



Deliverable D3.1

Definition of Engagement Levels, Usage Modes, and User Types

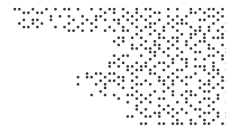
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1. Introduction

This document provides definitions of key concepts of the Visual History of the Holocaust Media Management and Search Infrastructure (VHH-MMSI, aka the VHH platform) and discusses these concepts within a broader context of digital curation.

The concepts of Engagement Levels, Usage Modes, User Types (aka User Roles) and Workspaces stress different aspects of interaction with the VHH-MMSI, its content and features, and with the visual history of the Holocaust in general.

Engagement Scenarios help to simulate interactions with the VHH-MMSI from the point of view of fictitious personas representing different User Groups (Stakeholders). Those Scenarios will provide the basis for real-life tests in pilots and user trials (M25-48).

Relation to other deliverables:

- D3.2 Mind Map Visualizing Multimodal Curating: The integration of key concepts into Engagement Scenarios is visualized in Deliverable D3.2 (M12).
- D3.3 Ethics Guideline: Ethical aspects of digital curation the VHH-MMSI are discussed in Deliverable D3.3 (M12).
- D5.1 Requirements Document: The requirements engineering process and the features (aka User Stories) of the VHH-MMSI are described in Deliverable D5.1 (M8).
- D5.3 System design v1: The system design and technical foundations underlying the VHH-MMSI are provided in Deliverable D5.3 (M12).
- D7.1 Pilots Evaluation Methodologies Guideline: The rules and questionnaires for pilots will be provided in Deliverable D7.1 (M30).
- D7.2 Report on Pilot Trials and Lessons Learned: The results of real-life tests of Engagement Scenarios will be summarized in Deliverable D7.2 (M42).

2. Digital Curation and the VHH-MMSI: Combine, Create, Collaborate

Most commonly digital curation means the active *management of data*: maintaining, preserving and adding value to digital data to mitigate the risk of technological obsolescence or corruption, and to encourage their re-use. However, with online platforms emerging as new exhibition, publication and communication spaces, both the data curation domain and the museum curation domain are challenged by the need of expanding their specific concepts of curation. In the museum and cultural heritage sector the term “curation” has recently been redefined to reflect the more interdisciplinary and engaged way cultural collections are developed, maintained and communicated to the public.

Facing a growing distance to the historical period of the Holocaust, the organized mass murder of European Jews during the Second World War, museums and memorials as well as researchers and educators are confronted with additional challenges. A dominant question in this context is how to establish new connections to the memories from the past, which became a crucial reference frame and formative event for many societies, especially the European Union, the United States of America and Israel. Correspondingly changing media environments, technologies and practices reach beyond controlled practices of reexperiencing, re-enacting and secondary witnessing that dominated “classical” commemorative forms such as rituals and ceremonies as well as conventional media such as film and television. Interactive and participatory modes characterizing digital and online media call attention to less controlled modes of engagement that depend on the paradigm of agency. Therefore, it became necessary to explore innovative ways of using “new technologies [...], which would place greater emphasis on agency and the relationship between the user’s identity in relation to learning history and developing socially inherited memories.” (Reading, 2003: 68). Hence, digital commemorative environments need to establish a space for active engagement, negotiation and creation in order to render past events relevant and accessible for current generations.

Rethinking Curation in the Digital Age within the Horizon 2020 Innovation Action *Visual History of the Holocaust* aims at challenging and expanding the concepts of heritage material curation based on digital technologies. However, this integrated concept for digital curation also goes beyond current technology-orientated models for managing digital collections. The goal is to combine principles of digitally organizing digital cultural objects and data with principles developed in museum curatorship, and with innovative approaches in interactive storytelling and database-driven narratives.

Correspondingly, the project’s focus is on developing a new, inclusive concept of digital curation that will innovate curatorial work with digitized film and media collections. Comprising advanced digitization, automated film and text analysis, linking of different media, linking of tangible and intangible assets, this concept also lays ground for new forms of experience and user participation through different Engagement Levels and Usage Modes. Embodying this new concept of digital curation, our Media Management and Search Infrastructure (the so called “VHH-MMSI”) allows for the combination of

films with other historical assets from the history of the Holocaust, especially testimonies, historical text documents and photographs, and for the comprehensive annotation, mapping, and analysis of individual events and places, stories, formal and narrative patterns detected in the films.

In doing so, the project responds to many of the shifts in Holocaust historiography, museal curation and education as emphasized by Aleida Assmann and Juliane Brauer (2011: 80-86):

- establishing a relational and responsive connection to past events
- focusing on historical traces as significant sources
- looking for interpretative arrangements commenting the sources and stimulating historical imagination
- building a “contact zone” with experiences and memories from the past
- adding an experiential dimension to cognitive learning about the Holocaust

Furthermore, the approach addresses some of the main challenges institutions and organizations preserving and maintaining Holocaust memory are currently facing. Wulf Kansteiner (2017) predicts for instance that: “If Holocaust memory can be resurrected as an emotionally and politically relevant fixture of future memory culture it would have to be in the guise of immersive, simulative and possibly also counterfactual digital memory.” (p. 310)

Kansteiner however, criticises that Holocaust memory did not yet arrive in the digital age and that “digital Holocaust culture features a great deal more conservative remediation of analogue and electronic media contents, formats and communication patterns” (p. 311). By adopting the concept of digital curation and rethinking it as a productive interplay of digital data analysis and cultural exhibition practices, VHH seeks to transfer analogue agents of memory into a participatory and collaborative interactive environment, reflecting that, according to Kansteiner, “[p]articipatory digital culture features active individuals constantly posting, editing, liking and linking in pursuit of fluid ‘we’s’ and for the purpose of crafting and exhibiting an attractive self.” (p. 316)

Kansteiner introduces as a best-practice example the IWitness platform provided by the USC Shoah Foundation, because it “hands over editorial power over cultural memory to teachers and high school students, teaching them basic film editing skills and providing them with extensive access to the Shoah Foundation’s archive of Holocaust testimonies.” (p. 319) Expanding the idea of editing as a cultural practice of reviewing and recombining historical sources, the concept of digital curation furthermore integrates historiographical, conceptual and creative practices in order to hand over historical agency to various and differentiated user groups that do not only access and use but engage with the visual history of the Holocaust through modes of combining, creating and collaborating.

2.1. Principles of Digital Curation

In recent years, curation became an interdisciplinary practice intersecting different institutional agents such as archives, museums, memorials, educational institutions and the art sector. Performing a “paradigm shift from representation to presence” (Sternfeld, 2013: 144), curation became a crucial practice in multimodal media environments. Especially around new digital platforms and social networks, a new curation model evolved (Sabharwal, 2015: 54). It reflects a shift that affects in particular archives and heritage institutions as well as academic research. Hence, current definitions of digital curation mostly focus on the preservation of data. The UK-based *Digital Curation Center* for instance explains that “digital curation is maintaining and adding value to a trusted body of digital information for current and future use; specifically, we mean the active management and appraisal of data over the life-cycle of scholarly and scientific materials” (see Yakel, 2007: 337). While objectives such as information maintenance and data management seem obvious and clear, others are only addressed implicitly. What does for instance the “adding of value to a trusted body of digital information” mean and how is it possible to “generate new sources of information and knowledge” as the Wikipedia definition of digital curation (see Yakel, 2007: 337) implies? Both aspects refer to what digital curation research describe as “life-cycle” of digital information. The *Digital Curation Center* presents the following phases as constitutive for this cycle:

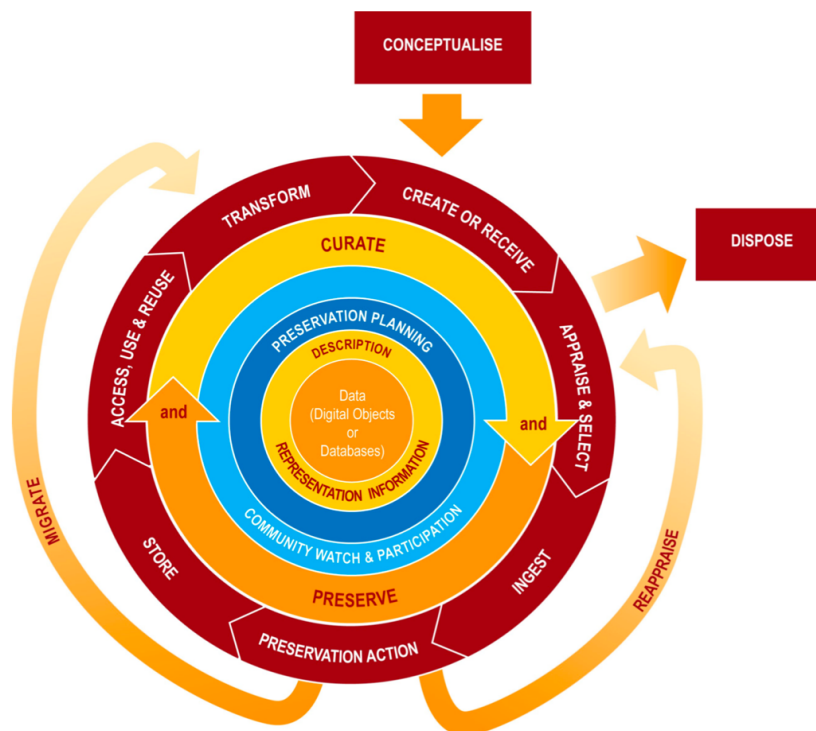


Figure 1 The Digital Curation Center Curation Lifecycle Model (Higgins, 2008: 136)

Most interesting concerning the intersection of data-related curational models and cultural curation practices are the phases describing access, use and reuse, transformation, creation or receiving and appraisal and selection. These phases indeed refer to the generation of new sources of information by rearranging and combining existing digitized material and creating new digital assets or environments based on specific conceptualizations; assets or environments that can then again be disposed or displayed online.

This responds to an increasing interest in cultural curation practices to establish participatory exhibition environments that transfer agency from the single curator to the visitors, which in turn become collaborators and active participants. Correspondingly, Sternfeld (2015) defines museum exhibitions as a scope of action and possibility (610-611). As such, museums establish “[s]paces of agency, in which encounters and discursive interchanges take place.” (Sternfeld, 2013: 141-142). This of course implies also the “acceptance of a massive loss of control and of the risk of failure” (Sternfeld, 2013: 142).

A certain precondition for such spaces of agency is an engaging environment that enables interactive and participatory ways of actively contributing to the establishment of specific narratives through forms of active or even interactive storytelling. Digital environments, especially online platforms meet this precondition when offering tools for digital curation (such as annotation, editing, comparing and sharing) that actively engage the users in a process of analysing, combining and creating. This also corresponds Joshua Sternfeld’s (2011) understanding of digital historiography, which he defines as “the interdisciplinary study of the interaction of digital technology with historical practice.” (p. 550) Digital curation of historical assets similarly combines interdisciplinary methodologies from historiography and film analysis with digital tools assisting in analysing digital sources, rendering them readable and enabling transforming them into newly curated arrangements such as Online Exhibitions, Audiovisual Essays or Guided Tours, all of which may also be used for presentations.

In doing so, digital curation is a practice that characterizes the “paradigm shift from a tacit recordkeeping role to a highly visible community participant,” many archival and heritage institutions went through in recent years (Sabharwal, 2015: 55).

