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VIRTUAL TOURS
THROUGH MEMORIAL SITES
Remembering Human Rights in a Digital Age

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Abstract

Memories of the past are crucial for human rights work in the present. They provide justifications for the promotion of universal human rights values and serve as basis for the principle of 'never again'. However, in order to ensure the preservation of memories over time and across generations, the ways of mediating them need to be constantly adapted and readjusted. For the digital age this means that new forms of mediation need to be developed which are capable of transmitting memories of the mainly analogue past to generations of a digital present, digital natives. The questions this thesis seeks to answer therefore revolve around how and to what extent virtual tours through memorial sites can and do serve as mediators of memory in a digital age, this way adding a transnational dimension to the notion of memory itself. Two such virtual tours will be analyzed according to Mayring's technique of structuring content analysis through deductive category application.

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1. Introduction

Memories of the past are crucial for human rights work in the present. They provide justifications for the promotion of universal human rights values and serve as basis for the principle of 'never again'. However, in order to ensure the preservation of memories over time and across generations, the ways of mediating them need to be constantly adapted and readjusted. For the digital age this means that new forms of mediation need to be developed which are capable of transmitting memories of the mainly analogue past to generations of a digital present[1], so-called digital natives.[2] This turned out to be particularly difficult for memorial sites[3], given the special role the physical site itself plays in mediating its memory. A virtual tour can constitute a possibility for memorial sites to reach out to digital natives and engage them in their memory work. By providing such tours online engagement can be achieved to an even larger extent, given the fact that web-based tours can be accessed irrespective of place and time and are available to a much larger number of people.[4]

This globalization aspect of digitalization is one of the reasons for what Assmann[5] refers to as the 'transnational turn' of memory. With the notion of memory gaining a more transnational character in general and through the process of digitalization in particular, and the potential of web-based virtual tours to engage people all over the world in local memories, also theories about collective memory and the construction of identity need to be discussed in a more global context.[6]

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[1] The most notable scholar in this regard is Wulf Kansteiner, who argues that new digital forms of mediating historic pasts need to be developed in order to reach out to future generations. The examples he provides in this context revolve around the transmission of Holocaust memories in apps and video games. See See W. Kansteiner, 'The Holocaust in the 21st Century: Digital Anxiety, Transnational Cosmopolitanism, and Never Again Genocide without Memory', in A. Hoskins, (ed.), *Digital Memory Studies: Media Pasts in Transition*, New York, Routledge, 2018, pp. 110-140.

[2] The term 'digital natives' was coined by Prensky to refer to members of younger generations who grew up with the use of digital technology. See M. Prensky, 'Digital Natives, Digital Immigrants', *On the Horizon,* vol. 9, no. 5, 2001, p. 1.

[3] In the course of this thesis memorial sites are defined defines as physical sites where human rights violations were committed. See Kansteiner, 'The Holocaust in the 21st Century', pp. 110-140.

[4] H. Dörte, *Erinnerungskulturen online: Angebote, Kommunikatoren und Nutzer von Websites zu Nationalsozialismus und Holocaust*, Konstanz, UVK, 2009, p. 85.

[5] The effects of digitalization on memory have been discussed widely by memory scholars. Aleida Assmann in this regard highlights the role digitalization plays in the creation of a transnational collective memory, while Andrew Hoskins abandons the notion of collective memory entirely by arguing that in times when people are increasingly actively involved in shaping memories through interaction, for example in social media, the concept of collective nation-bound memory is being lost. See A. Assmann, 'Transnational Memories', *European Review,* vol. 22, no. 4, 2014, pp. 446-456; A. Hoskins, 'Memory of the Multitude: The End of Collective Memory', in A. Hoskins (ed.), *Digital Memory Studies: Media Pasts in Transition*, New York, Routledge, 2018, pp. 85-109.

[6] On the relation between memory and the construction of identity, see Maurice Halbwachs' classic *On Collective Memory*, trans. L. A. Coser, English edn., rev., Chicago, University of Chicago Press, 2006; additionally, see J. Assmann, 'Collective Memory and Cultural Identity', *New German Critique*, vol. 65, no. 1, 1995, pp. 125-133;

Virtual tours can serve as an interactive and immersive tool for preserving memories of traumatic pasts and for promoting human rights values in the present.[7] If they are provided online, they can even be considered drivers of the transnationalization process that memories are undergoing in times of digitalization (while at the same time enhancing the promotion of universal human rights[8]) and the subsequent creation of a more transnational notion of collective memory and identity, respectively.[9] However, in order to have a transnationalizing effect on collective memory, the narratives transmitted in these virtual tours as well as their technical particularities need to meet certain criteria.

Both the aspect of mediating memory in a digital age as well as theories of transnational memory provide the theoretical basis for the thesis at hand and the analysis of two virtual tours through memorial sites, which will be conducted in the course of it. It will be argued that, based on theories of how memory is mediated, virtual tours can constitute an adequate medium of memory if they meet certain technical and narrative requirements. These will be deductied and applied to the two examples of the *recorrido virtual* through the Colonia Dignidad memorial site and the online tour provided on the website of the Estern State Penitentiary Hisotirc site.

Since a deductive category application method was chosen for analyzing the two virtual tours and given the fact that this method draws categories from theory, the most relevant theories on memory and human rights as well as collective memory, and – most importantly in the context of this thesis – transnational memory and similar approaches will be presented in the first part of this thesis. The subsequent chapter 4 will be dedicated to theories on how memory narratives are mediated with a focus on today's digital age. In the second part of this thesis the methodology will be presented, the two virtual tours which constitute the objects of research will be presented and the selection process described. Subsequently, the different steps taken in the course of this analysis will be described before presenting and interpreting the results.

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see also B. Anderson, *Imagined Communities: Reflections on the Origins and Spread of Nationalism*, rev. edn., London/New York, Verso, 2016.

[7] W. Kansteiner, 'Genocide Memory, Digital Cultures, and the Aesthetization of Violence', *Memory Studies*, vol. 7, no. 4, 2014, pp. 403-408.

[8] Most notable in this regard are the sociologists Daniel Levy and Nathan Sznaider, see D. Levy and N. Sznaider, *Human Rights and Memory*, University Park, PA, Pennsylvania State University Press, 2010; also Aleida Assmann argues that the transnationalization process that memory is undergoing backs the human rights movement. See A. Assmann, 'Transnational Memories', p. 553.

[9] Daniel Levy and Nathan Sznaider, as well as Jeffrey Alexander argue that the Holocaust and the memories of it, which have been spread and preserved all around the world, created a global memory community. Alexander however adds in this context that so far the Holocaust has been the only past experience to reach a such a global scope. Whether or not global memory communities can be formed or not is therefore disputed in the literature. See D. Levy and N. Sznaider, *Erinnerung im Globalen Zeitalter: Der Holocaust*, Frankfurt am Main, Suhrkamp, 2001; J. Alexander, 'The Social Construction of Moral Universals', in J. Alexander (ed.), *Remembering the Holocaust: A Debate*, Oxford, Oxford University Press, 2009, pp. 3-103.

PART I

2. Remembering human rights or no human rights without remembrance

only memory of rights violations can nurture the future of human rights[10]

Today's human rights discourse is heavily based on the preservation of memories from the past. Unless past atrocities and human rights abuses are remembered in the present, the current human rights discourse risks losing its historical grounding and human rights themselves are in danger of becoming a matter of legalistic abstraction or even subject to political abuse.[11] Without taking into account examples of traumatic historic events such as genocides or crimes against humanity, when the absence of human rights values resulted in large-scale violence and human suffering, human rights work in the present lacks justification and runs the risk of missing some of its goals. Therefore, in order to maintain human rights values and prevent rights abuses in the future, past failures to do so need to be remembered in the present.

The importance of linking the present human rights discourse to the preservation of past memories, as has been emphasized in above-described argument by Andreas Huyssen[12], is also reflected in a new trend that the US-American museum landscape has been experiencing over the past years: the appearance of a growing number of civil rights museums. Institutions such as the International Civil Rights Center & Museum or the National Civil Rights Museum, although founded in 1993 and 1991 respectively, have been receiving increasing attention over the past years. The growing interest in this kind of museums can be explained to a certain extent by these institutions' founding principles of relating past violations to present human rights issues and encouraging people to take action and stand up for their own and other people's rights.[13] Getting people engaged is also a central part of the work of Sites of Conscience, which will be explained in more detail in section 4.5.2.

Amy Sodaro even dedicated an entire book to the concept of memorial museums and exhibitions of violent pasts, such as gross human rights violations and large-scale atrocities.[14]

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[10] A. Huyssen, 'International Human Rights and the Politics of Memory: Limits and Challenges', *Criticism*, vol. 53, no. 4, 2011, p. 608.

[11] Huyssen, 'International Human Rights and the Politics of Memory', p. 608.

[12] Huyssen, 'International Human Rights and the Politics of Memory', pp. 607-624.

[13] J. Weed, 'Civil Rights History Finds Heightened Relevance in a Troubled Present', *The New York Times*, 17 October 2016, Business Day, Itineraries, https://www.nytimes.com/2016/10/18/business/civil%2Drights%2Dhistory%2Dfinds%2Dheightened%2Dreleva nce%2Din%2Da%2Dtroubled%2Dpresent.html, (accessed 1 July 2018).

[14] A. Sodaro, *Exhibiting Atrocity: Memorial Museums and the Politics of Past Violence*, New Brunswick, NJ, Rutgers University Press, 2018.

By shedding light on several examples of such memorial museums she argues that there is a growing demand not only for the preservation of what she calls the 'darkest days in human history' but also their interpretation in the present.[15] This way she also highlights the importance of relating memories of past rights abuses and atrocities to the present and human rights issues today. By stating that the main goals of memorial museums are, apart from promoting human rights, revelation of the truths about what happened, preservation of the past in order for the future to learn from its mistakes and using 'the power of memory' to reconcile[16], Sodaro also points out the crucial role memorial museums play in the context of post-conflict reconstruction processes.

However, Sodaro points out another aspect of the relation between the two fields of memory and human rights by stating that this rather new focus in memorialization cultures on memories of violence and suffering indicates also a general shift in how collective pasts are remembered: While memories of a shared history used to be comprised of glorifying celebrations of past victories, it has turned into a thinking about the past in a self-reflexive way including raising awareness of the negative aspects of it and drawing lessons from past mistakes. Sodaro summarizes this new approach towards a shared history by referring to the very famous aphorism by Spanish philosopher George Santayana, saying that 'those who cannot remember the past are condemned to repeat it'.[17]

A similar thought serves as the underlying basis for the principle of 'never again', which was initially formulated as a direct response to the Holocaust, but has been used as guiding idea also in subsequent transitional justice and reconciliation processes.[18] Most prominent in this regard is probably the final report of the Argentine National Commission on the Disappearance of Persons, which was even titled *Nunca Más*[19], the Spanish translation for 'never again'. The Spanish term has since turned into a mantra for the entire Latin American region struggling towards democracy after decades of military dictatorships.[20] By justifying the necessity of basing their countries' futures on democratic values with references to past sufferings and

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[15] Sodaro, *Exhibiting Atrocity*, p. 3.
[16] Sodaro, *Exhibiting Atrocity*, p. 3.
[17] Sodaro, *Exhibiting Atrocity*, pp. 3-4.
[18] Freeman, M., 'Never Again! Genocide and the International Community', *Papeles del CEIC*, vol. 1, no. 1, 2007, pp. 1695-6494.
[19] CONADEP, *Nunca Más: A Report by Argentina's National Commission on Disappeared People*, London, Faber & Faber, 1986.
[20] Le Goff, P., 'Nunca Más: Human Rights and Transitional Justice in Latin America', *Modern Latin America: Web Supplement for 8th Edition,* Providence, RI, Brown University Library, 2014, https://library.brown.edu/create/modernlatinamerica/chapters/chapter-10-chile/moments-in-chilean-history/nunca-mas/, (accessed 1 July 2018).

through emphasizing the importance of non-repetition of past mistakes, Latin American post-conflict societies underscored the relevance of remembering the past for the future of human rights values.

To conclude this first chapter by referring back to its title, it should be noted that the relationship between memories of the past and promoting human rights values in the present is (at least) a twofold connection. While memories of past rights abuses serve as justification for the efforts dedicated to upholding human rights values, the remembrance of the importance of human rights themselves seems to have received increasing attention in recent years. Therefore, maintaining today's human rights values would be an impossible – or at least very difficult – task if it was not for the preservation of memories of past human rights violations. At the same time not only past rights abuses, but also these rights themselves need to be remembered, and their relevance for a future without rights violations needs to be emphasized. As has been pointed out above, this is achieved by, among other things, relating past atrocities and injustices to current human rights issues, a task which is considered a major part of the work of Sites of Conscience, whose virtual tours constitute the research object of this thesis.

3. Remembering collectively, remembering transnationally

This growing awareness regarding the dependence of successful human rights work on the preservation of past memories, which was described in some detail in the first chapter, originates to a large extent from what is considered one of the most traumatic events in European history: the Holocaust.[21] As pointed out by the sociologists Daniel Levy and Nathan Sznaider, the horrors of the Holocaust not only initiated what Andrew Hoskins calls the 'memory boom' of the late 20th century,[22] but also constitutes the starting point for the development of the international human rights regime.[23] Therefore, it can be said that both the academic field of memory studies and today's human rights movement are rooted in the recognition of the Holocaust as one of the most traumatic human rights violations, which, on the one hand, calls for the urge to be remembered while on the other hand, demands action to be taken in order to prevent its repetition.

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[21] Levy and Sznaider, *Human Rights and Memory*.
[22] A. Hoskins, 'The Restless Past: An Introduction', in A. Hoskins (ed.), *Digital Memory Studies: Media Pasts in Transition*, New York, Routledge, 2018, pp. 6-7.
[23] Levy and Sznaider, *Erinnerung im Globalen Zeitalter*; Alexander, 'The Social Construction of Moral Universals', pp. 3-103.

However, the urge to remember the atrocities and terrors of the Nazi regime not only contributed significantly to the development of the emerging academic discipline of memory studies and initiated a call for the propagation of 'all human rights for all'[24], it also added a transnational, global or cosmopolitan[25] dimension to the notion of memory itself. In other words, while the promotion of universal human rights (which are a transboundary concept in the first place) was based on remembering past rights violations – most notably the Holocaust[26] – remembering and memories of the past themselves became a subject of global concern, this way changing also theories on collective memory, which will be explained in more detail subsequently.

