

Cultural Heritage Institutions and Education

Needs, Challenges and Possibilities

Research Report

2026



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Introduction

EuroClio and Europeana's long-term collaboration intersects EuroClio's experience of supporting educators in promoting innovative history and citizenship education with Europeana's broad database of digitised cultural heritage and their work with Cultural Heritage Institutes (from now on CHIs). For this iteration of the project, we have worked to bring digitised cultural heritage into school classrooms by engaging educators and representatives of CHIs in co-creating digital teaching resources that promote cultural heritage.

To further determine how best to bring cultural heritage into education, EuroClio is conducting research into the needs and experiences of Cultural Heritage Institutes that are interested in the use of their collections within the field of education. This report examines the state of the art in the context of CHIs' existing educational outreach, the use of cultural heritage in education, and the emergence of digital educational resources.

The consequences of the COVID-19 pandemic in restricting educational capacity are viewed as a turning point in opening access to cultural heritage education (Luigini, 2022; Gao & Lee, 2024), with restrictions encouraging the use of virtual reality and artificial intelligence within cultural heritage education. Since 2020, CHIs have increasingly turned to digitised educational tools. The wealth of research on cultural heritage education since 2020 reveals insights into the best practices regarding digital education. An emphasis on local cultural heritage is further identified by researchers as resulting from quarantine restrictions (Achille & Fiorillo, 2022), suggesting that CHIs can benefit from newfound interest in the locality.

Cultural heritage is composed of the behaviours, beliefs, habits and artefacts that are passed down across generations to form community and society identity (Orphanidou et al., 2024). Orphanidou et al. identify our current climate of globalisation as responsible for a decline in cultural heritage, with young people increasingly unaware of their cultural identity. Orphanidou et al. emphasise how cultural heritage in education is considered central to securing pride and respect for national identity (2024). Indeed, active citizenship emerges from recent literature as a central motivation for teaching cultural heritage to school-aged children (Bonfantini & Casonato, 2022). As Achille and Fiorillo (2022) argue, heritage education involves increasing both individual and community-based knowledge to ensure the care, valorisation and transmission of cultural heritage.

The 2005 Faro Convention emphasised the value of cultural heritage for society and underscored the right to cultural heritage for all individuals in order to participate in cultural life (Panciroli & Macaуда, 2022). Cultural heritage education encourages attention not to external objects but to their inner meaning, developed within communities over time; social groups are thereby able to actively participate in a process of reconstructing cultural values. It is this active participation in shaping societal values that makes cultural heritage education central to active citizenship. Active citizenship is further promoted by cultural heritage education because it promotes innovative thinking

and critical analysis (Gao & Lee, 2024). Only through education can younger generations understand the value and significance of their cultural heritage and the need to protect it.

Cultural heritage education has the potential to train new generations to discover and value physical spaces, to participate in civic life, to be responsible citizens and to appreciate cultural diversity. Research into the needs and experiences of CHIs must consider the civic drive behind the promotion of cultural heritage in education, in addition to recent changes in attitudes towards educational scope and tools through digitisation.

The research here will source the challenges of bridging history education, museums and CHIs and seeks to bridge these divisions through the use of digital education tools. The partnership and expertise of Euroclio and Europeana will aid in the development of such tools, but this report first lays out the limitations we currently face. The mission of Euroclio, to inspire educators to engage in innovative forms of history education, and Europeana's focus on empowering the cultural heritage sector in digital transformation have been supported in the EU resolution on European Historical Consciousness in January 2024 (Euroclio; Europeana, 2024; European Parliament, 2024). Notably, the resolution has stressed the need to preserve Europe's cultural heritage and to establish a 'critical historical consciousness' and 'emphasises the potential of *Europeana*' as 'Europe's digital library, archive, museum and education platform' (European Parliament, 2024).

This report has found a key disconnect between the field of cultural heritage and that of history education. Euroclio will make use of Europeana's rich digital platform to make it accessible and usable for history educators, but in order for this to be productive and successful, the concerns of each party must be considered.

Literature Review

Current uses of cultural heritage in education

There is an effort to connect cultural heritage and education, particularly through history, in the knowledge that it informs citizens' sense of national identity. Yianna Ophanidou, Leonidas Efthymiou and George Panayiotou define cultural heritage as the 'behaviours, beliefs, habits and artefacts that are passed down from generation to generation, forming a community's or society's social identity' (2024, 1). The education system thus holds an important role in contributing to civil society's sense of identity. Currently, however, an emerging theme across existing research is the need to satiate students' cultural heritage education with visible sites, which relies on schools to be the driving force behind the rediscovery of local, peripheral and neglected cultural heritage (Casonato et al. 2021).

Concurrently, Gao & Lee (2024) identify museum education as the primary channel for societal education on cultural heritage. Such experiential education is different to the more theoretical format of the classroom, which may focus on teaching methods through books, newspapers and PowerPoint presentations, which can often result in

disengaged students. Panciroli and Macaуда (2022) further identify the themes of management and collection protection of heritage through direct community involvement. There is an opportunity, therefore, to bridge museums, cultural heritage institutions and schools to inform citizens of a community responsibility for cultural heritage protection and preservation for the region to which they call home.

Different mechanisms have been suggested to tackle the gap, such as thematic workshops in open, accessible spaces such as museums and national parks (Orphanidou et al. 2024). Summer schools can also provide opportunities to enhance students' engagement with cultural heritage (Achille & Fiorillo, 2022) by providing a comprehension of the context in which the cultural legacy is situated.

An example of where this collaboration has been implemented by law is in Italy. The 'buona scuola' law underscores the relationship between schools, innovation and access to culture (Achille & Fiorillo, 2022). Since 2015, a mandatory school to work system for Italian secondary-school students has enabled students to combine classroom instruction with practical experience. Applied to the context of cultural heritage, the emphasis on practical experience promotes a conscious relationship with local territory and offers the opportunity to actualise interactions with cultural resources. Achille and Fiorillo (2022) argue that the knowledge and understanding of cultural heritage represent a fundamental contribution to the education of young students by promoting a mature and conscious relationship with their local territory and its cultural resources.

The 2018 Italian research project 'Schools Activate Resources' (ScAR) experimented with the application of cultural heritage education to the 'everyday landscape' (Bonfantini & Casonato, 2022), involving over 750 students to propose a more inclusive public approach to the concept of heritage landscape. The project was funded by the Politecnico di Milano university's Polisocial responsibility programme. By approaching peripheral schools to involve students in constructing new interpretations of their local cultural landscape, the ScAR project placed students at the centre of a process of social cohesion, enabling them to develop the knowledge and skills necessary to become active citizens in public debates and reflections about tangible heritage. ScAR experimented with how the application of cultural heritage education to the 'everyday landscape' can push young people to rediscover, interpret and communicate their own local heritage. Central to the project was the promotion of knowledge of little-known heritage in underdeveloped urban areas and vulnerable societies, to demonstrate the utility of cultural heritage education in solidifying social cohesion.

Teachers agreed that participating students visibly improved their relationship with schoolmates, their sense of personal responsibility to accomplish schoolwork, and, importantly, their social inclusion of foreign schoolmates (Vedoà, 2022). Through incorporating on-field activities such as interviews with local citizens, the project encouraged intercultural and intergenerational dialogue in the region.

Bonfantini and Casonato's (2022) assessment of cultural heritage education in the everyday landscape positions projects like ScAR as the key to increasing active citizenship. Such projects cement the care and interest of students and their families towards their local territory. If globalisation inhibits connection to cultural heritage

(Orphanidou et al. 2024), its resurgence can surely be found through an emphasis on the locality. Part of the success of research projects centred in the locality can be attributed to their involvement of diverse but familiar actors, from municipal institutions and local associations to cultural institutions and school districts (Bonfantini & Casonato, 2022).

It is in providing such educational access to heritage that CHIs hold an important societal role. For instance, Panciroli and Macaуда (2022) position museums and other cultural institutions as forming the foundation of direct community involvement. Research underscoring the centrality of cultural heritage education to the formation of active citizens, therefore, underlines the need for CHIs to connect directly with local schools.

In addition to introducing social cohesion to vulnerable areas, cultural heritage education holds a role in challenging educational poverty (Panciroli & Macaуда, 2022). Poverty is a multidimensional phenomenon rather than a strictly economic one, and includes educational and cultural dimensions. Restricted access to cultural and national heritage can therefore be considered an index of international poverty. Indeed, educational poverty is particularly pertinent given that education is the key to being able to understand, interpret and impact reality by actively participating in processes of change. Panciroli and Macaуда (2022) suggest that social innovation, access to educational services and the use of cultural heritage by groups which are traditionally excluded are all key aspects in challenging poverty on an international level.

Towards digital cultural heritage education

Research into digital education establishes the limitations of access to cultural heritage and opportunities for its future in education. Goa and Lee (2024) highlighted the constraints within traditional educational approaches of time and space, with current approaches failing to provide sufficient interaction or participation for students. Theoretical methods, such as textbooks and presentations, continue to be relied on and often fail to engage students. Students' modern educational needs require participation, interactivity and real experiences. To overcome these limitations and the disconnect between cultural heritage education in schools, Gao and Lee (2024) identify the need to introduce innovative educational methods tailored to the new era.

