

EUROPEAN POLICYBRIEF



FOSTERING MEDIA-LITERATE CULTURAL MEMORY: VISUAL HISTORY OF THE HOLOCAUST IN THE DIGITAL AGE

This first out of two Policy Briefs of the VHH Horizon 2020 Innovation Action presents policy recommendations on a framework and a roadmap for the digitization of cultural heritage. These recommendations touch on the fields of digital memory, digital infrastructure, and the digitization of the past in general. And they are informed by findings on advanced digitization and digital curation of difficult cultural heritage as well as technologically challenging media objects such as analog films and their importance for cultural memory.

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INTRODUCTION

Our understanding of history particularly draws on our shared visual cultural memory. Through their immersive potential, films and other moving images do have a particularly high impact on the formation and circulation of such visual cultural memory. To a certain degree, media images have come to augment and sometimes even replace personal experiences. Dealing with Europe's darkest heritage, the "Visual History of the Holocaust (VHH)" Horizon 2020 Innovation Action fosters a media-literate interaction with history by means of digital tools. The project's policy-relevant findings and policy recommendations, presented and discussed in a Policy Roundtable on "Visual History in the Digital Age" on June 15, 2021, and detailed in this paper, build on the project's main research question:

How can digitization contribute to a better understanding of history (and to the lessons-learned for the future)?

This first out of two Policy Briefs focuses on three policy questions, each linked to a particular but interrelated field of research and innovation:

- Digital memory: What needs to be done to support the ongoing transformation of Holocaust-related physical heritage sites into digitally enabled memorials?
- Digital infrastructure: What kind of digitization efforts and digital infrastructure do we need to preserve and make film heritage digitally accessible to a broad public?
- Digitization of the past: What large-scale vision of cultural heritage digitization do we want to develop to ensure we integrate historical data deeply in people's everyday lives?

These policy questions aim at a framework for digitization of cultural heritage, difficult heritage in particular. They presuppose a general understanding of the importance of cultural heritage for history and of history for the present. They address the relationship between history and the present with respect to the Holocaust as a central reference point for European history and a 'negative founding myth' of European integration. They highlight the specific nature of cultural heritage objects such as moving images whose technologies pose a particular challenge to digitization. And they advocate a bigger picture of cultural heritage digitization that is informed by the experiences gathered with challenging objects and topics.

EVIDENCE AND ANALYSIS

Despite being an Innovation Action, not a Research and Innovation Action, the VHH project is based on fundamental research and applied research in several areas, ranging from digital curation and advanced digitization to automatic media analysis, digital engagement, and augmented reality. The implementation of the Innovation Action is accompanied by additional research, partly triggered by obstacles, shortcomings, and desiderata in the three fields mentioned in the introduction.

Digital memory

In line with the topic "DT-TRANSFORMATIONS-12-2018-2020" and the grant "Curation of digital assets and advanced digitization", the VHH project has a special focus on the relation between tangible and intangible heritage, including the relation between physical and digital objects, geographical sites and virtual space.

The Holocaust left a monstrous number of atrocity sites scattered across Europe, many of which have been documented through images, textual documents, and Oral History interviews but have never been institutionalized as memorial sites or memorials. The digital enabling of memorial sites therefore stretches far beyond memorials as institutions and institutionalized memorial sites. It encompasses any atrocity site that may be turned into a memorial site by linking it to Holocaust documentation. This is what advanced digitization and digital curation may accomplish.

The transformation of Holocaust related physical heritage sites into digitally enabled memorials is part of a larger transformation process of memory into digital memory. This process goes along with the end of the era of the witness which may be followed by an era of the user. Memory conflicts and contested heritage can no longer be solved by the authoritative voice of survivors but are referred to historical documents.

While the importance of heritage sites increases, this does not necessarily lead to on-site visits but may result in remote access and a sense of presence provided by interactive maps and other digital tools. However, the use of digital tools and digital assets during on-site visits may not only turn atrocity sites into memorial sites, but it also transforms institutionalized memorial sites and memorial institutions into hybrid memorials.

Hybrid memorials combine on-site and online access, they use digital technologies to augment on-site experiences. Hybrid memorials are multi-layered and multi-sensual experiential places (allowing for negotiation of emotions). They are multidirectional social spaces (allowing for negotiation of identity). And they serve as connectors between past and present experiences (allowing for negotiation of political topics).

However, hybrid memorials depend on the accessibility and connectivity of documents (films, photographs, textual documents, Oral History interviews) which have not yet been digitized, they rely on digital tools that have yet to be developed, and they need a digital infrastructure that only partially exists. Know-how of digital curation and experience with digital engagement are just at the very beginning. Some memorial sites even lack wireless Internet access or at least the required bandwidth.

Digital infrastructure

Instead of each institution creating its own digital infrastructure, hybrid memorials and other hybrid institutions should be able to build on existing digital infrastructures and to customize available digital contents to their own needs. Memorial sites that have not been institutionalized entirely depend on such infrastructures.