3.1. Collective memory, communicative memory and cultural memory

The term 'collective memory' was coined by French philosopher and sociologist Maurice Halbwachs in his famous book *La Mémoire Collective*[27], which was first published in 1950 and has become a fundamental work in memory studies. The notion of collective memory as described by Halbwachs refers to the memory of a group which is shared by all of its members, can be passed on to other members and is constructed socially, this way creating group identity[28].

It is important to note here that collective memory is not the aggregation of the members' individual memories, but rather a culturally and socially constructed narrative of the entire group's past. Olick in this regard differentiates between 'collected memory', which refers to 'the aggregation of socially framed individual memories' and the for this thesis relevant concept of 'collective memory', which 'emphsize[s] the social and cultural patternings of public and personal memory'.[29] Collective memory is therefore shaped by cultural and social factors and influences and it takes into account the role the public plays in constructing and mediating it.

Based Halbwachs' theory of a collective memory is the concept of a cultural memory developed by German cultural scientists Jan and Aleida Assmann. According to them, cultural memory

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[24] The phrase 'all human rights for all' is commonly used to refer to the underlying idea of human rights.

[25] The use of these terms by different scholars addressing the transboundary extension of memory will be explained in the following subchapters.

[26] Aleida Assmann in this regard points out that the idea of universal moral norms, of human rights, is 'a direct consequence of the experience of the Holocaust'. See A. Assmann, 'The Holocaust – A Global Memory?', p. 109.

[27] Halbwachs, *On Collective Memory*.

[28] J. Assmann, 'Collective Memory and Cultural Identity'.

[29] J. Olick, 'Collective Memory. The Two Cultures', *Sociological Theory*, vol. 17, no. 3, 1999, pp. 333-348.

comprises the knowledge about a shared past that has been passed on across generations through repeated re-mediation in form of texts, images and rituals and that 'directs behavior and experience in the interactive framework of a society.[30] Consequently, cultural memory consists of communicated contents from the past which also affect the present. As has already been outlined in chapter 2 on the pertinence that memories of past rights violations have to present human rights work, it is this connection between the past and the present which not only justifies the preservation of memory over time, but also renders the study of (cultural) memory important for understanding present behaviors and developments.

However, Assmann specifies the notion of cultural memory even further by distinguishing it from communicative memory.[31] While the term 'cultural memory' is used to refer to contents which exist irrespective of their carriers and which are mediated and preserved over a greater time span, the term 'communicative memory' indicates memories which are 'based on group-specific carriers'[32], meaning that communicative memory depends on direct communication between the members of a group, which restricts its existence to a few generations.[33] Communicative memory, also called 'everyday memory', includes those memories which are transmitted in the course of everyday (oral) communication and refers to stories and experiences lived in the present.[34] Therefore, communicative memory lasts only until the members of the group by which it is shared pass away. However, communicative memory can be transformed into cultural memory through institutionalization. If particular narratives of a communicative memory are remembered and commemorated at an institutional level, for example by creating monuments and memorials or by inaugurating commemorative rituals, they can enter a society's cultural memory.[35]

These concepts of communicative and cultural memory as introduced by Jan Assmann, and especially Aleida Assmann's work *Erinnerungsräume*[36] highlight the role mediation plays in order for memory to be preserved over time and passed on across generations[37]. Therefore,

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[30] J. Assmann, 'Collective Memory and Cultural Identity', p. 126.
[31] J. Assmann, 'Collective Memory and Cultural Identity', pp. 125-133.
[32] Levy and Sznaider, *Human Rights and Memory*, p. 15.
[33] J. Assmann, 'Collective Memory and Cultural Identity', p. 127.
[34] J. Assmann, ‚Collective Memory and Cultural Identity‘, p. 126.
[35] Assmann, J., ‚Die Katastrophe des Vergessen: Das Deuteronomium als Paradigma kultureller Mnemotechnik‘, in A. Assmann und D. Harth (eds.), *Mnemosyne: Formen und Funktionen der kulturellen Erinnerung*, Frankfurt, Fischer, 1991, p. 343; see also A. Assmann, 'The Holocaust – a Global Memory? Extensions and Limits of a New Memory Community', in A. Assmann and S. Conrad (eds.), *Memory in a Global Age: Discourses, Practices and Trajectories,* New York, Palgrave, 2010, p. 98.
[36] A. Assmann, *Erinnerungsräume: Formen und Wandlungen des kulturellen Gedächtnisses*, 3rd edn., Munich, Verlag C.H. Beck, 2006.
[37] The connection between media and memory will be examined in greater detail in chapter …

special attention needs to be paid to the various forms of media as carriers of cultural memory and to the effects that transformations of these forms of media have on cultural memory itself.[38]

The ways of how memory is mediated have undergone significant changes. Most notable in this regard are the emergence of written language, which added a durability factor to the medium, the invention of radio waves and television allowing for more immediate mediation and the most recent advances in technology introducing the internet as an interactive form of communication, turning the passive consumer into an actively engaged 'prosumer', a consumer who is at the same time producer.[39] Following Aleida Assmann's theory, this means for cultural memory that through above-described transformations of the transmitters of memory cultural memory itself has been affected and transformed. These transformation processes and recent re-conceptions of the notion of – broadly speaking, collective – memory will be explained in more detail in the next chapter.

3.2. The transnational turn of memory

As has been indicated above, new forms of media allowing for new ways of transmitting memory result in transformations of memory itself. For the digital age this means that technological advances, most notably the invention of the World Wide Web and the development of the internet, added a transboundary dimension to the notion of memory[40]. Increasing connectivity of people across national borders facilitates a form of sharing memories regardless of national belongings or citizenship. This way the notion of collective memory is discharged from the nation borders to which it has been tied traditionally.[41] However, this 'transnational turn' of memory[42] is a consequence not only of emerging new forms of media; also various other factors play into this transnationalization process that memory is undergoing at the moment, resulting in the development of different theories and terms to refer to this transformation of memory. Those considered most relevant for the thesis at hand will be elaborated in the following.

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[38] A. Assmann, *Erinnerungsräume,* p. 19.
[39] A. Hoskins, 'Digital Network Memory', in A. Erll and A. Rigney (eds.), *Mediation, Remediation and the Dynamic of Cultural Memory*, Berlin, De Gruyter, 2009, pp. 91-92.
[40] A. Assmann, 'Transnational Memories', p. 547.
[41] Halbwachs, *On Collective Memory.*
[42] A. Assmann, 'Transnational Memories', p. 546.

3.2.1. Transnational memory

The term 'transnational memory' is mainly associated with Aleida Assmann and her theory of memories transitioning into a global arena whose formation rests upon two primary factors: above-mentioned enhanced connectivity due to advancements in digital technologies and media, and the growing number of 'new transnational actors and networks that are reshaping the global world from above and below'.[43] According to her, the term 'transnational' signifies a spatial extension beyond nation borders, while at the same time recognizing their presence. Assmann continues by arguing that the transnational acknowledges the existence of nation states and regards them as one spatial unit among many others, some of them smaller than nation states, such as districts or communities, some of them larger, for example macro-regions or continents.[44] The prefix 'trans' indicates (spatial) movements across borders, but might also be related to (cultural) 'translations', meaning that established images and concepts are being reinterpreted and reconfigured in new contexts. 'Transnational', therefore, can stand for 'going beyond national identification, investments and interests and explore new forms of belonging and cultural identification'.[45]

Transnationalization of (collective) memory consequently refers to developments such as digitalization and international cooperation through which memories are increasingly shared across national borders, thus leading to reconfigurations of culturally established images of the past. This means that, in a globalized world, collective memories are not only shared, compared and exchanged, but also transformed. One example Assmann mentions in this regard is the EU museum initiative aiming at European unification by creating a shared common view on the past, present and future of Europe.[46] Instead of the co-existence of numerous national collective memories, an EU-wide shared collective memory shall be created in order to generate a European shared identity.

Another factor which advances the transnationalization process of collective memory (apart from digital technologies and the tightening of international networks) is global human mobility. With people moving at heightened speed, transgressing always larger distances in growing numbers, collective memories are increasingly carried from one community into the midst of another, this way sparking new memory debates and recomposing memory

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[43] A. Assmann, 'Transnational Memories', p. 547.
[44] A. Assmann, 'Transnational Memories', p. 546.
[45] A. Assmann, 'Transnational Memories', p. 547.
[46] A. Asssmann, 'Transnational Memories', p. 550.

communities.[47] Furthermore, colonialism and imperialism are named as factors having influenced the creation of a transnational memory.[48] Historical ties between nation states such as the relationships between colonizing and colonized countries – even though they often relate to traumatic pasts and large-scale human suffering – are examples of collective memories shared across national borders, thus contributing to the transnationalization process of memory.

To summarize the preceding paragraphs, it can be said that the term 'transnational memory' as introduced by Aleida Assmann refers to a transformation of both collective memories and memory communities. Due to factors such as digitalization, the emergence of international networks, global migration and renegotiations of historical relationships in a post-colonial age, the notion of collective memory exceeded the national borders within which it had been discussed traditionally and entered a global stage, transgressing borders, which resulted in new debates on memories of shared pasts and reconfigurations of memory communities. Several scholars in this regard emphasize that transnationalization of memory does not only imply that local memories are renegotiated in a global context, but also that globalized memories conversely affect local memory practices, this way becoming incorporated in local memories.[49] Olick and Coughlin mention in this context the influence of the Holocaust memory on the creation of universal human rights norms (as has been described in chapter 2) which in return served as basis for the work of several truth and reconciliation commissions established in post-conflict reconciliation processes and whose work encompasses memorialization of traumatic experiences and violent pasts.[50]

3.2.2. Transcultural memory

While Aleida Assmann introduced the concept of a transnational memory in order to refer to the transformation collective memory is undergoing in an increasingly globalized world, Astrid

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[47] A. Assmann and S. Conrad (eds.), *Memory in a Global Age: Discourses, Practices and Trajectories,* New York, Palgrave, 2010, Introduction pp. 1-2.

[48] C. De Cesari and A. Rigney (eds.), *Transnational Memory: Circulation, Articulation, Scales*, Berlin/New York, De Gruyter, 2014, Introduction p. 2.

[49] See, for example, A. Assmann and Conrad, *Memory in a Global Age*, p. 5; Levy and Sznaider, *Human Rights and Memory,* p. 6. Although Levy and Sznaider use the term 'cosmopolitan memory' to describe the reconfiguration of memory in a global age (especially regarding Holocaust memory), they state, similarly to Aleida Assmann, that cosmopolitan memory implies a conception of memory which goes beyond the nation-state and add that it represents a 'simultaneity of the universal and the particular'.

[50] Olick, J. and B. Coughlin, 'The Politics of Regret: Analytical Frams', in J. Torpey (ed.), *Politics and the Past: On Repairing Historical Injustices,* Lanham, MD, Rowman & Littlefield, 2003, pp. 37-63.

Erll uses the term 'transcultural memory'[51]. According to Erll, memory travels across cultures with the help of new media, allowing for the formation of memory communities with their members being located in different parts of the world. Furthermore, she argues that cultures are not necessarily bound to national borders and can transcend them more easily than, for example, social and political factors. Consequently, 'mnemonic processes [unfold] across and beyond cultures', rather than nation states.[52] Both Astrid Erll and her concept of memory 'travelling' across cultures as well as Andrew Hoskins in his work on digital memory studies highlight the dynamic and fluid character memory is gaining due to digital forms of communication.[53] A transcultural dimension is therefore added to memory through new, digital forms of mass media allowing for memories to be mediated more easily across different cultures. Moreover, the migration factor mentioned above in relation to the concept of transnational memory is addressed by scholars arguing for the formation of a transcultural memory. Accordingly, not only 'contents, forms, and practices of memory' travel across cultures, but also their carriers.[54]

Therefore, when comparing theories of transnational memory with those of transcultural memory, several parallels can be detected regarding the factors influencing and enhancing these transformation processes, such as increasing global migration and the impact of digital communication technologies. However, while concepts of transnational memory emphasize the transformations of collective memories in an increasingly connected world and the mutual influences of the local and the global in such an environment, notions of transcultural memory underscore the dynamic nature memory gains if it can 'travel' easily across cultures, a process which is facilitated to a large extent by today's mass media. For the following research on virtual tours as transmitters of local memory narratives at a global level, the notion of transnational memory was deemed more adequate as it highlights this relationship between the particular and the global, while also taking into account the various factors playing into this transformation. Some of these factors will serve as parameters when the two virtual tours will be analyzed for transnational aspects.

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[51] Initially introduced by Rick Crownshaw, the term 'transcultural memory' has been borrowed and widely used over the past decade by numerous other memory scholars as well. For the introductory publication by Crownshaw see Crownshaw, R., 'Introduction', *Parallax*, vol. 17, no. 4, 2011, pp. 1-3.
[52] A. Erll, 'Travelling Memory', *Parallax,* vol. 17, no. 4, 2011, pp. 9-14.
[53] Erll, 'Travelling Memory', pp. 4-18; A. Hoskins, 'Digital Network Memory', in A. Erll and A. Rigney (eds.), *Mediation, Remediation and the Dynamic of Cultural Memory*, Berlin, De Gruyter, 2009, pp. 91-106; see also A. Erll, and A. Rigney, 'Introduction: Cultural Memory and its Dynamics', in A. Erll and A. Rigney (eds.), *Mediation, Remediation and the Dynamic of Cultural Memory*, Berlin, De Gruyter, 2009, pp. 1-13.
[54] Erll, 'Travelling Memory', p. 11.

3.2.3. Multidirectional memory

However, a third theory on collective memory is considered relevant for this thesis: Michael Rothberg's 'multidirectional memory'.[55] Rothberg argues that collective memories, especially traumatic ones, do not have to be mutually excluding, meaning that remembrance of one traumatic event does not automatically imply that others are forgotten or neglected; remembrance rather 'cuts across and binds together diverse spatial, temporal, and cultural sites'.[56] These figurative 'sites' therefore are connected through memories, this way forming a model of multidirectionality of memory. Rothberg exemplifies his theory by referring to the collective traumas of the Holocaust and slavery, which in the US-American memory discourse are frequently ascribed competing roles. Instead of being competitors in a fight over which of these two examples of grave human suffering prevails in public memory, Rothberg rather highlights the parallels between them and demonstrates how cultures of remembrance of the Holocaust stimulated and reinforced commemorative acts for the preservation of the dark legacy of colonialism, and vice versa. [57]

This interrelatedness between histories of suffering has been emphasized by several other scholars, such as Hannah Arendt[58], who, similar to Rothberg, argue that the Holocaust and the histories of slavery and colonialism are interconnected and need to be discussed in their relationships towards one another in order 'to develop a more comprehensive understanding of the dark underside of modernity'.[59] Therefore, it is especially memories of traumatic pasts when human rights were violated at a large scale that require an integrative view on history and cultures of remembrance. Relating this thought to before-described theories of transnationalization of memory in an age of digitalization and digitalized communication, it can be suggested that creating a transnational network of interrelated collective memories is enhanced even further through technological advances such as the internet and digital media. In other words, memory is gaining an increasingly multidirectional character facilitated to a large extent through the digitalized communication channels.