Cultural heritage education can adapt to modern learning needs through innovative digitised approaches such as metaverse environments and games, permitting students to establish a remote relationship to cultural heritage (Gao & Lee, 2024). Gao and Lee (2024) argue that students view the metaverse positively for its educational potential, believing it can enhance their knowledge, interest and motivation. Achille and Firoillo's (2022) research introduces cultural heritage education as an ideal training ground on which students can experiment with both traditional learning strategies and new technologies, suggesting methods like digital storytelling are compatible alongside the existing use of writing and drawing.

Research on digital storytelling activities has found it can encourage students to take an interest in cultural heritage that might otherwise be ignored (Casonato et al. 2021). Casonato et al. (2021) found that the majority of teachers involved in a digital storytelling

initiative improved their educational relationship with pupils. Most effective were digital stories in which students described their own territory, including ostensibly minor topics such as village festivals and other local traditions. Digital storytelling effectively uses technology to introduce students to cultural heritage by highlighting socially relevant local heritage.

Research into digital cultural heritage seeks to further enhance the established European view that heritage education forms a central tool for citizenship (Casonato et al. 2021). Panciroli and Macaуда (2022) further argue that the educational experiences developed through technical tools have raised awareness among young people on the active role of cultural heritage by encouraging participatory processes of citizenship. Citizenship must be understood as a willingness to participate responsibly, and digital environments contribute to turning new generations from passive users into active producers. Digital environments have become spaces of creative production in which young people have reimagined everyday heritage and landscapes to share common principles of protection, respect and humanity - all of which underline the concept of active citizenship.

New technologies improve the existing ties between cultural heritage education and active citizenship by introducing new forms of participatory culture, transforming students from mere consumers into critical consumers and producers of digital content (Casonato et al. 2021).

Immersive experiences are becoming commonplace in cultural heritage, through the use of Virtual Reality (VR), the metaverse and digital exhibitions, and are beginning to be translated into educational tools for students.

Digitised platforms have also been used to introduce tertiary level students to cultural heritage. Schuster and Grainger (2020) use the Royal United Services Institute for Defence and Security Studies (RUSI) as an example of a national collection's value as a digital museum. The RUSI uses digitisation for wider public engagement to overcome limited public access to its collections. Digitisation enables the RUSI to maintain its heritage and legacy through initiatives that enhance the institute's preservation, curation and public outreach goals. Schuster and Grainger's (2020) research introduced higher education students to establish a digital archive, research data management strategies and a digital museum exhibit through their post-graduate programme in digital humanities. As such, the students were not just the beneficiaries of digitised cultural heritage initiatives but involved in their very formation. Digital museum exhibitions are increasingly being developed and offer a rich opportunity for the education of younger students.

The innovative educational methods combining cultural heritage with digital tools proposed by researchers range from virtual reality (Paolanti et al. 2023), serious games using augmented reality (Luigini, 2022), to the application of the metaverse into educational practices (Gao & Lee, 2024).

VR has been seen as a particularly useful tool to turn cultural heritage into a digital format as an immersive experience. Paolanti et al. (2023) argue that VR and augmented reality improve the student experience, engagement and equity, and also allow for deeper knowledge and understanding of an otherwise inaccessible locale. His research

concludes that combining traditional teachings with the use of VR applications provides the best learning results, echoing Achille and Firoillo's (2022) conclusions that new digital teaching tools should be used alongside existing methods.

Similarly, the metaverse offers another way of incorporating digital technologies into cultural heritage education. Gao and Lee's (2024) study evaluated the impact of the metaverse platform on cultural heritage education by comparing metaverse experiential education to theoretical education and video education in teaching about the UNESCO World Heritage Site of the Pingyao ancient city. They found that employing the metaverse for cultural heritage education significantly enhanced learning motivation, immersion, achievement and satisfaction among young learners.

Also beneficial to Cultural Heritage Institutes is the use of artificial intelligence (AI) in an interactive and collaborative learning environment (Panciroli et al. 2024). Panciroli et al. (2024) identify Artificial Intelligence (AI) as an opportunity for educational professionals in museums to create educational pathways that invite users to contribute to the content created. Personalised teaching methods can foster a positive attitude towards museum content that students feel reflects their identities. One suggestion offered by Panciroli et al. (2024) is for students who have visited an exhibition as part of a school trip to use digital guides to identify possible biases in the content and offer other forms of feedback.

A recent study on the use of educational games and generative AI as learning tools has found the potential for their utility, but also concerns over the lack of skill set for teachers to create games for effective education purposes. Adrian Keri (2026) has noted the utility of educational games such as Minecraft Education Edition and the Assassin's Creed Discovery Tour by Ubisoft as exceptions to the use of video games as learning tools. From this, Keri (2024) has developed a text-based simulation using generative AI to serve as a learning tool. This remains an ever-developing tool, which holds the opportunity to enhance and support, rather than undermine students' learning and growth (Keri, 2026).

An important issue found in current research is young people who are restricted by their social, economic, geographic or ethnic background and may have limited access to digital technology (Panciroli & Macaуда, 2022). Panciroli and Macaуда (2022) identify digital technology in education as a tool to help combat social disparity, meaning that the development of strong digital education can provide wider access to cultural heritage. Whilst digital cultural heritage education can contribute to the formation of active citizens who will prioritise social cohesion, CHIs first need to offer an inclusive participatory framework for all young people.

Another limit of digital technology identified is that digital cultural heritage does not directly translate into the formation of active citizens, and requires additional methods of education to be productive. Vedoà (2022) suggests that despite this limitation, information and communication technologies propose an active enhancement process of citizens' involvement in the everyday heritage of their landscape. If digital instruments are used by students and citizens to collect representations of local heritage, digitisation can contribute to the valorisation of the local landscape. Digital tools cannot be effortlessly and unilaterally imposed, but must be incorporated into a community-driven process to improve cultural heritage education.

In drawing students into the creation process, such as focusing on local experiences and encouraging feedback, new digital tools not only augment the attraction towards cultural heritage but also offer new opportunities for active participation. Literature on the subject of cultural heritage education hinges on its ability to form active citizens who engage with local territory and actors alike. The introduction of new digital teaching methods has been shown to enhance engagement between young people and heritage, making heritage more accessible and more enjoyable by encouraging grassroots interaction with local and global history.

Research Question

- How to improve the collaboration between cultural heritage institutions and educators?
- How can cultural heritage collections be used in education?
- What are the needs of cultural heritage institutions in matters of education?
- What are the needs of educators regarding teaching cultural heritage?

Methodology

To answer the research questions, we employed a mixed-methods approach (Bernard & Gravlee, 2014; Hesse-Biber, 2010). We believe that a mixed-methods approach is relevant for this topic, as the combination of methodologies allows us to, on one hand, have a better understanding of the needs of the identified stakeholders - cultural heritage institutions' educators - and, on the other hand, to identify possible cross-cutting themes and points of contact for collaboration between existing programmes and curricula. As Bowen (2009) says, "by examining information collected through different methods, the researcher can corroborate findings across data sets and thus reduce the impact of potential biases that can exist in a single study."



Figure 1: Process of research and combination of methodologies for the conclusion of the research.

We first conducted a document analysis of existing educational programmes within cultural heritage institutions and educational curricula to understand the cross-cutting

themes, suggest potential points of contact, and explore new collaborations that could be formed.

The initial document analysis helped us to elicit relevant themes, questions and responses for further study. The second phase of the research incorporated those results into the development of the stakeholders' needs analysis, conducting surveys and semi-structured interviews. The combination of quantitative and qualitative methods allows for an enhanced validity and reliability of the findings by "ascertaining (a) the extent to which research findings from similar questions yield similar responses (reliability), and (b) the extent to which their responses appear to get at the same underlying issues such that there is general agreement in their responses (triangulation with the goal of increasing the validity of a study)" (Hesse-Biber, 2010, p. 465).

For the needs analysis, the survey helped us to collect data from a larger pool of participants, enabling us to better understand the overall needs of cultural heritage institutions and educators. The semi-structured interviews allowed the researchers to delve deeper into the open questions left after conducting the focus groups and sharing the survey. Thus, the quantitative phase became fundamental to ensure that the questions are appropriate and to allow researchers to gain a broad understanding of the area of study.

For the selection of the participants, we followed a purposive sampling approach. Purposive sampling is "used to select respondents that are most likely to yield appropriate and useful information" (Kelly 2010, 317, in Campbell et al. 2020, 653). Thus, purposive sampling relies on the researcher's judgment to decide the profile of individuals that should be included in the sample, based on a variety of criteria, which may consist of "specialist knowledge of the research issue, or capacity and willingness to participate in the research" (Rai & Thapa, 2015). The process of sampling was done in different phases: the identification of the population of interest, the specification of the sampling frame, the sampling method, the sampling size, and the implementation of the plan.

