



**THE DIGITAL HOLOCAUST MEMORY PROJECT  
SUSSEX WEIDENFELD INSTITUTE OF JEWISH  
STUDIES**

# **RECOMMENDATIONS FOR DIGITISING MATERIAL EVIDENCE OF THE HOLOCAUST**

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# FOREWORD

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Holocaust collections are becoming increasingly digitised. Whilst digitisation offers many opportunities, especially in terms of preservation and public access to material evidence of this past, it nevertheless also introduces new challenges for Holocaust heritage. Digital technologies offer the potential for more networked connections between institutions, this is not always easy. There is a lack of consistency in vocabularies used for metadata, national and supranational laws affecting digital dissemination differ across the world, and there is unevenness across the sector in terms of resources (time, technological, and human) that can be dedicated to digitisation projects, and digital literacies and capacities.

Despite the public misconception that 'the Nazis left little evidence of their crimes', there are large swathes of historical documents and objects that testify to the violences enacted during the Holocaust. [The Arolsen Archives](#), alone, has more than 50 million reference cards and 30 million documents from concentration and forced labour camps, and files on displaced persons. Beyond contemporary evidence of the Holocaust, there are substantial collections of victim, witness, and occasional perpetrator testimony recordings.

Beyond those with a professional understanding in digitisation, it also reminds a somewhat ambiguous process. Few people who engage with digitised copies of material evidence of the Holocaust at onsite archives or online, really understand what digitisation involves. This is also often true of those responsible for small or private collections, as has been anecdotally expressed to me by such people during my own research. How do we support owners of such collectors to ask the right questions when budgeting, fundraising, and employing colleagues to take on this work in ethical ways appropriate to the management of the sensitive material we find in Holocaust collections? How can we make the mammoth work of digitising material evidence of the Holocaust a collaborative project when so many inconsistencies, legal frameworks, and resource issues stand in the way? Do we need to digitise all material evidence of the Holocaust to ensure its preservation **as evidence** or do digitising strategies need to be more modest (for example, focusing on those sources most useful for public dissemination)? What are the consequences of adopting one of these approaches over the other? These are the types of questions which demonstrate that an interdisciplinary, international forum was needed to consider both the state-of-play and possibilities to improve practice for the future.

This report serves as an important first step in this work. It was created as part of the research project 'Participatory Workshops - Co-Designing Standards for Digital Interventions in Holocaust Memory and Education', which is one thread of the larger Digital Holocaust Memory Project at the University of Sussex.

The participatory workshops project has focused on six themes, each of which brought together a different range of expertise to discuss current challenges and consider possible recommendations for the future. The themes were:

- AI and machine learning
- Digitising material evidence
- Recording, recirculating and remixing testimony
- Social media
- Virtual memoryscapes
- Computer games

In this report, you will find the recommendations and a suggestion of who could bear responsibility to take each of these on; a summary of the workshop discussions; and a list of the participants who contributed to this work. There will also be a complementary action plan published alongside this report. The recommendations and discussion presented here summarise participant opinions, which might not reflect the opinions of project leads or any individual participant in full, or all participants in consensus. Whilst we have offered participants the opportunity to review and discuss the development of these guidelines, we have tried to retain differing perspectives rather than suggest there was homogeneity in opinion. The discussion presented is an aggregation of professional opinions informed by a diverse range of experiences and expertise. We present ideas collectively, rather than attributing specific points to participants. All participants are, however, acknowledged as contributors to this report.

This document does not claim to be the last word on digitising material evidence of the Holocaust, rather we recognise that this is very much the beginning of a longer conversation. We hope that the immediate recommendations suggested in these guidelines will help organisations and individuals to prioritise the work needed to effectively digitise the content of Holocaust collections.

*Dr Victoria Grace Walden*  
Project Lead



# RECOMMENDATIONS

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For each of the recommendations we outline here, we also suggest who could take responsibility for this work. They are addressed at a wide range of stakeholders from the tech industry to Holocaust organisations, academic researchers to funding agencies. Where a recommendation is part of the project team's next steps action plan, we have noted 'Project Leads'.

01

## 01 — Funding Agencies

Provide further financial support for large organisations with sound infrastructure, like the European Holocaust Research Infrastructure and USC Shoah Foundation, to support smaller archives.

02

## 02 — Governments, EU, and Funding Agencies

Invest in digital infrastructure and teams - moving away from precarious, short-term contracts and funding on a project-basis towards a permanent digital funding strategy for Holocaust collections.

03

## 03 — Holocaust Organisations

Develop resources to support users by presenting transparency about digitisation choices, and educate and help them to navigate how to use digitised material. This might be via digital resources embedded into collections or in-person stakeholder meetings (or both). However, institutions should be mindful of differing user desires, backgrounds (educational, professional, cultural etc.), and different skills and what types of resources are most likely to be used by their specific user groups. It is recommended that they are designed in conversation with user groups.

**04**

### **04 — Project Leads**

Create a hub for the sharing of good practice, existing standards and vocabularies, with resources to support institutional decision-making about digitisation, and complementary workshops.

**05**

### **05 — Holocaust Organisations**

Avoid thinking about digital dissemination as similar to broadcast-era publishing. If content is disseminated into conversational spaces, institutions could use comments to enhance their educational remits by engaging directly with users. Dissemination plans for social media platforms, for example, should consider the cost of time needed for long-term engagement with users. More work needs to be done on the productive uses of open data to advance sharing between collections.

**06**

### **06 — Project Leads**

Run academic and professional workshops to explore the extent to which the paradigm of 'visibility' and assumptions of non-digital Holocaust museology, education and archiving are still the most significant factors for digital futures.