Data curation domain	Digital museum curation domain	Digital engagement domain	Results domain
assess, select, digitise	collection planning, collecting, collection care	discover, find, explore	repository
ingest, manage, preserve	investigate, annotate, link	enquire, compare, interpret	analysis tools
access, use, re-use	exhibit, interrelate, communicate	engage, co-create, transform	application

Figure 2 Rethinking curation in the digital age

Rethinking curation in the digital age, the VHH project aims for methodologically integrating different domains. Its basic framework is the curation and preservation of data. For making this data accessible and subject of use, reuse, annotation, transformation and creation, the project adopts methods from museum curatorship and heritage curation, as well as those derived from film making practices, and other cultural and media practices. The specific tools that enable the creation of new and interpretative media of information are interactive storytelling and technology-driven personalised engagement and learning. Thereby, the elements of the project's curational environment, a repository with digitized film materials and other documents and sources, analytical tools and online applications correspond with specific techniques and practices originating from these different domains. Digital curation techniques such as selecting, managing and using merge with cultural curation practices such as collecting, investigating, combining and exhibiting. Those techniques and practices inform specific ways of engaging with the past, especially an active mode of exploration (repository), methods of enquiring, comparing and interpreting (analytical tools) and transformation and co-creation (application).

2.2. Basic Raw Material of the VHH-MMSI

VHH exemplarily focuses on the identification, digitization, preservation and dissemination of allied film footage depicting concentrations camps and other atrocity sites. This footage was recorded by different allied film units since 1941 at various atrocity sites including several concentration camps and two extermination camps. Segments of this footage were released in newsreels and as part of compilation films that were screened as evidence in post-war trials and publicly shown in order to inform German and international audiences about the Nazi atrocities. Beginning in the late 1940s documentary and some feature films reused this footage to illustrate the events. An increasing amount of documentary, mostly compilation films displayed fragments from

the allied footage in the 1960s, now including also previously unknown parts from archives in the United States, the UK and West as well as East Germany. Unique private films made by Allied soldiers who were or later became famous directors (George Stevens, Samuel Fuller) became publicly known only in the 1980s. A British atrocity film focusing on the Bergen-Belsen Concentration Camp was finished and released only delayed in the mid 1980s. In the early 1990s new allied film footage was discovered in only recently accessible archives in post-Soviet states. Similarly, archives in the United States host much more raw material than what was publicly released before. More private films surfaced, including amateur films shot by regular soldiers and medical personnel.

On top of the advanced digitization of these film documents, the VHH project develops semantics and ontologies for both the historic film materials and interrelated documents. These semantics and ontologies make it possible to properly annotate the historical sources and enrich them with metadata. Based on this metadata the digital assets can be explored. In addition, Automated Analysis Tools such as similarity detection help to identify and interrelate specific parts of the films.

The inclusion of popular culture content makes visible the highly influential afterlife of the original records of Nazi atrocity sites. The analysis and digital curation tools assist in exploring the specific relations between the liberation footage and its appropriation in documentary and feature films, and help to identify, which scenes circulate in popular culture and which are absent from media memory. Furthermore, it is possible to trace specific motifs, iconic situations or places that repeatedly appear in specific contexts, revealing a specific taxonomy of relations ranging from direct to indirect reuse of images. This analysis includes also cross-media referencing to track and understand the way these images have been disseminated, transformed, and reinterpreted across time and diverse cultural spheres.

In doing so, the VHH-MMSI makes it possible for users to compare, curate and (re-)appropriate the footage in order to trace the ‘cultural migration’ of the images. Users can also focus on specific situations as well as sites (such as the depiction or particular camps), or they can explore new relations between the actual places, the historical films, popular culture depictions in various national and transnational contexts and other historical sources and testimony accounts. The VHH-MMSI also includes additional cultural content, such as references to the liberation and atrocity films in graphic novels, games and visual arts.

The basic principle of accessing the VHH-MMSI is the “unfolding of the archive”. Corresponding features are based on location (maps), time (timeline), topics, individuals (recognition/identification/personal memories) and other agents. The VHH-MMSI itself is conceptualized as a “living archive”, which further develops through the curatorial activity of the users who thereby become co-creators.

2.3. Combining Sources through the VHH-MMSI

One of the basic historiographical practices digital curation adopts is the combination and recombination of historical sources. This can be done on different levels for several reasons. The first, mostly analytical purpose of combining different source materials follows a *comparative approach*. The user (researcher) can compare different films and film sequences according to a variety of parameters. Users can identify specific filmic strategies of presenting atrocities by comparing footage that was recorded at different sites. They can explore changes of specific places over time by reviewing and analysing filmic depictions from different periods, including reviewing the present state with the help of geo-tracking devices. Finally, it is possible to identify specific motives and patterns by comparing various films as well as originally released and not released parts of the archived footage. With the help of comparative presentation tools such as Split Screen displays, results of comparative research can be visualized through combining different filmic examples either on a time-based linear level (editing through consecutive arrangement in a Playlist) or within a multilevel spatial arrangement (parallel display in a Split Screen). These forms of comparative curatorial arrangements establish new relations that help identifying similarities and differences.

Another effect of combining different sources within a digital curatorial framework is rendering otherwise fragmentary or mute sources readable. This form of combination can be described as *multimodal curating*. Specific sources, for instance a shot from a film about the liberation of a concentration camp, are then related to other sources that add additional information or contribute a specific, sometimes corresponding, sometimes irritating experiential dimension. With the help of photographs from earlier periods of the camp's existence, the specific moment of liberation can be better analysed. Extracts from written, oral or audiovisual testimonies can add personal experiences and give voice to the liberators or the survivors. The often mute visual sources are thereby integrated in an audiovisual ensemble that enables new modes of understanding.

However, these practices of combination also employ automated processes. "Machine learning" and algorithms pre-identify relations between different sources and suggest appropriate material for comparison. Thereby, digital curation becomes a complex interplay of technological, historiographic and creative processes that endow the users as well as the digital analytical tools with agency.

Nevertheless, it is also possible to add individually generated and additionally uploaded content. Thereby, users can relate elements from the VHH-MMSI to other archival sources or material from their private collections (either personal items or digitized visual and audiovisual sources in their possession). Furthermore, users can create additional personal content by taking pictures, recording a voice over, keeping a research log or writing a digital diary.

2.4. Creating Content with the VHH-MMSI

Such elements already indicate the productive side of digital curation, which aims towards a transformative use of digital assets. A central feature personalizing the VHH-MSSI and engaging with the available digital content is a Private Workspace, which allows to store private data and metadata and continue working with them. The Private Workspace contains several features and functions, among them the upload of private content, the creation of Private Vocabularies, a private annotation function for films and other documents, as well as Private Playlists.

Playlists offer the possibility of authoring newly curated arrangements from a variety of film extracts, still images, photographs, documents, quotations and related texts. They can also simulate edited sequences or provide a rough cut for a newly created film or Audiovisual Essay. Correspondingly, museum and memorial curators can create an Online Exhibition, an Audiovisual Essay or a Guided Tour that present various artefacts including moving images with additional interactive features. According to Elisa Miles (2001), the “Internet opens the door to multitudinous possibilities for the museum to break away from traditional display and move toward a more democratic, people-oriented focus, even in the pursuit of memorialization of the Holocaust.” (p. 96)

Online Exhibitions

Online Exhibitions may focus on specific items or personal stories and thereby create engaging miniatures based on a variety of relational and resonating sources. Curators can add newly authored texts and captions to a selection of film extracts, documents and images. The main purpose of online exhibitions is to reveal stories behind certain films, images and historical artefacts and to establish links and relations between different sources. In doing so, online exhibitions can “present multi-layered narratives” that correlate with the understanding of complex but engaging forms of displaying the history of the Holocaust (Miles, 2001: 92).

Audiovisual Essays

The aspect of narration and storytelling is even more crucial in case of the Audiovisual Essay, which provides an open narrative as well though it is less interactive. The Audiovisual Essay offers a creative form of communicating and disseminating a specific perspective on the visual history of the Holocaust with audiovisual techniques. It is based on source materials provided by the VHH-MMSI in combination with additional sources. According to Cristina Álvarez and Arian Martin (2014) the Audiovisual Essay “is not a strict genre or a delimited form – it is the name for a burgeoning field of inquiry, research, and experimentation within academia and also beyond it; the expression of critical, analytical, and theoretical work using the resources of audiovisuality – images and sounds in montage.” It uses visual methods to explore other films. It is often subjective and utilizes the specific interplay of sound and image to explore the composition and content of film frames. Therefore, the voice over is as crucial element of producing Audiovisual

Essays as is the technique of montage, which makes it possible to establish new relations between different sequences, sources and media types. In doing so, the Audiovisual Essay encourages to think about visual history in visual terms and through audiovisual relations.

Guided Tours

Digitally assisted Guided Tours enhance the personal experience at a specific place, for instance a memorial or former atrocity site, with the help of precurated digital information that is displayed at the physical site through mobile devices. The VHH-MMSI offers the possibility to search and select specific site-related film footage, photographs and other digital sources and organize them in a Playlist that is precisely tailored to the needs of Guided Tours with different User Groups. Individual access to the VHH-MMSI provided by mobile devices enable the participants to access related additional materials that offer the possibility to compare historical footage and photographs to the current state of the site and read or listen to testimonies that evoke the past in the present. In doing so, Guided Tours correspond Lev Manovich's (2006) definition of augmented space as a "physical space overlaid with dynamically changing information." (p. 220) Such augmented space combines the actually encountered physical site with additional information that is accessible through the VHH-MMSI features and its mobile interface.

2.5. The VHH-MMSI as an Interactive Documentary (iDoc)

Compared to Audiovisual Essays, Interactive Documentaries offer a more interactive way of storytelling. Such iDocs combine narrative elements from documentary films with interactive modes known from computer games. They offer an interface structure to visualize the complex relational character of the database and thereby "perform" digital archives. However, instead of understanding iDocs as another specific form of presentation and a kind of expanded Audiovisual Essay, the entire VHH-MMSI may be regarded as an iDoc.

In a very general sense, an iDoc is "any project that starts with the intention to document the 'real' and that uses digital interactive technology to realize this intention" (Aston/Gaudenzi, 2012: 125-126). In order to further map the field, Judith Aston and Sandra Gaudenzi distinguish four different modes of iDocs. The conversational mode (p. 126) enables the user to navigate through a simulation of real worlds. In conversation with the digital tools, he or she explores this virtual space. In the VHH-MMSI this mode relates to pre-curated environments, in which the user can search and explore the content. The hypertext mode "links assets within a closed video archive and gives the user an exploratory role" (p. 127). Watching content on one or multiple screens, this mode transforms the digital video archive through an interface structure into an accessible library. The participative mode involves users more actively as co-creators (p. 127). Through adding content they contribute to the existing database. Finally, the experiential mode offers the possibility of time- and location-based experiences (p. 127-128).

The iDoc transfers the analytical dimension of digital curating into an interactive online environment. This results in a nonlinear arrangement of different sources, which offers various possibilities of storytelling. Split Screen arrangements enable comparative analysis, timeline structures offer the possibility of a chronological exploration of certain events and related sources. Through more personalized arrangements it is possible to engage with individual memories.