Document Analysis

Document analysis presents some benefits (Bowen 2009); for example, it is more efficient than other methods as it is less time-consuming, which also makes it less costly as the data has already been gathered. In addition, documents are a more reliable and stable source of information, and also offer more precise and exact information, providing a broad coverage of data. Nonetheless, working with documents also presents some challenges as there is an inherent biased selectivity depending on the author of the document and what they decided to include, or the information that is available. For example, in organisational contexts, the documents available tend to be aligned with the corporate policies and procedures. In addition, in some contexts, access to certain documents might be blocked due to political or other interests (Karppinen 2019).

As Bowen (2009) says, document analysis is a "systematic procedure for reviewing or evaluating documents," defining a document as containing "text (words) and images that

have been recorded without a researcher's intervention." In a similar vein, Atkinson and Coffey (1997) emphasise that documents are social facts "which are produced, shared, and used in socially organised ways." This asks for the researchers not only to consider the text for the analysis but also the contexts of production and reproduction of the documents. As Bowen (2009) states,

Documents should not be treated as necessarily precise, accurate, or complete recording of events that have occurred. Researchers should not simply lift words and passages from available documents to be thrown into their research report. Rather, they should establish the meaning of the document and its contribution to the issues being explored.

If "documents are always socially produced" (Karppinen 2019), the intention of creating the document, the positionality of its authors, and the intended use and audience should all be factors included in the analysis of the documents. In the same line, documents should not be considered exhaustive texts, as contradicting or alternative views and opinions might be left out (Morgan 2022).

The process of document analysis commences with the selection of the documents. Morgan (2022) identifies different factors to be considered for the selection: authenticity, credibility, representativeness and meaning.

The analysis sometimes encompasses an iterative process that involves skimming - superficial reading - and more attentive reading, combining elements of both content and thematic analysis (Bowen 2009). Content analysis refers to the process of organising information into categories related to the main research questions, which entails a first review of the document to identify relevant passages of text (Corbin & Strauss, 2008; Strauss & Corbin, 1998). On the other hand, thematic analysis allows for the recognition of patterns and repetitions and the emergence of themes that become the categories for analysis, which requires a more careful re-read of the documents (Fereday & MuirCochrane, 2006).

The Documents analysed were drawn from a series of blog posts from the Historiana platform relating to the use of cultural heritage in education. Furthermore, the institutions affiliated with these blog posts and their authors were also researched to provide a more well-rounded examination of how cultural heritage is already being used in the field of education.

Stakeholders' Needs Analysis

The analysis of the needs of cultural heritage institutions and educators was conducted in two phases, beginning with a survey and then semi-structured interviews. The research was designed in such a way that each phase would build upon the next to ensure that the questions are grounded and relevant.

The semi-structured format—meaning the use of a consistent set of questions and responses for all participants— enables the collection of comparable information across respondents (Bernard & Gravlee, 2014). By basing the script of the interviews on the questionnaire, we ensured that the questions were relevant and used the same wording

as the educators, thereby avoiding misinterpretation of the results and ensuring that both the researcher and the participant understood the concepts in the same way. This type of interviewing facilitates the collection of new information while being flexible to explore topics mentioned by the participants. Thus, the quantitative phase became fundamental to ensure that the questions are appropriate and to allow researchers to gain a broad understanding of the area of study, as well as to inform the teachers' notes and websites/databases used for this report.

The coding and the analysis of the results were done by establishing semantic domains (Bernard & Gravlee, 2014). The domains were composed of related themes, concepts or statements regarding a single topic and were elicited from the participants' own words. This way, we will ensure that the domains identified elicit the ideas and beliefs of the participants, not those of the researchers. To maintain the diversity of the experiences collected and to avoid creating a false homogeneity in the material, the analysis will identify trends and illustrate them with excerpts from the focus groups in the various thematic chapters (Pollak, 2006).

The domains were identified and developed by the researchers in two phases. First, each researcher read the data collected from the interviews and drafted a list of possible semantic domains. After this, the researchers shared their list and agreed on the main semantic domains to be used for the thematic analysis. The list of domains is included below:

- General Information about Educational Offer: level of education, type of programmes, pedagogies/approach.
- International networks and collaboration: with schools, other educators, other CHIs, and other institutions (UNESCO, ICOM, NEMO).
- Challenges and limitations: i.e., funding, transportation, lack of training of museum educators, staff capacity, accessibility (i.e. lack of space, collection not being public), copyright, etc.
- Educational Materials: the creation, approach, etc.
- Support needed: i.e., funding, capacity building (training their staff), digitisation,
- Teacher involvement: expectations, attitudes
- Students' involvement: attitudes, behaviour, engagement and impact
- Political/Social context and climate

Each domain was given a colour, and the transcripts of the interviews were then colour coded following the list identified. After this, the researchers proceeded with the analysis of the interviews, considering as well those grey areas where data could be considered as part of two or more domains, as some of them are intertwined or connected.

The main challenge in using mixed methods is that they require additional time due to the need to collect and analyse three sets of data (Hamann, Zúñiga, & Sánchez García, 2017). However, this approach will also enable us to gain a better understanding of the real needs and challenges of stakeholders and identify the points of contact between institutions and educators, ensuring that the proposed solutions address the realities of both.

As the research was conducted across borders and languages, cultural training and positionalities need to be considered in the research design phase. To avoid this as much as possible, we provided training and guidance to all the researchers to ensure we are approaching the data from the same point, but we also acknowledge that there is an inevitable inference of the researchers' positionality on how they approached the field (Hardin 1987, 2004; Silvestre, López Belloso & Royo 2020). Similarly, the positionality of the respondents was considered in the analysis, as their type of school, years of experience, stability in their position, and other factors can influence their responses.

In addition, in the analysis, it must also be considered that participants come with expectations created by the pre-interview conversations. These conversations would not have existed outside the focus group space, and the mere act of contacting the participants beforehand created expectations that influenced how they approached the interview. This means that information derived from the focus groups must be cautiously approached.

Document Analysis

Heritage is not merely the past, it is 'the contemporary use of the past.'
- Gregory Ashworth (in Farilyann Muzo)

The integration of digital cultural heritage into education, incorporated into lesson plans and E-learning activities, allows for digital heritage to act as a new tool through which students can learn about and connect to their past. This analysis will begin by looking at the digitisation work of three cultural heritage institutions and how this is useful for educational output. Then it will turn to six eLearning activities developed as part of the 'Creating Lessons with Cultural Heritage' initiative, using the Historiana platform. Together, these display the ways digital cultural heritage can be integrated into education, as well as the skills these can help develop.

Institutional digital education strategies

Several institutions have developed digital heritage strategies for the purpose of reaching a wider audience and making archives more accessible. Some significant examples are the Dutch National Archive, the Africa Museum, and Dúchas.ie which will each be explored to consider their strengths and weaknesses in terms of education reach for school education.

The Dutch National Archive, in conjunction with the Dutch Ministry of Education, Culture and Science, have put forth a national digital heritage strategy, 2025 to 2028. It emphasises a connected digital heritage, which, rather than centralising collections in a single place, aims to link cross-institutional databases. With this idea of interconnectedness in mind, the strategies' key principles include connecting digital heritage through supporting its use, making what is available clear and user-friendly, and

making information easily linked and expertise easily exchanged. In order to standardise this process, the strategy proposes a Network of Terms (Termennetwerk) for uniform descriptions of heritage and terminology, and a Dataset Registry for uniform cataloguing. Furthermore, these networks should adhere to the web standards developed by the Digital Heritage Reference Architecture (DERA) and should continuously be updated. One example of this strategy in motion is the Rijksmuseum's integration layer, which brings together dispersed collection data into an accessible online interface (Nationaal Archief n.d.). The project aims to benefit the connection of heritage for education, research, tourism, or the creative sector.

The Royal Museum of Central Africa's digital heritage approach is a relational project targeting education about the Dutch colonial past. Through their Transformative Heritage project, universities and teacher training programs in Central Africa are granted access to the museum's databases, with workshops provided to teach them how to use the platform. Furthermore, the digitisation of their archive is also aimed at accessibility, as well as publishing virtual exhibitions, multimedia guides, and the development of educational resources for schools. The digitisation allows for easy and consistent engagement with Dutch colonial history.

Finally, the National Folklore Collection's digitisation project, in collaboration with University College Dublin (UCD), has produced a collection accessible worldwide. The Dúchas Project has digitised over 700,000 documents, 13,000 photographs and 300 hours of audio. The archive has been used by a Professor of Celtic folklore at Indiana University using the online archive as a tool to translate, transcribe and analyse stories. Of particular interest for school-aged children is the 'Schools Collection' which documents how children from the 1930s engaged with folklore, offering an opportunity for children to see themselves in the archive.

Across these cultural heritage institutions, there are different target audiences and strategies to promote access and use of these digital resources. The integration of these materials into primary and secondary level education can often depend on the institution, such as the Ministry of Education, a museum, or a university, which will impact the outreach of the digital archives.

E-Learning Activities & Digital Cultural Heritage

In turning to examples where digital cultural heritage has been successfully utilised as learning materials in schools, we can see where some of these education strategies have successfully come to life.

