to use the consolidated methodology of digitizing the archaeological finds through digital photogrammetry. In this way, the student was able to: ▪ to generate 3D models in open format (.ply) that can be easily managed by the staff of the municipality through simple 3D viewers integrated into the most common operating systems ▪ to implement the creation of thematic galleries on the commercial platform Sketchfab (that is already widely used by national and international cultural organizations) to facilitate the digital dissemination of the museum's collection by the staff of the Municipality. The student had the first-hand opportunity to analyse the difficulties to implement protocols and techniques for the production and management of Digital Cultural Heritage in

	small-scale and rural communities, where the resources available for the management of their vast Cultural Heritage are inadequate. In this way, the student was able to focus the internship on the aim to offer digital contents that are easy to use and maintained by small local administrations.

5. University of Niš training reporting tool

Section 1 – General Information

Name of the partner	University of Niš
Name of the person(s) filling in this report	Aleksandra Stojković, Ana Janaćković, Bata Vasić
Date of completion of the report	19/12/2023
List of students registered in the MOOC	4
List of students involved in the prototyping exercise	2
List of students involved in the internships	2

Section 2 – MOOC report

Please indicate the timeframe when the MOOC delivery took place at your institution	(30/03/2023 – 19/10/2023)
Please indicate the total number of students who registered to the training	4
Please indicate the total number of students who completed the MOOC Area A	3
Please indicate the total number of students who completed the MOOC Area B	2
Please indicate the total number of students who completed the MOOC Area C	2
Please indicate the total number of students who completed the MOOC Area D	2
Please indicate the total number of students who received the "Standard Badge"	2

Please indicate the total number of students who received the "Full Badge" (include Standard badge)	**1**
Please indicate how tutoring was organised in your institution	All UNI lecturers who participated in preparing the lessons also served as tutors in their respective fields. They assisted students in clarifying practical doubts and solving technical problems during the development of their prototypes. Various meetings, both in person and online, were organized to address various issues and connect students with associated partners, facilitating the development of prototypes. Coordinating the interests of related partners, students, and the project required careful management. The two students developing the prototypes worked directly with the director and the curatorial partners. The museum staff effectively acted as associate mentors in the fields of history and ethnography.
Do you have any personal reflection on the MOOC learning experience?	The complete MOOC and individual lectures are invaluable to students and museum staff interested in modern technology.

Section 3 - Prototyping by the Living Labs

Student name	Aleksandra Stojković
Name of the case study	Virtualization of the Museum of Ponišavlje
Name of the prototype (if any)	**The Museum of Ponišavlje gamification**
Description of the prototype (aim/requirements of the prototype, technology involved)	Virtual experience of the museum, with an accent on interactivity and storytelling. Familiarizing users with the general concept of the museum, using techniques of 3D modelling (Maya) and game building (Unity).
Indicative workload required to design and develop the prototype	Collecting the cultural and historical data, developing the idea for the application and the complete storytelling through it, designing the 2D interface, building the 3D objects of the game, recording the audio segments of the game, connecting all the segments through code and programming the interactivity of the game.

Link to the actual prototype (if available)	https://www.youtube.com/watch?v=q8syvcaSv3c&list=PLqd6hOCBhPvgUXddgtw9OPRKZeJbXx2gF&index=2

Student name	Ana Janaćković
Name of the case study	Virtualization of the Museum of Ponišavlje
Name of the prototype (if any)	**Ponišavlje Museum Interior Tour**
Description of the prototype (aim/requirements of the prototype, technology involved)	Creating a virtual experience for a museum that emphasizes interactivity and storytelling. It involves combining Maya and Unity programs.
Indicative workload required to design and develop the prototype	Researching cultural and historical information, creating the storyline for the application, designing the 2D user interface, building the 3D game segments, processing the game's sounds and coding.
Link to the actual prototype (if available)	https://www.youtube.com/watch?v=q8syvcaSv3c&list=PLqd6hOCBhPvgUXddgtw9OPRKZeJbXx2gF&index=2

Section 4 - Traineeship report

Please indicate the timeframe when the Traineeship took place (at least one month)	24/06/23 - 08/08/23
Please indicate the name of the student	Aleksandra Stojković
Please indicate the name of the hosting institution	**Museum of Ponišavlje Pirot**
Please report on the training program and activities carried out by the student during the traineeship	The student was introduced to the complex cultural and anthropological history of the southern region of Serbia, preserved in the Museum of Ponišavlje. Furthermore, the student had to build basic skills and obtain knowledge in the area of handling and digitizing the artifacts.
Please highlight key competences obtained by the student during the traineeship	The student gained confidence in processing the museum data and developing ideas stemming from the cultural significance of the museum's exhibit, with an aim to popularize the museum among the public.
Please report on any challenge met and/or issue that arose during the traineeship?	The student attempted to digitize certain objects through photogrammetry, but due to

	the lack of experience and technological resources, this aspect of traineeship remained unfulfilled.