The iDoc is a highly “relational object that requires the agency and interactivity of the audience” (O’Flynn, 2012: 142). Interactivity, in this context, refers to “an engagement with a dynamic interface that is playful, exploratory and not based on expectations of utility” (O’Flynn, 2012: 144). Hence, in contrast to other more utilizing digital tools such as search engines, digital curation encourages engagement through specific practices of exploration and play. The iDoc can serve as a tool for engaging with the past through a variety of materials with several different and even competing perspectives. However, it can also be the product of an act of self-creation that helps to arrange the digital assets and place them in a specific narrative context.

2.6. Sharing and Collaborating through the VHH-MMSI

A crucial question concerning the collaborative aspect of digital curation refers to a question also raised by Anna Reading (2003) in context of her analysis of digital interactivity in Holocaust museums. Reading asks “about the form and effectiveness of ‘interactivity’ and about the tensions between visitor agency versus a shared memorial experience.” (p. 71) Curation is not only a creative but also a collaborative process. The VHH-MMSI offers several possibilities of cooperation. First and foremost, the users become co-creates of a living archive, because the VHH-MMSI grows and transforms in correlation with the engagement of its users, both, with regards to content and with regards to knowledge. Second, users collaborate with the technology. The Automated Analysis Tools that establish the basis for the digital curation of the visual content depend on machine learning, which is a collaborative process integrating human agency and technology. Third, digital online environments offer the possibility of sharing. Although the term changed from describing participatory practices to more metaphorical meanings in context of social media, Nicholas John (2013) emphasises that “[s]haring is the fundamental and constitutive activity of Web 2.0 in general, and social network sites in particular. [...] In brief, sharing is the word that describes our participation in Web 2.0.” (p. 116) Accordingly, sharing is also a significant element of the VHH-MMSI because it helps to enrich metadata preserved in the database and in doing so multiply the possibilities of establishing new relations. Furthermore, sharing is a crucial aspect of disseminating the new products of information and knowledge.

Finally, the VHH-MMSI allows for active collaboration and co-creating of content. The Private Workspaces can be interconnected and hence transform into collectively shared laboratories of exploring the visual history of the Holocaust. This offers possibilities of collaborative research as well as learning within the framework of a virtual classroom.

Archivists can collaborate in sharing and annotating digital objects from their own collections and relate them to assets stored in the VHH-MSSI. Museum curators can co-curate online exhibitions and disseminate them on various institutional websites.

Thereby, the VHH-MSSI combines personal interaction with the visual history of the Holocaust with collective and collaborative forms of using, transforming, co-creating, and sharing (new) digital content. However, each interaction is based on a choice of Engagement Levels and Usage Modes.

2.7. Engagement

The concept of engagement integrates emotional affect and cognitive stimulation. A precondition for engagement is a certain amount of interest and knowledge, however, the affective effect of engagement depends also on the level of involvement. Involvement is a result of activity. Activity finally depends on agency and the possibility to interact with the past through historical sources as well as technological tools. The result is a state of immersive distance or distant immersion. On the one hand the VHH-MSSI integrates the user into the virtual space. On the other hand, this virtual arrangement does not offer immediate access to past events (in the sense of simulation) but depends on practices of searching, relating und disseminating. Correspondingly, however with regards to “classical” cinema, Alison Landsberg (2015) emphasises that “the viewer [we could replace her with the user] maintains a sense of his or her self while being brought into proximity with something foreign; this awareness of mediation is fostered by the formal properties of representation – both stylistic and narrative. [...] The viewer [user] is aware that he or she is engaging with the past.” (p. 179)

In result, the agency of users enables them to constantly switch roles between more active and more passive positions, acting as a creator (Annotation Mode) or as a reader respectively an observer (Viewing Mode), thereby shifting between different practices of reading, watching, listening and actively engaging as researcher or (co-)creator. In doing so, digital curation responds to the “constructivist approach [in many historical museums and memorials] which makes transparent the process of representing information and knowledge about the events, as well as encouraging visitors [or users] to ask questions and put together information for themselves.” (Reading, 2003: 75) This points towards the social dimension of engagement. This also refers to the social role of memory in general and the political impact of the Holocaust in particular. The social construction of historical events as well as mediated images of history have an impact on the way how users engage with the past through digital technology. Digital curation of the visual history of the Holocaust might offer the possibility to reflect about collectively shared mediated memories and to offer new and more personalized pathways into the complex “database” of the past.

3. User Types, Usage Modes, Engagement Levels and Workspaces of the VHH-MMSI

With the exception of Admin Users performing certain tasks through command line tools and APIs, all users interact with the VHH-MMSI through dedicated User Interfaces (UIs). Each UI comprises a set of UI Elements (buttons, sliders, fields etc.) depending on four factors:

- the User Type (aka User Role)
- the Usage Mode
- the Engagement Level
- the Workspace

This allows for a sleek UI design, skipping all UI Elements respectively all features (User Stories) that are not needed for current interactions.

For regular users, the VHH-MMSI offers three User Roles. For all users, there are two Usage Modes, three Engagement Levels, and three Workspaces.

User Roles:

- Anonymous User
- Registered User
- Premium User

Usage Modes:

- Viewing Mode
- Annotation Mode

Engagement Levels:

- Basic Engagement Level
- Advanced Engagement Level
- On-site Engagement Level

Workspaces:

- Public Workspace
- Private Workspace
- Shared Workspace

It is important to note that users do not need to be familiar with this structure. They do not have to select a User Role, a Usage Mode, an Engagement Level or a Workspace when they enter the VHH platform. All UIs are designed in an intuitive manner, ideally leading

users step by step from one feature to the next. There are tooltips attached to each UI element in case somebody gets lost or wonders about certain functionalities. In addition, there are Video Tutorials that may be consulted.

Engagement Levels can be switched on the fly, usually without the user even noticing. Of course, the user may notice that something is different: something becomes visible that has been hidden before, additional features become available. However, there is no label attached to this change telling users that they switched from the Basic to the Advanced Engagement Level. A user may accidentally click the button that opens the mask of the Video Player and discover that there is more to be seen on the film that becomes visible if the edges of the film are unmasked. Another user may use wildcards and Boolean operators for a search and discover that advanced search functionalities are available in the very same Quick Search field that is used for simple queries. A third user may get interested in a text document that is related to a certain shot of a film and discovers that this document is only one page from a 100 pages long diary that may be explored in its entirety in the Document Viewer. All three users have in common that they switch from the Basic to the Advanced Engagement Level without being asked “do you want to switch Engagement Levels?”.

With Usage Modes and Workspaces it is slightly different, as switching from Viewing Mode to Annotation Mode or from the Public Workspace to a Private Workspace or Shared Workspace requires the minimum User Role of a Registered User and therefore a registration and a login.

3.1. User Types (aka User Roles)

User Roles are defined by access rights. They are not to be confused with User Groups referring to different categories of stakeholders who are or might be interested in using the VHH-MMSI. (To avoid confusions, the term User Type is to be dropped and replaced with User Role.)

The User Roles of the VHH-MMSI have already been defined in Deliverable D5.1 Requirements Document. For the sake of clarity this definition is here repeated.

- **Anonymous User:** The user is not logged in and can browse and view publicly available content.
- **Registered User:** The user is registered and can log in to the VHH-MMSI. When logged in, additional functionality is available to the user. The user has a Private Workspace where public content can be annotated with custom annotations and custom vocabularies and Playlists can be created. The annotations, vocabularies and Playlists can be shared with other users and groups of users.
- **Premium User:** The user has the same functionalities as the Registered User but is additionally able to access Premium (IP protected) Content.
- **Power User:** In addition to the rights of the Premium User, the Power User has the ability to add content (digital assets) to the VHH-MMSI.
- **Admin User:** The user has access to all the administrative functions of the VHH-MMSI. This includes user group management as well as configuration and setup of automatic annotation workflows and pipelines.

All User Roles are hierarchically organized. The Registered User has all the rights of the Anonymous User etc.

As a general principle, the VHH-MMSI will only require higher User Roles if there is a technical, organizational or juridical reason.

3.2. Usage Modes

Usage Modes are defined by the difference between watching and making, consuming and producing. The features and the content available within each Usage Mode may require different User Roles. Each Usage Mode contains features from different Engagement Levels.

Viewing Mode

The Viewing Mode generally does not require a higher User Role than the one of an Anonymous User. However, if elements stored in a Private Workspace or in a Shared Workspace are to be viewed, the minimum User Role of a Registered User is required. Moreover, if Premium Content is to be viewed, the minimum User Role of a Premium User may be required (unless the Premium Content is owned by the user respectively has been published as a quote).

The Viewing Mode contains features from all three Engagement Levels.

Annotation Mode

The Annotation Mode requires the minimum User Role of a Registered User as annotations need to be stored in a Private Workplace or in Shared Workplaces to be revisited. If Premium Content is to be annotated, the minimum User Role of a Premium User may be required (unless the Premium Content is owned by the user respectively has been published as a quote).

The Annotation Mode contains features from the Advanced Engagement Level and the On-site Engagement Level (the latter limited to self-created photos and audio recordings).

3.3. Engagement Levels

Engagement Levels are neither defined by access rights nor by the difference between perception and creation but rather by the level and the form of interest of users. There are two Off-site Engagement Levels and there is one On-site Engagement Level. However, the terms Off-site Non-Expert Engagement Level and Off-site Expert Engagement Level used in the DoA (as titles of Tasks 3.2 and 3.3) have been dropped and replaced with the terms Basic Engagement Level and Advanced Engagement Level. Both levels are available to all users. The Advanced Engagement Level is not restricted to users belonging to specific User Groups. Switching from the Basic to the Advanced Engagement Level does not require a specific qualification. Basic and Advanced Engagement express the scale and the scope of involvement of users. It is always possible to revert to the Basic Engagement Level from the Advanced Engagement Level.

There are three more important things to note:

- Switching between Engagement Levels is possible on a case by case basis (e.g. switching from Quick Search to Advanced Search).
- Engagement Levels are not bound to certain User Roles, only certain features of those levels are.
- Engagement Levels contain features from different Usage Modes.

Basic Engagement Level

The Basic Engagement Level offers various opportunities to use and learn about both the content and the features of the VHH platform reaching from search functions (Quick Search) to interactive elements and components (maps, Timeline) and curated arrangements (Online Exhibitions, Audiovisual Essays) tailored to the general public and specific User Groups (e.g. teachers, students).

Online Exhibitions and Audiovisual Essays are based on topics and questions related to the content and the features of the VHH platform, such as:

- What kind of training did allied cameramen receive before filming atrocity sites?
- Which equipment has been used for filming?
- Were there any rules to be followed?
- How has footage been reused?

Technically, Online Exhibitions and Audiovisual Essays are based on Playlists created by scholars within the VHH Consortium.