All the case studies analysed ground their research in the understanding that archives and heritage collections are not neutral entities, but are shaped by power, reflecting the decisions and narratives of dominant institutions and dictating what is worth preserving, and whose voices are worth recording. As such, all learning activities emphasise the use of primary sources not as windows onto the past but as objects that show us the perspectives, interests, and silences of those who preserved them. Their aim is to make students engage with their past, learning to read between the lines, or against the grain,

in order to develop key skills that allow them to see past dominant narratives and engage with history critically and emphatically.

Questioning the Archive: The 1795 Tula Uprising

Farilyann Muzo's eLearning activity, developed in partnership with the Dutch National Archive and the Fontys University of Applied Sciences, focuses on the 1795 uprising led by an enslaved man named Tula, in Curaçao. The activity specifically analyses trial transcripts produced after the rebellion's suppression. These documents survived precisely because the Dutch colonial administration of the time needed them to. Within these, Tula is described in crude and dehumanising language. Students are invited to analyse this language, identifying whose voices are present and whose are silenced, and reflect on what this archive was designed to do.

There are two stages to this activity. The first focuses on archival omission analysis, encouraging students to read between the lines of the primary sources, identifying the silences in the record and asking what those might reveal about the power structures that produced the archive. The second draws on Hartman's writing methodology: critical fabulation, wherein students write short imagined narratives in the voices of those silenced, grounded in contextual evidence. This second stage is meant to teach students empathetic reading of historical sources, fostering critical thinking rooted in the biased nature of archives.

Using digital cultural heritage, Muzo's activity emphasises what she describes as foundational skills for responsible historical imagination (Muzo 2025). Students are taught how to critically analyse historical evidence and reflect on the interpretation of the same, keeping in mind those perspectives which are missing or silenced.

Digitised Newspapers and the Greek National Schism

In Konstantinos Oikonomou's activity, he uses digitised Greek newspaper archives from 1914 to 1917 to explore the Greek political schism of the period. He shows how newspapers are valuable primary sources which, unlike official documents, give readers access to editorial positions, language, tone, and snapshots of the public opinions of the period (Oikonomou, 2025).

In this way, Oikonomou frames digitisation as a democratising force. Where access to newspaper archives once required physical visits to reading rooms, digitisation renders these materials searchable and accessible, allowing for what he describes as "inquiry-based learning" (Oikonomou, 2025). His activity consists of a structured source analysis framework, which focuses on questions around narrative framing, omission, linguistic and visual emphasis. He also compares primary sources and official textbooks, inviting students to question the dominant historical narratives they are most familiar with.

Traditional Medical Knowledge and Ecological History

Caitríona Ní Cassaithe's contribution looks at digital cultural heritage from the perspective of ecological history. Ní Cassaithe draws on Ireland's National Folklore

Collection, made accessible through dúchas.ie. This was a collaboration between the NFC and UCD's Fiontar agus Scoil na Gaeilge department, which focused on the digitisation of this archive. She proposes an eLearning activity that introduces students to Traditional Medical Knowledge as a means of connecting them to their personal and community heritage.

Traditional medical knowledge is primarily transmitted orally and typically community-based. As past generations grow old and populations grow more urban, distancing themselves from natural environments, knowledge systems based on inherited knowledge have typically eroded. The digitisation of these is therefore necessary to preserve such intangible cultural heritage, bringing the voices of the past into the present and expanding students' understandings of what classifies as history (Ní Cassaithe, 2025).

Her activity takes students through the five stages of the historical inquiry process: generating questions, gathering evidence, analysing evidence, constructing arguments, and reflecting on their contemporary relevance. The activity further includes practical tasks, including plant identification and matching exercises, direct engagement with digitised handwritten folklore manuscripts, local oral history interviews, and the creation of herbal first aid kits. The activity trains students in conducting respectful interviews and recording the results, not just teaching them how to use the archive, but how they might contribute to the same.

Civic Competences through Visual Heritage

Ana Marinić approaches cultural heritage through the lens of civic competence development. She proposes three eLearning activities that use visual sources, drawn from digital heritage collections, to encourage observation, reflection, and development of civic competencies. She argues this will help to cultivate emotional literacy, multiperspectivity, and critical reflection. This is done through close observation of emotionally charged images and speculation in regard to what feelings these images invoke, the creation of imaginative dialogues and monologues, and the embodied interpretation of sculptural poses.

What sets this approach apart is its emphasis on the body. Specifically, the third activity, where students embody sculptural poses, introduces a new dimension of how digital heritage can be used in educational settings; teaching students historical empathy through their inhabiting of the physical positions and perspectives of statues.

Comparative Historical Thinking: Migration Photography

Similarly to Ana Marinić, Monika Gavriilidou's activity focuses on analysing photographs which show population displacement and refugee experiences in post-World War I Europe. Again, visual media is used to show multiperspectivity in history, using the digital medium. Whilst students typically encounter migration history from the perspective of their national context, this activity broadens their scope, inviting students to compare and contrast different instances of European migration, developing their capacity for comparative historical thinking.

The activity consists of five interactive building blocks, using the Historiana platform, which are structured around the observation, exploration, and comparison of digitised photographs. In the final stage of the activity, students orally present their findings, exercising their critical analysis skills and thinking about questions of perspective, selection, and the subjectivity of the historical record.

Findings from Educating Critically and Digitally

Each of the activities discussed encourages students to see archives as subjective and not neutral. They emphasise how these spaces reflect the choices of dominant institutions, and take cultural digital heritage as a primary way to teach this. Due to its accessible nature, digital heritage serves as a medium through which primary sources become reachable and interactive, allowing students to engage with them directly, moving away from the passive consumption of historical facts to active and critical investigation. Through the use of digital heritage, students thus develop their analytical skills, learning about bias, silences and omissions, and multiperspectivity in historical evidence.

Stakeholders' Needs Analysis: Survey Analysis

The aim of the survey was exploratory to have an understanding of the needs and challenges of CHIs in the field of education. Thus, the aim was not to get a representative number of respondents but rather an overview of the experiences in the field. Because of this, we cannot say that the results are generalizable to the whole population, but it is a good indicator of trends within the needs and challenges regarding CHIs in the field of education. In addition, the results have been expanded through ethnographic interviews. The survey allows us to collect data from a larger pool of participants, enabling us to better understand the overall needs of cultural heritage institutions and educators. Moving into the next phase of the research, which is the interview phase, the survey becomes crucial to ensure that the interview questions are appropriate and to allow researchers to gain a broad understanding of the area of study.

In total, we collected 39 responses through the online survey, which was open for approximately one month in June 2026. The survey was disseminated through EuroClio and Europeana networks and channels (newsletters, social media, website, email, and other platforms). The survey was online for approx. 1 month.

The responses were recorded anonymously, and their email addresses were only collected in case they were interested in being part of the interview. Participants were asked to explain which CHIs they work at, but were not asked about their location, age, or any other identifying aspect. Thus, we know that all participants worked in CHIs from different fields (history, memory, archaeology, anthropology), but what they have in

common is their focus on education. Respondents came mainly from Europe; however, a few responses were from abroad.

The survey questions mainly focused on mapping which CHIs offer educational programmes and materials, understanding how they produce them, how they collaborate with and contact educators, and the challenges that come with this type of work. At the end, respondents were also asked to share what type of support they would benefit from to expand and strengthen their educational offer. Some of the questions were:

- What challenges have you faced in reaching schools and/or teachers?
- Do you involve teachers as co-creators and/or reviewers of these materials?
- Can you briefly explain what the biggest challenges have been with collaborating with teachers and/or schools?
- What are your current strategies to resolve these challenges?
- What feedback, if any, have you received from the teachers and students about your educational offer and materials?

The analysis of the closed questions, in which respondents needed to select among different options, was conducted quantitatively, examining the total number of responses. This was done by analysing what percentage of respondents picked each option. The analysis of the open questions was conducted qualitatively, with a thematic focus to draw comparisons among respondents' answers. This was done by first reading through a couple of responses to get a sense of what respondents shared. After this, we mapped out a few general categories to place each response in, based on the topic of the question. We then created subcategories under the general ones to provide even richer detail, allowing us to see recurring themes within each general category. Some of the answers were categorised into different topics as they are open-ended questions and might fit more than one category at once.

At the end of the survey, the respondents could indicate their interest in being interviewed. Most of the interviewees came from the survey; others were selected based on their previous work within the network.

The survey starts with a series of identification questions to better understand the role of the respondents. First, we asked them about their years of experience working in the field of Cultural Heritage. As can be seen in Figure 1, there is quite a variety, although half of the respondents are divided between less than 5 years of experience (33%) and more than 20 years of experience (23%). Thus, there is a great variety of profiles among the respondents.