07

## 07 — Project Leads

Establish spaces for international dialogue between institutions already involved in digitisation and those not. Dialogue should focus on sharing practice on metadata vocabulary, standards, and legal/ethical restrictions, and priorities for digitisation, beyond objects at material risk. One approach could be to look at content about lesser-known evidence and narratives and work collaboratively to explore transnational connections between such lesser studied materials. This might also help inform discussions about shared standards through collaborative metadata development, whilst also drawing attention to differences.

08

## 08 — The IHRA

Endorse guidelines that are drawn up here and propose a sub-group within the IHRA's academic working group to consider priorities to support international collaboration for digitisation. Or, a more ambitious aim would be to establish a separate working group with appropriate experts dedicated to the 'digital', taking seriously its impact on the future of Holocaust heritage.

**If you are interested in working towards any of these recommendations, we would welcome you to contact Project Lead Dr Victoria Grace Walden ([v.walden@sussex.ac.uk](mailto:v.walden@sussex.ac.uk)) with the Subject Line: Digitising Material Evidence Recommendations. We are keen to track the impact of the report after publication, support ongoing work in this area, and may also be able to put you in contact with other organisations interested in similar actions to support collaborative work.**

# DISCUSSION SUMMARY

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The following pages summarise the workshop discussions which informed our recommendations. Each sub-section identifies one of the priorities agreed by participants at the beginning of workshop 1 (see the methodology that follows this section for more details on our approach).

## 1. Working definition

Given the interdisciplinary nature of our participants, we felt it was important to share a working definition of **digitisation**. We use the word 'digitisation' here to focus specifically on processes related to translating material objects into digital formats. In contrast, **digitalisation** refers more broadly to the shift to working in digital contexts. Given the diverse professional backgrounds of participants, our conversations naturally shifted between digitising, digital dissemination, and digital presentation. All of these are important to consider when discussing how, why, what, and when to digitise material evidence. Therefore, you will find reference to all of these throughout this report.

## 2. Ethical Standards and Practice

Given the sensitive nature of material evidence related to the Holocaust, it is perhaps unsurprising that much of the discussions focused on **ethics**. After a brief introduction, we present concerns related to ethics under three titles: **ethical relationships with documents and objects**, **ethical relationships with subjects and families**, and **ethical relationships with users**.

Some of the ethical issues related to the digitisation of material evidence of the Holocaust applies equally to the broader heritage sector. However, others specifically refer to the sensitive nature of Holocaust-related objects, including written testimonial documents; atrocity and/or sensitive photographs often

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taken by perpetrators; architecture and objects of torture, mass murder and incarceration; and the personal belongings of murdered people. To begin, organisations need to be clear about the purpose of digitisation.

Useful questions to ask at the outset of any digital strategy or project:

Who and what is it for?

- Is it for the urgent preservation of at-risk material (such as nitrate film or dissolving plastics) or is it for educational purposes?
- Is the aim to make collections more open and accessible?
- Does digitisation offer opportunities for deferred witnessing or is digitisation an end in itself?

Digitising to protect the evidence is one thing, but why and to whom and in what context should such images be shared?

If an organisation decides not to share some content digitally, to what extent should they be transparent with publics about the criteria they use to make such choices?

Addressing such questions will help organisations to assess digitisation priorities and consider which ethical issues are most pertinent and enable them to meet their objectives.

## Ethical Relationships with Documents and Objects

An important discussion point for participants was the longevity of digital formats. Planned obsolescence is ingrained in much technological development. Participants agreed there is a need to ensure the futureproofing of content ready to transfer, translate, and transform again into not-yet-known formats. USC Shoah Foundation are using blockchain technologies and multiple server sites to protect the integrity of digital files; work of such scope is likely to be less possible for smaller organisations (this unevenness suggests a need for more cross-sector collaboration. Indeed, the Shoah Foundation has integrated many external testimony collections into theirs). We can never know the future, we can take a media archaeological approach to examine past transitions to help plan strategies in advance, whilst acknowledging that the contextualisation of content in the future is uncertain. This uncertainty does not only apply to technologies, but what people feel is inappropriate today, society might feel differently about in

the future. Thus, we must be open to digitising content that we might judge today as inappropriate.

One challenge is what to do with private objects. Sometimes these are digitised or transferred from format to format by an individual or their family, with the original material object lost. The quality of digitisation in these cases is likely to be far lower quality than high spec institutional digitisation. Should poor quality images be discarded, or do they still have value as historical evidence and/or memory objects? Hito Steyerl (2009) has written 'In Defense of the Poor Image', and there has been an increasing interest in personal objects such as home movies (in this context, particularly of pre-war Jewish life). Sometimes, 'poor images' can tell as much about the memory culture through which the images have survived as they can about the past they re-present.

Participants felt that digitisation must not happen at the risk of diminishing care for material objects. There have been serious issues in smaller archives and organisations with losing the originals after digitising. Institutions have to prioritise objects in their collections for digitisation, but there was some debate about the criteria that should be used here. Is it the perceived historical or scientific value of an object that should raise its priority, the material fragility of the object (such as with nitrate film), objects that have the least rights issues to navigate in order to make publicly available, or whether a given object will be useful for a particular output (such as an educational resource or online exhibition)? Another necessary consideration is the number of digital copies and types of formats worth creating, balancing out cost (particularly in relation to storage, security, and maintenance), resources, and time implications against the value of having multiple copies in different formats from the outset. One question that was raised is do we need to suggest a minimal standard of the quality of copies? If so, should this be agreed cross-sector to support future potentials for sharing?