Please indicate the timeframe when the Traineeship took place (at least one month)	24/06/23 - 08/08/23
Please indicate the name of the student	Ana Janaćković
Please indicate the name of the hosting institution	**Museum of Ponišavlje Pirot**
Please report on the training program and activities carried out by the student during the traineeship	The student was educated on the historical and cultural background of the Ponišavlje Museum. The student also needed to learn the fundamentals of handling and archiving cultural artifacts, as well as gain understanding in this area.
Please highlight key competences obtained by the student during the traineeship	To raise awareness of the museum among the public, the student improved their competence in managing museum data and producing ideas.
Please report on any challenge met and/or issue that arose during the traineeship?	Finding complete details on every object in the scene proved difficult because some information was unavailable, due to lack of systematic archiving.

6. Università Politecnica delle Marche training reporting tool

Section 1 – General Information

Name of the partner	**Università Politetcnica delle Marche**
Name of the person(s) filling in this report	Ramona Quattrini, Daniele A. De Luca
Date of completion of the report	15 May 2024
List of students registered in the MOOC	9
List of students involved in the prototyping exercise	5
List of students involved in the internships	3

Section 2 – MOOC report

Please indicate the timeframe when the MOOC delivery took place at your institution	30/03/2023 – 19/10/2023
Please indicate the total number of students who registered to the training	9
Please indicate the total number of students who completed the MOOC Area A	8
Please indicate the total number of students who completed the MOOC Area B	8
Please indicate the total number of students who completed the MOOC Area C	8
Please indicate the total number of students who completed the MOOC Area D	8
Please indicate the total number of students who received the "Standard Badge"	5
Please indicate the total number of students who received the "Full Badge" (include Standard badge)	**3**
Please indicate how tutoring was organised in your institution	A couple of tutors (Daniele A De Luca and Mirco D'Alessio) were committed to weekly monitor the LMS and to reply to the students' questions. It is observed that the students preferred to ask directly to the tutor via email (and sometimes also via whatsapp) rather than to use the forum of the MOOC. The tutors were especially asked to supervise and check the activities in the Learning modules, but they were also asked by the students to support the prototyping phase.

Do you have any personal reflection on the MOOC learning experience?	Embarking on the journey of a Massive Open Online Course (MOOC) focused on upskilling higher education students in the realms of digital cultural heritage and museum exhibitions has been a transformative experience. As a lifelong learner passionate about the intersection of technology and cultural dissemination, this course not only expanded my knowledge but also activated a change of perspective on the potential of digital tools in showcasing the cultural heritage. One of the key takeaways from the course was the democratization of access to cultural heritage. Digital tools enable broader audiences, including students and enthusiasts who may be also non-expert, to engage with and appreciate cultural artifacts. This shift towards inclusivity aligns with the evolving nature of education, breaking down barriers to knowledge and fostering a global community with a shared appreciation for diverse cultural expressions.

Section 3 - Prototyping by the Living Labs

Student name	Luca Bondi
Name of the case study	Auditorium Pedrotti (Palazzo Olivieri in Pesaro, IT)
Name of the prototype (if any)	VR Auditorium Pedrotti
Description of the prototype (aim/requirements of the prototype, technology involved)	Development of a VR headset application to narrate the history of the Auditorium Pedrotti in Pesaro, starting from an HBIM model, implementing historical media and virtual reconstruction. The aim is to expand the use of the 3D model of the building to communicate the tangible and the intangible heritage and to narrate it to the general public through interactive experiences. This was achieved creating a VR headset application with interactive contents that guides the visitor through the different phases of the Auditorium, from its construction to the latest renovations and operas performed. The workflow started from the existing HBIM model, imported into Unity, integrating

	interactions, assets, and historical media. The user experience featured hotspots for exploring archival materials, showcasing the hall's evolution and old ceiling decorations. The application also included a scene model from the opera “Il Viaggio a Reims” by Gae Aulenti. It allowed free exploration, consulting a media gallery of photos and videos, reviving a unique event celebrating the Auditorium's reopening after restoration works.
Indicative workload required to design and develop the prototype	180 hours
Link to the actual prototype	*https://youtu.be/HUCUMGb7gNY?si=iMJwt11Uw4Q4DNEO*