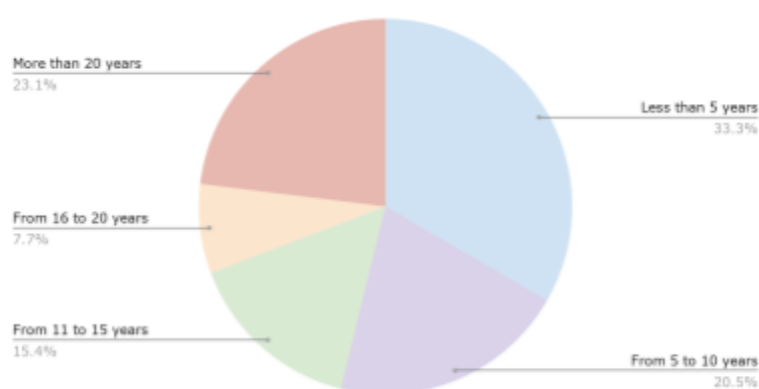


Figure 1: Results to the question "How many years have you been working in the field of Cultural Heritage?"

We then asked respondents whether their Cultural Heritage Institute currently offers an education programme; of those, 82.1% said yes, while 17.9% said they do not have an educational programme in place. Those who responded yes were then asked to briefly explain what their programme consists of. The most common type of educational programme offered is workshops (15 out of 32 respondents who said they do offer them); most of them described them as hands-on and some as curriculum-linked. The second most common offer is tours, either guided tours or as dedicated school visits (9 out of 32 respondents who said they do offer them). Followed by those who mentioned educational materials (8 out of 32 respondents who said they do offer them), although different formats are mentioned, such as resources, curated editorial content, and booklets. From the other respondents, there is more variety in their answers: 2 mentioned consultancy or advisory programmes, 1 mentioned digital archive entries, 1 mentioned a podcast, 1 mentioned summer camps, 1 mentioned live learning programmes, and 2 mentioned talks and conferences.

Those who do offer educational programmes were also asked which levels of education they offer these programmes in; they could choose among primary, secondary, high school and vocational education. Here, 28 out of 32 chose secondary education, 25 chose primary education, 25 chose high school education, and only 12 chose vocational education. Thus, there is a majority of educational programmes offered towards formal education and especially secondary education.

When asked about the frequency of these programmes, respondents could choose among daily, weekly, monthly, on demand or per semester. Here there is greater variety, with the majority offering them either daily or on demand, as can be seen in Figure 2.

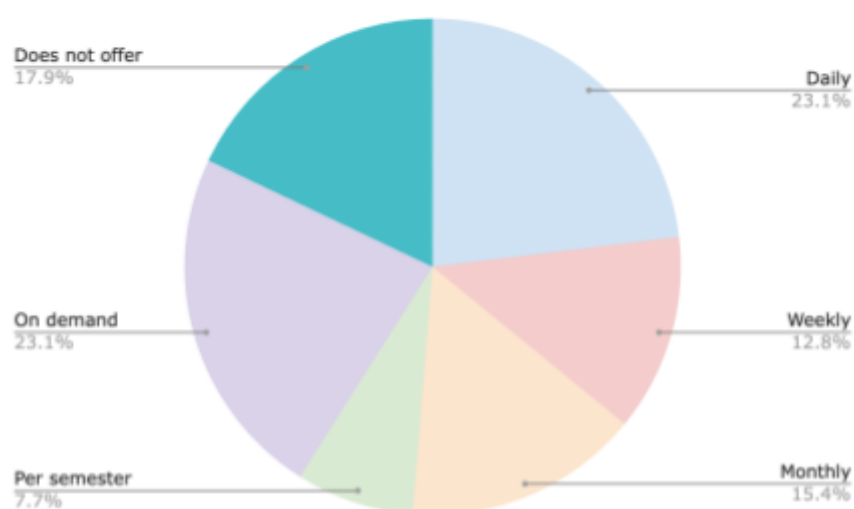


Figure 2: Responses to the question on how frequently does your CHI offer educational programmes.

The last question to those respondents whose CHI does offer an educational programme was regarding the price, and whether schools can join free of charge or they have to pay for their participation. As shown in Figure 3, the majority of respondents (68.8%) said their programmes are free of charge, then 21.9% mentioned that schools need to cover their

participation, and 9.4% mentioned that it is a mixed offer depending on the funding available.

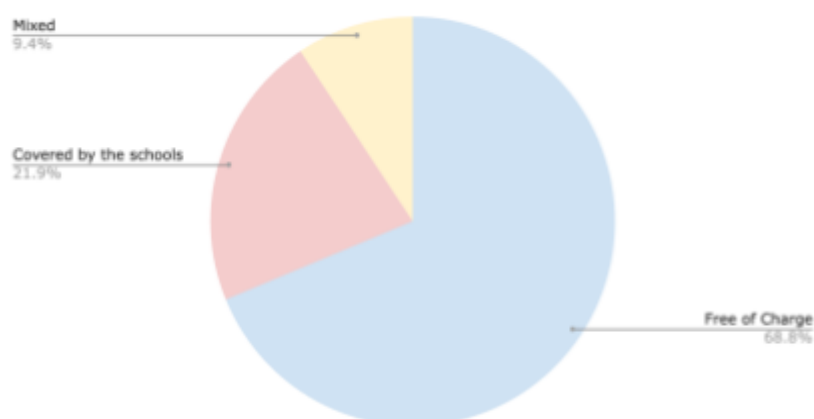


Figure 3: Responses to the question on the costs for schools to join their educational programmes.

From the respondents whose CHI does not currently offer an educational programme, they were first asked whether they would be interested in offering one. In total, all those who do not have an educational programme in place would be interested in developing one.

The next round of questions was focused on understanding how CHI connects and reaches out to educators and schools. Thus, the respondents were first asked how they reach the schools and educators they already collaborate with; here they could select among the following options: social media, existing networks, existing partnerships, the interests of the schools and other. As shown in Figure 4, the majority of respondents selected existing networks and existing partnerships, followed by the interests of the schools and finally social media. Regarding those who selected other, they mentioned they contact schools through official bodies of education such as the Board of Examiners.

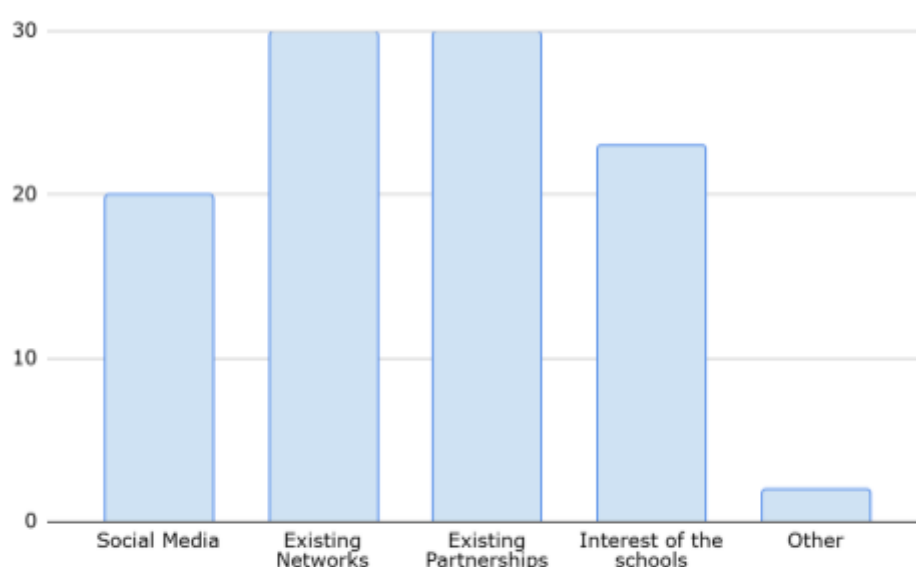


Figure 4: Responses to question "How do you reach the schools/teachers you collaborate with?"

They were then asked about the frequency with which schools and/or educators reach out to them to propose a collaboration. Here, the majority of respondents said this happens often (59.5%), while 35% mentioned it happened rarely and 5.4% mentioned that it is the institutions who contact schools and not the other way around.

When asked about the challenges faced in reaching schools and/or teachers, the answers are quite varied. The most common answer (7 out of 39 respondents) mentioned the issue of teachers not being aware of the purpose and mission of the CHI, which also translates into a lack of awareness and interest from teachers and students or a mismatch of expectations. The other issues mentioned are the lack of time available for out-of-the-classroom activities, and the lack of resources from the schools, with 4 respondents each. Another concern was finding the right person to contact in the school and the communication being dropped off, getting approval from the school principal and rigid school bureaucracy and curricula; difficulties in accessing the CHI, mainly linked to transportation issues; other issues are linked to the difficulties in tailoring the offer and materials to the needs and context of the students visiting, and difficulties reaching a wider audience. There are also some concerns about the lack of staff availability from the CHI side, which is also linked to a wider concern about a lack of funding.

The next round of questions was focused on the educational materials offered by the different CHIs; the questions revolved around what is on offer, how it was created and the feedback and use of the materials. When asked if their institution offers educational materials such as guidelines and toolkits, 84.6% of the respondents said yes, and only 15.4% said no. Although it must be noted that some are not currently offering them, they are in the process of developing them. Regarding those who do offer these types of materials, the next question focused on whether educators can access them freely or if they need to pay. To this, 97% said that the materials are free of charge, and only 3% said they have to pay for them.