Particular ethical dilemmas arise when objects need urgent attention, such as the aforementioned nitrate film example. Legal and ethical standards may restrict digitisation by prioritising the rights of subjects and/or descendants at the risk of losing material evidence of this past. Digitisation is crucial because it can save heritage materials, which are at risk of destruction in conflict. The annihilation of evidence related to past atrocities is often a deliberate strategy of invasive and oppressive regimes. However, in such cases digitised collections must be easily accessible internationally: nationally-bound archives risk decimation or distortion in times of conflict (as seen during the Russian war in Ukraine, ISIS's destruction of heritage sites, and in South Sudan). Digitisation is

thus a matter of preservation. The challenges for preservation, however, are that for digitised formats to protect and provide evidence of heritage, they must bear the closest possible resemblance to the originals. They must also be released publicly as completely as possible. Such quality and quantity of digital preservation is hampered when collections are not made available due to curatorial choices or law.

Some participants noted that organisations have seen a surge in donated materials during the Covid-19 Pandemic as people began to discover objects and images within their homes during the global lockdowns. This magnifies some of the ethical issues discussed here, particularly with regards to prioritising certain objects over others, the quality of digitised copies, and underscores the financial strain on smaller organisations to process large, digitised collections (discussed further in the last section).

Images raise specific challenges, many of which however are not new with digitisation. Participants generally felt that ethical values applied to historical figures should be applied equally across the board – to victims and perpetrators (and all the grey zones between and that cross these categories). For example, explicitly naming a Nazi-aligned photographer would provide evidence that the image has been taken from the perpetrator perspective. There may be privacy reasons however not to name individuals, which should be clearly stated (and some countries, such as the Netherlands, have laws that apply here). However, if victims in a photograph are not named whilst the photographer is, this approach risks individualising perpetrators and representing the subjects as simply a mass of anonymous victims, which is dehumanising. Contextualisation of photographs is essential: why was the individual taking the photograph? Were the subjects coerced to perform for the camera? Traditionally, there has been a push for humanising the Holocaust, to avoid the '6 million' as a statistic. On one hand, it seems pertinent to ensure objects are anchored to personal narratives, perhaps even more so once survivors are no longer with us and the face-to-face encounter with the survivor cannot be experienced. On the other hand, we should respect the privacy of individuals – both those still living and the deceased, including descendants of those alive at the time.

Wider issues about the backstory of objects were also raised. Do contemporary curators and archivists know that all material in their collection was originally collected following today's ethics standards? Do they know what was historically discarded (if anything) from their collections and what decisions informed those choices? Some institutions collect objects from auctions, others are entirely

private, some have been looted from atrocity sites, others still have the façade of public institutions (museums), but once objects are donated to them, they close access to them. These histories of collecting offer important context to collections as they exist today and there should be more transparency about them.

There was debate between participants about whether an object has value in itself or whether it needs to speak to personal stories and/or be contextualised within a wider historical narrative. How much is known about particular objects? Are they symbolic, for example 'a cattle cart' representing the transport of victims to concentration and death camps, or are they specific with traceable histories and connections to specific people, places, and other objects? Is it necessary to digitise symbolic objects or ones with less verified details? Do objects with known details offer a framework for prioritising less materially at-risk objects or does this risk repeating a canonic narrative of the Holocaust (the already known)? Some participants acknowledged that the value of objects does not have to be solely measured by the extent to which they are 'readable' in this context. Thus, in only prioritising certain material for digitisation, there is a risk of removing important context, and presenting both a lack of nuance and a hierarchy of value.

An alternative would be to prioritise content about lesser-known narratives or objects with little detail known about them. In his much-cited essay [Ethics of the Algorithm \(2016\)](#), Todd Presner has argued that algorithms offer a new ethical relationship with collections because they can bring to the fore content we might otherwise miss in archives. This position would suggest that more could be made of the affordances of computer systems (such as recommendation systems) to help draw public attention to lesser-known objects and narratives. Another approach could be to create crowdsourcing activities seeking information about lesser studied objects.

### Examples of Crowdsourcing Projects in the Holocaust Context

**NIOD's Behind the Star**: focuses on what people might know about images of people wearing yellow stars in photographs.

**Arolsen Archive's #EveryNameCounts**: asks for help in interpreting the details of thousands of scanned documents from the Arolsen Archives.

**Joodsmonument**: allows users to upload photographs and other sources to a collaborative, public memorial.

One major concern raised is the issue of over-simplification through taxonomisation (a criticism, for example, historically levelled at traditional museology in post-colonial heritage studies). Indeed, it was acknowledged in discussion that traditional museum and exhibition spaces are not guaranteed to fully capture nuances and often run the risk of reducing the complexities of the Holocaust in analogue collections as much as digital ones. In the Holocaust context, the issue of taxonomisation takes on specific resonance as seemingly clear categories such as 'victims', 'bystanders', and 'perpetrators' have increasingly been problematised in Holocaust academia and education. Using simple labels in metadata to categorise people, places or organisations threatens to undo much of the work of Holocaust Studies in recent decades. However, too much metadata associated with each object could become confusing and ambiguous. Digitisation has the potential for multiplicity and to allow for different interpretations of sources and/or a range of an individual's experiences to be presented within one display depending on the form of dissemination. However, algorithms require taxonomies and metadata to find, arrange, and identify data. **An important question moving forward, then, is how can we produce taxonomies and metadata without using restrictive vocabulary which reduces the complexities of the Holocaust?** Humans must stay in the loop and not just at design and archival levels, but to identify what metadata is actually useful, and end users should be involved in interface and database design.