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[55] M. Rothberg, *Multidirectional Memory: Remembering the Holocaust in the Age of Decolonization*, Stanford, CA, Stanford University Press, 2009.
[56] Rothberg, *Multidirectional Memory,* p. 11.
[57] Rothberg, *Multidirectional Memory*.
[58] H. Arendt, *The Origins of Totalitarianism*, New York, Schocken Books, 2004.
[59] S. Craps and M. Rothberg, 'Introduction: Transcultural Negotiations of Holocaust Memory', *Criticism,* vol. 53, no. 4, 2011, p. 518.

3.3. Memories of human rights violations – a transnational affair

collective traumas have no geographical or cultural limitations[60]

Given the focus of this thesis on forms of remembrance of human rights violations, the special relation between memories of traumatic pasts and the transnationalization process of collective memory shall be addressed in the following subchapter.

Similar to previously described factors contributing to the creation of a more global notion of collective memory,[61] it is argued that memorialization of human rights violations is an international concern per se (given the work of international human rights actors)[62] and remembrance of large-scale traumatic experiences in the past, such as the Holocaust, played a crucial role in the development of a more transnational understanding of collective memory in the first place.[63] These two main arguments regarding the relationship between remembrance of human rights atrocities and transnational notions of collective memory will be elaborated shortly in the following.

As has been mentioned briefly in the beginning of this chapter,[64] a special role is ascribed to the horrors of the Holocaust in developing a memory culture and memory community which transgresses national boundaries. Because of the geographic extent of the terrors of the Nazi regime, enclosing parts of several European countries as well as the radicality of its anti-human ideology, which stirred strong emotional responses all over the world, post-World War II memorialization processes of the Holocaust became a concern of the international community as well. Moreover, the high numbers of refugees fleeing from the Nazi terrors into different parts of the world, carrying memories of the Holocaust across borders, added a transnational dimension to the collective Holocaust memory.[65] Through the subsequent development of an international human rights regime aimed at preventing similar events from happening in the future,[66] as well as the institutionalization of post-conflict memorialization processes at an

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[60] Alexander, 'The Social Construction of Moral Universals', p. 98.
[61] See chapters 3.2.1. and 3.2.2.
[62] J. Blustein, 'Human Rights and the Internationalization of Memory', *Journal of Social Philosophy*, vol. 43, no. 1, 2012, pp. 19-32.
[63] Most notable in this regard are the works by Daniel Levy and Nathan Sznaider, see, for example, *Erinnerungen im Globalen Zeitalter: Der Holocaust* as well as *Human Rights and Memory*.
[64] See chapter 3, p. 7.
[65] A. Assmann, 'The Holocaust – a Global Memory?', pp. 97-98.
[66] See chapter 2 on the emergence of the principle of 'never again'.

international level[67] collective memories of human rights violations in general gained a transnational nature.

Especially collective memories of traumatic and violent pasts, of grave human rights abuses and atrocities such as the Holocaust are considered to have a transboundary character.[68] However, this relation between ethical wrongs and their transnational remembrance has been described in different ways by memory scholars.

On the one hand, theorists like Marianne Hirsch[69], Alison Landsberg[70], and Michael Rothberg, whose theory on multidirectional memory was described in section 3.2.3., all based their theories on the thought that memories of traumatic pasts bear an 'ethical significance'[71] and therefore, they need to be spread across generations and spatial and cultural boundaries. In other words, memories of past human rights abuses need to be remembered transnationally, because human suffering evokes empathy irrespective of cultural or national belongings and therefore, 'has the potential, at least, to help people understand past injustices [and] to generate social solidarity'.[72] According to these theories, transboundary mediation of traumatic pasts evokes empathy and affection for other people's suffering and painful historical experiences, creates a feeling of solidarity and might even enhance the formation of a wider notion of collective identity.

On the other hand, it is argued that the inherent universal character of human rights themselves requires memorialization of their violations to be an international concern. Blustein in this

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[67] The importance of memorialization for post-conflict reconciliation processes as well as nation-states' responsibility in this regard were emphasized in a Human Rights Council report in 2014. However, this can be considered only a first step towards institutionalization of memorialization of human rights violations. See Human Rights Council, *Report of the Special Rapporteur in the Field of Cultural Rights Farida Shaheed: Memorialization Processes*, (A/HRC/25/49), 23 January 2014.

[68] Craps and Rothberg, 'Introduction', p. 518.

[69] Marianne Hirsch's theory on 'postmemory' describes the transmission of personal, collective, and cultural traumatic experiences onto following generations in the form of stories, images and behaviors. This way, experiences become part of a generation's memory which the members of this generations themselves did not live through. Hirsch in this respect points out that 'postmemory […] is mediated not by specific recall but by imaginative investment, projection, and creation'. See M. Hirsch, M., 'Postmemory. Interview with Marianne Hirsch', *Art Absolument*, special issue *Creation and Postmemory*, 2013, pp. 6-11; see also M. Hirsch, *Family Frames: Photography, Narrative, and Postmemory*, Cambridge, MA, Harvard University Press, 1997.

[70] Alison Landsberg uses the term 'prosthetic memory' to refer to the mediation of compartmentalized collective memories all across America, this way creating a more comprehensive public cultural memory encompassing larger parts of American society. New technologies of mass culture allow for widespread mediation of historical experiences resulting in the transformation of cultural memory and evoking empathy for past experiences of others, this way enhancing social responsibility and creating more inclusive political alliances. Such a comprehensive form of cultural memory as well as increased social responsibility and their effects in politics might even create a more inclusive form of collective identity. See A. Landsberg, *Prosthetic Memory: The Transformation of American Remembrance in the Age of Mass Culture*, New York, Columbia University Press, 2004.

[71] Craps and Rothberg, 'Introduction', p. 518.

[72] Craps and Rothberg, 'Introduction', p. 518.

regard argues that the international community's responsibility concerning nation states' adherence to human rights standards encompasses also a responsibility to ensure that violations of human rights are remembered adequately.[73] This includes, among other things, building memorials and monuments as well as launching commemorative initiatives aimed at preserving memories of violent pasts and commemorating their victims. A special role in this context is ascribed to international actors and the international community per se.[74] In an increasingly connected world with actors forming networks across national borders, this way constructing an international community, human rights violations and their memorialization are considered a transnational concern as well. This is reflected not only in the United Nations' approach towards institutionalizing the memorialization of human rights violations[75], but also in the efforts of various truth and reconciliation commissions working towards preserving memories of traumatic pasts and commemorating their victims in societies emerging from violent conflicts.

Starting with the Holocaust, memories of human rights violations were expanded by a global dimension and not only the preservation of human rights standards became a concern of the international community, but also the preservation of legacies of violent pasts and injustices. The formation of an international community itself and the increasing emergence of international actors and networks concerned with remembrance of past human rights abuses enhanced this transnationalization process even further. This way, collective memories of human rights violations gained an important transnational character.

3.4. Towards a global memory community

As has been elaborated above, there are numerous theories on the transformation of collective memory towards a more global conception. However, the formation of a global memory community emerging in the course of this transformation[76] has been discussed controversially by memory scholars. While some argue that the Holocaust is an example for how memories of a past experience can spread across the entire world and create a global memory community

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[73] Blustein, 'Human Rights and the Internationalization of Memory', pp. 19-32.

[74] Blustein, 'Human Rights and the Internationalization of Memory', pp. 19-32; A. Assmann, 'Transnational Memories', p. 547.

[75] Human Rights Council, *Report of the Special Rapporteur in the Field of Cultural Rights Farida Shaheed: Memorialization Processes*.

[76] On the relation between collective memory and identity construction see J. Assmann, 'Collective Memory and Cultural Identity', pp. 125-133.

welded together through shared memories of a deeply traumatizing history[77], others render the formation of such a worldwide community based on shared memories 'utopian'[78].

According to Levy and Sznaider, a 'global society' was created following the Holocaust and the subsequent 'national self-criticism' regarding remembrance of the past, resulting in the establishing of an international human rights regime.[79] Following the Holocaust, nation states increasingly took a critical approach towards their own past and allowed for a wider range of memory narratives to become part of their country's 'official' history. By acknowledging own mistakes in the past, the demand grew steadily for a universally applicable set of moral norms in order to avoid repetition of these mistakes in the future. Eventually, this led to the adoption of the Universal Declaration of Human Rights and the introduction of instruments aiming at their compliance.[80] Therefore, it can be said that the horrors of the Second World War led to a new approach towards how a country remembers its own past and especially, to what extent own wrongs are included in cultural memory. With both the memories of the Holocaust themselves spreading across borders, as well as this increasing awareness of states' moral obligations, which was supported and shared by people across borders, a global society was formed.[81] Based on shared memories of a deeply traumatizing historical experience and the agreement that such atrocities can never be repeated, a global memory and human rights community was created.

Jeffrey Alexander, however, while agreeing that the memory of the Holocaust is an example of how a traumatic experience in the past has the potential to create a globally shared collective memory and memory community, argues that the Holocaust is also the only example so far which has had this effect.[82] According to him, the Holocaust constitutes a special case in human history. It is a trauma which exceeded national contexts and which 'express[es] a universal lesson for the rest of the world'[83]. However, it is also the only trauma which had the capacity to create a global collective memory of the past.[84] Therefore, while Alexander agrees with Levy and Szaider that Holocaust memory did gain a global character and was transformed into a

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[77] Levy and Sznaider, *Erinnerungen im Globalen Zeitalter*; Alexander, 'The Social Construction of Moral Universals'.
[78] A. Margalit, *The Ethics of Memory*, Cambridge, MA, Harvard University Press, 2002, p. 82.
[79] Levy and Sznaider, *Erinnerungen im Globalen Zeitalter,* p. 232.
[80] Blustein, J., 'Human Rights and the Internationalization of Memory', pp. 19-32.
[81] Levy and Sznaider, *Erinnerungen im Globalen Zeitalter,* p. 232.
[82] Alexander, 'On the Social Construction of Moral Universals' pp. 3-103.
[83] A. Assmann, 'The Holocaust – a Global Memory?', p. 108, referring to J. Alexander, 'Toward a Theory of Cultural Trauma', in J. Alexander et al. (eds.), Cultural Trauma and Collective Identity, Berkeley, University of California Press, 2004, pp. 196-263.
[84] Alexander, 'Toward a Theory of Cultural Trauma', pp. 196-263.

global memory of a past trauma, he also argues that no other past traumatic experiences has had the capacity to do so.

While both Levy and Sznaider, and Alexander focus on the Holocaust memory in their argumentations towards the creation of a global collective memory and the subsequent formation of a global memory community, Avishai Margalit takes a more general and theoretical approach. He argues that the idea of a global community of shared memories can take two forms: either that of an 'ethical community', which is based on the thought that human beings care for other human beings simply because they all belong to the same ethical category of mankind; or that of a 'moral community', which is based on a set of moral memories shared by all members of a global community.[85] However, Margalit himself renders neither of these concepts realistic, because 'the most promising projects of shared memory are those that go through natural communities of memory'[86] Such 'natural' memory communities can be families, tribes or nations,[87] however a community of people who share no familial, tribal, national, or any other comparable connection, is utopian.[88]

In conclusion, there is no consensus among scholars on whether or not the formation of a global community based on shared memories is possible. While the Holocaust is considered to have had such an effect, the creation of a global memory collective in general is disputed. Recollecting from what memory scholars say about how collective memory is created in general and how it has been gaining an increasing transnational character, it can be assumed that the same factors that have a transnationalizing effect on collective memory also have the potential to create a transnational memory community. Most notable in this respect are increased human mobility, the emergence of international networks, and – most relevant for this thesis – enhanced forms of communication technologies. As was mentioned briefly in the beginning of this work,[89] the ways of how memory is mediated across generations and within a memory community has been changing significantly over the centuries, affecting and transforming not only collective memory as such, but also memory communities. The process of mediating cultural memory and the effects of recent technological developments in it will be explained in more detail in the next chapter.

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[85] Margalit, *The Ethics of Memory*, p. 82.
[86] Margalit, *The Ethics of Memory,* p. 82.
[87] Margalit, *The Ethics of Memory,* p. 69.
[88] Margalit, *The Ethics of Memory,* p. 82.
[89] See chapter 3.1.

4. Mediating cultural memory

4.1. Mediating memory vs mediating history

When it comes to mediating narratives about past events and experiences, the difference between history and memory need to be emphasized. David A. Blight in this respect highlights the universal character of history as opposed to the community-specific of memory. According to him, '*[h]istory* […] is a reasoned reconstruction of the past rooted in research [and] can be read by or belong to everyone', while memory, on the other hand, is the heritage that is 'possessed' by a community.[90] A community's memory therefore is comprised of the stories that are passed down across generations and which can be emplaced in objects, sacred sites or monuments. Collective memory shapes and creates identity and emerges from within a society, while at the same time binding its members closer together. The mediation of history on the other hand, is a top-down process and therefore, authority-driven and power-related. Moreover, memory is considered to be absolute, whereas history is constantly reinterpreted.[91]

De Cesari and Rigney however, argue otherwise by stating that through mediation and re-mediation of cultural memory, the narrative itself is changed. Therefore, memory needs to be considered to have a dynamic and fluid character, a process, instead of a stable concept and a narrative that is passed on without alteration.[92] This line of argumentation is also followed by Barbara Törnquist-Plewa, Tea Sindbæk Andersen and Astrid Erll, who argue that memory is continuously moving between different levels of society, such as the familial, the regional, the national and the international, and this way is constantly re-mediated[93] This dynamic character of memory, it is argued, has a transformative effect on memory itself.[94]

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[90] D. A. Blight, *Beyond the Battlefield: Love, Memory, and the American Civil War,* Amherst, University of Massachusetts Press, 2002, pp. 1-2.
[91] Blight, *Beyond the Battlefield,* pp. 1-2.
[92] De Cesari and Rigney (eds.), *Transnational Memory*, Introduction p. 8.
[93] B. Törnquist-Plewa, T. Sindbæk Andersen and A. Erll, 'Introduction: On Transcultural Memory and Reception', in T. Sindbæk Andersen and B. Törnquist-Plewa (eds.), *The Twentieth Century in European Memory: Transcultural Mediation and Reception*, Leiden/Bosten, Brill, 2017, p. 5.
[94] See, for example, De Cesari and Rigney (eds.), *Transnational Memory*, Introduction p. 8.