User Groups (Stakeholders):

- general public (in particular users with limited experience and limited time)
- students

Location(s):

- off-site

Device(s):

- client computers and devices (optimized for desktop computers and tablets)

Content:

- all content but Premium Content (except metadata and quotes)

User Role(s):

- Anonymous User (most User Stories)
- Registered User (some Components such as the Playlist Editor)

Usage Mode(s):

- Viewing Mode

Workspace(s):

- Public Workspace
- Private Workspace (limited to Playlists)
- Shared Workspace (limited to Playlists)

Objective(s):

- provide basic orientation about the use of film and other media to visualize the Holocaust
- encourage users to switch to the Advanced Engagement Level if they want to learn/do more

Interaction Options:

- search for specific digital assets by using Quick Search
- use maps and Timeline to explore digital assets
- visit Online Exhibitions
- watch Audiovisual Essays
- create your own Playlists of digital assets

Collaborative Processes:

- share Playlists of digital assets with/from others

Advanced Engagement Level

The Advanced Engagement Level allows for the use of additional content and features of the VHH-MMSI that require at least an increased level of interest if not expertise in certain fields of research or media production. It is targeted at ambitious users with an interest beyond browsing. The Advanced Engagement Level encourages repeated visits and

facilitates research by providing complex search options and advanced tools for comparing assets.

User Groups (Stakeholders):

- researchers
- media professionals
- teachers
- educators

Location(s):

- off-site

Device(s):

- client computers and devices (optimized for desktop computers)

Content:

- all content but Premium Content (except metadata and quotes)
- full Premium Content for Premium Users

User Role(s):

- Anonymous User (some User Stories)
- Registered User

Usage Mode(s):

- Viewing Mode
- Annotation Mode

Workspace(s):

- Public Workspace
- Private Workspace
- Shared Workspace (no sharing of digital assets)

Objectives:

- allow for the use of highly advanced tools to search for, analyze, annotate and relate films and other media objects that have been used to visualize the topic (the Holocaust)

Interaction Options:

- search for specific digital assets by using the advanced functionalities of Quick Search or by using Advanced Search and Filters
- use Automatic Analysis Tools to find relations
- quantify and visualize statistics
- create your own segmentation of films

- create your own annotations
- create your own relations between films and other media objects
- create your own vocabularies
- create your own Playlists of digital assets

Collaborative Processes:

- share Playlists of digital assets with/from others
- share annotations with/from others
- share relations between films and other media objects with/from others
- share vocabularies with/from others

On-site Engagement Level

The On-site Engagement Level is not limited to certain places. If a mobile device (tablet or smartphone) is used and location-based services are activated, the VHH-MMSI by default switches to the On-site Engagement Level. (Switching to Basic or Advanced Engagement Level is still possible on mobile devices, however this has to be done manually.)

The On-site Engagement Level is particularly relevant for memorial sites, however even more so it may be relevant for places where no memorial and not even a sign tells that this has been a site of Nazi atrocities. It augments existing and non-existing physical traces with digital information, links tangible and non-tangible objects, expands the present space through a virtual space and through additional layers of time.

The features of the On-site Engagement Level make use of location-based services that allow for displaying digital assets (in particular films, photographs) as well as their annotations and relations based on the current position of the user. With the user moving through space, the available digital information changes.

With the help of maps and the Timeline, physical places and things may be located that have been captured on film or in photographs. Their visual depiction may be compared to their current appearance. New photos may be taken and combined with the historical images. Observations and experiences may be commented and sound recordings combined with the historical footage and photographs.

Playlists may be used (e.g. by tour guides, educators and teachers) to create Guided Tours for general visitors or tailored to specific User Groups (e.g. students).

User Groups (Stakeholders):

- visitors of atrocity sites
- tour guides at atrocity sites

Location:

- on-site

Devices:

- client devices (optimized for tablets and smartphones)

Content:

- all content but Premium Content (except metadata and quotes)

User Role(s):

- Anonymous User (most User Stories)
- Registered User (some User Stories such as making and adding self-created photos and sound recordings)

Usage Mode(s):

- Viewing Mode
- Annotation Mode (limited to the User Stories of self-created photos and sound recordings)

Workspace(s):

- Public Workspace
- Private Workspace (limited to Playlists and the User Stories of self-created photos and sound recordings)
- Shared Workspace (limited to Playlists and the User Stories of self-created photos and sound recordings)

Objectives:

- augment the experience of actual sites of atrocities and allow for direct relations between tangible and non-tangible objects

Interaction Options:

- choose between pre-selected on-site tours
- use location-based services in connection with map and timeline for orientation in space
- create and add your own photos and sound recordings
- create your own Playlists of digital assets

Collaborative Processes:

- share Playlists of digital assets with/from others
- share self-created photos and sound recordings with/from others

3.4. Workspaces

Workspaces are defined by the community dimension of interactions with the VHH-MMSI. They provide the basis for collaborative processes.

Public Workspace

The Public Workspace is the default Workspace for Anonymous Users that may be expanded through a Private Workspace and through Shared Workspaces after registration and login.

Private Workspace

The Private Workspace requires the minimum User Role of a Registered User and allows for

- creating Private Playlists
- creating Private Vocabularies
- creating Private Annotations of digital assets
- uploading Regular Content and Premium Content (the latter only under the condition that the Premium Content is owned by the user)

Shared Workspace

The Shared Workspace requires the minimum User Role of a Registered User and allows for

- sharing/unsharing individual or all self-created Private Playlists, Vocabularies and Annotations with other users who have the right to accept or refuse an invitation to share, they also have the right to revoke their decision at a later point
- sharing of self-created photos and audio recordings

All other sharing of Content requires the minimum User Role of a Power User.

3.5. Premium Content

Premium Content is any content protected by IPR that does not allow for unrestricted public access.

Both Usage Modes and all three Engagement Levels do contain Premium Content:

- indirectly through metadata (annotations)
- directly through quotes (film clips, image quotes, textual quotes)

The Private Workspace also allows for the upload of Premium Content if

- the user is the owner of such content respectively has the legal right of use and is entitled to make private copies of such content.

Not every form of interaction with Premium Content therefore requires the minimum User Role of a Premium User. However, Premium Users have access to Premium Content beyond metadata and quotes as well as beyond private copies in their own Private Workspace. Premium Users may be

- authorized users of a certified VHH Access Point (e.g. cinémathèques, archives, libraries, museums, research institutions);
- authorized customers if a (non-profit) payment model (pay-per-item model or subscription model) is implemented in the VHH-MMSI to compensate IPR owners for the use of Premium Content.

The VHH Consortium at this point prefers the VHH Access Point solution.

Premium Users are not entitled to share digital assets with other users (with the exception of self-generated photos and sound recordings). However, Premium Users may share metadata (annotations) of Premium Content with Registered Users through Shared Workspaces. Those other users have to be Premium Users themselves if they want to access the Premium Content digital assets in addition to the metadata.

To avoid confusions, the term Premium Engagement Level used in the DoA (as a title of Task 3.3) has been dropped and replaced with various kinds of interaction with Premium Content that may occur within all three remaining Engagement Levels.

4. Engagement Scenarios of the VHH-MMSI

User-centered design of software and digital applications is mostly based on the creation of user personas (Chang, Lim, Stolteman, 2008). These personas help to imagine future user-interaction, which can later be reflected in the specific design of a digital infrastructure. Such potential forms of user-interaction are narrativized in scenarios that personalize specific requirements by introducing real-life settings and actors, and thus improve the process of implementation (Carroll, 2000: 47).

The VHH-MMSI is tailored for different stakeholders and User Groups. In order to specify the needs of these potential target audiences, we developed a variety of Engagement Scenarios. These scenarios describe the specific interests and requests of different key-users and seek to respond to them with a particular interplay of features offered by the VHH platform.

In doing so, our Engagement Scenarios envision a specific person who wants to do something in a specific situation and uses the VHH-MMSI to achieve these objectives. Each Engagement Scenario is based on a fictitious persona that represents a specific User Group. Each Scenario may comprise a variety of User Roles, Usage Modes, Engagement Levels and Workspaces.

Those Scenarios provide the basis for real-life tests in pilots and user trials foreseen in Work Package 7 (M25-48).

For this Deliverable, four groups of Engagement Scenarios have been developed, including two Scenarios each:

- Engagement Scenarios 1: First Time Encounter & Introduction
- Engagement Scenarios 2: Research & Media Production
- Engagement Scenarios 3: On-site Visits
- Engagement Scenarios 4: Collaborative Groups & Projects

The number of Scenarios may be extended whenever necessary.

4.1. Engagement Scenarios 1: First Time Encounter & Introduction

Engagement Scenario 1a: Miriam Brodsky (U1)

Senior citizen, New Jersey, randomly discovering the VHH platform through a Google search for her father

User Groups (Stakeholders):

- family researchers
- amateur historians

Location(s):

- home

Device(s):

- a laptop

Content:

- Search Results
- some of the textual documents and photos
- excerpts of films

User Role(s):

- Anonymous User

Usage Mode(s):

- Viewing Mode

Engagement Level(s):

- Basic Engagement Level

Workspace(s):

- Public Workspace

User Objectives:

- to find liberation footage of family members and to reconstruct a family history
- to read family-related textual documents
- to view family-related films and photographs
- to download and save photos
- to share the Search Results with other family members
- to view experts' annotations

Platform Objectives:

- allow for the use of highly advanced search tools to find liberation photographs and footage, as well as other historical documents
- to export the visual results into JPEG files, and share them with non-users
- to discover new relations between various digital objects

Interaction Options:

- search for specific digital assets by using the VHH-MMSI search engine

Collaborative Processes:

- share Search Results and photos with friends and other family members via email

Miriam's Scenario:

Miriam Cohen or as everybody calls her: “Mitzi”, is a 76 year old observant Jew, living in Trenton, New Jersey. She considers herself American, although her parents, originally from Lodz, immigrated from Europe to the US in the early 1950s. For many years Mitzi was a librarian at the College of New Jersey, until her retirement about a year ago. As a senior citizen, Mitzi leads a very active life. Just in the past summer, Mitzi took a course in the Community Senior Center to improve her computer skills. Nowadays, she spends most of her free time exploring the internet.

As all savvy internet users do, Mitzi googled her name, as well as some of her relatives' names. She was always interested in hearing more about her parents' lives in Europe, which they spoke so little of. She googled her father's name and the place of his liberation - “Adam Brodsky + Bergen-Belsen” in Google's search engine, and the third result was a link to the VHH platform. Mitzi clicked on the link and was happy to discover an entire category related to the liberation of the Bergen-Belsen concentration camp.

The VHH-MMSI offered Mitzi an impressive inventory of photos and footage of the place during its liberation by the Allies, categorized both chronologically and spatially, according to dates and specific areas of the site. The VHH-MMSI also offered her a list of names of people whose stories are related to the history of Bergen-Belsen in that specific timeframe. Clicking on “Adam Brodsky”, Mitzi was surprised to discover five photos and seven documentaries related to her own father. And if that was not enough, the VHH-MMSI also offered her eight different historical documents in which he is mentioned, as well as twenty mentions in experts' annotations. This was quite overwhelming for her. She didn't know that her father was an important figure. For her, he was an introvert, quiet, shy, and very passive person. After his death, she searched a bit after the family's history, in which she discovered two documentaries and three texts that mentioned her father's name. But she had no clue there is such a rich repository.

Mitzi started browsing the photographs, which were taken during the liberation of Bergen-Belsen. One of the photographs depicts her father together with Janoush Kleiman, his

long-time friend. In the photo, there are two gaunt men standing next to their barrack, wearing rags. Janoush is holding a crutch, and her father is holding his pants, trying to prevent them from falling. Mitzi was astonished and moved by these photos. Her father always told her that Janoush and he were photographed during the liberation, but no one in the family saw these photos up until today. Fortunately, the photo was in high resolution. Mitzi rapidly saved it as a JPEG on her personal desktop and e-mailed it to her sister, Shoshi.