Smaller organisations can struggle to manage the multiple languages of Holocaust material. Full translation is not always possible due to lack of staff available to do the work. In such cases, a policy of redaction is applied and only a digital summary of, e.g., personal letters are published. There are consequences here of course regarding how this summary can be read in comparison to original letters, for communication specialists and relatives, the mode of address, expression, and voice of the individual are important to their use cases. Digital summaries raise issues of provenance and a faithfulness to the original. Nonetheless, as will be discussed further in relation to transparency, participants recognised that digitisation is always a curatorial process, which involves mediation – it is not simply about presenting the past authentically. Thus transparency of this process is important, regardless of the supposed 'faithfulness' to any original document.

Participants shared a wide range of different standards, guidelines and principles relevant to digitisation. The range of different resources suggested by participants illustrates the need to navigate national, supranational and sector guidelines with certain funders requiring application of some standards over others. This could affect continuity even across digitised content in one collection,

let alone across the transnational landscape of Holocaust archives and collections, and Holocaust content in the wider GLAM sector.

### Consent and Ethical Relationships with Subjects and Familiars

As with any heritage material there is a tension with material evidence of the Holocaust between the 'right to know' and the 'right to keep things private'. This is underscored within a legal framework with European Union legislation about the 'Right to be Forgotten' / 'Right to Erasure' outlined within the [GDPR standards](#). There is subsequently tension between anonymisation of data and its ability to serve as evidence of atrocities. If details are removed, the proof value of a document is more likely to be questioned. Moreover, in the context of the Holocaust specifically, there are heightened tensions between legal and ethical restrictions and survivor/family considerations. It should be noted however that [the IHRA](#) successfully acquired an exemption from these laws for [records from the Holocaust era](#)

(although this safeguard has not always been effective, as restrictions on research and access have since been reported, and some nations have their own laws which must be applied).

Decolonising approaches are increasingly informing sector standards. However, there can be tension between standards such as FAIR / CARE mentioned above and calls to democratise and make everything open access, as it then becomes difficult to place restrictions on digital objects. One participant, however, noted that this is a misunderstanding about the recommendations of the Open Access Movement. The core of which is to keep digital copies of public domain works in the digital public domain, and open everything else as much as possible, if possible. [See 8.3. Consensus No. 3: [Not All Data Should be Open or Accessed](#)]. Nevertheless, public, sector and funder assumptions about what it means to have 'open access' may put undue pressure on institutions to make sensitive items in

Some examples of guidelines, principles, and standards shared by participants:

[Australian National Preservation Digitisation Standards](#)

[CARE Principles for Indigenous Data Governance](#) (whilst these focus on indigenous data, some participants felt the CARE Principles were also particularly useful when working with data related to genocide victims more broadly)

[FAIR Principles for Data Stewardship](#)

EUROPEANA Standards and Guidelines:

[Europeana Data Model](#)

[Europeana Publishing Framework](#)

[Europeana Licensing Framework](#)

[European Usage Guidelines for Metadata](#)

their collection accessible, and if not then at least to offer some kind of public description of them.

On the theme of ownership, participants noted the lack of donors' understanding regarding the process of donating objects which then have the potential to become digitised objects with their own 'life'. In other words, digitisation facilitates the spillover of artefacts beyond the institutional space, which can result in multiple (and at times unpredictable) possibilities. This can lead to inappropriate remediation online which poses specific challenges with regards to Holocaust mis/disinformation, denial, and distortion (for example, the transformation of digitised objects into memes online). In light of such challenges, there is a call to better understand safeguarding measures such as digital copyright measures, watermarks, and the use of Blockchain technologies moving forward.

'Take down policies' are recognised as common good practice across the sector. One example of this is for the transcripts of the Nürnberg Trials testimony collection. Individuals have been invited to give permission and sign off whether they want material restricted and if so, for how long (such as until 10 years after passing away). However, permission for digitised Holocaust collections can be complicated. In some cases, grandchildren now have the right to retract personal details shared with institutions in the testimony of survivors. Their desires sometimes conflict with those of the survivor who donated their testimony, who is no longer alive to contest. On the rare occasions when family members do request redaction, details about them are not actually edited out but are restricted from public access. To be sure, the institution would retain the original survivor's story for the sake of provenance. Participants generally felt that if survivors have signed off on the content, then that permission should stand and not be trumped by future generations of their family.

However, many survivor testimonies were recorded with electronic pre-digital or indeed analogue technologies with no discussion about the possibility of digitisation and digital presentation/ dissemination. Therefore, the true thoughts of survivors who donated testimony but died before archives were digitised can never be known. The USC Shoah Foundation's argument was interpreted by participants as: digitisation is ethical because it widens dissemination of survivor testimony, which continues the aims of survivors - who wanted to be heard by as many people as possible. Participants noted, however, that privacy laws in the US are less strict than in much of Europe. Regardless of the national context of collections, participants identified a generational shift with grandchildren and

great grandchildren generally wanting to know more than the second generation. This raises ethical and practical issues around availability, access, and timing.

Participants also raised the point that sometimes researchers discover difficulties when they deal with testimonies that contain 'gossip' or speak about non-familiar people, such as accusing other members of their now local Jewish community of being Kapos during the Holocaust. While researchers can agree to redact full names, this may not fully anonymise the individuals being discussed which raises further issues in this context. Moreover, digital projects created in partnership with Holocaust organisations have found access to archival material challenging, for example for use in educational VR and AR projects. Currently, these issues related to rights prevent even public display onsite or for offline formats contextualised within educational visits.