4.2. Receiving memory

no mediation of memory can have an impact on memory culture if it is not 'received'[95]

While it is disputed how collective memory is mediated as opposed to history and whether or not it is transformed during this process,[96] those scholars arguing for the latter agree that in order for memories to have an impact on a memory culture they need to be received by a group of people.[97] This means that a historical narrative can only become part of a collective memory if it is received as such by the members of the community. In other words, the preservation of a memory narrative in a collective memory is an act of communication, involving a message, medium, sender and receiver.[98]

The message in this communicative act of mediating memory is the content and form of a memory representation, the medium is what Törnquist-Plewa, Sindbæk Andersen, and Erll refer to as the 'channel of transmission'.[99] Applied to virtual tours as ways of mediating memory, this would mean that the message is the visual, textual, and audiovisual representations of the memory narrative that are included in such a tour, while the tour as such constitutes a channel of transmission. The senders of memory are its producers,[100] which means for virtual tours, the same person, group of persons, institution or organization that also produced the memory narrative that is mediated through the physical site of memory which can be visited by the means of a virtual tour. As far as the reception part of memory mediation is concerned, it is thought to depend to a large extent on the social context of the recipient.[101] For web-based[102] virtual tours this constitutes a special challenge, given the fact that such tours are taken by mainly anonymous users of the internet and neither their social context nor the way they receive a memory can be pursued.

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[95] Törnquist-Plewa, Sindbæk Andersen and Erll, 'Introduction', p. 3.
[96] See section 3.2.
[97] Törnquist-Plewa, Sindbæk Andersen and Erll, 'Introduction', p. 3.
[98] Törnquist-Plewa, Sindbæk Andersen and Erll, 'Introduction', pp. 6-10.
[99] Törnquist-Plewa, Sindbæk Andersen and Erll, 'Introduction', p. 6.
[100] Törnquist-Plewa, Sindbæk Andersen and Erll, 'Introduction', p. 6.
[101] Törnquist-Plewa, Sindbæk Andersen and Erll, 'Introduction', p. 6.
[102] In the course of this thesis the term 'web-based' will be used to refer to contents 'relating to or done using the Web (= the system of connected documents on the internet)'. See 'Web-Based', in *Cambridge Online Dictionary,* 2018, https://dictionary.cambridge.org/dictionary/english/web-based, (accessed 1 July 2018).

4.3. Memory mediation and emotions

To combine what was stated in the previous two subsections, it can be said that in order for memory to be mediated 'successfully', it is necessary that, on the one hand, the historical narrative is not mediated as history, but as memory,[103] on the other hand, memory needs to be received by the members of a memory community in order to become part of its collective memory.[104] The term 'successful mediation' in this regard is used to refer to the process of integrating the narrative of a past experience or event in the collective memory shared by a certain group of people, a memory community, thus having the potential to create and shape identity.

However, another important factor needs to be mentioned in this regard: emotions and cognitive engagement. Vjeran Pavlaković and Benedikt Perak highlight this aspect of memory transmission by providing examples from war memorials in Croatia.[105] According to them, emotional and cognitive factors have a strong influence on how successful a memory narrative is mediated, although they constitute a particularly difficult parameter to be measured.[106] Their study on the transmission of memories emplaced in Croatian war memorials shows that 'the dynamics of a cultural memory transmission is correlated with the level of affective and cognitive engagement of the recipients'.[107] Thus, it can be concluded that memory narratives need to be mediated in a way that engages people emotionally and cognitively in order for them to receive it as memory and to incorporate it in collective memory.

However, the importance of emotions in the process of transmitting memory that has been highlighted in this short subsection and that has been emphasized by Pavlaković and Perak in their study on Croatian war memorials, is discussed rarely by memory scholars. Telling from the small amount of literature that could be found on this topic, the emotional aspect of memory mediation can be considered a part of memory studies that still needs to be researched further. Part of the reason for why the relevance of emotional engagement for the process of memory transmission lacks academic investigation might be the difficulty of measuring emotions and drawing general conclusions from it.

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[103] See section 3.2.
[104] See section 3.2.
[105] V. Pavlaković and B. Perak, 'How Does This Monument Make You Feel? Measuring Emotional Responses to War Memorials in Croatia', in T. Sindbæk Andersen and B. Törnquist-Plewa, (eds.), *The Twentieth Century in European Memory: Transcultural Mediation and Reception*, Leiden/Bosten, Brill, 2017, pp. 268-304.
[106] Pavlaković and Perak, 'How Does This Monument Make You Feel?', p. 270.
[107] Pavlaković and Perak, 'How Does This Monument Make You Feel?', p. 302.

Having highlighted the difficulties regarding the analysis and measurement of emotional engagement in general, and in the context of memory mediation in particular, the emotional factor has also been neglected in the analysis that was conducted in the course of this thesis. However, it should be noted that emotions and cognitive involvement constitute important aspects of memory transmission and were therefore addressed in this short subsection.

4.4. Mediating memory in a digital age

Philosophers and scholars from the time of Plato onward have worried about the impact of new technology on memory, cognition, and human relationships.[108]

Technological advancements and new forms of digital communication have already been mentioned in section 3.2.1. as factors enhancing the formation of a transnational form of collective memory. However, digital media and new communication technology not only change the nature of collective memory as such, but also constitute a requirement for mediating memory in a digital age in the first place.[109] Therefore, it can be said that digital and technological advancements are on the one hand, a necessary tool for transmitting memory to today's audience, while on the other hand, at the same time changing this memory. The role new forms of communication play in the process of memory mediation as well as their effects and characteristics will be examined in the following chapter.

4.4.1. Effects of digitalized communication technology on memory mediation

First of all, new digital forms of communication allow for faster and easier ways of sharing memory narratives.[110] Most notable in this regard is the invention of the internet, which enables members of a memory community to communicate and mediate memory immediately and irrespective of their physical location, this way facilitating transnational memory transmission. Furthermore, the internet has the potential to create larger memory communities, since

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[108] R. Cox, 'Archives, War, and Memory: Building a Framework', *Library & Archival Security*, vol. 25, no. 1, 2012, pp. 33-34.
[109] Kansteiner, 'The Holocaust in the 21st Century', p. 119.
[110] Hoskins, 'Digital Network Memory', pp. 91-106.

technically, it allows any person connected to the internet to receive a memory narrative and become part of a memory collective.[111]

Moreover, the internet and technological advancements enlarging the scope of memory communities, result in increasing numbers of people who take on memories which are not based on their own experiences.[112] In other words, mediation of memory in a digital age does not only change the speed, scope, and seize of a memory community, it also transforms the audience of a transmitted memory narrative. Thus, while traditionally, memories used to be mediated among members of the same community, whereby each of them could identify some kind of personal relationship between the producer of the narrative and themselves, recipients of memories which are mediated through digital communication channels do not necessarily obtain such an intimate relationship to the producers of these memories. On the contrary, producers and recipients of a memory narrative can have a rather distant and anonymous relationship towards each other.

However, while the distance between producers and audience might increase through the use of new communication technologies, such technologies at the same time can create a feeling of 'closeness', of empathy for and emotional identification with the content that is mediated.[113] Amy Sodaro in this regard underscores the possibilities digital technology provides for memorial museums. By using affective strategies which engage the visitor emotionally identification with the victims of past atrocities can be enhances and the mediation of its memory can be considered more successful.[114]

To conclude, it can be said that digitalization and the development of new forms of communication affect not only the way memory is mediated in a digital age, but also the nature of a memory narrative's audience as well as their relationship towards the narrative's producer and content. However, while on the one hand, memory transmission is affected by digital media and communication technologies, these new forms of mediation are also necessary tools for transmitting memory to a generation of digital natives[115]. This role of new and digital communication technology for memory mediation will be addressed in the subsequent section.

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[111] Törnquist-Plewa, Sindbæk Andersen and Erll, 'Introduction', pp. 14-15.
[112] Craps and Rothberg, 'Introduction: Transcultural Negotiations of Holocaust Memory', *Criticism,* vol. 53, no. 4, 2011, p. 517.
[113] A. Assmann, 'The Holocaust – a Global Memory?', p. 110; Sodaro, *Exhibiting Atrocity,* p. 6.
[114] Sodaro, *Exhibiting Atrocity*, p. 6.
[115] For a definition of the term 'digital natives', see the introductory chapter, p. 3.

In order to continue mediating memories and to preserve memories of past events and experiences – which is particularly important when it comes to remembering past human rights violations[116] – the forms of transmission need to be constantly adjusted and adopted to a given historical context. This means for today's digital age that new forms of memory mediation need to be developed in order to reach out to a generation of digital natives.[117] More precisely this means that 'successfully staging historical authenticity for today's audiences requires digital technology'[118]. Similar to what was stated in the previous sections, it is argued that emotional attachment is a particularly crucial factor for successful memory mediation and such emotional engagement can be achieved only if the recipient considers the memory content to be authentic.[119] Digital technologies in this regard can provide means of creating authenticity, this way engaging audiences emotionally and mediating memory successfully.

Two examples of how technological advancements are included in and used for processes of memory transmission are mentioned by Wulf Kansteiner: video games and apps.[120] Due to their immersive and interactive nature, especially video games can achieve emotional engagement with their players.[121] Based on this thought, Kansteiner argues that video games as well as apps can constitute potential ways of mediating memories of historical events and experiences to an audience which grew up with digital technologies.[122] Given the progresses in digitalization and communication technologies, younger recipients of memory are used to high technological standards and advancements. Subsequently, such standards need to be fulfilled in order for digital native recipients to react to them and receive them. As Kansteiner points out, immersion and interactivity are especially important in this regard[123]: immersion in this context refers to authentic simulations of experiences which create an emotional state similar to the one created by real experiences; interactivity, on the other hand, is crucial as it engages the memory recipient actively in the mediation process, a step which is very important in an age where

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[116] See chapter 2.
[117] Kansteiner, 'Genocide Memory, Digital Cultures, and the Aesthetization of Violence', pp. 403-408.
[118] Kansteiner, 'The Holocaust in the 21st Century', p. 119.
[119] Kansteiner, 'The Holocaust in the 21st Century', p. 119.
[120] Kansteiner, 'The Holocaust in the 21st Century', pp. 110-140.
[121] Kansteiner, 'The Holocaust in the 21st Century', p. 123.
[122] Kansteiner, 'The Holocaust in the 21st Century', pp. 110-140.
[123] Kansteiner, 'The Holocaust in the 21st Century', p. 123; Kansteiner, 'Genocide Memory, Digital Cultures, and the Aesthetization of Violence', p. 406.

passive consumers have turned into active 'prosumers'[124] – both producers and consumers – of memory.

However, besides immersion and interactivity, timely forms of mediating memory need to fulfill also the criteria of reliability, immediacy and authenticity.[125] While the authenticity requirement has already been discussed, a medium transmitting memory additionally needs to be reliable and allow for immediate transmission. While the internet has been discussed as a way of mediating memory immediately, it is questionable if it also constitutes a reliable medium. However, as today's communication technology and the internet allow for multi-media[126] transmission of contents, reliability of such forms of communication and memory mediation is enhanced.

While immediacy and reliability are considered crucial factors of mediating memory in the digital age and were therefore listed here, the focus in the subsequent analysis of virtual tours will be laid on their immersive and interactive components, as these are attributes which are typically ascribed to most recent technological advancements such as virtual reality[127] and augmented reality[128], while immediacy and reliability are also attributed to 'older' forms of media, such as film and television.[129]

4.4.3. Risks of digital media of memory

As has been argued in the previous section, new forms of memory mediation need to be developed in order for a historical narrative, especially a traumatic one, to be passed on to future generations and to be maintained as part of a collective memory. In other words, if remembrance of past atrocities and human rights abuses needs to be ensured also in the future and included in succeeding generations' collective memory[130], then the forms of how memory is mediated need to be adjusted accordingly in a digital age. As has been outline above, the internet and

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[124] Hoskins, 'Digital Network Memory', pp. 91-92.

[125] Törnquist-Plewa, Sindbæk Andersen and Erll, 'Introduction', p. 10.

[126] The term 'multi-mediality' in this regard refers to the use of multiple different media, such as textual, visual and audiovisual ones, in order to mediate a memory narrative.

[127] Virtual reality is defined as 'a set of images and sounds, produced by a computer, that seem to represent a place or a situation that a person can take part in'. See 'Virtual Reality', in *Cambridge Online Dictionary*, 2018, https://dictionary.cambridge.org/dictionary/english/virtual-reality, (accessed 1 July 2018).

[128] The term 'augmented reality' is used to refer to 'images produced by a computer and used together with a view of the real world'. See 'Augmented Reality', in *Cambridge Online Dictionary*, 2018, https://dictionary.cambridge.org/dictionary/english/augmented-reality, (accessed 1 July 2018).

[129] Törnquist-Plewa, Sindbæk Andersen and Erll, 'Introduction', p. 10.

[130] The importance of remembering past human rights violations has already been addressed in chapter 2.

digital technologies constitute highly relevant tools for mediating memory in the twenty-first century. Kansteiner in this regard suggests using immersive and interactive technological tools such as video games, apps and virtual testimonies, as well as three-dimensional and four-dimensional geo-immersion[131] for transmitting narratives of the past in a digital present.[132] However, he also addresses some of the risks and challenges associated with mediating memories using new digital technologies and the internet to disseminate them.

First of all, he argues that memories of traumatic and violent pasts constitute highly sensitive contents whose mediation should be handled by professional memory initiatives. App developments and programming of digital mediators such as computer games or virtual testimonies should therefore be supervised by persons who are specialized on transmitting such sensitive memory contents.[133] Otherwise, they run the risk of having traumatizing effects on the audience or even falsify historical truths about what happened in the past.[134]

Secondly, digital programming constitutes an inexpensive way of creating a medium to transmit memory in an easy and fast way while reaching a large number of people. At the same time this also constitutes a major challenge when it comes to mediating memories of violent and traumatic pasts, because basically any person can obtain the technical skills to mediate memory narratives this way and use the internet to spread them globally. Digital and web-based memory media therefore, cannot be controlled, which means that memory narratives can be altered and created in an unbridled manner.[135]

Thirdly, Kansteiner point to the distorting effect virtually transmitted experiences of the past can have on the weight of a traumatic memory narrative.[136] Since technological advancements such as virtual reality tools invite users to virtually take part in past experiences, it is extremely important not to forget that these are still only virtual simulations of real pasts and that a virtual experience in the present cannot be compared to what people who lived this experience in reality have felt or gone through. Therefore, it is considered important to emphasize at this point that

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[131] Geo-immersion is the process of capturing of a real world geographical environment which is subsequently rendered virtually in order to create immersion. See O'Brian, M. and J. Baime, 'Geo-Immersion Makes Maps Come Alive', *Science Nation*, [web blog], 11 July 2011, https://www.nsf.gov/news/special_reports/science_nation/geoimmersion.jsp, (accessed 2 July 2018).
[132] Kansteiner, 'Genocide Memory, Digital Cultures, and the Aesthetization of Violence', pp. 403-408.
[133] Kansteiner, 'The Holocaust in the 21st Century', p. 132.
[134] Kansteiner, 'The Holocaust in the 21st Century', p. 121.
[135] Kansteiner, 'Genocide Memory, Digital Cultures, and the Aesthetization of Violence', p. 406.
[136] Kansteiner, 'The Holocaust in the 21st Century', p. 124.

virtual and digital forms of mediating memory do not aim at reconstructing realities of the past but constitute a medium for transmitting memories.