The barrack photo led Mitzi to other Search Results of Janoush. Perhaps some other evening, she will browse ‘his’ results as well, and for sure she is planning to share this information with Janoush’s family.

After saving also the other related photos, Mitzi turned to look at the historical documents. She was disappointed that three documents were written in Polish, without translation. She knows a bit of Yiddish, but not enough to understand the content of the documents.

Under the window presenting the film excerpts, a “You might also be interested” feature offered Mitzi a set of films and photos from the Bergen-Belsen DP camp. Mitzi was able to watch each film without registration. While continuing searching about the liberation of Bergen-Belsen, Mitzi came across several extracts of written testimonies as well as video testimonies of British liberators. The extracts helped her to better understand the situation and how the perception of liberation differed between allied soldiers and the former inmates of the camp. In one of the testimonies, she heard a former British camera operator who filmed in Bergen-Belsen speaking about his encounter with two male survivors. The annotations to this scene referred to an extract of the liberation footage, which depicted the same scene with Mitzi’s father and his friend Janoush that was preserved in the photograph. Seeing her father as a haggard though proud young man walking in front of a movie camera was an exceptional experience for the old lady.

Mitzi had such a fascinating time scrolling through the VHH platform, that she didn’t even notice it got pretty late. Mitzi clicked the “Share” button for the list of “Adam Brodsky” Search Results, and forwarded it via email to all her siblings and grandchildren. An interesting night indeed in the VHH platform.

Engagement Scenario 1b: Jacques Bonnet (U2)

Amateur gamer, 21, Paris, France randomly scrolling in the VHH platform

User Groups (Stakeholders):

- random visitors

Location(s):

- home

Device(s):

- a gaming computer

Content:

- computer games-related information
- games' simulations
- computer games' list
- textual documents
- photographs and excerpts of historical footage and fiction films that influenced on the narrative/design of a specific computer game
- testimonies about liberation

User Role(s):

- Anonymous User

Usage Mode(s):

- Viewing Mode

Engagement Level(s):

- Basic Engagement Level

Workspace(s):

- Public Workspace

User Objectives:

- to find historical computer games related to World War II
- to learn about the background of WWII games
- to identify visual relations between WWII games and histo-visual materials
- to work with different media types
- to share different media types
- to continue using VHH-MMSI as inspiration for research and creation

Platform Objectives:

- allow for the use of highly advanced search tools to find liberation photographs and footage, as well as other historical documents and extracts from popular culture content
- to export Search Results, and share them with non-users
- to export textual results into OCR PDF files, and share them with non-users
- to discover new relations between various digital objects

Interaction Options:

- learning about the background of WWII computer games, including its histo-visual sources of inspiration by using the VHH-MMSI's Split Screen feature
- learning about other computer games recommended by the VHH-MMSI search engine
- exporting a PDF file of a computer games' list

Collaborative Processes:

- none

Jacques' Scenario:

Jacques Bonnet is a 21 year old amateur gamer from Paris who loves war computer games. After intensively playing *Call of Duty* for several weeks, he developed a special interest in WWII computer games. Recently, his friend Marcel had recommended to check out the new computer game *My Memory of Us*. "It's pretty different from *Call of Duty*, but I think you will love it. It does not really focus on WWII, but rather on the Nazi ghettos". Jacques googled this game and one of the results was the VHH platform. "Visual History of the Holocaust" – he had no idea what this platform is, but it intrigued him enough to enter and check it out.

The interface of the VHH-MMSI is very welcoming. With the help of a video player, he can watch clips in high definition standards and manipulate them in real time in various ways. The *My Memory of Us* search result includes a two-minutes simulation of the game, which allows the users to get a taste of the game without needing to register to the platform. The specific style of the game animating comic-style characters in a wartime situation facing discrimination and humiliation, attracts his attention. In order to get a better understanding of the game's narrative and design, Jacques opens a new tab in his browser, googles the trailer and watches it on YouTube. He then returns to the VHH-MMSI, reading related metadata and annotations that are visible right next to the window, in which he had watched the simulation. These provide him with additional information about the plot, character and background of the game.

Part of the annotations is a hyperlink referring to a Playlist titled "original historical images that inspired *My Memory of Us*". Jacques clicks on the first clip and uses the option to watch the simulations from *My Memory of Us* next to historical footage in a

Split Screen display. Another annotation refers to the category “Computer Games”. By clicking on this category, Jacques accesses a Playlist dedicated to a series of computer games related to WWII and the history of the Holocaust.

Jacques receives a long list, consisting of almost 100 WWII-related computer games. He is really happy. All the games mentioned in the list include embedded hyperlinks to extracts from game simulations as well. The great thing about the computer games’ list is that it can be downloaded as a PDF file, with all the hyperlinks still attached. This way, he can easily find his way again to all the different computer games. He also emails the list to his friend Marcel, who will for sure be very interested in the platform. Pretty exciting!

Jacques would very much like start playing or at least testing some of the games. Unfortunately, the VHH-MMSI only offers to watch selected extracts from reproduced simulations of the games. Hence, Jacques marks in the PDF those games, he plans to purchase online and play them further along the line.

Scrolling through the list of games, his favorite *Call of Duty* attracts his attention. When he clicks on the clip in the playlist, the Split Screen relates *Call of Duty* to American liberation footage and its later direct or indirect use in documentary films and film dramatizations. Fascinated by the fact that *Call of Duty* references the liberation of Europe through the US Army, he watches a Playlist about American troops liberating Nazi concentration camps. The similarity between the design of some levels in *Call of Duty* and the TV-series *Band of Brothers* attracts his attention, and he can compare both in the Split Screen. Unfortunately, Jacques cannot watch more parts from *Band of Brothers* because it is part of the IPR protected Premium Content. So he continues watching US-liberation footage and extracts from interviews with US-soldiers and camera operators as well as related documents such as wartime diaries in the document viewer. Particularly impressive is color footage from the liberation of Dachau. Jacques learns from the metadata that it was privately shot by George Stevens, a famous movie director in Hollywood who was also responsible for official filming in the camp. Jacques uses the Split Screen to simultaneously watch and compare the official black-and-white with the private color footage. Using the open mask type and the full screen mode, he explores the depiction of the camps liberation. Jacques then plays an interview segment with Stevens from a documentary film on one screen and alters the framerate of his private footage on the other. In order to receive more information about the background of the filming, he then selects an expert interview by a historian who explains the background of Stevens’ role in the documentation of the liberated concentration camps. Jacques is very impressed and learns a lot about this phase of WWII.

The following day, Jacques returns to the VHH-MMSI by the help of the embedded hyperlinks in the list of games he had saved before. He continues watching game simulations and studies their background. In Jacques’ view, one of the most interesting computer games appearing in that list reenacts the Soviet Army Units liberating Auschwitz. The simulation of the game was so engaging. It depicts the Soviet soldiers making their way through the snowy hill. At the end of the simulation, 4 historical photographs of the Soviet Army liberators are shown in the Split Screen mode next to

screenshots from the computer game. Jacques is shocked to discover that this is a reenactment of the Soviet liberators' film footage; he knew about Auschwitz but he didn't learn in school that the camp was liberated while the ground was covered with heavy snow. Clicking on the photographs, the hyperlinks lead Jacques to discover more Auschwitz-related images and documents, which offer additional free and abundant information. Among other things, it includes a Playlist with two-minutes sequences of footage from the liberation, a high-resolution photo gallery comprising of 50 photographs of the camp's liberation, and a multimedia gallery of other popular culture representations. Who knew that Marcel's "tip" to search on *My Memory of Us* will lead to such an encouraging learning experience.

4.2. Engagement Scenarios 2: Research & Media Production

Engagement Scenario 2a: Vesper Lund (U3)

Footage researcher at a film production company

User Groups (Stakeholders):

- researchers
- footage researchers
- creative industries

Location(s):

- home office
- office

Device(s):

- desktop computer

Content:

- all content but Premium Content (except metadata and quotes)

User Role(s):

- Anonymous User
- Registered User

Usage Mode(s):

- Viewing Mode
- Annotation Mode

Engagement Level(s):

- Basic Engagement Level
- Advanced Engagement Level

Workspace(s):

- Public Workspace
- Private Workspace

User Objectives:

- to find footage of Nazi atrocities and the Holocaust for a documentary film production
- to review this footage using complex playback operations
- to segment footage (clipping)

- to make notes and to attach these notes to the clips
- to compare various clips with each other
- to save clips in a Private Workspace
- to access contextual materials (documents and photos), and to add them to the Private Workspace
- to easily gather information on archival sources and IP owner of assets
- to export data from the Private Workspace into a common document format (human-readable)
- to return at any later point to resume work

Platform Objectives:

- allow for the use of highly advanced tools to search for, analyze, annotate and relate films and other media objects that have been used to visualize the topic (the Holocaust)
- to save and to share Playlist and other Private Workspace metadata

Interaction Options:

- search for specific digital assets by using the advanced functionalities of Quick Search or by using Advanced Search and Filters
- use Automated Analysis Tools to find relations
- quantify and visualize statistics
- create your own segmentation of films
- create your own annotations
- create your own relations between films and other media objects
- create your own Private Vocabularies
- create your own Playlists of digital assets
- export Playlist metadata

Collaborative Processes:

- none

Vesper's Scenario:

Vesper is a footage researcher for Bilby Productions, a SME in the creative industries specializing in high-quality documentary formats for special interest broadcasters (National Geographic, History Channel, ZDF History, ARTE, ORF III, etc.). Her task is to research visual material – film footage and photographs mainly – for a documentary on the life of a prosecutor of Nazi war criminals.

For the producer it is important to maintain high journalistic standards while at the same time finding striking yet “fresh” content. For Vesper content needs to be validated (“is this authentic?”), exciting (“is this unusual or rare footage”), of high technical quality (“will I

be able to source high quality digital files?") and easy to source ("is there information who owns the footage / where to order it?").

Vesper discovers the VHH platform through a Twitter group focused on Holocaust research and memorials. She accesses the platform as an unregistered user: in her profession it is a burden to create and keep track of the numerous account login and password data, plus the hassle of (spam) e-mail. Vesper first checks the "About VHH" section to gather some background information on the platform operators. She is satisfied to see full disclosure of who operates the site, the responsible content editors, the technical web developer and the platform T&Cs. She is impressed by the project scope and the consortium structure, in particular the not-for-profit nature and the inclusion of memorials.

Vesper browses some of the top-level content and is impressed with the intuitive design of the user interface. The film experience and navigation through the movie's Timeline is central; she quickly discovers that complex Video Player operations are available by activating "advanced" features. Her "walk-through" through the VHH repository very much resembles the kind of work she does when editing content for a documentary: you review footage, pause, rewind, step through it; you create a clip from a longer film, and make notes; you "step over" into your library to look up a reference, put a bookmark in that book and make a note in Evernote that this quote would go well with that visual; you discover the joy of connecting and comparing, creating a plethora of new exciting insights.