Despite being the place where the Holocaust actually happened, Europe lacks big centralized memorial institutions such as Yad Vashem in Israel and the United States Holocaust Memorial Museum. EU-funded initiatives such as EHRI [1] step in, employing a networking strategy and providing guidance and support to national and regional institutions and local initiatives. However, EHRI does not provide the digital infrastructure needed.

Other EU-funded initiatives such as Europeana [2] do provide the technical infrastructure for cultural heritage contents. Europeana currently provides digital access to 58 million objects from 5,000 institutions. It comprises or is linked to 28 national aggregators (cross-domain) and 13 thematic & domain aggregators (transnational). And it develops standards and guidelines for publishing digital data.

For domain-specific cultural heritage objects with special requirements in terms of data and metadata, domain aggregators may be able to offer tailored digital infrastructures. European Film Gateway (EFG) [3], coordinated by VHH Consortium Member DFF, provides digital access to 750,000 films and film-related objects from 45 film heritage institutions based on a metadata schema that has been adopted and expanded by the VHH project. It also functions as aggregation service for Europeana and partner initiatives such as I-Media-Cities [4].

By aggregating metadata and relying on decentralized repositories for digital objects, Europeana and EFG have to deal with the fact that digitization of cultural heritage objects is still at a very early stage. This is especially true for films and film-related heritage objects. The digitization targets set out in the Commission Recommendation of 27 October 2011 on the digitization and online accessibility of cultural material and digital preservation ([2011/711/EU](#)) have not been met. Thematic digitization initiatives such as the EU-funded EFG1914 project [5], providing access to digitized WWI films and film-related contents, are examples for the effectiveness of thematic approaches. A Holocaust-related call may have similar effects.

Recent EU-funded film-related Innovation Actions such as I-Media-Cities and VHH go a few steps further by using their thematic focus for the creation of own (shared) repositories, the aggregation of both metadata and digital objects, and the development and application of digital analysis tools as well as digital curatorial approaches. The thematic approach of these projects also shows the need for additional digitization programs encompassing the full range of advanced digitization: digital access projects cannot simply rely on existing digital copies.

Digitization of the past

Projects such as VHH may be regarded as pilots and test cases for large-scale attempts to make cultural heritage digitally accessible.

The Time Machine initiative [6] developed an EU-funded roadmap towards Big Data of the Past. It envisions moving through time as easily as moving through space, simulating possible futures / possible pasts, augmenting data with historical layers to gain better insights, integrating historical data into people's everyday lives, and changing the nature and scale of methods in many fields of research.

Time Machine counts on the potential of machine learning coupled with massive digitization infrastructures and high-performance computing as well as breakthroughs in Artificial Intelligence (AI), robotics, and Information and Communication Technologies (ICT). It aims at the vast number of dormant materials in archives, libraries, and museums that contain in-depths information about centuries of history but remain inaccessible or limited accessible due to their analog nature.

Technological challenges of cultural heritage objects and any legacy data must not be underestimated. However, the development of appropriate technological solutions is of direct interest not only to the cultural and political sectors, but also to Europe's industry. These solutions encompass novel scanning technologies for massive amounts of fragile documents and artefacts through new types of sensors, robots, and automated processes. They also include smart algorithms that extract information and create knowledge from heterogeneous, complex and noisy data at a massive scale.

As of today, the Time Machine initiative is an alliance of 650+ institutions backed by the Time Machine Organization (TMO) which is ready to go for implementing its roadmap.

[1] <https://www.ehri-project.eu> (31.07.2021)

[2] <https://www.europeana.eu/en> (31.07.2021)

[3] <https://www.europeanfilmgateway.eu> (31.07.2021)

[4] <https://www.imediacities.eu> (31.07.2021)

[5] <https://www.europeanfilmgateway.eu/content/efg1914-project> (31.07.2021)

[6] <https://www.timemachine.eu> (31.07.2021)

POLICY IMPLICATIONS AND RECOMMENDATIONS

Aiming at a framework for digitization of cultural heritage, the VHH project offers the following recommendations:

1. Strengthen civic engagement with history through digital curation.

Digital curation of cultural heritage is crucial to combat misinformation and extremism, encourage critical thinking, and safeguard democracy.

- Ensure domain-specific platforms are supported in order to be 'trusted resources' and to be more inclusive.
- Encourage the sector in developing and implementing best practice models including ethical perspectives.
- Initiate the creation and dissemination of guidelines for Holocaust commemoration and education through digital means in Europe.
- Support best-practice initiatives for commemorating the Holocaust on social media, for using digital analysis tools, and for utilizing augmented reality technologies.

- Promote programs to explore and address the specific relationship between the Holocaust and contemporary forms of antisemitism.

2. Enable sharing of cultural heritage through digitization and aggregation of digital infrastructures.

Sharing, aggregation, and upscaling are effective strategies to overcome the compartmentalized structure of European cultural heritage.