The next question focused more on the content of the materials and whether the content is linked to the national educational curriculum or, on the contrary, focuses on the content of the institute's exhibitions, archives and content. Here, the answers were more divided, as 53.3% said they are linked to their institutions, and 46.7% said they are linked to the national curriculum. In addition, when asked if they had involved educators as co-creators and/or reviewers of those materials, 75.8% said yes while 24.2% said no. When asked why not, several reasons were given; for example, a general lack of a formal structure for teachers' involvement in place, or that not much feedback is received when asked, the lack of teacher time, budget constraints, scheduling difficulties, and challenges in ensuring curriculum alignment.

When asked if they had information about how many educators actually used their materials, only 26 of the respondents said yes, although most were not sure about the number nor how they were being used.

Regarding the production of the materials, respondents were next asked how frequently their materials are reviewed. Here they could choose among: yearly, every 2 to 5 years, every 6 to 10 years, or they are not reviewed. As shown in Figure 5, most respondents

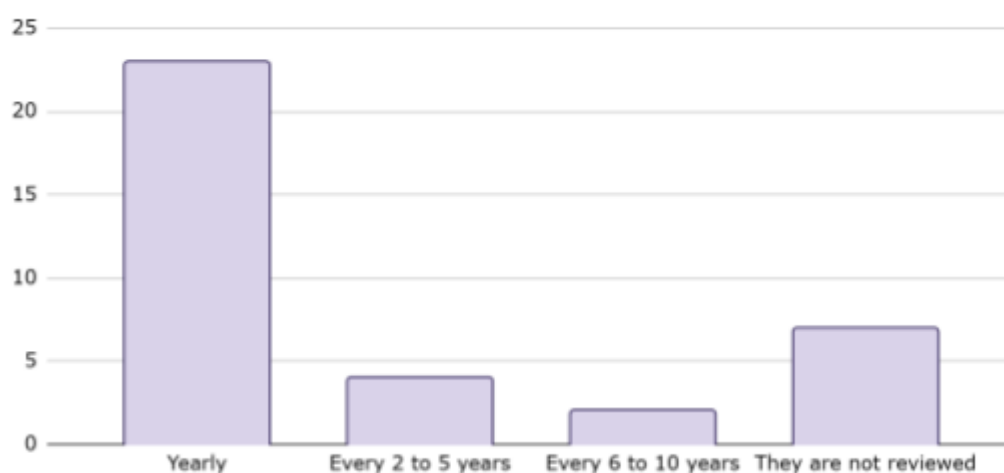


Figure 5: Responses to question on how frequently the educational materials are reviewed

selected yearly, with the second most common answer being that the materials are not reviewed.

When asked about the general issues and challenges when working with the schools and/or educators, there was great variety in the answers, although they can be grouped into some themes:

- The most common issue mentioned is the lack of funding available to cover the school's involvement in extracurricular activities and to travel; in total, 16 respondents mentioned issues related to funding.
- Second was the limited time from educators to prepare students, or even include these types of activities within the school year, and the heavy workload of teachers; in total, 15 respondents mentioned issues related to time and heavy workloads.
- Third, there was a general concern about the lack of interest, awareness and prioritisation of non-formal education as noted by 7 respondents.
- Fourth, from the side of the CHIs, there are challenges linked to staff shortage or staff changing and jeopardising the continuation of these programmes; in total, 5 respondents mentioned issues linked to staff availability and continuation.

The rest of the issues were less popular among respondents; these include difficulties in applying a multilateral and transdisciplinary approach, the busy school calendar, the size of school groups being too large, lack of visibility of their educational programmes, school bureaucracy and administration, language barriers and difficulty aligning with the curricula.

After being asked about the challenges faced, we also asked respondents which strategies they have in place to address these challenges. The strategies mentioned can again be considered in different themes.

- First, some strategies are linked to strengthening communication, either by developing a daily report or emailing local schools and municipalities directly and by ensuring continuous communication with the schools and administrations. This approach also allows CHIs to sign agreements directly with the school administration, solving some of the challenges mentioned, like the time of prioritisation of extra-curricular learning.
- Second, some strategies can be encapsulated under a more needs-research approach where they survey educators to understand their own and the students' needs.
- Third, another approach we have encountered is more linked to funding, as it is one of the biggest challenges and concerns. Regarding funding, there seems to be an active search for and securing funding on behalf of the CHIs to be able to cover schools' participation by creating, for example, a travel bursary scheme.
- The fourth and last theme we identified is more linked to a change in the process by being more proactive and flexible; this means developing more flexible and adaptable formats for participation, simplifying the process for schools to join their programmes, providing training and support to educators so they can better prepare their students and having clear roles, responsibilities and expectations. However, it is also important to note that some respondents mentioned not having the staff capacity or time to address their challenges.

The last round of questions was more focused on the feedback received from educators and the type of support the CHIs need. Regarding the feedback, the majority of the respondents mentioned receiving positive feedback from educators, some highlighting that they found the offer well-structured, engaging, fun, easy to fit into their educational goals, relevant, and clear. Although a few of the respondents mentioned that formal feedback from educators has not yet been collected, and some others mentioned that they have also received negative feedback, though they did not specify what educators shared.

When asked about how this feedback has been collected, they could select from: surveys after visits, reflection sessions after visits and other. As Figure 6 shows, most respondents selected feedback surveys and reflection sessions. Among the other ways of collecting feedback, respondents mostly mentioned interviews and focus groups.

Regarding the type of support that CHIs would like to receive to strengthen and develop their educational offer more, their answers mainly revolve around:

- Support reaching schools (11 respondents out of 39),
- Support reaching other CHIs and developing more networking activities such as roundtables, access to teacher networks and sharing information among CHIs (14 respondents out of 39),
- Support with capacity building and training their guides and staff through, for example, seminars, workshops, conferences and in topics such as co-creation with educators or how to align their materials (17 respondents out of 39),

- Support developing materials or accessing resources, including methodological support (17 respondents out of 39),
- and other support was mainly linked to fundraising and accessing funding (7 respondents out of 39).

Stakeholders' Needs Analysis: Interview Analysis

As mentioned earlier, the semi-structured interviews allow for a deeper understanding of participants' experiences and beliefs. The interviews were based on the results of the survey, using the data to design the questions asked and the approach of the interviews. In sum, we focused on the challenges that CHIs face when implementing educational programmes but also the type of support they would need and the type of collaborations they find beneficial.

Three researchers conducted the interviews using the same semi-structured format, with a consistent set of questions and responses for all participants, enabling comparable information across respondents (Bernard & Gravlee, 2014). In addition, by basing the interview script on the survey, we ensured the questions were relevant and used the same wording as the survey, avoiding misinterpretation of the results and ensuring both the researcher and the participant understood the concepts in the same way.

To select participants, we used a purposive sampling approach. Thus, we first contacted those who said yes to being interviewed in the survey, and then contacted some educators from the Europeana and EuroClio networks. Although the researchers used the same script and guidelines, they tailored some questions to each participant's profile.

The interviews were conducted online through the Zoom platform, and then transcribed using the Descript software. All interviews were conducted in English. One challenge in the recruitment process was that the interviews were conducted in July 2026, so some of the participants were out of the office due to the summer holidays. Nonetheless, we conducted 9 interviews with 10 participants, of whom 8 had completed the survey.

Most participants were museum educators in city or regional museums with diverse backgrounds. Some of them had a history teacher and textbook author background, while some were coming from arts education or anthropology.

The coding and the analysis of the results were done by establishing semantic domains (Bernard & Gravlee, 2014). The domains were composed of related themes, concepts or statements regarding a single topic and were elicited from the participants' own words. This ensured that the identified domains reflect participants' ideas and beliefs, not the researchers'. To maintain the diversity of the experiences collected and to avoid creating a false homogeneity in the material, the analysis identifies trends and illustrates them with excerpts from the focus groups in the various thematic chapters (Pollak, 2006).

General Information about Educational Offer

The educational offer of the participating CHIs is quite varied and largely linked to the thematic focus or regional scope of the institutions. For example, city museums tend to prioritise regional and national history, while there are other institutions focused on one specific type of craft or technique. Nonetheless, across the different content and topics mentioned, there are some pedagogical approaches that are repeatedly mentioned by the participants:

- Inquiry-based learning
- Problem-based education
- Dramatization
- Object-based learning
- Perspective-taking methodologies
- Scavenger/treasure hunt
- Hands-on workshops
- Students are involved in creating an exhibition
- Public art projects
- Visual thinking strategies

What most of these pedagogies have in common is a more engaging and creative approach to education, where students are given the agency of their learning process; as a participant put it, the common agreement tends to be that a "good education happens through creative and interdisciplinary partnership."

Regarding how they implement these methodologies, there are different approaches. Some mention looking for artefacts and objects from their collection that can be connected to the focus of the museum but also to what is covered by school curricula, so it is easier for teachers and students to "switch from the classrooms to go to the museums to see the real objects and live history."