4.5. The power of places: physical sites as mediators of memory

[P]hysical sites where atrocities and crimes have occurred [...] have unparalleled power to foster awareness and empathy, encourage civic engagement, and deepen our emotional appreciation of the consequences of injustice.[137]

In the previous chapter on new forms of mediating memory in a digital age it was argued that in order to reach younger generations who grew up with the technological advancements of digitalization and the internet, new, digital ways of memory transmission need to be developed. This constitutes a particular challenge for what Kansteiner refers to as 'memorial sites'[138] – physical sites where human rights violations were committed – as they constitute physical emplacements[139] of collective memory. This means that for such sites their physical nature holds a special function in the process of transmitting the memory narrative that is emplaced in them. Elizabeth Silkes, the executive director of the International Coalition of Sites of Conscience[140], refers to this as the 'unparalleled power' of such sites to engage their visitors emotionally and actively, this way raising awareness of past and present human rights abuses and encouraging people to take action.[141] Hence, mediating their memory narratives in an increasingly digital and virtual age constitutes a particular challenge for such physical sites. As will be argued in the subsequent analysis, which was conducted in the course of this thesis, the provision of virtual tours on a memorial site's website could be a possible response to this challenge. However, before describing the individual steps of the analysis and presenting its results, the function and nature of memorial sites will be addressed briefly.

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[137] E. Silkes, 'Sites of Conscience', *The New York Times,* 19 October 2016, Opinion Letter, https://www.nytimes.com/2016/10/20/opinion/sites-of-conscience.html, (accessed 1 July 2018).

[138] Kansteiner, 'The Holocaust in the 21st Century', pp. 110-140.

[139] Roger Aden argues that collective memory is 'emplaced' in either physical or imagined sites of memory. See R. Aden et al., 'Re-Collection: A Proposal for Refining the Study of Collective Memory and its Places', *Communication Theory*, vol. 19, no. 1, 2009, pp. 311-336.

[140] The International Coalition of Sites of Conscience is a non-profit organization network of historic sites and memory initiatives aiming at connecting struggles of the past to the present and to today's human rights movement. See International Coalition of Sites of Conscience [website], 2018 https://www.sitesofconscience.org/en/home/, (accessed 28 June 2018), homepage.

[141] Silkes, 'Sites of Conscience'.

4.5.1. Memorial sites – places of remembrance and education

In order for a place where atrocities were committed to become a memorial site, transmitting the memory narrative of its violent past, it needs to become a place of remembrance, meaning that 'one or several will have to establish that such a place is important in terms of memory'.[142]

Places of human rights violations are often turned into memorial sites and their violent pasts become memory narratives, which on the one hand, need to be preserved; on the other hand, they are used to promote human rights values in the present and raise awareness of human rights violations today. This way, they obtain both a commemorative and an educational function: By depicting how neglect and ignorance of human rights values can result in violence and injustice, democratic and ethical values are 'instilled' in the visitor.[143]

Valdez in this regard underscores the importance of using new forms of technology to remember past human rights violations and to demonstrate how a lack of democratic values can result in atrocities and large-scale human suffering.[144] This argumentation is supported by Amy Sodaro, who lists a number of exemplary memorial museums which use digital technologies to create immersion and to provide interactive ways of mediating memory,[145] which are especially relevant for addressing younger generations. The use of new forms of communication technologies, such as virtual reality, for transmitting memory narratives of past human rights abuses, especially to younger generations, is therefore, considered to be an important tool for preserving legacies of past atrocities and for promoting human rights values in the present.

Moreover, it is worth mentioning at this point that this commemorative and educational function that memorial sites obtain adds a transnational dimension to them, since the human rights values they try to instill have are universal in their nature.[146] By promoting universal human rights values memorial sites can be considered carriers of memories which are relevant not only for a particular society or community but for humanity as such. This way, the collective memories a memorial site seeks to transmit gain a transnational character.

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[142] T. Valdez, 'Week 4: Competing Histories and Truths: Challenges in the Creation of Memory Sites' [lecture notes], *MOOC Memory Sites and Human Rights CN 2606*, provided on Canvas Network, Global Campus of Human Rights, https://www.canvas.net/browse/eiuc/courses/memory-sites-human-rights (accessed 4 April 2018).
[143] Sodaro, *Exhibiting Atrocity*, p. 4.
[144] Valdez, 'Week 4: Competing Histories and Truths'.
[145] Sodaro, *Exhibiting Atrocity,* p. 1.
[146] Sodaro, *Exhibiting Atrocity*, p. 5.

4.5.2. Sites of conscience and the International Coalition of Sites of Conscience

The characteristics of memorial sites as places of remembrance which aim at morally educating their visitors, which have been described in the previous section, are also inherent in so-called 'sites of conscience'. This term is used to refer to both physical and imagined places of memory, such as historic sites, memorial museums, or memory initiatives, which aim at preserving memories of traumatic pasts and relate them to contemporary human rights issues.[147] Since the list of sites of conscience comprising the members of the International Coalition of Sites of Conscience (ICSC) was chosen as basic population from which two cases were selected and analyzed in the course of this thesis[148], the subsequent section will be dedicated to this network of sites of conscience.

The ICSC was founded in 1999[149] by nine representatives of historic sites and memory initiatives with the aim of better demonstrating the importance of such historic sites for the present.[150] Based on the idea of transforming historic sites and places of memory into 'new centers for civic engagement and action on today's most important [human rights] issues'[151], the ICSC today comprises over 250 members – which are historic sites, museums, memorials or memory initiatives – in 65 countries all over the world.[152]

The founders of the ICSC argued that passive learning about past human rights abuses and atrocities does not automatically have activating effects with the learner. However, to ensure non-repetition of such traumatic events and experiences from the past, action needs to be taken in the present. Therefore, this was taken to be the hallmark of sites of conscience.[153] Sites of conscience connect lessons from the past to actions in the present and build on cultures of human rights by emphasizing the emotional value, collective nature, and universality of collective memories of past traumas.[154]

Therefore, it can be argued that sites of conscience not only have an activating, but also a transnationalizing effect – both on collective memories and human rights. By mediating

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[147] International Coalition of Sites of Conscience [website], section 'About Us'.
[148] See Part II.
[149] International Coalition of Sites of Conscience [website], section 'About Us'.
[150] G. Bix, 'Sites of Conscience: Past to Present, Memory to Action', in G. Bix, (ed.), *Museums of Ideas: Commitment and Conflict*, Edinburgh, MuseumEtc Ltd, 2011, p. 97.
[151] Bix, 'Sites of Conscience', p. 97.
[152] International Coalition of Sites of Conscience [website], section 'About Us'.
[153] Bix, 'Sites of Conscience', p. 98.
[154] G. Bix and Z. McKiernan, 'Sites of Conscience: Memory and Human Rights', in G. Bix, (ed.), *Strengthening Memory, Justice, and Human Rights in Brazil and the Southern Hemisphere*, Brazília, Brazilian Ministry of Justice Amnesty Commission, 2015, p. 45.

memories of past human rights violations and establishing relations to present human rights issues, they encourage visitors and participants to take action and to look at today's problems irrespective of national or cultural boundaries. This transnational dimension of sites of conscience is also reflected in their definition as initiatives that 'interpret history through sites, stimulate dialogues on pressing social issues and promote democratic and humanitarian values, and share opportunities for public involvement in the issues raised at the site'.[155]

5. Web-based virtual tours

5.1. Virtual tours

Throughout the preceding chapters on the concept of collective memory and how it has been gaining a transnational character, the transmission and preservation of memory in the past and in the present, as well as the specific case of memory sites as mediators of memories of human rights violations and promoters of human rights values, virtual tours as tools for mediating memories of the past have been mentioned on several occasions. As they constitute the object of analysis of this thesis, a definition of a virtual tour is required at this stage, as well as some basic technical information on how such tours are constructed and used. These will be provided in the following.

A virtual tour is a multimedia virtual visualization of a real site,[156] typically comprised of videos or sequences of photographic images which are taken by a rotating camera and subsequently merged into a panoramic image with the help of a computer program.[157] This is called image stitching and defined as 'the process of combining multiple photographic images with overlapping fields of view to produce a segmented panorama'.[158] The images are usually taken from a single vantage point and cover a 360-degree horizontal view which can be expanded by a 180-degree vertical view. While the first method produces a cylindrical panorama, the latter one creates spherical images.[159] The advantage of spherical images over cylindrical ones is that they allow the viewer to also 'look up and down'. A computer application such as Adobe Flash

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[155] Bix, 'Sites of Conscience', p. 98.
[156] M. Batty and A. Smith, 'Virtuality and Cities: Definitions, Geographies, Designs', in P. Fischer and D. Unwin (eds.), *Virtual Reality in Geography*, London, Taylor & Francis, 2002, p. 280.
[157] S. Wells et al., *IATH Practices Guide to Digital Panoramic Photography,* [website] http://www2.iath.virginia.edu/panorama/section4.html#4.1, 2007, (accessed 1 July 2018).
[158] J. Mehta and S. Bhirud S., 'Image Stitching Techniques', in S. Pise (ed.), *Thinkquest~2010: Proceedings of the First International Conference on Contours of Computing Technology*, New Delhi, Springer, 2011, p. 74.
[159] Wells et al., *IATH Practices Guide to Digital Panoramic Photography.*

Player is required for displaying the panoramic images created through the image stitching technique. The panoramic image can be expanded by additional visual, textual or audiovisual items, such as photos, text segments, or videos, containing further information about the site. Furthermore, site maps, pull down menus and thumbnails[160] can be included in order to facilitate navigation. This way, virtual tours constitute multimedia digital tools.

Over the past years virtual tours have been used increasingly, especially in the fields of real estate[161], and cultural tourism and heritage preservation[162]. Due to their interactive character, allowing the user to move freely within the tour and to click on buttons for additional information,[163] they constitute virtual environments, defined as 'a computer-generated display that allows or compels the user (or users) to have a sense of being present in an environment other than the one they are actually in, and to interact with that environment'[164]. This means that by providing interactive tools, such as allowing the user to freely chose directions and additional information options, a certain degree of immersion[165] is created. With regards to immersion – a term which is typically associated with videogames – Björk and Holopainen differentiate between four types of immersion: spatial, emotional, cognitive, and sensory-motoric.[166] Two of them are considered relevant for the subsequent analysis of virtual tours: spatial immersion, which is created through extensive and elaborated navigation tools, and emotional immersion, which is considered to be a way of 'responding to the events that characters are part of during the unfolding of a narrative structure'.[167] Applied to the context of mediating memory narratives by means of virtual tours, this means that emotional immersion is created if visitors of the virtual site encounter for example personal stories of individuals who lived through a certain past experience, and respond to them. While such a response in

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[160] A thumbnail is 'a small picture of an image or page on a computer screen'. See 'Thumbnail', in *Cambridge Online Dictionary*, 2018, https://dictionary.cambridge.org/de/worterbuch/englisch/thumbnail, (accessed 1 July 2018). In the context of virtual tours, thumbnails can constitute links to further information or to different parts of the tour.

[161] See, for example, C. Brady, '2018 Guide to Virtual Tours and VR in Real Estate', *FUTURE:PropTech* [website], 2018, https://futureproptech.co.uk/2018/04/29/2018-guide-virtual-tours-vr-real-estate/, (accessed 2 July 2018).

[162] See, for example, C. Castagnetti, M. Gianninia and R. Rivola, 'Image-Based Virtual Tours and 3D Modeling of Past and Current Ages for the Enhancement of Archeological Parks: The Visual Versilia 3D Project', *The International Archives of the Photogrammetry: Remote Sensing and Spatial Information Sciences,* vol. 42, no. 5, 2017, pp. 639-645.

[163] Castagnetti, Gianninia and Rivola, 'Image-Based Virtual Tours and 3D Modeling', p. 642.

[164] R. Schroeder, *Possible Worlds: The Social Dynamic of Virtual Reality Technologies,* Boulder, Westview Press, 1996, p. 25.

[165] The term 'immersion' is typically used in the context of videogaming and describes a state of 'becoming completely involved in something'. See 'Immersion', in *Cambridge Online Dictionary,* 2018, https://dictionary.cambridge.org/de/worterbuch/englisch/immersion, (accessed 1 July 2018).

[166] S. Björk and J. Holopainen, *Patterns in Game Design*, Hingham, MA, Charles River Media, 2004, p. 206.

[167] Björk and Holopainen, *Patterns in Game Design*, p. 206.

videogaming can be expressed in form of measurable actions, it is argued here that the term 'response' can also indicate an emotional affection of the visitor triggered by certain contents.

To sum up above-described main characteristics of virtual tours, they can be defined as interactive and immersive multimedia virtual representations of real sites. However, these three features can be present to varying extents, depending on the number and range of interaction tools provided, the degree to which affective contents are included, and the use of different forms of media. Moreover, it needs to be emphasized that emotional engagement and immersion are highly subjective[168] and generalizations about how these effects are achieved are therefore, very difficult to make.

5.2. The medium internet

Due to their interactive and immersive nature virtual tours themselves can already be considered a potential tool for mediating memory in a digital age.[169] However, if they are provided online, the additional effect of being accessible to a larger number of people irrespective of timely and spatial aspects can be achieved.[170] These essential characteristics of the internet as a communication tool will be discussed – along with some others – in the following.

When it comes to describing the internet and the World Wide Web as media tools, accessibility is typically named as one of its main advantages. Technically, the internet allows any person from almost any place in the world to immediately access any information it contains.[171] In reality however, far from every person on this planet has the technological skills or equipment to establish a connection to the internet.[172] There are some rural areas which are still not connected to this global network. Furthermore, impoverished people as well as the elderly often lack the technological equipment or skills to access all the information provided via the internet.[173]

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[168] C. Zhang, A. Perkis and S. Arndt, 'Spatial Immersion versus Emotional Immersion: Which is More Immersive?', *2017 Ninth International Conference on Quality of Multimedia*, Erfurt, IEEE Conference Publications, 2017, p. 1.