Student name	Sofia Diomedi
Name of the case study	Picenian Queen’s Tomb in Numana
Name of the prototype (if any)	LA TOMBA DELLA REGINA PICENA A NUMANA: un viaggio VR per la conoscenza dei reperti (THE TOMB OF THE PICENIAN QUEEN in NUMANA: a VR journey to learn about the findings)
Description of the prototype (aim/requirements of the prototype, technology involved)	The application is a virtual reality project: a simulated reality that allows to navigate in the photorealistic environment and interact with the objects present in it. It will help to make the museum more accessible to people with motor disabilities, it can be also used to recreate no more existing historical and archaeological heritage sites. A additional task the prototype has been studied in order to tell the story of the findings to deaf and blind people, creating specific content based on the research carried out previously by archaeologists. A further complementary prototype can be planned also with the possibility of creating an application to be used from the telephone inside the museum based on one's needs and disabilities.
Indicative workload required to design and develop the prototype	200 hours
Link to the actual prototype (if available)	https://youtu.be/q6z4ocoFgiQ?si=9SC0PhkZE-XL52DC

Student name	Ludovica Leonardi
Name of the case study	Sant'Ansano Painting
Name of the prototype (if any)	SANT'ANSANO MULTISPECTRAL AR
Description of the prototype (aim/requirements of the prototype, technology involved)	The prototype is designed for the organization and use of in deep investigations relevant to the preservation of artworks. It is an augmented reality application tailored for conservation specialists. The case study focuses on the painting Sant'Ansano at the Civic Art Gallery of Ancona. The purpose of this prototype is to offer a solution for archiving and displaying various information related to the painting's conservation status, leveraging the capabilities of a multi-layer 3D model. Additionally, the prototype aims to provide conservation professionals with a tool to view multispectral images and other information about the conservation status directly on the artwork, thanks to augmented reality. The first step involved acquiring images in diffuse visible light for 3D reconstruction, using the Structure from Motion Dense Multiview Reconstruction technique. This was followed by multispectral acquisitions in reflected light, ultraviolet fluorescence, and infrared reflectography, subsequently referenced to the same 3D model. Once the 3D model and multispectral analysis were completed, an app was created that allows users to observe and analyze Sant'Ansano and the conducted investigations using a simple smartphone or tablet. The platform opens with the display of the artwork's card, containing information such as dating, location, and any details about the conservation status. From this initial page, users can choose the mode to view data: either through the 3D model or directly on the painting through augmented reality.
Indicative workload required to design and develop the prototype	200 h
Link to the actual prototype (if available)	https://youtu.be/cBqhehg9IXI?si=Y0MaTcSLmW_Ogp2Y

Student name	Monica Magi
Name of the case study	Sala Zampetti, Civic Gallery of Ancona
Name of the prototype (if any)	Gigapixel e MBIM per la Sala Zampetti della Pinacoteca Civica di Ancona (Gigapixel and MBIM for the Sala Zampetti of the Civic Gallery of Ancona)
Description of the prototype (aim/requirements of the prototype, technology involved)	The work carried out was the subject of the degree thesis "DIGITAL TOOLS FOR THE MANAGEMENT AND ENHANCEMENT OF MUSEUMS, Gigapixel and MBIM for the Zampetti Hall at the Civic Art Gallery of Ancona". The objective pursued was the valorisation of the artistic, cultural and museum heritage. From the point cloud of the Zampetti Hall and related rooms in the Civic Art Gallery of Ancona, a scan to BIM process was carried out which produced a MBIM model, that is a digital twin incorporating geometric and structural data, linked to the collections in order to improve management and offering a "facility management" tool for the museum function. The model was made with the parametric software, Autodesk Revit. The starting point to enhance the access to the painted heritage is the gigapixel, which has allowed us to think that the painting could "come to life" and could narrate its essence. The result has been an explanatory narrative video, a visual storytelling, of the Pala Gozzi. An animation and a narrative voice explained the painting, accompanying the observer in a new communicative language. After Effect and Photoshop were the sw used.
Indicative workload required to design and develop the prototype	240 hours
Link to the actual prototype (if available)	https://youtu.be/rnFrq4dAQ7Y?si=hMGnNbt6AiZCekpM

Student name	Martina Manfroni
Name of the case study	Civic Gallery of Ascoli Piceno