- Think of European cultural heritage as a mosaic of specific ecosystems, linked by a common goal and enabled by strong frameworks.
- Provide sustainable funding for Europeana, European Film Gateway, and other digital aggregation platforms that have emerged from EU-funded programs.
- Support the development of a European database of Holocaust related atrocity and heritage sites.
- Establish a specific European Holocaust Remembrance Alliance including a network of Holocaust memorials and digital heritage collections.
- Support the transformation of memorials into hybrid memorials with adequate digital infrastructure.

3. Support advanced digitization of cultural heritage.

Advanced digitization encompasses every step of making analog objects digitally accessible, it ranges from the creation of digital copies to the development and application of AI to access these copies and retrieve information.

- Increase digitization efforts significantly, otherwise Europe will lose its stake.
- Foster an inclusive approach to digitization comprising both data and metadata of cultural heritage objects.
- Support re-digitization if necessary.
- Use thematic digitization calls to encourage collaboration and to foster identification across the EU.
- Provide targeted support to member states to meet the European Commission's recommendations and objectives and make sure that digitized contents are made available through digital aggregation platforms funded by the EU.
- Utilize emerging scanning technology and encourage the growth of a resilient European Document Process Outsourcing (DPO) market.
- Push research into AI and machine learning to link and contextualize dispersed data.
- Follow a roadmap for advanced digitization of cultural heritage.
- Think Big – Think Time Machine.

RESEARCH PARAMETERS

Combining state-of-the-art concepts and practices from information sciences, museum pedagogy and digital storytelling, the Visual History of the Holocaust (VHH) project develops a new approach for the engagement with the Holocaust and its visual evidence in an age when digital technologies and the Internet have profoundly transformed our concept of history.

The project focuses on filmic records produced by Allied forces and relating to the discovery of Nazi concentration camps and other atrocity sites. Although these films only capture a certain

aspect of the Holocaust, some of their images have become canonical. Due to the scarcity of visual records a few images, often presented out of context, have shaped our collective imaginary of the Holocaust. In the course of the project, these historical films, which currently are dispersed across archival institutions in the United States, the United Kingdom, Russia and other former Soviet Republics, are aggregated, digitized, analyzed and annotated. The film images are linked dynamically with photographs, text-based documents and Oral History interviews, as well as with images from subsequent visual representations of the Holocaust.

Using existing and emerging technologies, including advanced digitization, automated analysis of images and text, time-based annotation and location-based services, the project provides tools to trace these images and explore how they have been used and reused. It develops strategies to discover and unlock layers of context and meaning inaccessible through traditional linear narrative modes.

The tool kits, best-practice models, applications, and the web platform created in the course of the project address a broad range of users, including both professionals and the interested public: film and media scholars, historians, archivists, information scientists, curators, educators, media producers, artists, visitors of memorial sites, and all engaged citizens. Empowering people to explore the mediality of history and memory by means of digital technologies is the vision of the project.

PROJECT IDENTITY

PROJECT NAME Visual History of the Holocaust: Rethinking Curation in the Digital Age (VHH)

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CONSORTIUM

Austrian Film Museum (OFM)
Vienna, Austria

Centre national de la recherche scientifique (CNRS)
Center for Russian, Central European and Caucasian Studies (CERCEC)
Paris, France

Deutsches Filminstitut & Filmmuseum e.V. (DFF)
Frankfurt, Germany

Ludwig Boltzmann Gesellschaft (LBG)
Ludwig Boltzmann Institute for Digital History (LBI)
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Mauthausen Memorial (MM)
Mauthausen, Austria

max.recall information systems GmbH (MAX)
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Stiftung Bayerische Gedenkstätten (SBG)
Dachau Concentration Camp Memorial Site
Dachau, Germany

Stiftung niedersächsische Gedenkstätten (SNG)

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WEBSITE

<https://www.vhh-project.eu>

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FURTHER READING

Tobias Ebbrecht-Hartmann, Commemorating from a distance: the digital transformation of Holocaust memory in times of COVID-19, in: *Media, Culture & Society* (December 2020), 1-18.

DOI <https://doi.org/10.1177/0163443720983276>

Deliverable D2.1 *Advanced Digitization Tool Kit* (M12, 2019-12)
<https://www.vhh-project.eu/deliverables/d2-1-advanced-digitization/>

Deliverable D2.5 *Report on Digital Curation of Popular Culture Content* (M24, 2020-12)
<https://www.vhh-project.eu/deliverables/d2-5-report-on-digital-curation-of-popular-culture-content/>

Deliverable D3.1 *Definition of Engagement Levels, Usage Modes, and User Types* (M12, 2019-12)
<https://www.vhh-project.eu/deliverables/d3-1-engagement-levels/>

Deliverable D3.5 *Concept: VHH i-docs* (M24, 2020-12)
<https://www.vhh-project.eu/deliverables/d3-5-concept-vhh-i-docs/>



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