Some CHIs try to adapt to the needs and profile of students and have different approaches to different levels of education. For example, younger students in kindergarten or primary school will focus more on creative and embodied methodologies, while for older students they can bring more critical and multiperspective approaches. In the same line, some offer different programmes for school visits and for when students visit with their families, encouraging more intergenerational approaches, with the former being more structured to fit the needs of the schools.

However, some participants also mentioned that their CHI still maintains a more traditional approach to education that is more similar to guided tours, as this is sometimes the request from schools and teachers due to a lack of time to be part of more hands-on programmes.

Educational Materials

Regarding the production of educational materials, we find the most disparity of approaches. The most common material was self-guided tours and curation-based booklets linked to the CHI's exhibitions, which can be used by schools but also families or individuals visiting.

When asked about developing materials specifically for teachers and students, most participants mentioned the challenges of collaborating with teachers or developing official materials due to current school legislation in some regions, but also the challenge of making the content and historical context both clear and student-friendly,

*So, but finding **bridge** or **translation** between old times to be appealing and **to be understood by young children**, that is the **fine-tune** in **storytelling** about **past events** that they can find **meaningful today**. So **heritage interpretation** would be, one of the, the skills that is quite **challenging** at this point because we need to be **more professional** on **interpretation** and **mediation of collections**. (Museum educator from South Eastern Europe)*

Very few of the participants actually mentioned developing teacher packs with information about how the content of the CHIs collection can be connected to the curricula and also on how to approach it, what steps to take, etc., although most shared a desire to develop more high-quality and engaging materials that can be used in schools. However, a big challenge for this is establishing the connections between their collections and the curriculum and adapting their content, as they believe that the materials should be supplementary to what is already being taught in the classroom and not on top of it.

Teacher Involvement

We expected the lecture, and we wanted the lecture.
(Museum educator from Central Eastern Europe).

When asked about their collaboration with teachers, there is some division, as some institutions have established partnerships through official educational bodies such as National Councils for Curriculum and Assessment or the Ministry of Education, while others lack such partnerships. However, there were some grievances shared among the majority of participants.

Some had the feeling that, on the one hand, some teachers, a minority, only visit the CHIs because they are required to leave school but do not actually want to engage in the selection of the educational programme. On the other hand, some have very limited time available for the visits, which means not being able to provide their educational programmes and resorting to the traditional tour guide.

In the same line, some mentioned that they feel some teachers, again the minority, have the expectation or stereotype that museum education is the traditional tour and not an active learning experience, which can create tension during the visit. Some participants

even mentioned teachers asking them to do a short guide of the museum instead of the planned activities because "the kids are not interested in the museums."

Thus, there seems to be some tension or a mismatch of expectations with a minority group of teachers who still have a more traditional understanding of what museum education entails. Regardless of this, most of the participants shared a belief that teachers should be involved in the development of the CHIs educational programmes and materials to ensure the adaptability of the exhibition contents to the needs of the students, which would make the exhibition more accessible for a general audience.

Apart from the already mentioned instances, some of the participants also shared that they actually do not usually collect feedback from teachers; thus, there is a gap here that this report alone cannot answer.

Students Involvement

Not much was shared about the involvement and reactions of the students, as most participants do not have a system in place to collect students' feedback. For those that do, most of their impressions of students' involvement were quite positive, although some noted some tensions between the students wanting to touch and explore all the artefacts and the behavioural guidelines from the museum that restrict the touching and photographing of the objects.

International Networks and Collaboration

Regarding the CHIs' collaboration with other networks, be it regional or international, and other institutions, such as city libraries, archives or other museums, it is quite varied. Nonetheless, there seems to be more ad hoc cooperation at a regional or national level where CHIs contact other organisations or institutions when they are facing particular challenges or, vice versa, they are contacted by other organisations who need their support. For example, one participant mentioned that they contact other institutions when developing materials focused on specific pedagogies they might not have much experience with, such as dramatisation or critical thinking approaches. In addition, other participants mentioned they collaborate with other local CHIs when they are preparing for an exhibition and need to loan some of their objects or cooperate in developing the curatorial narrative together. However, it is important to note that some participants mentioned that within local or national institutions there are reticencies to collaborate, as sometimes they are competing for the same funds, so fellow local organisations are not seen as collaborators, but competitors.

At an international level, there are certain networks that keep coming back, such as UNESCO, OPAN, NEMO, ICON and different strategies implemented by the EU. However, as noted by some participants, the exchanges at these networks tend to happen at the managerial or executive level and do not involve the educators so much. Thus, there is a need for more spaces where educators can get together.

Political and Social Context and Climate

Although the current political and social context was not specifically mentioned in any of the questions, during the analysis we realised that it was a recurring topic among participants' answers. It should not come as a surprise that during the current political climate, with a rise of more conservative and extremist governments around Europe and the world, the museum sector is suffering from budget and personnel cuts.

Most of the participants shared the challenge of trying to develop or maintain their educational programmes in a context where certain topics are being censored, especially those linked to feminism, migrants or LGBTQI+ histories. In this context, when facing budget cuts, some CHIs are choosing to stop their educational departments as it is not their main priority, while trying to maintain their acquisition or curation departments. For those who are not in such dire situations, it is becoming increasingly difficult to sustain certain collaborations and partnerships, as it is then their partners who are stopping their work on education.

Overall, there is a shared agreement that there is a lack of support from the State as they do not tend to recognise civil society and different stakeholders in the field of heritage and arts as relevant parties in education.

Challenges and limitations

It is a blessing and a curse not to have a teacher relationship with students and only have them for 90 minutes. (Museum educator from Central-Eastern Europe)

Regarding the challenges and limitations that CHIs face in implementing their educational programmes, there are varied issues, ranging from a lack of an educational room to implement these activities to a lack of funding or staff capacity. We have grouped the challenges thematically to make a clear overview of these issues; please note that they do not follow order of importance or relevance.

1. Lack of appropriate space or an educational department

Some of the participants mentioned that they face challenges regarding the space available for educational activities, in the sense that they lack workshop rooms to implement those, or the size of the rooms is small in comparison to the size of classrooms, which then have around 30 students.

2. Issues with the content of their collections

Another shared challenge is facing copyright issues regarding the possibility to use certain artefacts and objects from the collection for educational purposes, especially for the development of educational materials and the inclusion of photos and/or videos of these objects. This also comes with the issue of some objects not having a clear owner, especially sometimes historical photographs or videos.

Thus, there are some more interesting or engaging artefacts that bring lesser-known historical perspectives that cannot be used and shared, which already creates a limitation to what can be included in the educational materials.

In addition, some institutions share challenges when it comes to digitising their collections due to limited resources or not having a proper platform to store and share the information.

3. Multiperspectivity or inclusion of lesser-known histories

Some participants mentioned that they struggle to include certain topics or points of view in their programmes because of how they are still presented in the collection, especially things linked to colonialism and feminism, making it harder to bring lesser-known histories to the front or to include more contested topics. The main reason behind this is that the more contested or nuanced topics sometimes tend not to be included in museum collections, especially those linked to national histories.

This is also sometimes linked to CHIs having small collections and not having objects that can help debunk certain stereotypes about certain time periods, such as the Middle Ages or Communism in Central and Eastern Europe. This is also linked to the question of what is preserved in museums and archives. As one participant mentioned, most objects tend to be preserved because of their aesthetic value instead of what they bring to history, which may mean that there is a prevalence of objects from higher classes of society and a lack of archiving and cataloguing of working-class objects; hence, their perspective is missing from the collection, and it is difficult then to integrate it into the educational programmes. It must be noted here, however, that there are many museums and archives now that are expanding their collections and trying to change this.

4. Lack of staff capacity and expertise

The challenges linked to staff are primarily twofold: on the one hand, there is a lack of staff to develop and implement educational programmes which sometimes rely heavily on the staff's personal dedication and voluntary time, and on the other hand, the staff available are not experts in all historical periods and crafts and sometimes struggle to develop some of these programmes.

In addition, not all CHIs have an educational department to implement these programmes, so they sometimes rely on short-term solutions or specific events linked to historical commemoration days like a liberation day, or to international events such as Museum Night or International Museum Day.

Linked to the limited expertise, there is a limitation linked to the need to stay focused on one topic or content depending on the scope of the museum. As mentioned above, city museums usually need to prioritise regional history, making it harder to be flexible to the demands of school curricula or to collaborate with other CHIs.

5. Lack of funding

Probably the most mentioned challenge is a lack of funding, not only for the CHIs but also for schools. This is not surprising as it was also prominently mentioned in the exploratory survey. As we have noted, most of the CHIs had great plans and ideas on how to expand their educational programmes but lacked funding and support to do so.

In addition, sometimes it is schools that lack the funding to be able to visit the institutions or to join their educational programmes, when they cannot offer them for free, thus making it harder to sustain these educational programmes. This is a more dire situation when we consider schools in less developed areas or rural schools that do not have CHI in their vicinity. Even when CHI makes things digitally accessible or easy to print and use in the classroom, some schools do not have access to digital infrastructure in their classrooms or do not even have a budget for printing the materials.

Going Forward

Due to the variety of challenges faced, we asked participants to share which topics they would like to get support for first. The answers are quite varied as each of the participating CHIs is in a different situation, especially regarding funding.