Vesper tries out the Quick Search function and immediately switches over to the "advanced" options. She quickly realizes that the platform offers a lot of unique film content that is pre-processed to cater to her needs. Search Results are numerous. She uses the Advanced Search tools to refine her search and quickly realizes that the VHH platform contains enough material to warrant a return visit. In addition, it appears that while she can search and discover metadata for all the films some archival footage is not viewable without registration. She consults the various help functions on the website (Video Tutorials, FAQs etc.) and realizes that some content owners (i.e. Imperial War Museums) allow access to sensitive atrocity materials only to registered users for curatorial reasons.

At this stage Vesper reviews the T&Cs and creates a user account. With her newly created account she is able to create her own Private Workspace, and she starts grouping assets according to topics and themes of the documentary, just as an editor does organizes material in "bins" in their editing suite. She discovers that she doesn't have to manually enter notes into Evernote to annotate footage, but that she can annotate each clip, down to shot level herself. While she does that to capture information relevant to her documentary she realizes that she can create her own "tags" to describe certain thematic properties (the platform calls this "vocabularies" which she finds a bit academic ...).

Vesper continues using the platform and is impressed about the depth of connections she can create "on the fly" between clips and other clips, and between film content and related materials. She finds a couple of great quotes from books she didn't know and which she marks to send to the director. However the platform doesn't allow her to email a quote

despite them being displayed so beautifully in the viewer, where you can even group them side by side next to the clip.

A lot of the “deep” functionality of the platform is quite academic, and of little interest or use to Vesper. The in-depth demonstration of the AI functionality (automatic detection etc.) is amusing but she cares more for the results. In that regard the “relation detection” is her primary interest: it is an incredibly powerful tool to find and identify similar – or similar looking – footage, purely based on its visual and temporal qualities. This is a dream for a film/video editor as it allows you to search for, and group, footage according to i.e. shot composition: close-ups, pans, static or moving, b&w or color, etc. Some of the more conceptual stuff is a bit sci-fi, and Vesper finds herself pondering whether AI will actually render her profession redundant in a few years. There’s plenty of interesting ethical stuff on the platform to read more about that, and she finds herself reading some of it later at night on her sofa: about deep fakes and the risk of revisionism, hoaxes and politically motivated fakes.

When her work is completed Vesper looks for an easy way to export the contents of the “bins” (“Playlists” in VHH parlance) to create a research dossier and list of materials for the producer. While it is regrettable that she can’t download film clips or order MP4 preview files straight from her Private Workspace she can nevertheless export every clip’s information to a PDF or CSV file. This includes not only frame-accurate timing information but also all data required for the source archive to identify the digital master file. Easy to create a pull list for future reference!

Overall Vesper is satisfied: a complex and extremely versatile user interface that nevertheless doesn’t feel clunky but intuitive. She posts a gracious comment and a few suggestions to the VHH Twitter account: she doesn’t like receiving too much email, prefers messaging instead and thinks others might feel the same.

Engagement Scenario 2b: Michael H. Arno (U4)

Museum curator and lecturer “Curating visual evidence: the archive between memorialization and mash-up”, University of Vienna

User Groups (Stakeholders):

- lecturers and educators
- curators
- students

Location(s):

- specific (study center)

Device(s):

- desktop computer at the Austrian Film Museum’s study centre, and in the theatre hooked up to a 2K presentation display

Content:

- all content including full Premium Content in a “certified location” with a VHH Access Point installed on-premises

User Role(s):

- Premium User

Usage Mode(s):

- Annotation Mode

Engagement Level(s):

- Advanced Engagement Level

Workspace(s):

- Private Workspace
- Shared Workspace

User Objectives:

- to find footage of Nazi atrocities and the Holocaust for a seminar/course on digital curatorship
- to use Premium Content
- to review this footage using complex playback operations
- to segment footage (clipping)
- to make notes and to attach these notes to the clips
- to compare various clips with each other

- to save clips in a Private Workspace
- to access contextual materials (documents and photos), and to add them to the Shared Workspace
- to return at any later point to resume work
- to let an AI choose footage and associated documentation based on a set of user-defined criteria
- to display the relations between individual assets side-by-side
- to save and retrieve the outcome of search and compare operations
- to create and share Playlists
- to work collaboratively with others in a Shared Workspace using Premium Content, in a “certified location”
- to present and to manipulate Playlists in realtime, in a theatre/presentation context
- to publish select Playlists as “walk-through” or “traces” in the public section of the VHH platform, for a broader audience (not on-premises)

Platform Objectives:

- allow for the use of highly advanced tools to search for, analyze, annotate and relate films and other media objects that have been used to visualize the topic (the Holocaust)
- to share, collaborate and present research outcomes and processes

Interaction Options:

- search for specific digital assets by using the advanced functionalities of Quick Search or by using Advanced Search and Filters
- use Automated Analysis Tools to identify relations
- quantify and visualize statistics
- create your own segmentation of films; create your own annotations
- create your own relations between films and other media objects
- create your own vocabularies
- create your own Playlists of digital assets

Collaborative Processes:

- share Playlists of digital assets with/from others
- share annotations with/from others
- share relations between films and other media objects with/from others
- share vocabularies with/from others

Michael’s Scenario:

Michael’s home institution is one of a handful of certified VHH Access Point locations worldwide: research and cultural not-for-profit organizations who provide full access to the VHH-MMSI including IP-protected content (“Premium” film content etc). Apart from

the benefit of using exemptions and licenses to cover the use of copyright-protected material the VHH Access Point offers a comfortable and tailored environment to conduct deep research, by oneself or with others. This includes tailored hardware solutions to ensure smooth playback, analysis and annotation work; privacy as well as the option to host small groups and to easily create training or workshop situations. It is possible to patch the playback through to the study centre's lecture theatre for a theatre-mode presentation, and to connect to other participants in other VHH Access Point locations worldwide via remote access to the shared workspace.

Michael's primary goal is to teach: what does "curation" mean under the digital paradigms of personalization, engagement, sharing, and co-creation? And how do AI, deep learning and algorithm-driven analysis transform the way we approach both the idea of the "archive", as well as specific archival collections and historical footage?

Michael uses the Advanced Search tools to locate footage according to exemplary queries, and starts assembling clippings. He creates his own Private Workspace and customizes his tools according to his teaching needs: a workspace that allows for a large number of items to be accessible side-by-side or in other spatial patterns, demonstrating the complex hierarchies and taxonomies of properties the footage has. He annotates clips, down to shot level, and creates his own Private Vocabularies to describe certain properties relevant to his course's topic.

Michael is particularly interested in the processes and outcomes of automatic detection. One course module is on the contested topic of "semantic machines". The VHH platform allows him to easily set up queries to let the machine itself identify similar – or similar looking – footage, purely based on its visual and temporal qualities. Michael calls this "digital serendipity" and likens its cultural implications and potential impact both to the writer William Gibson's influential 1996 novel *Idoru* and to the commodification of personal data in contemporary surveillance capitalism. Students are encouraged, in-session and in between the sessions to use the VHH Access Point to do group work. In this they can fully utilize Premium Content and furthermore upload their own content. This encourages participation and integrates a fundamental paradigm of digital culture – engagement, personalization and co-creation – in the course syllabus. Students attach their own conceptual drawings to clip libraries they create; another group is tasked to review, annotate and connect more Premium Content not yet accessioned into the database; another group is tasked to create an Audiovisual Essay for a theatre audience of survivors' grandchildren, with a focus on linking survivors' stories and experiences to the footage without it becoming mere illustration or playing for emotional "shock value".

When the groups' work is completed a presentation is set up in the lecture theatre to present the contents of the Playlists to a live audience as well as to peers in other VHH Access Point locations. The students will be able to access and amend these presentations on-premise in the future, and edited versions (sans Premium Content) are published to the public VHH platform as Audiovisual Essays for beginners or casual visitors.

4.3. Engagement Scenarios 3: On-site Visits

Engagement Scenario 3a: Enrique Pérez González (U5)

Grandson of a Spanish republican survivor of Mauthausen. He has researched the history of his grandfather and is now visiting Mauthausen for the first time. Enrique is a high school teacher and in his history classes he puts special emphasis on the deportations of Spaniards to Nazi concentration camps. From time to time he gives public talks to a regional audience about the topic.

User Groups (Stakeholders):

- individual visitors of memorial sites
- disseminators

Location(s):

- Mauthausen Memorial outside area
- home office
- public presentation venue

Device(s):

- private mobile device on site
- desktop computer

Content:

- all content but Premium Content

User Role(s):

- Anonymous User
- Registered User

Usage Mode(s):

- Viewing Mode
- Annotation Mode

Engagement Level(s):

- On-site Engagement Level
- Advanced Engagement Level

Workspace(s):

- Public Workspace
- Private Workspace (Playlists, upload of own content and own annotations)
- Shared Workspace

User Objectives:

- to find footage, photos and related material of Nazi atrocities committed at the concentration camp Mauthausen and its sub-camp Gusen
- to access these films, photos and other materials on-site via a private mobile device
- to indicate in a georeferenced digital map on the device the exact *location* from where the shots/photographs were taken
- to indicate in a georeferenced digital map on the device the exact *direction* in which the shots/photographs were taken
- to watch the films and view the photographs on the mobile device
- to retrieve and view additional audiovisual, audio or textual files related to these historic locations on the mobile device
- to restrict the material to certain periods of time by means of a timeline controller
- to merge the VHH-MMSI content with the information of the existing “Mauthausen Gedenkstätten-App”
- to create a Private Workspace
- to segment clips and store them in a Playlist
- to upload own material of various kind (visual, audio, textual)
- to add own annotations
- to integrate the material into curated arrangements
- to publish selected curated arrangements in the public section of the VHH platform, for a broader audience (not on-premises)

Platform Objectives:

- allow for identifying the exact geographic location of historic film and photo material
- to view this material on-site
- to add own personal content
- to share the compiled content via a Shared Workspace

Interaction Options:

- select clips/photos/other material on a location-based map display
- filter Search Results by means of a timeline

Collaborative Processes:

- share Playlists with other users
- share annotations with other users

Enrique’s Scenario:

Enrique is the grandson of a Spanish republican deportee to Mauthausen. His grandfather survived over four years in the camps Gusen and Mauthausen. After school, Enrique

started to study history and he was particularly interested in learning more about his grandfather's personal story and its historic context. Before his grandfather died, Enrique was still able to conduct a long Oral History interview with him which served as the basis for his master thesis about the deportation of prisoners from the region of Extremadura to the Mauthausen concentration camp. After university, Enrique became a teacher at a local high school. In his classes he puts particular emphasis on the history of the Civil War, the deportations to the concentration camps as well as on his own grandfather's personal history. From time to time he also gives public talks for the local and regional community.

In spite of his interest in this history, Enrique has never been to Mauthausen and Gusen. He is very interested in seeing the places which his grandfather has told him about at first hand and he also thinks that for giving talks about his history he should know them personally. So he decides to visit. He plans to stay for three days in Mauthausen.