[169] See section 4.4.2.

[170] Törnquist-Plewa, Sindbæk Andersen and Erll, 'Introduction', pp. 14-15; Dörte, *Erinnerungskulturen online,* p. 85.

[171] K. Luzar, *Inhaltsanalyse von webbasierten Informationsangeboten: Framework für die inhaltliche und strukturelle Analyse*, Norderstedt, Books on Demand GmbH, 2004, pp. 36-38.

[172] Luzar, *Inhaltsanalyse von webbasierten Informationsangeboten,* p. 36.

[173] In 2017 still about half of the world's population was not connected to the internet. See Broadband Commission for Sustainable Development, *The State of Broadband: Broadband Catalyzing Sustainable Development*,

Besides easy and fast access to information Luzar names two other major characteristics of the internet as a communication tool: personalization and multimedia. The former terms refers to the fact that internet users are able to actively shape its content for their personal use and retrieve information from it which is customized to their personal needs and interests.[174] This personalization aspect of the internet is enhanced even more in times of data storage and trade in personal data. The multimedia aspect, on the other hand, refers to the integration of multiple types of communication media such as textual, visual and audiovisual ones. Such an integrative use of multimedia in communication is a feature which can be facilitated only through computational technologies.[175] Martin Welker and Carsten Wünsch use the even more specific term 'hypermediality' to refer to this multimedia nature of the internet.[176] This term additionally indicated the connective relations between these different forms of media. In other words, the internet does not only include multiple types of media, but also establishes connections among them, thus creating a network structure of several different media components.

Furthermore, not only above-described virtual tours, but also the internet is an interactive communication medium. Luzar in this regard, points out that the internet provides a tool both for enhanced interaction between people and for man-machine interaction.[177] The latter one can be exemplified by the very basic act when a person types a word in a search engine and receives a response in form of a list of search results. This already constitutes a communicative act between the person and the computer.

To conclude, the most prominent features of the internet as an information-transmitting medium are its interactive nature, which allows the user to actively participate in communication acts, its multimedia network structure combining several different types of media, the extent to which it allows a personalized use, and the fact that it provides an easy and fast way of mediating contents among a vast number of people while largely neglecting the spatial and timely dimensions a communicative act usually includes.

The immersive, interactive, and multimedia-inclusive nature of virtual tours combined with the particularities of the internet allowing for fast and easy communication also across large spatial

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September 2017, https://www.itu.int/dms_pub/itu-s/opb/pol/S-POL-BROADBAND.18-2017-PDF-E.pdf, (accessed 4 July 2018).

[174] Luzar, *Inhaltsanalyse von webbasierten Informationsangeboten,* p. 37.

[175] Luzar, *Inhaltsanalyse von webbasierten Informationsangeboten,* pp. 37-38.

[176] Welker, M. and C. Wünsch et al., 'Die Online-Inhaltsanalyse: methodische Herausforderung, aber ohne Alternative', in M. Welker and C. Wünsch (eds.), *Die Online-Inhaltsanalyse: Forschungsobjekt Internet*, Köln, Halem, 2010, p. 11.

[177] Luzar, *Inhaltsanalyse von webbasierten Informationsangeboten,* p. 39.

distances constitute the main characteristics of web-based virtual tours as transmitters of communicative contents. The question of whether or not and to what extent such tours are – or can be – also eligible mediators of memory narratives, will be discussed in the second part of this thesis, in which two web-based virtual tours through memorial sites will be analyzed.

PART II

6. Selection of cases

6.1. Basic population and inclusion criteria

Given the fact that the internet consists of an inconsistent mass of interconnected networks of contents which are continuously expanded and changed, it is deemed possible to compile a definite list of all online virtual tours through memorial sites that exist at a certain point in time. Therefore, and due to their explicit focus on human rights[178] the list of the 243 members of the ICSC[179] was taken as basic population from which the two cases were selected for analysis through application of three inclusion criteria.

First of all, the ICSC member had to constitute a physical site. Correspondingly, all memory initiatives, memorial projects and corresponding organizations without any relation to a physical site other than their offices and meeting rooms were excluded. In a second step, the physical sites were divided into memorial sites, defined as sites where human rights violations actually happened,[180] and other sites with no physical relation to the historical narratives they remember. Finally, the websites of all those members left were searched for virtual tours. Only those which provided a virtual tour on their website remained on the list of potential cases. These were the Terezín memorial site in the Czech Republic, the Eastern State Penitentiary Historic Site in the United States, and the Asociación por la Memoria y los Derechos Humanos Colonia Dignidad in Chile. However, when testing the three remaining virtual tours on the list, it was detected that the tour through the Terezín memorial site was provided only in Czech language, which is not known by the author. Therefore, a language criterion was added after the case selection process was completed, and the Terezín site was excluded from the analysis.

6.2. Ambiguities

Above-described selection process of applying three pre-defined inclusion criteria to a finite list of potential cases revealed ambiguities with both of the cases selected.

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[178] Bix and McKiernan, 'Sites of Conscience: Memory and Human Rights'
[179] International Coalition of Sites of Conscience [website], section 'Members'.
[180] Kansteiner, 'The Holocaust in the 21st Century', pp. 110-140.

On the one hand, the name of the Asociación por la Memoria y los Derechos Humanos Colonia Dignidad defines it as 'association' (*asociación*) rather than as physical site, which would exclude it from the list of potential cases according to the first inclusion criteria. However, it remained on the list because it is an association dedicated to preserving the traumatic history of a physical site where crimes against humanity were committed.[181]

On the other hand, the tour provided on the website of the Eastern State Penitentiary Historic Site is labelled 'online tour', rather than 'virtual tour'. Therefore, this tour was examined in more detail and its structure compared to the definition of a virtual tour as a 'multimedia virtual visualization of a real site typically comprised of videos or sequences of photographic images'[182]. Given the tour's structure consisting of a navigation site map which contains links to textual contents as well as panoramic images provided by Google Street View, it was concluded that the online tour provided on the Eastern State Penitentiary website fulfills the multimedia visualization criterion of a virtual tour and therefore, constitutes an eligible case for analysis.

7. Research interest and methodology

The method chosen for analyzing virtual tours as mediators of transnational memory in a digital age is that of a structuring content analysis through deductive category application, as developed by Philipp Mayring.[183]

The content analysis method in communication theory allows the researcher to fit the analyzed material into a communication model by following a predefined step-by-step analysis. It revolves around the development of an inter-subjectively comprehensible analysis framework based on categorization.[184] The term 'inter-subjectively comprehensible' in this regard means that the analysis framework needs to be designed in a way that any researcher conducting the analysis would come to similar conclusions.[185] The method is based on the development of a system of clearly defined categories covering the entire material analyzed in a way that each part of it can be assigned to one of the categories. This procedure of applying categories on the

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[181] See the description of the Asociación por la Memoria y los Derechos Humanos Colonia Dignidad on the ICSC website, International Coalition of Sites of Conscience [website], 2018 https://www.sitesofconscience.org/en/home/, (accessed 28 June 2018), section 'Members'.

[182] See definition of a virtual tour in chapter 5.1.

[183] P. Mayring, *Qualitative Inhaltsanalyse: Grundlagen und Techniken,* 11th edn., Weinheim/Basel, Beltz Verlag, 2010.

[184] P. Mayring, 'Qualitative Content Analysis', *Forum: Qualitative Social Research*, vol. 1, no. 2, 2000, paragraph 7, http://nbn-resolving.de/urn:nbn:de:0114-fqs0002204, (accessed 5 July 2018).

[185] Mayring, *Qualitative Inhaltsanalyse*, p. 49.

text can either be inductive or deductive, the techniques of interpretation, depending on the aims of analysis, can be summarizing, explicative, or structuring.[186]

Deductive category application is used if a structuring approach of content analysis is taken.[187] It is based on 'prior[ly] formulated, theoretical[ly] derived aspects of analysis, bringing them in connection with the text'.[188] This means that based on the theoretical framework, certain aspects are defined according to which the material will be analyzed. These aspects are then transformed into a system of clearly defined categories which will subsequently be applied to a first part of the text and then revised, before being applied to the remaining material. By revising and adjusting the categories after an initial run, they are checked for reliability, which is considered a substantive criterion of qualitative content analysis. [189] The way the categories for the subsequent analysis were deducted from the theoretical framework outlined in part I will be explained in chapter 8.2.

However, before describing the concrete steps and results of the analysis conducted in the course of this thesis, the technique of interpretation which led to these results will be addressed briefly. As has been mentioned above, the procedure of deductive category application is used if a structuring content analysis technique is applied. This technique aims at extracting a certain structure from a text by applying predefined categories. That way all elements of a text which are relevant for the analysis – meaning that they can be assigned to one of the categories – are systematically extracted and can subsequently be interpreted in the context of the theoretically derived aspects of research. The most crucial part in this process is the clear definition of categories which are theoretically justified and based on the research question(s).[190] In order to ensure an inter-subjectively comprehensive categorial framework, each of the categories is accompanied by an explicit definition, prototypical example, and coding rules determining when exactly a text passage can be assigned to a category.[191]

Following this short general introduction to the methods of structuring content analysis and deductive category application, the individual steps taken in the course of analyzing two virtual tours through memorial sites for their function as mediators of transnational memory in a digital age will be described in the following chapters. The questions which are tried to be answered through the subsequent analysis of virtual tours revolve around their communicative function

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[186] Mayring, *Qualitative Inhaltsanalyse*, pp. 48-109.
[187] Mayring, *Qualitative Inhaltsanalyse*, p. 66.
[188] Mayring, 'Qualitative Content Analysis', paragraph 13.
[189] Mayring, 'Qualitative Content Analysis', paragraph 14.
[190] Mayring, *Qualitative Inhaltsanalyse*, p. 92.
[191] Mayring, 'Qualitative Content Analysis', paragraph 15.

as mediators of transnational memories of human rights violations on the one hand, and their potential to serve as a tool for transmitting memory in a digital age on the other hand. Virtual tours are therefore considered to function as medium in a communicative act, transmitting memory narratives at a transnational level and in an age of digitalization.

By applying the structuring content analysis method developed by Mayring, it will be analyzed by what means virtual tours can serve as an instrument for transmitting memories of human rights violations across cultural and national borders as well as across generations. Therefore, the focus of the subsequent analysis has been laid on the technical features and narrative techniques used in virtual tours to mediate memory. The narrative itself will thus not be analyzed, since in this analysis the two tours selected serve as examples for any virtual tour through a memorial site. They have not been selected for the kind of historical narrative the memorial site mediates, but for a range of criteria they fulfil – along with any other virtual tour through a memorial site. In other words, relevant for this thesis is not what story is told, but how it is told, which technical and narrative strategies are used to mediate the memory story.

8. Analysis

Resulting from the selection process described in chapter 6, the two virtual tours offered on the websites of the Eastern State Penitentiary Historic Site and the Colonia Dignidad Association for Memory and Human Rights[192] constitute the objects of analysis for this thesis. Both tours were taken several times in the web browser Mozilla Firefox and all of the tools they offer were explored and documented. In the following chapter the two tours will be described briefly, before they will be analyzed using methods of deductive category application and structuring interpretation techniques.

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[192] Spanish original: *Asociación por la Memoria y los Derechos Humanos Colonia Dignidad*, translation by author.

8.1. Description of cases

8.1.1. Recorrido virtual *through the premises of former Colonia Dignidad*[193]

The name Colonia Dignidad is used to refer to a piece of land in Chile which was inhabited during the second half of the twentieth century by the eponymous German commune Colonia Dignidad, whose leaders – most notably Paul Schäfer – committed numerous crimes on their own and Chilean people, including torture, murder, exhumation and extermination.[194]

The *recorrido virtual* (Spanish for 'virtual tour') provided by the Colonia Dignidad Association for Memory and Human Rights on their website was launched on 27 January 2016[195]. Taking the tour requires the computer application Adobe Flash Player. The tour was created with the help of the program Panotour Pro and is displayed by the application krpano Panorama Viewer.[196] When starting the tour by clicking on the window on the webpage, thus allowing Adobe Flash Player to run the tour, the window – while still in the frame of the association's website – depicts a slowly rotating 360-degree panoramic exterior view of the *Complejo Principal* ('main complex'). A side bar on the left window frame includes thumbnails of nine other panoramic images, while in the right upper corner a satellite picture including ten icons functions as navigation site map. Nine icons at the lower edge of the window allow the visitor to zoom, change the viewing angle, jump to the beginning of the rotating panorama, switch to full screen mode and stop the automatic rotation of the image. Furthermore, two icons in the panoramic image can be clicked on to receive further information or jump to a different panoramic image depicting the interior view of the building (see screenshot S1).

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[193] *Recorrido Virtual* Colonia Dignidad, *Asociación por la Memoria y los Derechos Humanos Colonia Dignidad,* http://www.coloniadignidad.cl/recorrido-virtual, (accessed 23 July 2018).

[194] See description of ICSC member Asociación por la Memoria, y los Derechos Humanos Colonia Dignidad on their website, International Coalition of Sites of Conscience [website], section 'Members'.
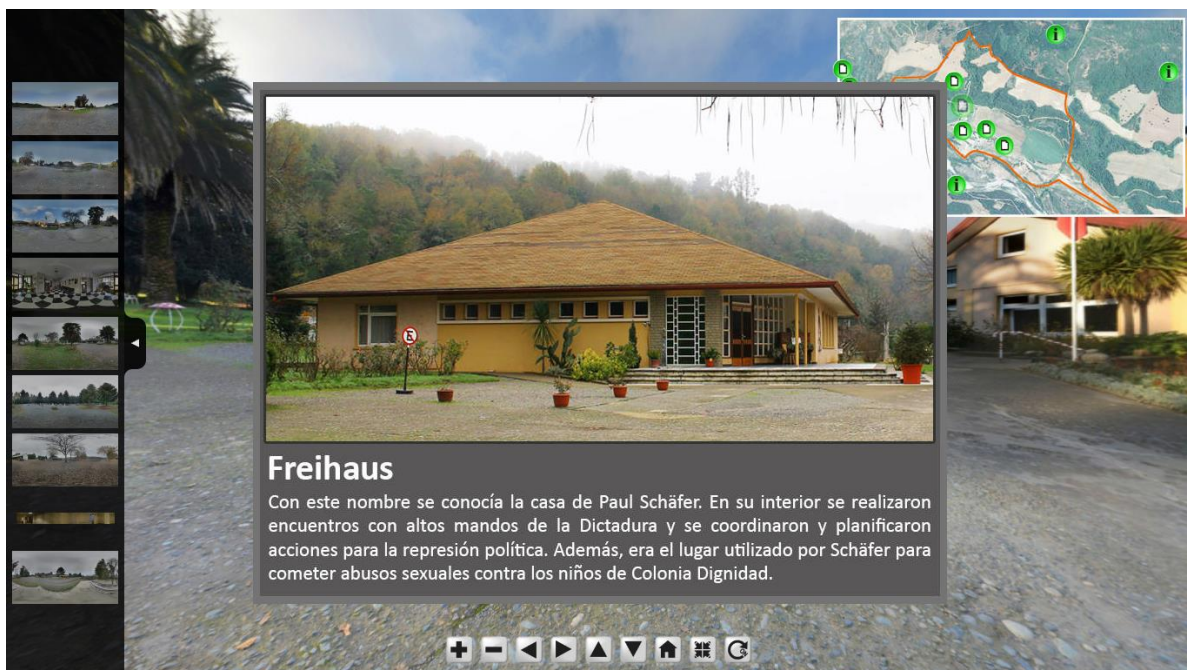
[195] This information can be retrieved by clicking right on the web page where the tour is provided and selecting the option 'page information' in the menu that pops up. See Asociación por la Memoria y los Derechos Humanos Colonia Dignidad, *Recorrido Virtual: Espacios, Memoria y Violencia Política en Colonia Dignidad* [webpage], 2018, http://www.coloniadignidad.cl/recorrido-virtual, (accessed 15 July 2018).