Name of the prototype (if any)	Dal MuseumBIM all'interazione VR per la Pinacoteca Civica di Ascoli Piceno (From MuseumBIM to VR interaction for the Civic Gallery of Ascoli Piceno)
Description of the prototype (aim/requirements of the prototype, technology involved)	The project aims to create a prototype of a virtual tour of the Civic Art Gallery of Ascoli Piceno, using a HBIM model integrated with spherical panoramas and other databases. The methodology involves the development of a HBIM model of the first floor of the art gallery, exporting it in IFC format, creating textured spheres with the panoramas, and connecting the BIM with the panoramas in Unity. The result is a desktop application with two interfaces: one for free exploration of the HBIM model and one for viewing the real environment through panoramas. Both interfaces allow to query the elements and obtain the data extracted from the BIM. This prototype offers high visual quality and complete information management for the conservation of the building and collections and can also be implemented with previously created models for ongoing management over time.
Indicative workload required to design and develop the prototype	250 h
Link to the actual prototype (if available)	https://youtu.be/auaSJLp46lk?si=2OKPP5EvfS_j1h7e

Section 4 - Traineeship report

Please indicate the timeframe when the Traineeship took place (at least one month)	(12/09/2023 – 30/12/2023)
Please indicate the name of the student	Sofia Diomedi
Please indicate the name of the hosting institution	REGIONAL DIRECTORATE OF MARCHE MUSEUMS – Numana Antiquarium
Please report on the training program and activities carried out by the student during the traineeship	Design an accessible museum experience for the Antiquarium of Numana. Develop an adequate storytelling strategy suited for deaf and blind people with specific content.

	Design adapted descriptions with simpler and understandable language for people with disabilities. Create custom audio tracks to help blind people to understand and imagine the characteristics of the museum objects.
Please highlight key competences obtained by the student during the traineeship	An excellent capacity of managing of all standard phases of the curatorial design and implementation: from the concept to the requirements analysis, to the planning, to the prototyping and design, to the final development. To be able to define some technological innovation for museums. To be able to process data and deliver accurate results. To be able to understand the framework of digital dissemination for the Cultural Heritage.
Please report on any challenge met and/or issue that arose during the traineeship?	Understand what the most relevant way to make the museum accessible, empathize with disabled people on the difficulties they encounter during the museum experience

Please indicate the timeframe when the Traineeship took place (at least one month)	(23/10/2023 – 3/03/2024)
Please indicate the name of the student	Ludovica Leonardi
Please indicate the name of the hosting institution	Municipality of Ancona – Civic Gallery of Ancona
Please report on the training program and activities carried out by the student during the traineeship	The trainee worked alongside the scientific staff dedicated to educational services and at the same time undertook a period of direct observation of visitors, in particular the groups at the centre of educational activities, to which she directed the design of a multimedia product (app) for the dissemination of an iconic work of art in the collections, namely the Madonna and Child by Carlo Crivelli (15th century).
Please highlight key competences obtained by the student during the traineeship	On the basis of the indications received, she carried out art historical research on the

	painting and then formulated different cultural contents useful for the insertion in the app for three specific age groups: children, young people and adults. This editorial work proved to be unexpectedly complex and was completed following prolonged discussions with professionals.
Please report on any challenge met and/or issue that arose during the traineeship?	The purely humanistic work, in contact with experts in the dissemination of artistic heritage, led the trainee to develop an interest in the in-depth study of historical-artistic topics and the provision of cultural content to different types of visitors. The in-depth study in the field of heritage interpretation for dissemination purposes highlighted the necessary collaboration of different professional skills for the realisation of a quality product.

Please indicate the timeframe when the Traineeship took place (at least one month)	(16/11/22 – 31/03/23)
Please indicate the name of the student	Martina Manfroni
Please indicate the name of the hosting institution	Cooperativa Culturale Sociale PULCHRA – Civic Gallery of Ascoli
Please report on the training program and activities carried out by the student during the traineeship	Develop an AR application about the painting "Passeggiata Amorosa" to enrich children's museum experience with interactive and involving contents; Design AR application with functioning diagrams and mock-ups; Develop and build an AR museum experience with interactive contents; Discuss with the museum staff to set the objectives and the needs; Create interactive media to build the experience; Develop the User Experience and the User Interface of a mobile application; Actively interact with children to test the contents and the application to set up the best experience for them.