Some mentioned the need to develop better systems to collect feedback from teachers and students. Others mentioned support in knowing how to digitise their collection to make travel kits so they can visit those schools that cannot go to them. Others mentioned that they would like to see more international and transdisciplinary collaborations happening, in the form of, for example, a project where history education, museum curators and history didactics get together.

Overall, the most recurring topic was the support needed for staff development to be able to tackle the already mentioned challenges. This can take different forms, such as an online platform or more online resources on how to do things, like how to review the school curriculum targeting the museum educators.

Conclusions

Throughout the report, we have been exploring how to bring cultural heritage into education by first conducting a document analysis on existing strategies to have an idea of what is already in place, followed by exploratory research based on a survey and in-depth interviews to better understand the challenges and needs of educators at CHIs.

The document analysis explored the use of digitised cultural heritage in education across diverse national contexts and institutional settings. The six eLearning activities and institutional strategies discussed show how digitised heritage can be and has been applied to education. Digital heritage can be a productive tool for teaching students about the construction of historical archives and narratives, as well as for examining primary sources through a critical and empathetic lens. At the institutional level, the strategies of the Dutch National Archive, the Africa Museum, and the NFC display how digital cultural heritage can be incorporated into educational frameworks in diverse contexts and approaches. But digital cultural heritage has further potential as an educational tool. The section served to show how useful this tool can be when actively and purposefully engaged with.

The survey allowed us to have a better understanding of the needs and challenges of educators working at CHIs, exploring also the programmes they already have in place, their process of developing educational materials, and the strategies they already have in place to deal with some of the identified challenges. The data collected in the survey serve as a starting point for the in-depth interviews with the respondents and other relevant stakeholders. The interviews gave more insights into some of the survey answers, paying particular attention to those topics that kept on coming back, such as the challenges working with schools and the issues linked to staff capacity and professional development.

We won't expand more on the challenges identified, but to conclude the report, we would like to share some reflections on how to address these challenges. Although we understand some of them need long-term solutions that are out of scope for the organisations behind this report, Europeana and EuroClio, we hope to help design a roadmap for future collaborations that can ease the weight of these challenges on CHIs and strengthen their educational offer and collaboration with schools.

1. Training opportunities on fundraising

The most repeated challenge both on surveys and interviews was the lack of funding and state support. Although this might not be an issue that can be solved easily, we believe that there are some strategies that can be implemented to help CHIs develop their fundraising strategies and, with time, solve some of the associated challenges to a lack of funding, such as the lack of an educational space or staff shortage.

In some of the interviews, it was hinted that CHIs would be interested in exploring European funding, such as CERV and Erasmus+, to strengthen the collaboration among CHIs. One solution for this could be to organise staff professional development webinars and online workshops where the CHIs' staff could get trained on how to apply for these

funding schemes, which ones are available for their institutions, and, by networking with other organisations through the online exchanges, create a pool of organisations interested in collaborating and applying together.

The online workshops do not need to focus only on fundraising but can tackle some of the other challenges mentioned above, for example, how to navigate copyright laws, how to review curriculum and adapt the collections, how to collaborate with teachers, how to adapt their offer to students with impaired mobility or learning difficulties, or how to bring lesser-known topics and voices to the foreground.

2. Opportunities to collaborate and networking

In a similar vein, it seems that although there is an interest in collaborating internationally and locally, there does not seem to be a space where the educational staff from CHIs can get together, as the already existing spaces, such as UNESCO and ICOM, are predominantly open for managerial or research staff. Thus, we believe that the creation of a platform or network for CHI educators might be extremely beneficial in the future. The platform might allow them to share initiatives, share experiences, and share their already existing materials, so it can turn into a space of collaboration, creativity and connection for heritage educators.

Linked to creating opportunities for collaboration and networking, although in-person events such as conferences and symposiums are already happening, they are not accessible for some of the educators due to the lack of funding available for their programmes. Thus, it would be beneficial for the creation of the network to create travelling grants for educators to join these in-person events, especially for those coming from lower-income backgrounds.

However, there is an added challenge of language, as most of these events take place in English and some do not speak it. For this, we propose the organisation of international events in English where some of the educators can join and then have the duty of organising an exchange with colleagues in their local language to share the knowledge and experiences. This can be made part of the requirements for the travel grants; this way new initiatives, materials and approaches can reach a bigger audience and have longer lasting impacts in the museum educators community across Europe.

3. Improving collaboration with schools

In general, there seem to be some grievances and challenges in the collaboration with schools, predominantly with teachers. Before sharing some insights into possible solutions, we would like to note that the research has only included museum educators, although some had a background as history teachers; thus, we are missing half of the equation, and we believe that future research needs to analyse the needs and challenges that teachers face to collaborate with CHIs.

The literature review showed that the potential of heritage education is widely recognised as a powerful tool to foster a sense of personal and community belonging, but looking at the reality of stakeholders, we see that the potential is often not reached.

There seems to be an underlying issue regarding expectations of CHIs and schools. As some noted, they feel that teachers sometimes take students to museums just because they are required to leave the school without knowing what they can really offer.

A possible solution for this would be to improve communication between schools and CHIs, creating partnerships and direct communication channels so the expectations and needs can be discussed and agreed upon before the visit. However, we understand that due to a lack of funding and staff shortages, this might be challenging to implement for some institutions. Another solution for this challenge might be supporting CHIs to develop and establish feedback forms so they can have a better understanding of the experiences of schools when they take part in their programmes. Thus, supporting CHIs to develop a more needs analysis where they survey educators to understand their needs.

Linked to the collaboration with schools, there is an underlying issue of funding for schools who cannot afford to visit the CHIs, especially those from rural areas or lower-income communities. During the interviews, one of the participants shared that they try to ease these challenges by collaborating with Embassies who fund students' visits to other institutions. We believe that this is a scheme that might help other institutions and schools.

Another possible solution, hinted by some participants, would be the use of 3D replicas of the objects to create travel kits or the use of augmented reality or VR. However, for now these seem to be more aspirational among the participants of the research, and we lack information about their use in educational environments and their reception by schools. Nonetheless, the creation of travel kits that can be brought to those schools that do not have the means to cover transportation to CHIs might be a solution to engage with students in lower-income and rural communities. As Casonato et al. (2021) mentioned, "new technologies improve the existing ties between cultural heritage education and active citizenship by introducing new forms of participatory culture, transforming students from mere consumers into critical consumers and producers of digital content." Thus, we believe that more research and resources should be focused on exploring how to do this in practice, the real impact on the students' learning journey and the possibilities of using new technologies in education.

4. Supporting the development of educational materials

Regarding the challenges linked to developing educational materials, there is already a limitation linked to the scope of the CHIs, which is heightened when materials are not linked to the school curriculum but the CHIs' collections. Although in the survey most respondents mentioned that they link the materials to the curriculum, in the interviews we got to know more about the challenges of doing so due to the limitations of what their collections contain.

We believe that the best way to address these challenges is to strengthen the collaboration among CHIs' educators and teachers, having them as co-creators, reviewers and/or pilots of the materials to ensure their relevance and adaptability. Nonetheless, it would also be relevant to conduct a needs analysis on teachers

regarding what type of materials would be most useful for them. In addition, for materials to be used in different schools and contexts, they need to be adaptable, with clear steps on how to implement them and with all resources and materials needed for their implementation. Ideally, the production and distribution of materials would go hand-in-hand with training for teachers on how to use them and how to apply their pedagogies with students, and would include support networks for when teachers face problems during implementation or if they have questions. However, we face the same issue again of a lack of staff capacity and availability to be more involved with teachers. In addition, as already mentioned, some CHIs develop materials ad hoc and do not have established educational departments, which makes it difficult to produce materials and support educators during the implementation.

As already mentioned, sometimes collections tend to favour grand narratives instead of including minority voices or lesser-known or contested topics. In addition, there are issues of copyright and usage rights. Although we do not have a solution on how to avoid copyright laws, we do believe that these topics should be part of the conversation when developing educational materials and maybe a way around it would be to collaborate with other organisations who might have similar materials not copyrighted. This could also solve the inclusion of lesser-known topics and minority voices by collaborating with organisations working on those topics.

The last solution we would like to propose regarding the development of educational materials is linked to their dissemination and accessibility. Some materials are not free to use, or teachers do not know of their existence. For this, a possible solution would be the already mentioned online platform for collaboration and networking. The platform could have a section on existing educational materials for teachers to visit and access. This way, all materials could be collected in one place, making them more accessible and visible, increasing their impact.

Future Steps

As we have mentioned throughout the report, the aim was to explore the needs and challenges of CHIs' education. We hope the data collected has shed some light on the reality of museum education and inspired us on what future steps could be taken. Nonetheless, through the research we have noted some gaps in this report or identified topics that could be explored in future research or intersectional approaches that should be considered in the future, such as the difference between rural and urban contexts. This research has largely focused on the voices of CHIs educators. In the future, we believe that it is crucial to conduct similar research with teachers in schools to understand their needs and challenges, as their voices are missing in this report.

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