When he arrives to the memorial site, Enrique first approaches the information point in the book shop. He explains what he is here for and how much time he has. The employee explains what there is to do and suggests to start the first day with a self-guided tour by means of the Mauthausen "Gedenkstätten-App" and to pay a visit to the permanent exhibit. This would be a good way to make himself familiar with the place and its history. For the next two days there would be the possibility to get a more in-depth impression with the aid of digital media, the employee tells him. Enrique is intrigued and he starts the first day using the audio guided tour with the app that he can easily download for free on his mobile device. The tour takes him on a linear way from one station to the next on the premises. At each station he stops and listens to the three-to four-minutes long audio files that give insight about the history of the place and the particular spots on the premises. The tour takes him about two hours and a half and at the end he feels that he has learnt a lot about the history of the place while soaking it up with open eyes and open senses. Finally he spends two more hours in the permanent exhibits and then he leaves the site.

The next day he approaches the info point again. The employee tells him that now, after he has seen and sensed how the place looks like today, he could take the opportunity to get an impression of how it looked like some 75 years ago. He provides him with the link to the VHH-MMSI which is also for free. The VHH-MMSI communicates with the Mauthausen "Gedenkstätten-App" which means that you can see both the audio points of the Mauthausen "Gedenkstätten-App" and the pinpoints of the VHH-MMSI on the same Google Map. The employee explains Enrique that, as one walks through the premises on the track of the audio guided tour, the VHH-MMSI highlights spots on the digital map within the immediate perimeter of one's location determined by GPS. Each of these spots marks a film camera or photo camera position from which historic film and photo material has been captured during the time of the camp's liberation. He can watch the moving or still images standing on the exact spot from where they were taken 75 years ago.

Enrique does as indicated. Near the site of the former *Sanitätslager* (a provisional revier) he finds several pinpoints popping up on the map. He chooses one and approaches it with the help of the GPS indications. When he stands on the exact spot, he clicks it and receives indications on the direction in which the film was taken. After finding his position he clicks

again and starts the video. While looking at the bare landscape of the former *Sanitätslager* he uses the screen of his own mobile device to watch a Signal Corps film with a panorama view of the camp as it looked like in May 1945. Enrique is highly impressed and he does the same with all the other pinpoints popping up around him. Some show films, others photographs. He can also retrieve additional material such as extracts from survivor interviews that speak about the respective place or other relevant documents. Additionally, using a timeline controller, he can limit the number of pinpoints that are displayed on the digital map to a specific period in time. Now only visual and other material becomes visible that relates to the selected period of time at which it was taken. Enrique spends the whole day wandering around the memorial site in this way. From time to time he switches from the VHH-MMSI back to the Mauthausen “Gedenkstätten-App” to repeat what he had heard the day before and to remind himself of the general history of the place.

The next day he goes to Gusen and, by using the Gusen “Gedenkstätten-App” and again the VHH-MMSI, he spends the whole day walking around the premises of the former camp Gusen as he had done the day before in Mauthausen. After three full days Enrique leaves Mauthausen with the feeling that he has gotten a deep insight into the place and has learnt a little more about what his grandfather had experienced here during his imprisonment.

However, that’s not the end of the story. When Enrique comes back home to Extremadura he feels the need to share his experience with others. He wants to prepare a public talk as well as a special history class in his school. For that he uses the VHH-MMSI as a resource and creates a Private Workspace for creating a presentation. He collects film and photo material from Mauthausen and Gusen and adds it to a Playlist he created according to the audio guided tour he took through the premises. He then uploads his own photographs which he has taken of the places as they look like in the present and annotates them. As a highlight he finally also uploads segments of the audiovisual interview which he had conducted with his grandfather years ago.

For his presentation Enrique directly accesses the Playlist which he has compiled in his Private VHH-MMSI Workspace. While he talks and gives explanations he shows moving and still images of the place in the past and in the present. But most importantly, he pays tribute to his grandfather’s memories by letting him talk about the exact places where he had been and which Enrique had visited 75 years later. By doing so, the memories of three generations merge in his presentation. The audience is enthusiastic. This is why he later decides to share his presentation in the form of an Audiovisual Essay on the VHH-MMSI platform with others in a Shared Workspace.

Engagement Scenario 3b: Idis Wolff (U6)

Studied German and history, works as an educator at the Mauthausen Memorial. She develops a new educational program that utilizes digital media to augment existing guided tours.

User Groups (Stakeholders):

- memorial guides

Location(s):

- home office
- office
- Mauthausen Memorial outside area

Device(s):

- private desktop computer
- work station at the Mauthausen Memorial office
- tablet

Content:

- all content but Premium Content

User Role(s):

- Registered User

Usage Mode(s):

- Viewing Mode
- Annotation Mode

Engagement Level(s):

- On-site Engagement Level
- Advanced Engagement Level

Workspace(s):

- Public Workspace
- Private Workspace (limited to Playlists and the annotation of self-created material)
- Shared Workspace (limited to Playlists and the upload of self-created photos, videos and sound recordings)

User Objectives:

- to find footage of Nazi atrocities and the Holocaust for a guided tour at the Mauthausen Memorial
- to segment footage (clipping)

- to make notes and to attach these notes to the clips
- to compare various clips with each other
- to save clips in a Private Workspace
- to access contextual materials (documents and photos), and to add them to the Private Workspace
- to create and share Playlists
- to upload own material, annotate it and share it with other users (visitors)
- to invite other users (visitors) to upload material (self-made photos, videos and audios) and upload them to a Private Workspace
- to work collaboratively with others in a Shared Workspace
- to present and to manipulate Playlists in real time, in a theatre/presentation context

Platform Objectives:

- allow for the use of highly advanced tools to search for, analyze, annotate and relate films and other media objects that have been used to visualize the topic (the Holocaust)
- to share, collaborate and present research outcomes and processes

Interaction Options:

- search for specific digital assets by using the advanced functionalities of Quick Search or by using Advanced Search and Filters
- create your own segmentation of films
- create your own annotations
- create your own relations between films and other media objects
- create your own Private Vocabularies
- create your own Playlists of digital assets
- upload your own material

Collaborative Processes:

- share Playlists of digital assets with/from others
- share annotations with/from others
- share relations between films and other media objects with/from others
- share vocabularies with/from others

Idis' Scenario:

Idis studied German and History at the University of Vienna and works as an educator at the Mauthausen Memorial. The Mauthausen Memorial defines itself as site for commemoration and learning. The educational programs at Mauthausen are intended to foster critical historical and political understanding. Therefore, they integrate the perspectives of victims and perpetrators with the social environment of the former

concentration camp in multiple ways. The reconstruction of these historical perspectives helps to understand the specific conditions, motives, decisions and scope of actions of the involved historical actors. The fundamental educational principles at the Mauthausen Memorial are independent and participative learning. Visitors are invited to become active participants, correspondingly they are asked to share and discuss their perception and understanding of historical texts and visual objects.

A fundamental approach of the memorial's educational work and tours is dialogue: to discuss the image of concentration camps the visitors bring with them to the site as well as their perceptions during the actual visit. Idis aims to assist the participants of the tour in personally engaging with the history of the site through lesser known texts, photographs, film footage and sound recordings.

Current practice is to provide the visitors with hard copy reproductions of text documents and visual materials during the guided tours at the memorial. A group of three visitors was able to intensively deal with one text or one particular picture.

Idis, however, wants to create a new guided tour, utilizing digital media. With the help of a tablet, she is able to send specific content to the participants, which she especially adjusted to the particular tour and to the needs and interests of the group. Participants are able to access this content either through their personal mobile devices or with a tablet provided by the memorial. Digitized visual documents offer better possibilities to inspect and engage with historical footage, for instance through enlarging the image size. Furthermore, annotations offer additional background information and refer to related documents.

Through advanced search functions in the VHH-MMSI, Idis is able to identify specific historical visual materials related to significant locations and points of interest of the guided tour. She creates a folder with relevant film footage, pictures, textual documents and other digitized objects in her Private Workspace. In addition, she uploads her own related materials (extracts from testimonies, photographs depicting the history of the memorial) and relates them to specific content in her workspace. Finally, she selects those digital objects and materials, which she wants to use during the guided tour. She creates a Playlist and adjusts the order of the items to the stops of the tour.

Before Idis starts with the tour, she shares her Playlist with the group in a Shared Workspace. At each stop the participants can individually access the related additional materials with their own mobile devices.

This has an activating function and intensifies the experience of the participants. The utilization of digitized materials for the guided tour furthermore meets basic paradigms of digital learning: engagement, personalization and co-creation. For instance, the visitors are able to upload their own annotated photographs to their Private Workspaces or to add short video clips.

At the end of the guided tour, Idis invites the participants to present their own pictures and clips. These visual reflections also serve as feedback for Idis in order to improve her digitally augmented guided tours at the memorial.

4.4. Engagement Scenarios 4: Collaborative Groups & Projects

Engagement Scenario 4a: Ayelet Sagi (U7)

Lecturer in film studies, The Hebrew University of Jerusalem, developing a University Seminar “The Holocaust in Popular Culture”

User Groups (Stakeholders):

- university lecturers
- educators
- teachers
- students

Location(s):

- seminar room
- home office

Device(s):

- a desktop computer at the Hebrew University campus
- laptops connected via Cisco (or any other similar VPN or Secure Connecting Mobility Client) to the VHH VHH-MMSI at The Hebrew University’s library network

Content:

- all content, including full Premium Content, in a “certified location” with a VHH Access Point, installed on-premises

User Role(s):

- Premium User

Usage Mode(s):

- Viewing Mode
- Annotation Mode

Engagement Level(s):

- Advanced Engagement Level

Workspace(s):

- Private Workspace
- Shared Workspace

User Objectives:

- to find liberation footage of Nazi concentration camps as well as other Holocaust-related cinematic and audiovisual representations prevailing in popular culture
- to use, analyse, and appropriate Premium Content
- to segment historical visual materials into clips and shots in order to analyse liberation footage and post-1945 Holocaust-related representations
- to compare between various clips of original footage and popular culture representations (using, for example, a Split Screen feature)
- to export specific film and video frames to TIF, PNG and/or JPEG files, and use them for class presentations
- to add notes to the clips
- to share notes with other users
- to save clips in a Private Workspace and share all/some of the saved materials with other users
- to create Playlists that will include clips and specific films' frames that will be saved in a workspace, which can be shared with other users
- to return at any later point to resume work
- to utilize Automated Analysis Tools to select footage and associated documentation based on a set of user-defined criteria such as specific objects and similarities
- to save and retrieve the Search Results
- to create, share, present and manage Playlists
- to work collaboratively and share Search Results as well as Playlists with other Premium Content users in a Shared Workspace, in a “certified location” as well as at home with an online connection to the “certified location”

Platform Objectives:

- allow for the use of highly advanced tools to manually and automatically search, analyse, annotate and relate films and other artworks and documents that were used for the visualization of the liberation of the Nazi concentration camps (including Premium Content)
- to share, collaborate and present the processes of a scholarly research as well as its final outcomes
- to enable a collaborative work on the platform in a way that is coherent, well connected and adjusted to the presence of other users

Interaction Options:

- search for specific digital assets by using the advanced functionalities of Quick Search or by using Advanced Search and Filters
- use Automated Analysis Tools to detect objects or similarities

Collaborative Processes:

- allow for sharing annotations, Playlists and findings with other “Advanced Engagement Level” users

- to cultivate ongoing as well as single interactions with other users by creating and sharing segmentations of historical visual materials with other users
- to create and to share annotations as well as Playlists with other users
- to implement other users' annotations, Playlists and clips in one's Private Workspace
- to share a collective Shared Workspace with other users
- to work individually as well as collectively on Playlists and to share the results with other users

Ayelet's Scenario:

Ayelet is a lecturer in Film Studies at The Hebrew University of Jerusalem. She teaches a course in which the students are required to research and analyse historical liberation footage and relate it to post-1945 Holocaust representations in order to identify certain motifs, topics and patterns that repeat in popular culture. Ayelet's affiliated institution is one of the certified VHH Access Point locations worldwide. Apart from the benefits of using exemptions and licenses that cover the use of copyrighted material, the VHH Access Point offers a comfortable and tailored environment to conduct deep research – by oneself or with others.