[196] This information can be retrieved by clicking right on the window of the virtual tour. See Asociación por la Memoria y los Derechos Humanos Colonia Dignidad, *Recorrido Virtual* [webpage].

S1: Initial view *recorrido virual*

From this initial view the tour can be continued either by clicking on one of the icons in the panorama or the site map or on one of the thumbnails. The tour is comprised of a total of ten panoramic images with nine of them allowing for spherical views, while one (*Subterráneo*) is only a 360-degree horizontal panorama. Furthermore, ten icons can be clicked on, leading to further information on the respective site (see screenshot S2), while four icons represent links between interior and exterior panoramic views of two buildings. Further information on the different sites is provided in form of 16 photographs and ten text passages.


Freihaus
Con este nombre se conocía la casa de Paul Schäfer. En su interior se realizaron encuentros con altos mandos de la Dictadura y se coordinaron y planificaron acciones para la represión política. Además, era el lugar utilizado por Schäfer para cometer abusos sexuales contra los niños de Colonia Dignidad.

S2: Further information Freihaus

8.1.2. Online tour through Eastern State Penitentiary Historic Site[197]

Opened in 1829 Eastern State Penitentiary was one of the most famous prisons in the world, known for its extensive use of isolation and solitary confinement on prisoners, a form of punishment and confinement which is strongly criticized by human rights organizations.[198]

The online tour provided on the Website of the Eastern State Penitentiary Historic Site was launched on 30 March 2017[199] and contains similar elements as the *recorrido virtual* but is constructed differently. The central element of this tour is the site map representing a 3D model of the former prison (see screenshot S3). The map contains 10 icons through which further information on the different parts of the site, as well as Google Street View panoramic images of them can be accessed. When clicking on one of the icons, a small window pops up with its lower half consisting of a written text on that part of the site, and an upper half leading to the panoramic images of it as provided by Google Street View (see screenshot S4).
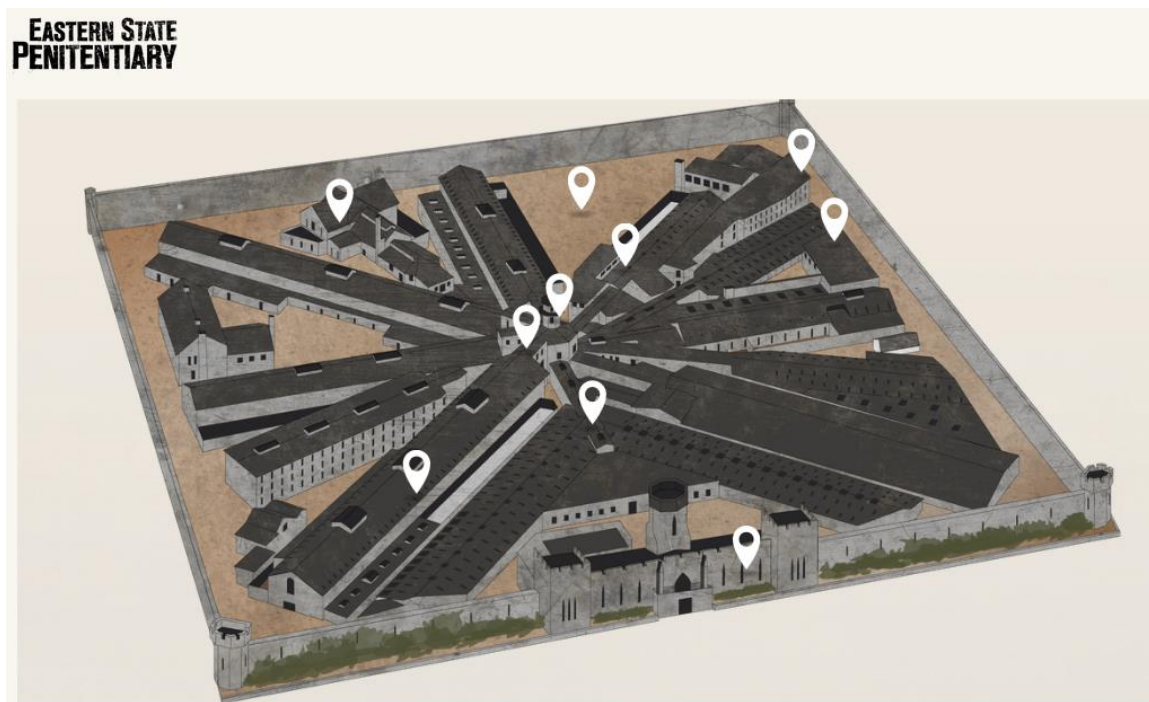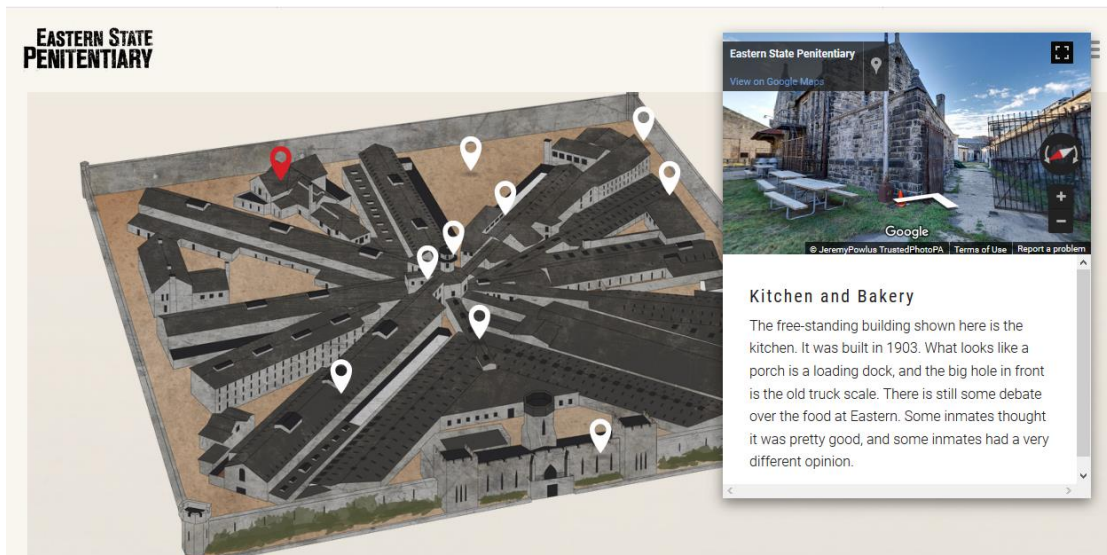

S3: Site map Eastern State Penitentiary

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[197] Online Tour Eastern State Penitentiary Historic Site, *Eastern State Penitentiary Historic Site* [website], https://www.easternstate.org/explore/online-tour, (accessed 23 July 2018).

[198] See, for example, Human Rights Watch, *US: Look Critically at Widespread Use of Solitary Confinement,* 18 June 2012, https://www.hrw.org/news/2012/06/18/us-look-critically-widespread-use-solitary-confinement, (accessed 18 July 2018).

[199] Information received in e-mail correspondence with the director of communications of the site Nicole Frankhouser.

S4: Example further information and access to panoramic images, online tour Eastern State Penitentiary

Google's street view application allows its users to click through a sequence of panoramic images usually taken of a street and in regular intervals, this way simulating a walk through a street by moving from one panoramic image to the next. However, most of the photographs Google Street View took of the Eastern State Penitentiary Historic Site are just single panoramas, thus providing no possibility to 'move'. Fifty such single panoramas can be counted on the Google Street View map of the Eastern State Penitentiary site (see screenshot S5). Each of them provides a spherical view from a fixed vantage point. Additionally, there are ten corridors which can be 'walked through', meaning the entire corridor was captured by Google Street View photographers taking panoramas every few meters. By clicking on arrows appearing on the image when the cursor hovers over it the viewer can move to the next panorama which was taken a few steps further. Furthermore, Google Street View allows its users to view the site in full screen mode and it provides a zoom function.
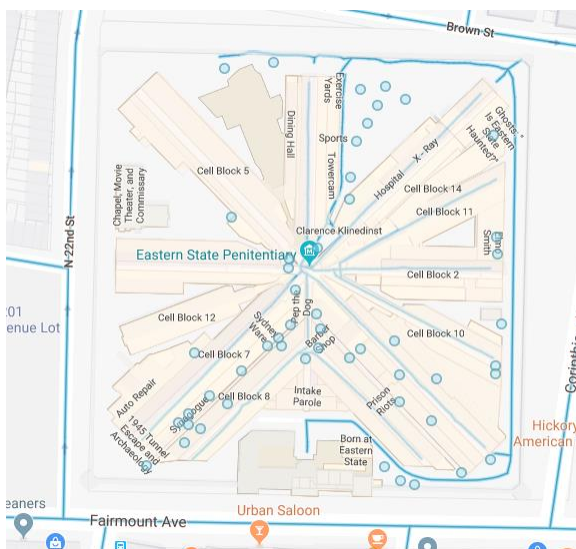
S5: Google Street View map of Eastern State Penitentiary

8.2. Units and aspects of analysis

Having described the objects of analysis in the previous chapter, the next step is to formulate theoretically derived aspects on which the analysis is based.[200] However, before this step of analysis is taken, the units of analysis shall be defined in order to allow for a more precise content analysis.[201] Based on above descriptions of the two tours, four units were defined for the given analysis: (1) panoramic images, (2) still images, such as photographs, (3) text passages, and (4) site maps.

Furthermore, four aspects of analysis could be identified, serving as basis for the development of the categories that will be applied on the units. Based on the theories which were presented in part I of this thesis and taking into account the research interest of analyzing virtual tours through memorial sites for aspects of transnational memory mediation and their function of serving as a medium for transmitting memory to digital natives, the following aspects of analysis were defined: transnational memory, interactivity, and immersion,[202] which is divided into spatial immersion and emotional immersion.[203]

Immersion, is generally defined in gaming theory as the subjective sensation of 'being there'[204] and refers to a temporary experience which can take various levels of intensity.[205] Applied to virtual tours this means that one person might feel more immersed in the virtual environment that is presented in the tour than another person taking the same tour. This subjectivity of immersive experiences makes immersion a very difficult parameter to measure. However, since this analysis focuses on the elements and aspects of virtual tours which can have immersive facts – rather than measuring their effects with visitors, potential factors creating immersion will be detected – this obstacle regarding evaluating immersion can be neglected.

As has been indicated above, the immersive aspect of analysis will be divided into emotionally immersive aspects and spatially immersive aspects. The former type is defined as 'the type of immersion when the user feels emotionally aroused and absorbed by the narrative content of

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[200] Mayring, 'Qualitative Content Analysis', paragraph 13.

[201] Mayring, *Qualitative Inhaltsanalyse,* p. 59.

[202] Kansteiner in this regard highlights the importance of interactivity and immersion for mediating historical narratives in a digital age. See section 4.4.2. and Kansteiner, 'Genocide Memory, Digital Cultures, and the Aesthetization of Violence', p. 406.

[203] See section 5.1. on virtual tours, and Björk and Holopainen's classification of immersion in Björk and Holopainen, *Patterns in Game Design*, p. 206. Although Björk and Holopainen based their classification of immersion on theories of videogaming, it can be used as well in the context of transmitting memory and history, since Kansteiner names video games as one possibility for mediating historical narratives to a generation of digital natives. See Kansteiner, 'Genocide Memory, Digital Cultures, and the Aesthetization of Violence', pp. 403-408.

[204] Zhang, Perkis and Arndt, 'Spatial Immersion versus Emotional Immersion', p. 1.

[205] Jennett et al., 'Measuring and Defining the Experience of Immersion in Games', p. 32.

the story' and refers to empathy with the characters of a story.[206] For the analysis of virtual tours through memorial sites this would mean that emotionally immersive aspects are elements such as personal victim stories, which create a feeling of empathy and emotional arousal. Spatial immersion, on the other hand, which 'refers to the type of immersion triggered and maintained by the spatial qualities of the virtual environment, is considered to be created through technical features such as zooming and smooth changes of camera angles. [207] This means that while emotional immersion in virtual tours is created by aspects of how a memory narrative is presented, such as inclusion of personal stories or stories of human suffering, which result in emotional engagement, spatial immersion in virtual tours depends on more technical aspects such as features like zooming and full screen mode. Furthermore, Bracken also points out that the better the quality of an image is, the more immersive is the experience.[208]

Interactivity, another aspect identified for the analysis of virtual tours through memorial site, can also be assigned to the technical side of virtual tours. Defined as 'the involvement of users in the exchange of information with computers and the degree to which this happens',[209] interactive features regarding virtual tours have been identified by looking at how a visitor is required to or had the option to actively engage in the tour while sitting in front of a computer. Such forms of interaction are clicking, scrolling, typing and dragging.