The specificity of Jewish ethics needs to be considered in the context of Holocaust objects. For example, religious Jews being seen without a head covering in photographs would be unthinkable for many and it is very unlikely consent would be given. New issues are raised in this context regarding human remains – it is forbidden in some Orthodox beliefs (Jewish religious law: Halakha) to disturb graves. Good practice has been to work with religious authorities, such as in the archaeological research led by Professor Caroline Sturdy-Colls at Treblinka, in Alderney, and elsewhere. Does religious thought on this matter need to be reconsidered for digital contexts to consider the re-presentation of human remains as digitised objects? There are also tensions at play between different Jewish religious sects, individuals identified as 'racially Jewish' by Nazi authorities but practising other religions, non-religious Jews, and other victim groups – we must not assume the application of religious ethical standards on subjects when we do not know their religious identity. This in itself could be disrespectful to victims. Adolf Island: The Nazi Occupation of Alderney (Sturdy-Colls and Colls, 2022) was raised as particularly useful literature on this topic. The subject of human remains raised the question at which point Holocaust material could be treated more historically. Some participants drew comparisons with touring exhibitions of Egyptian mummies and the oldest full human skeleton displayed in the British Museum, London. Nevertheless, another participant highlighted that archaeologists generally agree that the display of human bodies is not ethical – regardless of how 'historical' the body may seem.

Many Holocaust images show victims in vulnerable states. Careful questions should be asked about why such material should be made available online, and thus whether it is a priority for digitisation (this will of course depend on the approach any institution has decided given our guiding questions earlier in this report. E.g. Whether they are prioritising digitising based on material risk of objects, persevered historical importance, dissemination use, or other reasons). On one hand, these are vital sources of evidence of the extent of the crimes of the Nazis and their collaborators. On the other hand, they could, as mentioned above, be circulated and decontextualised in ways that are disrespectful to the deceased. Once a digital item is published under any CC license (even the most restrictive ones), it can be freely and legally distributed by anyone and remains valid until copyright expires. While it is therefore difficult to manage what happens to content once it is made publicly available online, terms of reuse may be managed through different licenses. However, there is often pressure to make content as open access as possible, particularly by funding agencies. Furthermore, institutions and individuals who make content available under the most restrictive of CC licenses do not necessarily have the resources to track or follow-up each reuse case.

## Ethical Relationships with Users

Once digitisation has taken place, it could be clearer to users what is available and where. Before making a request to access collections, one needs to know this information. The tension between archival description and researcher/user interpretation has always made navigating collections and finding sources challenging. National/ international metadata norms have the potential to make this easier but also to complicate it as researchers/users have to be adept in metadata vocabulary to know how to search for what they are looking for.

**In focus groups and surveys carried out with the public by the Wiener Holocaust Library, UK, it was clear that the public wanted access to absolutely everything but did not necessarily want guidance.**

Generally, from an institutional perspective, there was a sense that users' engagement with digitised collections needs to be managed. There was no disagreement on this point by those who use but are not responsible for digitising processes. Frustration was aired that it is not always clear what users want: some want detailed introductions to

collections, some want clarity about privacy and processes. Some users want everything available, but when you make public a large collection, users complain that they cannot find anything.

Users of digitised collections expressed that they have limited knowledge of what goes into – as well as what is omitted from – digitisation processes. They also raised questions about how to source and choose material to use in educational contexts and the rights they have to use them. They felt that users need to be enabled and empowered to do the right thing with the material. Users who work with students and are most likely to access archival content as teaching material reiterated long-standing challenges of using atrocity images for educational purposes. On one hand, they claimed that completely avoiding these images risked diminishing the fact that the Holocaust was extensively violent. On the other hand, they noticed an increasing sensitivity to violence even in university study spaces today and expressed that such sessions involved more attention to managing feelings/ trauma of students than on that of historical victims. They were concerned neither to dismiss nor trivialise the violence of the Holocaust. These issues were most acutely felt in institutions that are not Holocaust-focused, such as universities.

It was noted that approaches to graphic content display can differ greatly between (public-facing) museums and exhibitions, and educational programmes. There was some agreement that we should avoid atrocity images/narratives in teaching materials but that the presenter should be making these decisions confidently within an ethical framework rather than in the context of fear (of being sued, receiving complaints, etc.) Both those using archives and those working with them agreed that guidelines could be provided for users on how to navigate collections, and to understand the sensitivities and/or relevant legal issues. There was further debate about the handling of sensitive, graphic content when it is used. Some participants highlighted that the flagging of graphic content can negatively impact engagement, encouraging young users to view material through fascination – intrigued by just how ‘graphic’ it might be.

The Wiener Holocaust Library’s Testifying to The Truth exhibition does not present such content in places where people can stumble upon it without context. Kate Marrison’s research into The Liberation AR app (Dachau Memorial) showed that student focus groups held by the producers provided evidence that young users did not want censorship or a warning over photographs before they appeared in the app as they understood the magnitude of the topic. The app is designed to primarily be used on site. Therefore, students are likely to have come to this use case with some level of emotional and critical preparedness.

Wider questions about accessibility (in relation to the inclusion of people with disabilities) were raised. There was little knowledge amongst participants not involved in digitisation projects of legal requirements (for example in the European Union and UK) to make any digitally published material accessible by design or of models like Universal Design for Learning (or indeed more critical approaches to design justice). There was an acknowledgement that archives are already under-resourced and overstretched and that funding does not perhaps allow for accessibility to be embedded into projects (although this comment came from people not involved in digitisation processes). Language was however raised, particularly the disproportionate amount of collections in English over other languages (this is especially problematic given English was not the primary language of most victims or perpetrators, or indeed of many liberators). There were two distinct threads of conversation when the issue of accessibility was raised: (1) disability and (2) language barriers.