Ayelet's primary goal is to teach her students about the historical liberation footage of the Nazi concentration camps and its significant effect on Holocaust representation, particularly in cinema. Since Ayelet is a faculty member, she is already very familiar with the VHH-MMSI. Ayelet holds a relatively active account, using the VHH-MMSI for her research on an almost monthly basis. She considers the VHH-MMSI not only as a great space for finding rare and high-quality liberation-related audiovisual materials, but also as a space for collaborative work with other experts for the cinematic representation of genocides. Ayelet's active participation on the platform led to a fruitful collaboration with one scholar from Yale University, who contacted her after viewing her annotations on some of the liberation footage from Majdanek. They both have speculated upon intriguing relations between specific liberation footage from that Nazi concentration camp and rare footage from the Rwandan genocide, which has led to a collaborative project between the two scholars. In this project, which Ayelet wants to propose to the Israeli Science Foundation, they are exploring how far the visual memory of the genocide in Rwanda that is communicated through documentaries and feature films was informed by migrating images from the context of the Holocaust.

Besides this collaborative project, since Ayelet's students were new to the VHH platform as well as new to the field of Holocaust liberation footage in general, Ayelet needed to show her students around. As an exemplary case for the students, Ayelet composed a Shared Workspace named "AuschwitzLiberation_HUJIsseminar_2022". This workspace consists of two Playlists: one Playlist is composed of five clips from footage depicting the liberation of Auschwitz, and the other is composed of five clips taken from cinematic Holocaust representations that refer implicitly or explicitly to the selected Auschwitz clips. Ayelet

edited and composed all of the clips and Playlists, an easy operation thanks to the VHH-MMSI's interfaces, and automatically suggested arrangements of the clips according to themes. Ayelet saved the two Playlists in the Shared Workspace, to which she and the students can be logged into, with each student having his or her own user profile. The Shared Workspace does not only make it easy for everyone to access the work, but also creates a social environment in which they can consult each other and share interesting examples with the rest of the class during the semester, and therefore, also feel the social pressure to 'get things done'.

Although the VHH-MMSI's interfaces are very easy to comprehend and can be intuitively operated, Ayelet briefly demonstrated to her students a few tools that they can use in order to search, identify and compare between the liberation footage and other popular culture references and the ways in which the original footage can be edited and annotated. In her demonstration, Ayelet focused on the image of a barbed wire fence common to all the selected footage. She showed the students how they can find the images of a barbed wire fence from all of the clips she made, as well as in other historical visual footage accessible in the VHH-MMSI (for example, in Art Spiegelman's *Maus*). She is using Automated Object and Similarity Detection Tools for this task. However, when preparing the Playlists with the clips she also discovered falsely detected shots that actually showed agricultural fields or remains of construction sites.

Ayelet's and her students' test case raises ethical as well as theoretical questions on the state and the status of images in the digital age. Why do certain motifs become iconic? What is the effect on our visual memory of the Holocaust when it relies only on a few widely circulating images? Therefore, the class discussed these questions, while Ayelet elaborated on the VHH project's Ethics Guideline available online.

After an interesting discussion during which the group further examined a few more VHH-MMSI tools – such as exporting a specific film's/video's frame into a TIF, PNG, or JPEG file, stopping the Video Player and opening a list of related videos in a Split Screen, which allows easy comparison, contextualizing images by using the "add relation" function, selecting a media type from a list, and using a Quick Search or an Advanced Search function and finding annotated bibliographic metadata related to the discussed (audio)visual materials – Ayelet divided the class into groups and asked the students to conduct collaborative research on the representation of main concentration camps. Subsequently, the students started working on the liberation footage of various concentration camps in small groups throughout the semester. Via Cisco – The Hebrew University's network – the students enjoyed free access to the Premium Content also from their private laptops, even when being at home. The students used the Advanced Search function in order to detect footage and documents related to their research topic. While working on the footage, the students found cross-references that are detected through automated film analysis, and thereafter, they created, for the first time, their own clips, assembled them into Playlists while working in collaboration, in group and cross-groups, on the VHH platform. The students shared with Ayelet their findings, while Ayelet traced

their progression throughout the semester, and in turn, she sent them her annotations every three weeks.

At the end of the semester, all the groups were required to present their findings and curated objects. Their Playlists and annotations were saved in the Shared Workspace, as well as in Ayelet's Private Workspace, which utilizes the VHH-MMSI for her everyday work that benefits from it greatly.

Engagement Scenario 4b: Thomas Gutfreund (U8)

Lecturer in Holocaust studies, University of Potsdam, developing the University Seminar “Visual Memory of Liberation”

User Groups (Stakeholders):

- university lecturers
- educators
- teachers

Location(s):

- seminar room
- home office

Device(s):

- a desktop computer in a university seminar room
- laptops

Content:

- all content but Premium Content (except metadata and quotes)

User Role(s):

- Registered User

Usage Mode(s):

- Viewing Mode
- Annotation Mode

Engagement Level(s):

- Advanced Engagement Level

Workspace(s):

- Private Workspace
- Shared Workspace

User Objectives:

- to critically engage with historical sources and histo-visual content
- to identify, contextualize, research and edit sources from the Holocaust and Nazi atrocities

- to manually and automatically analyse liberation footage, segment historical visual materials into clips and shots, and relate it to historical documents and textual sources
- to export specific frames of the films/videos to TIF, PNG or JPEG
- to make notes and to attach these notes to the clips
- to share notes with other users
- to save clips in a Private Workspace and have the possibility to share all or some of the saved materials with other users in a Shared Workspace
- to create Playlists, which include film clips as well as specific frames, that will be saved in a workspace and could be shared with other users
- to return at any later point to resume work
- to save and retrieve the Search Results
- to share the Search Results and the outcome of the joint work with other users
- to create and share Playlists
- to work collaboratively with other users in a Shared Workspace
- to present and manipulate Playlists in real time, during a presentation

Platform Objectives:

- allow for the use of highly advanced tools to search for, analyse, annotate and relate films and other media objects manually and automatically that have been used to visualize the topic of liberation of Nazi concentration camps
- to share, collaborate and present research outcomes and processes
- to perform joint work on the platform in a way that is coherent, well connected and adjusted to the presence of others during joint work

Interaction Options:

- search for specific digital assets (films and documents) by using the advanced functionalities of Quick Search or by using Advanced Search and Filters
- use Automated Analysis Tools to find relations

Collaborative Processes:

- allow for sharing annotations, Playlists and Search Results with other Shared Workspace users
- creating and sharing with other users your own segmentation of audiovisual material
- creating and sharing with other users your annotations
- creating and sharing with other users your Playlists
- implementing other users' annotations in a Shared Workspace
- sharing a collective Shared Workspace with other users which you collaborate with
- working individually and collectively on Playlists of digital assets and sharing them with others

Thomas' Scenario:

Thomas is a lecturer in the contemporary history department at the University of Potsdam. In his research and teaching, he mainly focuses on the history and memory of the Holocaust. Being well connected with several institutions that teach and educate about the Holocaust, he learned about the VHH project during a visit at the Bergen-Belsen Memorial. Ever since, he regularly works with the VHH-MMSI as a Registered User. For his research and in preparation of his seminars, Thomas identified original footage by using the Advanced Search as well as Automated Film Analysis tools. He stored in his Private Workspace several items (film clips and documents) that are related to his research as well as several Playlists, which he customized for his teaching.

In a BA class for the contemporary history department, Thomas teaches a practical research course on "Researching and editing digital sources from the Holocaust". The main objective of the course is to critically engage with historical sources and digital historical visual content related to the history of the Holocaust, Nazi atrocities and liberation.

In preparation for the course, Thomas created two Playlists. One Playlist contains selected footage from the VHH-MMSI. Thomas identified films and specific segments of films that document the liberation of the camps or Nazi atrocities but still do not contain too graphic content in order to keep it accessible for his relatively young students. This Playlist served as the main source for the students' projects. In the first session, Thomas introduced the specific identified corpus of liberation footage while also raising ethical questions and critically discussing the use of the footage in real time. For this purpose, he created the second Playlist, which contains segments from edited atrocity films (from 1945ff.) as well as interviews with soldiers that witnessed the atrocity sites or were part of the film teams. In this Playlist he also included some segments of feature films that are part of the VHH-MMSI's Premium Content. For the course, Thomas opened a Shared Workspace with the two Playlists and a Shared Workspace, which he and all of his students will be logged into, with each student having a user profile of her own.

Thomas asked the students to conduct research on the footage from the first Playlist, and to identify a specific segment, save it in their Private Workspace, analyse and annotate it. As a first step, the students navigated through the Timeline and identified a segment they were interested in (1-3 minutes). They either worked with an existing segment and repeatedly jumped to the preselected position of the film by entering the number of the segment, or they set the in-point and out-point of the respective segment themselves.

The students analysed the segments by manipulating the playback frame rate of the film. The shot-by-shot display helped them to identify the composition, specific elements as well as camera positions. Showing an example from the Bergen-Belsen liberation footage, Thomas explained to the students how important it is to review the films with an open mask, because this enables them to include the margins of the frames into the analysis. Furthermore, the students annotated the segments according to their findings, which solely relied on the visible content and the existing annotations in the VHH-MMSI. In

addition, they prepared notes online in the VHH-MMSI. They selected a specific frame and exported it as TIF, PNG, or JPEG. The students shared the annotated segments and frames on the Shared Workspace and presented the segment as well as their annotations briefly in class. In a class discussion, Thomas developed together with the students a Shared Vocabulary to analyse the segments that is based on the VHH-MMSI vocabularies.

In the next step, the students established small teams that collaborated on a specific research project. Each team worked with a specifically tailored Shared Workspace. The students contextualized their segment(s) with the help of other (visual and textual) documents. For that purpose, they used the play/stopping function of the Video Player and the navigation through document functions. They worked with Quick Search or the Advanced Search functions, including Filters, in order to find annotated bibliographic metadata related to the historical visual materials or contextualizing the specific historical events. They opened related segments and documents in the Split Screen display, and added relations to films and/or documents by using the “add relation” function. The students displayed their findings, relations and annotations in a Playlist. Thomas was able to review the Playlists and annotations in the Shared Workspace and added his comments. Then, the students presented their findings in class, either by navigating through their Playlists or by presenting the exported assets and metadata. Thomas discussed with each team individually, and with the class as a whole, the possible thematic focus of the project. This should reflect about a specific place and its transformation or focusing on a specific topic (women in camps, hunger, music in the camps, trials). Finally, the teams prepared an animated Playlist or edited a short Audiovisual Essay from the exported assets that reflects their specific research question. For that, they also researched and uploaded additional material (textual documents, photographs, clips) to their Shared Workspace.

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