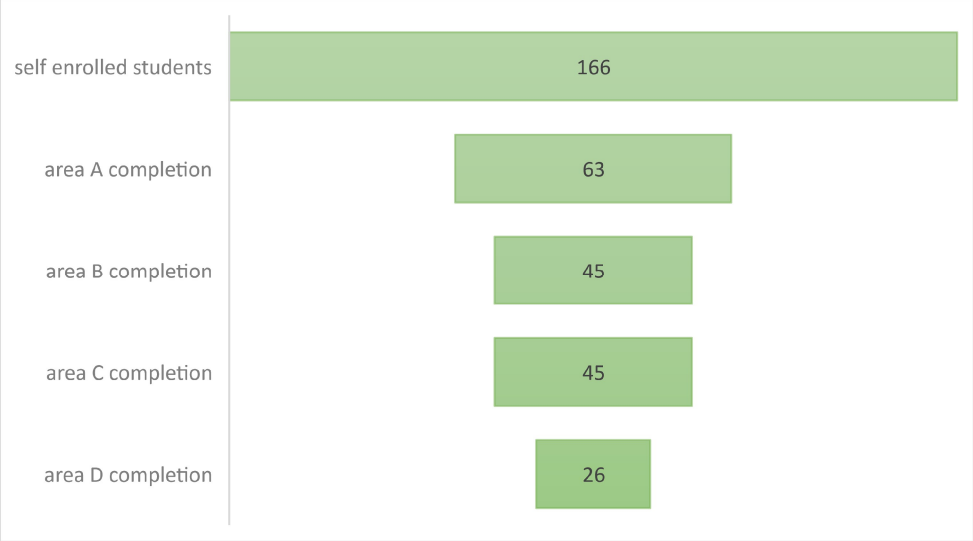
Please highlight key competences obtained by the student during the traineeship	An excellent capacity of adapting the idea and the workflow for the curatorial work to the needs of the institution, possibly updating or implementing the prototype. An excellent demonstration to adapt herself to the host institution of the traineeship; To be able to define and evaluate the best XR solution basing on some real cases; To be able to ideate and develop an application for museums
Please report on any challenge met and/or issue that arose during the traineeship?	Choice of the most suitable technology to create the AR application, considering the requirements of compatibility, performance, usability and security; Definition of the contents and interactions more suitable for the target audience, namely children, was also discussed taking into account the principles of playful learning and design for children; Retrieval of historical information and structural data in order to implement the MBIM

7. Self-enrolled learners and non-piloting students

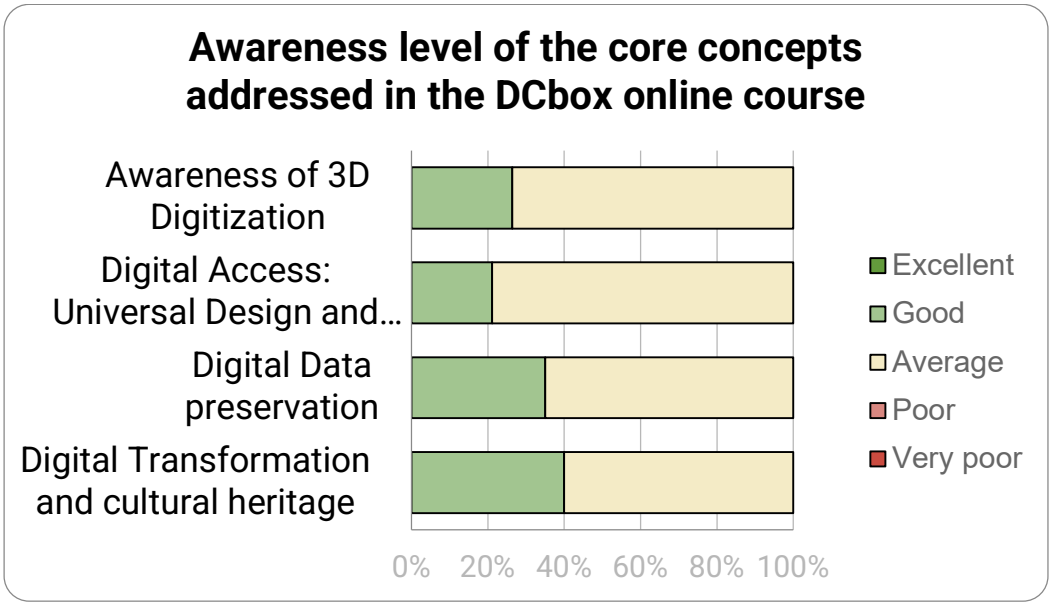
Thanks to a communication campaign on social media by DCbox profiles (LinkedIN, Instagram and Facebook) and the involvement of new associated partners, in particular Accademia di Belle Arti di Roma and University of Montenegro, our MOOC "Supporting the Digital Transformation of Museums. The DCBox approach" engaged a successful threshold of self-enrolled learners. In addition the partnership decided to collect an important qualitative feedback, which results are included in the present paragraph.