One of the most repeated issues amongst participants was transparency. It was highlighted that digitisation is a curatorial process and thus involves mediation, and organisations should be transparent about this to users. This is not a new issue of course, for museum exhibitions and archives are also mediated. Nevertheless, digitisation was seen as an opportunity to think through issues of transparency more explicitly. One suggestion was to state that a record exists, even if access is being withheld. Other creative proposals included: presenting the voices of the people working on the project in any exhibition of digitised materials (historians, tech and industry professionals, archivists, etc.). An alternative to content warnings mentioned above, could be a video or audio clip of those involved in the project sharing their own experiences of working with the material. Inviting the curators to reflect upon their decision to include (or not include) a particularly graphic and/or controversial photograph or object for example enables them to raise some of the practical and ethical limitations to the level of public consciousness. Thus, it was thought that allowing researchers and the public the opportunity to see and understand the decision processes that go into digitisation, digital dissemination and presentation, rather than just giving them access to the content should be a priority. Discourse is produced through digitisation, and this should be clear to the users.

One of the challenges institutions face is that digitising projects can be short-term with a team brought in especially to manage a time-limited funded piece of work. This compartmentalisation of the process means that those responsible for digitisation might not even know what is going to happen to the material afterwards. More transparency between those involved in the process at different points (from digitising to maintenance) would allow appropriate decisions to be made from the outset.

### 3. Agency and Gatekeeping

Some participants discussed the issue of agency. There is a dispersal of agency when material evidence is digitised, and again when disseminated. Digitisation projects would be most productive if institutions did not work in silos, either institutionally or (supra)nationally. New digitisation projects would benefit from connecting with established ones. Users, however, will always come to collections with specific aims, bringing their personal knowledge, experiences, and perspectives to it. As previously mentioned, the involvement of different user groups in the development of metadata could help collections make more sense to end users. There is of course the agency of subjects, to whom material objects relate, and to survivors and families who donate personal belongings as discussed above. There are also corporate interventions that need to be considered. There must be clear terms of agreement with corporations responsible for running digital platforms, particularly in relation to their accessibility to data, both within the collections and that of users. Thought should be given to careful agreements with corporate entities regarding the ubiquity of their management and use of such data and the transparency of their processes. Beyond the companies running archival platforms in themselves, there is also the wider digital ecology to consider. Search engines like Google use their own principles of indexing and algorithmic recommendation systems, which will prioritise specific content to users. Many users gain access to collections through such search engines, accepting the recommended links directly to specific objects (where available). Institutional context to a collection or object is often totally missed in such user experiences.

It was proposed that an aggregator model such as that offered by [Europeana](#) might solve some of the issues between internal gatekeeping (institutionally based) and external gatekeeping (search engines, for instance). Institutions could then bring together their collections and cultural artefacts which are promoted by and accessed through their servers. Notable issues with this model were, however, flagged with regards to platform ecology. Nevertheless, [the European Holocaust Research Infrastructure \(EHRI\)](#) goes some way to achieving this in the specific context of the Holocaust. However, it primarily links out to collections from a central portal. EHRI describes its Portal as 'online access to information on Holocaust-related archival material held in institutions across Europe and beyond'.

Suggestions by some participants for registers and levels of access reinforced traditional ideas of institutional guardianship and gatekeeping of historical objects. As previously suggested, there is a tension between what an institution has and what is available (i.e., redaction of content to description only etc.) as well as a tension between what is physically available in the collection and what can be digitally accessed (online). Who gets to decide what 'credentials' grant a user more access than another? There was some agreement that researchers needed more access than the general public, but debate about who qualifies as a 'researcher'. Crowdsourcing and citizen science projects (such as the aforementioned NIOD's "Behind the Star") evidence that the general public can be as, if not more, skilled than academic researchers in navigating and interpreting archival material. Nevertheless, crowdsourcing projects often provide detailed support for users to participate on the institution or project team's terms. Evidence from experience at the Wiener Holocaust Library, however, suggests that despite making the effort to be transparent to users and to provide tools to support them, users on the most part just wanted to access the items. It was suggested that we perhaps have too high expectations about democratisation and user agency and that users desire guidance from institutions.

Furthermore, despite concerns about publishing content online, there is little evidence that misuse of archival material is prevalent. Those with malicious intent will find ways around any barriers to access. Disabling downloads of materials for example can be easily circumnavigated by taking a screenshot, recording screen activity or if these are disabled, simply taking a photo using a different device. The biggest challenge for institutions is related to donors and copyright – whilst objects have more easily been licensed for use in exhibitions, making images of them publicly available online falls under distinct legislation.

Susan Crane's Choosing Not to Look: Representation, Repatriation, and Holocaust Atrocity Photography (2008) and Susie Linfield's (2010) work on the ethics of showing and display were cited as drawing attention to different agential roles: one of the visitors (user in the digital) and one of the exhibitor. Thinking through the paradigm of an ethics of visibility (looking and showing) might offer a useful way to consider appropriate choices for both creators and users. Questions about access raised by participants seem to be rooted in issues related to visibility. Some hesitancy was expressed, however, that ethics applied to the use of objects in physical museums and archives are informing assumptions about what to do with digitisation. Is visibility still the right paradigm? What about the invisibility (at least to humans) of the computational stages of mediation in this context? Another approach raised was the question of 'sharing', which might offer a useful lens through which to think about the more complex networks of humans and nonhumans involved in distributing images and other content online.