As for the last aspect of analysis that was identified in the context of analyzing virtual tours as mediators of memory, the theories on transnational memory which were discussed in the first chapters of this thesis are deemed relevant. If virtual tours are discussed in the context of memory mediation, the enhanced transnational character of memory itself needs to be taken into account. With virtual tours constituting a digital form of memory mediation and Aleida Assmann, among other scholars, arguing for a transnationalization of collective memory through digitalization[210], virtual tours can be considered amplifiers of the overall transnationalization process of memory, especially when they are provided online. However, also the human rights focus, which is a substantial criterion of sites of conscience and this way also of the objects of this research, has a transnationalizing effect on memory.[211] Therefore, the two virtual tours will be analyzed also with respect to theories of transnational memory, such as the mediation of human rights values, connections between the global and the local, or

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[206] Zhang, Perkis and Arndt, 'Spatial Immersion versus Emotional Immersion', p. 1.
[207] Zhang, Perkis and Arndt, 'Spatial Immersion versus Emotional Immersion', p. 1.
[208] C. Bracken, 'Presence and Image Quality', *Media Psychology*, 2005, vol. 7, no. 2, pp. 191-205.
[209] 'Interactivity', in *Cambridge Online Dictionary*, 2018, https://dictionary.cambridge.org/de/worterbuch/englisch/interactivity, (accessed 1 July 2018).
[210] A. Assmann, ‚Transnational Memories', pp. 546-556.
[211] Levy and Sznaider, *Human Rights and Memory.*

multidirectional memories, relating one traumatic memory to another one. Analogous to emotional immersion this is a narrative aspect of virtual tours, referring to how a memory narrative is presented in a virtual tour.

The four aspects identified for analyzing virtual tours through memorial sites as mediators of memory in a digital age can therefore be classified in the two broad categories of narrative and technical aspects of analysis. While the former one is concerned with the narrative structures of a virtual tour, the latter one refers to the technical features such a tour contains. Following Mayring[212], a number of clearly defined categories and subcategories have been formulated based on above-described aspects of analysis and subsequently exemplified with examples from the tours and accompanied by coding rules for applying the categories to the four units of analysis. The final category framework has been elaborated in an altering process of defining theory-derived categories and adjusting them after an initial run on part of the material. This way all parts of the two virtual tours which could be ascribed to one of the four units (panoramic image, still image, text passage, site map) were analyzed and the relevant passages assigned to one of the categories in order to draw a structure from them, which will subsequently be interpreted against the theory-derived aspects of analysis and the research questions.

8.3. Interpretation of results

After having analyzed both the *recorrido virtual* through the Colonia Dignidad memory site and the online tour through the Eastern State Penitentiary Historic Site by applying predefined and readjusted categories of aspects of interaction, spatial immersion, emotional immersion and transnational memory, the results of this analysis will be interpreted in this chapter. As was already announced in chapter 7, the structuring content analysis technique developed by Mayring[213] was chosen as method for interpreting the results of the analysis. Therefore, it will be tried in the following to answer the questions of to what extent and by what means virtual tours through memorial site can constitute memory mediators which enhance the transnationalization process of collective memory and to what extent they can be considered memory mediators in a digital age. The criteria thereof as defined by Kansteiner[214] are interactivity and immersion with the latter one being divided into emotional and spatial immersion following Björk and Holopainen[215] as well as the definition of these terms by Zhang,

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[212] Mayring, *Qualitative Inhaltsanalyse*, p. 92.
[213] Mayring, *Qualitative Inhaltsanalyse*, p. 92.
[214] Kansteiner, 'Genocide Memory, Digital Cultures, and the Aesthetization of Violence', pp. 403-408.
[215] Björk and Holopainen, *Patterns in Game Design*, p. 206.

Perkis and Arndt.[216] Theories on transnational memory[217] and multidirectional memory[218] have served as theoretical basis for the analysis of the two virtual tours with regards to transnational memory. The results of the analysis will be interpreted against the theoretical framework provided in the first part of this thesis and above-stated research questions should be answered this way.

8.3.1. Interactivity

Both of the two virtual provide a range of interactive features, this way allowing the virtual visitor of the site to actively take part in the tour. Interactive elements are icons which can be clicked on, such as information buttons and the icons on the site maps leading the visitor to different parts of the memorial site as well as the thumbnails provided in the *recorrido virtual.* Furthermore, clicking takes on a special interactive function in the Eastern State Penitentiary online tour as it allows the visitor to freely move through some parts of the site by clicking on arrows displayed when the cursor hovers over an image. Another interactive element integrated in both of the tours is scrolling. However, its main function is to zoom closer to or further away from the images displayed in the panoramas.

While both clicking and scrolling can be considered interactive action defined as engaging the user in an exchange of information with the computer,[219] the exchange in this case is rather singular with the user acting once (clicking, scrolling) and receiving a single reaction (link opens, zoom). More complex forms of interaction such as a question and response dialogue as presented by Kansteiner[220] are missing in both of the tours.

Given the nature of interactive elements in virtual reality to be a mainly technical tool rather than a narrative one and the fact that the interactive elements offered in the two virtual tours are restricted to the analysis units of panoramic images and site maps, it can be concluded that panoramic images and site maps contain rather technical elements of interactivity and spatial immersion, while textual elements and still images can be considered more narrative elements of a virtual tour. This distinction between technical and narrative elements in analyses of virtual

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[216] Zhang, Perkis and Arndt, 'Spatial Immersion versus Emotional Immersion', p. 1.
[217] A. Assmann, 'Transnational Memories', pp. 446-456.
[218] Rothberg, *Multidirectional Memory.*
[219] 'Interaction', *Cambridge Online Dictionary.*
[220] Kansteiner, 'The Holocaust in the 21st Century', pp. 110-140.

reality has also been emphasized by Elmezeny, Edenhofer, and Wimmer in their content analysis of 360-degree videos.[221]

To conclude, some interactive elements are included in the two virtual tours, such as clicking and scrolling. However, they constitute a rather weak form of interactivity compared to what virtual reality can provide nowadays.[222] Moreover, the fact that elements which could be assigned to the interactive technical elements categories were found mainly in the units of panoramic images and site maps, affirms the theory that conversely, panoramas and site maps constitute rather technical than narrative forms of communicative tools compared to textual elements and images.

8.3.2. Spatial immersion

Besides interactivity, spatial immersion constitutes the second technical aspect on which the analysis was based. Tools creating spatial immersion could be found almost explicitly in panoramic images. The most prominent ones are the provision of a spherical view, the smooth change of angles when looking from left to right and from up to down, as well as the ability to move which is provided partially by Google Street View and subsequently in the Eastern State Penitentiary online tour.

A major contributor to spatial immersion as defined by Zhang, Perkis and Arndt[223] can be the provision of a full mode view on the site. The larger field of vision provided in full screen mode will immerse the visitor to a much greater extent than if the spherical view on the site was provided solely in a small window such as the one which opens when clicking on one of the icons on the Eastern State Penitentiary site map.

The site map itself, the second technical unit analyzed, can reveal spatially immersive features as well. Both a 3D representation of the site, such as the one provided in the Eastern State Penitentiary tour, as well as the satellite image serving as basis for the Colonia Dignidad site map, can have an immersive effect compared to using two-dimensional and simplified representations of the site as maps.

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[221] Elmezeny, A., N. Edenhofer and J. Wimmer, 'Immersive Storytelling in 360-Degree Videos: An Analysis of Interplay Between Narrative and Technical Immersion', *Journal of Virtual Worlds Research,* vol. 11, no. 1, 2018, pp. 1-13.
[222] See Kansteiner, 'The Holocaust in the 21st Century', pp. 110-140.
[223] Zhang, Perkis and Arndt, 'Spatial Immersion versus Emotional Immersion', p. 1.

Thus, it can be concluded that virtual tours can and do contain spatially immersive elements such as the provision of a spherical view on the site, the smooth change of angles provided in panoramic images, and zoom options, simulating a person's approaching or departing from an object. However, as the image resolution deteriorates when zooming for example to an image in the Eastern State Penitentiary, the immersive effect is much smaller than if the image is of high resolution.[224]

8.3.3. Emotional immersion

As has been indicated above, emotionally immersive elements are more narrative mediators, the units of analysis where such elements could be found, therefore, still images and written texts.

Especially in the *recorrido virtual* through the Colonia Dignidad memory site, numerous examples of emotionally immersive textual narratives could be detected. Detailed descriptions of the crimes that were committed on human beings at the site that is viewed can arise emotions and empathy in the viewer.[225]

What is missing in the two tours that were analyzed, are emotionally engaging personal stories of individuals, especially victims. By providing personal narratives, the viewer is more likely to become emotionally immersed[226] in the memory narrative and the virtual tour as a mediator of it could do so more successfully.

8.3.4. Transnational memory

Finally, the virtual tours were analyzed for a transnational memory aspect based on theories of transnational, transcultural, and multidirectional memory. The main arguments in this respect are that of memory gaining a more transnational character through digitalization and by connecting different memories from the past and present, and across national and cultural borders.[227] Although this second argument is considered also a substantial element of sites of

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[224] Bracken, 'Presence and Image Quality', pp. 191-205.
[225] Zhang, Perkis and Arndt, 'Spatial Immersion versus Emotional Immersion', p. 1.
[226] Zhang, Perkis and Arndt, 'Spatial Immersion versus Emotional Immersion', p. 1.
[227] See chapter 2.

conscience,[228] connections to other memory narratives could hardly be found in either of the virtual tours.

Therefore, it can be concluded that as far as the process of the creation of a transnational memory is concerned, virtual tours enhance this process by constituting a digital form of mediation which can be provided also as a web-based tool on a memorial sites' website. However, when it comes to achieve an increased transnational effect of memory mediation, links between past and present narratives, as well as those between narratives from various cultures and nations, need to be included to a larger extent – a task which could be realized quite easily in virtual tours.

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[228] See section 5.4.2. on the definition of sites of conscience as provided by the International Coalition of Sites of Conscience.

9. Discussion and conclusion

The analysis of two virtual tours through memorial sites that was conducted in the course of this thesis reveals that although such tours do include immersive and interactive elements – both of which are highly relevant when it comes to mediating memory in a digital age - and can contribute to the enhancement of creating transnational memories through their digital and potentially web-based nature, improvements could be made both in the technical as well as in the narrative aspect of memory mediation. If better equipment and advanced knowledge of such technologies were used, a spatially and emotionally more immersive virtual environment could be created, with which visitors could interact in more complex forms of man-machine communication.

As Kansteiner has pointed out, such forms of memory mediation are becoming increasingly important if memory narratives of traumatic pasts and human rights abuses want to be transmitted on to future generations of digital natives. They grow up in high-quality immersive and interactive virtual environments as they are presented for example in video games. Therefore, the forms of mediating history and memories of the past need to be adjusted accordingly in order for these memories and their heavy legacies to be lost and past mistakes repeated.

Virtual tours through memorial sites fulfil these requirements only to a small degree, compared for example to the fields of virtual reality and augmented reality. However, Wulf Kansteiner is right in warning of the risks such new forms of mediating memories of traumatic pasts can entail.[229] The topics addressed in such narratives are highly sensitive and can have traumatizing effects, which will do even greater damage the more (virtually) real a narrative is told. Moreover, it is important to not remove the weight of the legacies of past human rights atrocities by presenting them in form of a virtual world as opposed to a real one.[230] For the victims of these atrocities this was reality and 're-playing' it in form of a virtual reality video game could downplay the severity of such traumas of the past.

As far as the creation of a more transnational notion of collective memory is concerned, as well as the transnationalization and globalization of local collective memory in an increasingly connected and networked world is undeniable and unstoppable. Virtual tours in this regard – at least the ones analyzed – have little effect on this process, given the fact that although sites of

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[229] Kansteiner, 'Genocide Memory, Digital Cultures, and the Aesthetization of Violence', pp. 403-408.
[230] Kansteiner, 'The Holocaust in the 21st Century', p. 124.

conscience define themselves via the human rights work they do and the ethical values they preserve, these aspects are not represented in the tours they provide on their website. The director of communications at Eastern State Penitentiary, Nicole Frankhouser, in this regard emphasized in her email that the purpose of the tour they provide is not the mediation of a memory narrative but just to give an impression of what the site looks like. However, taking this argument into account, virtual tours through memorial sites still have the potential to fulfil the purpose of mediating memory in a digital age and at a transnational level – although it would require greater investments in equipment and technical know-how as well as a very careful approach to this task. However, in times of analogue natives finding themselves increasingly in digital environments, virtual tours should be at least considered as a tool for mediating memories of traumatic past to digital natives in order to uphold human rights values and avoid repetition of past mistakes.

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9.3. Definitions technological terms

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10. Annex

10.1. Category framework

category	explicit definition	examples	coding rules
interactive technical elements			
clicking	interacting through clicking	receiving further information (icons), changing position (icons, thumbnails), moving	changing something in the present situation through clicking
scrolling	interacting through scrolling	zooming, scrolling to be able to read the entire text	changing something in the present situation through scrolling
dragging	interacting through dragging	changing viewing angle	
spatially immersive technical elements			
simulating body movement	features and tools creating an effect which resembles a body movement in reality	ability to move into all directions, access smooth transition from one situation to the next interior view, exterior view	change in situation resembles the movement from the viewer's etire body from one place to another (walking, running, falling)
simulation head movement	features and tools creating an effect which resembles a head movement in reality	spherical view, smooth change of angles, zoom	change in situation resembles movements of the viewer's head (turning, taking a closer look)
viewing mode	features allowing for different viewing modes on a situation/an object/a person	full screen mode	changing views on a situation/object/person which can only be achieved by means of technology and does not resemble a body or head movement
emotionally immersive narrative elements			
personal stories	visual or textual narration of a personal story	Al Capone's cell, description of where Paul Schäfer lived	

description of suffering	visual or textual narration of suffering	description of hole as place where prisoners were kept in solitary confinement and the fact that it used to be 'the basic correctional philosphy', descriptions of what crimes were committed on people at the different places of Colonia Dignidad	detailed descriptions of what happened to a person or group of person
transnational narrative elements			
relation now - then	relationship (differences, similarities, comparisons etc.) between a past and a present aspect	mentioning of what happened to the files discovered at the site in 2005	
documentation of human rights violation	visual and textual narration of the human rights violations committed	discovery of files documenting the human rights violations committed on at Colonia Dignidad	neutral, mentioning that human rights were violated and which ones
relation local - global	relationship between a local memory and a more global context	'the hole' as term for referring to solitary confinement cell	

key: -- = only in *recorrido virtual* through Colonia Dignidad
         -- = only in online tour through Eastern State Penitentiary
         -- = both tours

10.2. Screenshots

numbering	title	page
S1	Initial view *recorrido virtual*	ggg
S2	Further information Freihaus	Ggg
S3	Site map Eastern State Penitentiary	Ggg
S4	Example further information and access to panoramic images, online tour Eastern State Penitentiary	ggg
S5	Google Street View map of Eastern State Penitentiary	ggg