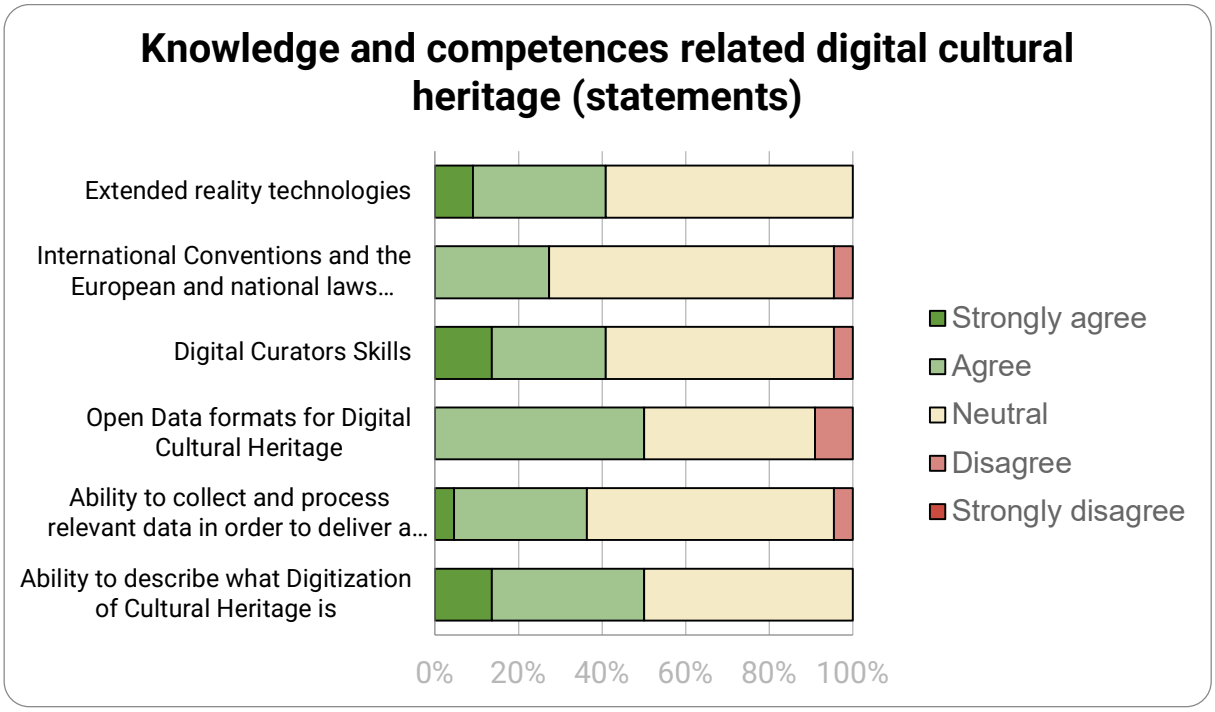
After the first release of the MOOC, in the month of April 2023, the number of auto registered profiles grew up slowly but reaching a very good result, in terms of numbers but also in terms of engagement and success rate. In particular, after 11 months we can count on a total of 166 active learners. Also for the self-enrolled learners it is possible to enrol in each course, only after completion of the previous one, so the MOOC is perceived as a learning path, divided in areas and modules interdependent. This choice guaranteed a full comprehension and learning experience but can have a counterpart an higher drop out.

The students who completed the various areas are distributed as follows:

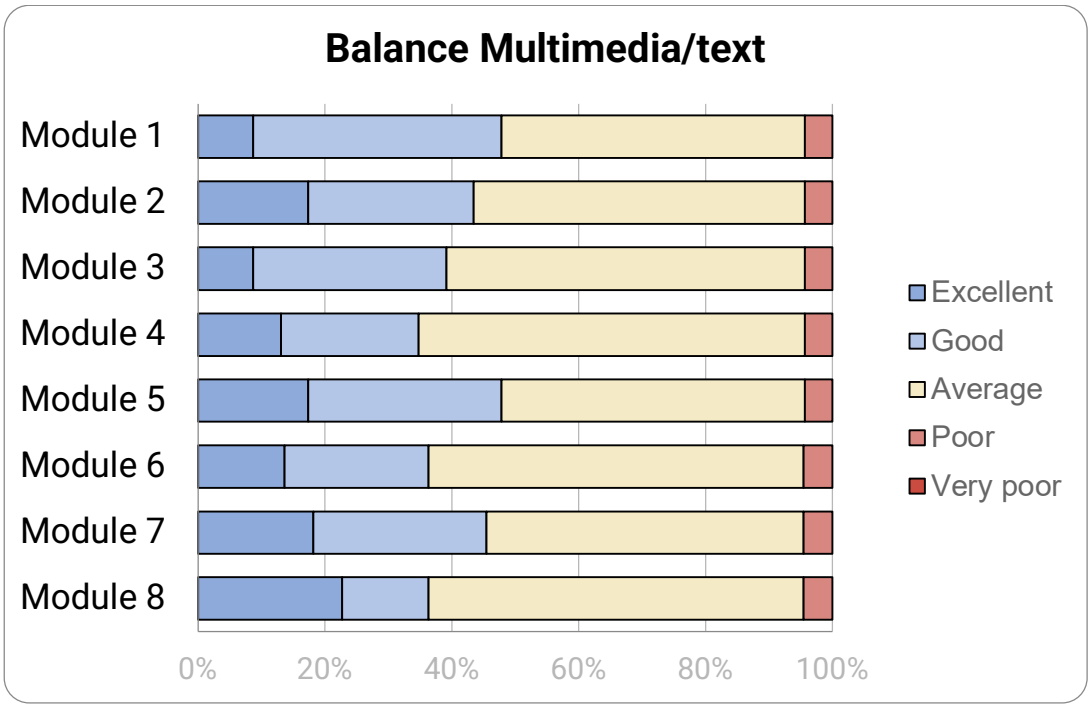


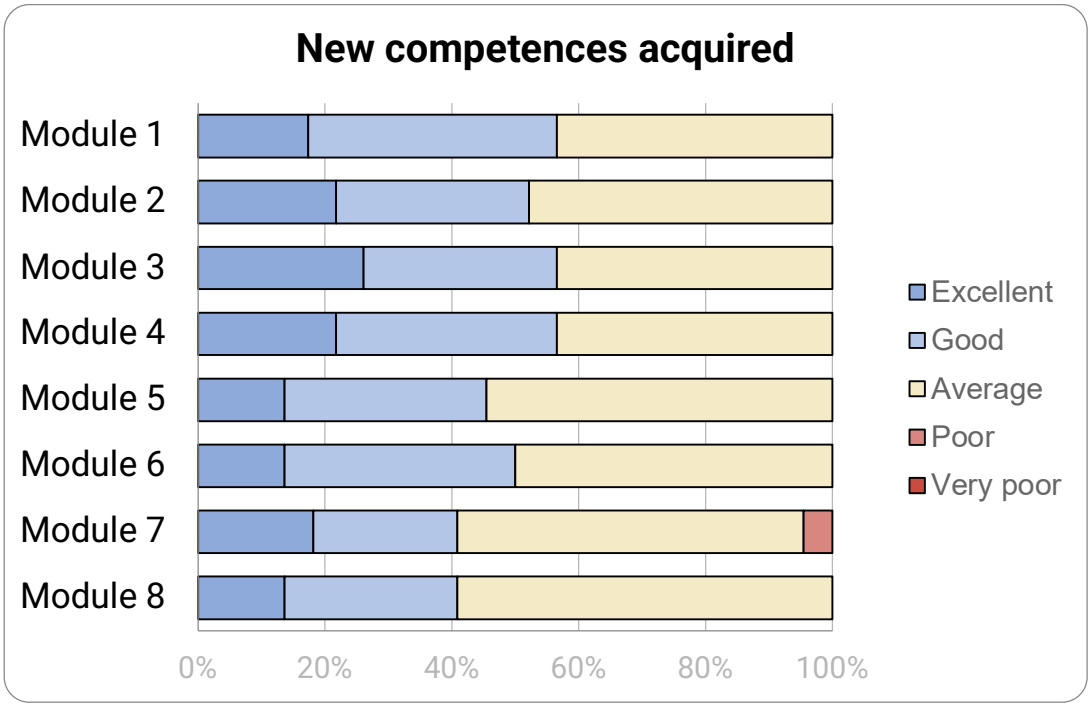
Here we report the very good feedbacks received by the post assessment questionnaires. They were filled in by 26 learners, that coincide with the number of Open badges released for self-enrolled learners.