## 4. Technology for Connecting Collections and Digitising Images

It was considered that given the transnational nature of the Holocaust and its aftermath, and ongoing memory practices, that digitising and connecting everything is crucial to research. One of the challenges of working collaboratively across institutions within different national and supranational contexts is the transferability of metadata. On the simplest level, place names are spelt differently. However, there are also consequences related to the specificities of cultural memory related to this past in different national contexts, for example whether the word 'Holocaust' or 'Shoah' is used, whether an individual highlights their Jewish identity or not ([Stegmaier and Ushakova \(2021\)](#) give an example of a Soviet Jewish WWII veteran Leonid Rozenberg, interviewed for the USC Shoah Foundation's Dimensions in Testimony project. Notions of Jewish identity implied in questions posed to him conflicted with his experience as a Soviet Jew). Furthermore, organisations do not always use the same software, different vocabularies are used, and different standards applied in distinct contexts. This causes barriers for connecting collections and enabling searches across collections. Frameworks can be complicated. [CIDOC](#) was recommended as an ontological framework, which can be adapted, and is designed to be shareable. It was also noted that [EHRI vocabularies](#) exist, but many organisations have created their own (such as the [USC Shoah Foundation](#), which predates the EHRI), others catalogue by only the simplest of details (such as first name, surname, and place) which makes searching with an Information Retrieval System (IRS) more challenging (especially when a researcher is looking for details related to a specific topic, such as 'food', 'women's experience', 'medical experiments'). It is unrealistic to assume that differences between existent vocabulary can be reconciled. Nevertheless, dialogue involving the comparison of working practices might help inform more sensitivity to metadata literacy on a transnational level (which could perhaps be communicated to users if/when collections from different countries were connected).

Another issue is the different legal and ethical frameworks. Ongoing research by Walden has shown that those working in US institutions tend to present far less concerns about what they make accessible in comparison to their European counterparts. The former tend to see their responsibility as ensuring the widest dissemination possible, especially in regards to testimony. In contrast, those working in European institutions have voiced frustrations with the national and supranational restrictions they face, especially in relation to the ambiguities of GDPR, and the contradictions between national laws and the IHRA exception.

Furthermore, many legal precedents do not take Jewish religious laws into consideration (such as in the Swedish legal system). There are challenges in setting a precedence here for the uniqueness of the Holocaust regarding digital access. Should restrictions be similarly lifted regarding other conflicts and genocides? For example, Srebrenica, Rwanda, colonial violence, and the ongoing war in Ukraine?

Conversations need to happen across different sectors within the heritage landscape; the Holocaust did not happen in a silo. There is rich potential for connecting Holocaust collections to others, which would allow users to explore an individual's life story before and, where possible, after the Holocaust, or to explore the layered histories of a geographic space, for example the shift of Flossenbürg from Nazi concentration camp to a sanctuary for refugees from the East during the division of post-war Germany. Such layered approaches would help users not only to understand the history of the Holocaust but also population and cultural changes over time, and the development of shifting memory politics. The digital platform of the Babyn Yar Memorial Center offers a good example of how digital media can do this on a local scale, telling both a long history of the Babyn Yar district to the present day and making visible multiple contemporary voices reflecting on the space, and memory and identity politics. To expand this beyond a single site or region to a transnational scale is an incredibly ambitious task.

## 5. Cybersecurity

Cybersecurity is a growing issue for Holocaust memory. In Israel, the number of hacks on foundations is increasing, including on organisations dedicated to the Holocaust specifically. This does not just involve taking down websites, but the distortion of information. The integrity of objects and associated information needs to be maintained, not simply uploaded. When an attack happens, the first stage is the identification that someone has intervened, the second, harder challenge, is detecting what has happened and fixing it.

On one hand, it could be useful for wider (sector) knowledge-sharing about where content is stored, who has guardianship over digital files, and who protects them. Such knowledge sharing could help support smaller institutions gain a better understanding of cybersecurity. On the other hand, wider knowledge can increase the risk of cyberattacks and thus security information should be kept internally. There is a need to ensure internal backups on servers as cloud storage

can be particularly risky during cyber or hybrid wars. A possible compromise would be for larger institutions with sound security measures in place to support the hosting of the digitised collections of smaller organisations (this does not mean the latter give up their collections to larger institutions, rather that the larger ones retain copies of their digital files). Multiple, physically dispersed servers is a useful security measure.

## 6. Dissemination and Use of Digitised Objects

Material evidence can be digitised without being made available publicly. However, more often than not, one of the core aims of digitisation projects is to widen access to historical objects. Digitised content could be disseminated simply through digital archives or curated, much like in physical exhibitions, into portals or digital displays which narrativise the content (such as web exhibitions or VR/AR tours).

One issue raised with dissemination is whether objects are presented discretely with simplified metadata tagged or whether they are presented in an interactive display, which could allow for multiple interpretations, time periods, or experiences associated with a single space to be explored within one digital space. Consideration of the modularity of computational media might allow for the presentation of material in ways that acknowledges unknowns/ uncertainties, and exploration of 'grey zones', avoiding the risk of simplified categorisation of actions, people, places and organisations which was discussed above. Inevitably, it was noted that while modularity can help us recontextualise materials, it could also lead to their decontextualisation.

One of the specific challenges of the dissemination of digitised content is that it essentially transforms everything from the physical archive into photographic images (2-dimensional or 3-dimensional). Computer systems treat all content equally unless programmed or trained otherwise – fundamentally these 'images' are places in a file directory to be presented within specific parameters. Whilst digital presentation offers possibilities for multiple perspectives on an object, it is not presented as a material thing. It can sometimes be difficult to understand the size of an actual object when viewed on screen without any reference of the scale of the physical object itself. Another example raised was the [Google Arts and Culture Hiroshima exhibition](#), where the same zoom function can be applied to a photograph of a cabinet and a naked woman's body. The woman is covered in lesions and dies of cancer soon after the photograph. Careful consideration needs to be given to the presentation of people, so they are not displayed as objects.

Another issue raised about dissemination was the potential for digitised material to be animated (such as with 'deep fake' technologies), parodied, or misused. If there is an increase in such content, it might make donors more cautious about giving permission for digitisation. There was some debate about whether the way to handle this was to simply ask for respect from those accessing digital content – a voluntary request – or to introduce regulation. One example worth noting here is the [Yolocaust](#) website. Here, an Israeli-German comedian created composite interactive images from photographs uploaded by young people perceived as being disrespectful at The Memorial to the Murdered Jews of Europe in Berlin with atrocity images (not actually related to the site). His aim was to shame the individuals and if they contacted him with an apology, he would take the photographs down. All the young people responded within days, however, due to the international press coverage the site attracted, their images remain easily accessible via a Google Search.