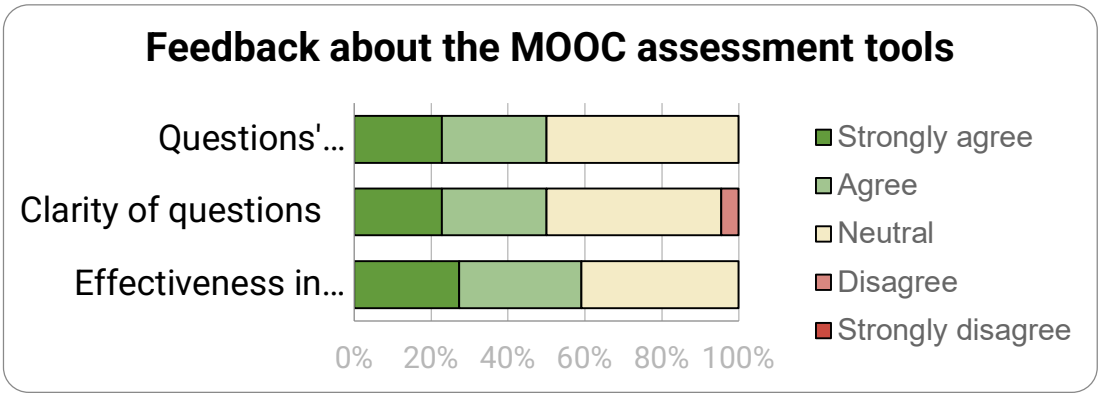


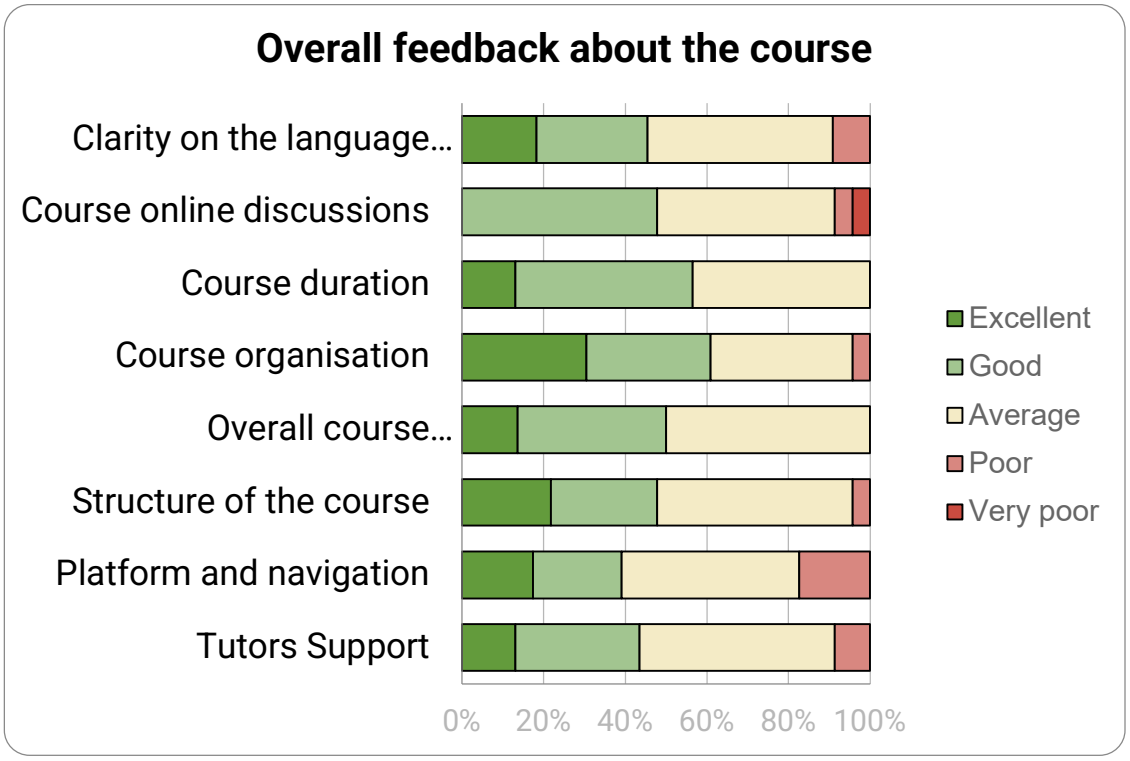


Only one respondent gave the opinion that all the modules seem poor in terms of balancing multimedia/text:

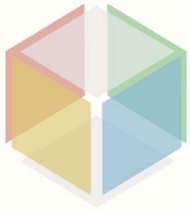



New competences acquired
Module 1
Module 2
Module 3
Module 4
Module 5
Module 6
Module 7
Module 8
0%
20%
40%
60%
80%
100%
Excellent
Good
Average
Poor
Very poor


Feedback about the MOOC assessment tools
Questions'...
Clarity of questions
Effectiveness in...
0%
20%
40%
60%
80%
100%
Strongly agree
Agree
Neutral
Disagree
Strongly disagree



All the percentage are in the satisfactory level, 95% of the answers correspond to excellent, good and intermediate.



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