The notion of content being unintentionally misused was also raised, for example cropping an image or using filters to change the aesthetic. It was argued that the integrity and authenticity of the object must be maintained. However, museums already often crop images for display, including the infamous images critiqued by [Georges Didi-Huberman \(2012\)](#) displayed at the Auschwitz State Museum or the deliberate cropping and zooming in on images within the Auschwitz Album as part of the more recent [Seeing Auschwitz](#) travelling exhibition. Television broadcasters more generally have long appropriated archive footage to narrativise the past in specific contexts, often cropping or decontextualising images. If such demands are to be placed on users, should they also apply to institutions and corporate media organisations? Colourisation of historical images has been celebrated by many organisations, including the Auschwitz State Museum. Are there instances of image manipulation that can be considered productive? There have been numerous filmmakers who have edited archival footage for artistic and political ends, indeed at times to draw attention to the wider context of photographs ([Yael Hersonki's A Film Unfinished \(2010\)](#)).

The provenance of objects could be maintained whilst allowing for artistic variation through the use of Blockchain technologies. Considering the pressing issues of authenticity and provenance in digital heritage, especially for objects or artefacts of significant cultural, historical, archaeological or technological value, constant upgrades on the traditional network security protocols for digital information/data protection are highly important. The decentralisation induced by distributed ledger (Blockchain) technologies can efficiently support controlled stewardship, ownership, and exhibition management, combining contemporary

system design with wireless sensors and smart grids to ensure traceability and avoid tampering. Newly introduced encryption algorithms pertaining to the organisation, retrieval, and management of digital cultural heritage (DCH) information are expected to revolutionise digital resource conversion, storage and transmission, thus redefining DCH information security in terms of data confidentiality, integrity and availability. Blockchain technologies are already showing promise concerning digital heritage preservation and public access synergies. Increasingly, many collaborative networks of stakeholders are expected to adopt these novel approaches in registries, to reconfigure their display and payment rights, provided these are jointly governed by (inter-)national policies, market deployment and end-user (social) support. To ensure sustainable operation, it is important for policymakers and users alike to understand Blockchain system architectures and realise their transformative potential, together with any legal or ethical concerns, in order to increase collective awareness, engagement and participation.

Offering a counterargument to concerns that material might get into the wrong hands if disseminated digitally, both [Alina Bothe \(2014\)](#) and [Steffi de Jong's \(2018\)](#) research explores comments on survivor testimony videos on YouTube. This research identifies that right-wing responses are rare and when they do appear, there is often a flood of immediate responses from defensive users. Their findings question whether the fear is greater than the actual risk. However, de Jong does note that there are some strange interpretations visible in discussions and suggests that institutions could intervene more into comments rather than posting content online and leaving it there (as if broadcasting). Digital publishing on sites such as YouTube is a dialogue. This dialogue is not just between users and content creators though, it also includes the platform's algorithms and (more invisibly) the corporation's wider use of everyone's data. Holocaust heritage enters the wider digital ecology when it is posted onto corporately controlled, public platforms.

## 7. Financial Issues

Financial support is critical for digital preservation efforts and must fund long-term infrastructure, not just short-term projects. A participant highlighted that there are long-term project plans within the European Holocaust Research Infrastructure to apply for grants to support micro archives (non-recognised organisations and collections). Currently, research infrastructure is set by large organisations (USC Shoah Foundation, United States Holocaust Memorial Museum and EHRI). It was noted that USC houses and digitises collections from smaller

archives. While such processes require new legal frameworks and permissions, the experience of the Jewish Holocaust Centre, Melbourne (now the Melbourne Holocaust Museum) was that no participants said 'no' or objected to the move.

Participants who have experience within small organisations in Germany remarked that funding restrictions have led to the loss of original objects after digitisation. Most funding is project-related with strict timelines. The projects are also often very specific, there is little long-term funding for digitisation of whole collections. Moreover, staff who have expert knowledge of the collections coming to retirement are only being replaced with staff on short-term, precarious contracts or by volunteers, who do not receive enough support to maintain extensive collections. As previously noted, the COVID-19 Pandemic has also resulted in an influx of donations of materials as families have used lockdowns to clear storage spaces at home. However, the amount of donations has not been matched with staffing resources, due to illness and lack of financial support for jobs.

# METHODOLOGY

This report was formulated through a participatory workshop series, shaped by the following activities:

Participants were invited to introduce themselves and offer a brief position statement before the 1st workshop in the Padlet tool. Participants were encouraged to view each other's statements in advance of session 1.

In the 1st 2-hour workshop, participants were asked to agree on priority topics. Then they were divided into 'expertise' groups to explore these topics. Then into 'mixed' groups to share their ideas.

In each group, at least one of the project leads took on the role of minuter. These minutes were then thematically analysed and organised into a draft of the discussion section of this report. The themes were not imposed on the minutes, rather they emerged from the priorities selected by participants in the discussions.

The draft report was then circulated to participants before workshop 2.

In a 1.5-hour workshop, participants were then asked to provide feedback on the document to ensure it fully captured everyone's contributions.

The final document was circulated for review before dissemination.

As much as possible, recruitment for the workshop focused on seeking a wide variety of different expertise in relation to both Holocaust memory and education, and social media, with some participants knowledgeable about both and others more about one than the other.

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**Please do get in touch if you would like to contribute to actioning any of the recommendations in this report.**

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