



DIGITAL CULTURAL HERITAGE: SOME CRITICAL REFLECTIONS

Gökçe Yüksek^a, Seda Sökmen^{b*}

^aFaculty of Tourism, Anadolu University, Eskisehir, Turkey.
ORCID: [0000-0003-3793-9145](https://orcid.org/0000-0003-3793-9145) / e-mail: gozer@anadolu.edu.tr

^bFaculty of Tourism, Anadolu University, Eskisehir, Turkey.
ORCID: [0000-0002-1010-8694](https://orcid.org/0000-0002-1010-8694) / e-mail: sedasokmen@anadolu.edu.tr

Heritage is our legacy from the past, what we live with today, and what we pass on to future generations (UNESCO, 2021). Covering natural, cultural, and industrial domains, the heritage concept refers to a comprehensive discourse that evolved throughout history (Harvey, 2001: 320). The cultural heritage concept initially focused solely on historical and artistic values and later included parameters like cultural value, identity, and capacity of the object to interact with memory (Vecco, 2010). With all these evolutions, the authorized heritage discourse that prevailed over a certain period has also lost its validity today. According to the said discourse, heritage refers to heritage sites, buildings, and objects with identifiable, mappable, measured, and searchable borders. This discourse argues that the heritage built by the authorities is passively consumed by the audience (Smith, 2006: 29-34). However, the audience of postmodern consumers in the postmodern period rejects this phenomenon, attaching importance to abstract heritage as much as tangible heritage. Hence, digitization emerges as both an extension and a prerequisite of this new heritage discourse in line with postmodern consumers' trends.

Digital cultural heritage is a discipline that shares and expands the goals of traditional cultural heritage. These shared goals contain efforts to preserve the past, raising public awareness, and improving interpretation capability. Digital cultural heritage is all kinds of presentation forms that aim to enrich, complement or maintain the experience of a heritage site or an object of historical/cultural value, thanks to the effective use of digital computer technologies. Texts, still and motion images, sounds, graphics, software, and web pages are examples of digital materials used in these forms of presentation (UNESCO, 2021). Also, digital cultural heritage application examples are the three-dimensional reconstruction of destroyed objects, digital catalogs, virtual reality, and augmented reality (Bianchi, 2006: 448-449).

The relationship between heritage and tourism can be interpreted pursuant to special site

visits' historical development and social context. Accordingly, heritage tourism focuses on the encounter of heritage sites and tourists and their interactions. Staiff, Watson, and Bushell (2013: 1-6) divide theories and approaches in the literature, which can be used to examine these encounters and interactions, into two parts. The first of them, the contingent approach, argues that both heritage and tourism are shaped by representative narratives, while the second one, negotiated approach, claims that heritage and tourism have a dynamic nature that cannot be limited by representative narratives. Considering that tourism is a process, we find out that these encounters are also of variable nature and that the interaction between the heritage site and the tourist will thus be fluid, dynamic, and open for improvement. From this perspective, the digitalization of the cultural heritage, the subject of this study, coincides with the basic argument of the negotiated approach.

The digital revolution has triggered digitization in culture, as in many other areas. Despite its relatively new nature, this field of study -digital cultural heritage- continues to mature rapidly. The relationship between cultural heritage and digital technology is mostly addressed in project-based studies in the literature. It is a fact that these studies have made valuable contributions to the ongoing development of the tourism sector. Still, the literature has few critical studies on the impact of digitization on cultural heritage and the transformation it causes, which refers to an important gap (Cameron & Kenderdine, 2017: 3; Hemsley, Cappellini & Stanke, 2017). We believe that this study will contribute considerably not only to the said gap in the literature but also to the practitioners in terms of understanding the relevant topic.

The exploitation of technology for cultural heritage transfer has been a controversial issue since the 1930s. This debate is widened by the contributions

*Corresponding Author.

This article is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).
e-ISSN: 2687 - 3737 / © 2021 The Authors. Published by [Anadolu University](https://anadolu.edu.tr/).

of two sides, who advocate the positive and negative effects of technology on cultural heritage. On one side of the debate are those who advocate that the originality of the place or object of heritage, and its development and context in terms of time and space should be experienced personally by the audience, while on the other side, some claim that digitization liberates the audience, promoting the experience (Malpas, 2008: 13-26). Also, between these two views is another party who suggests focusing on the mediating role of digitization in the transfer of cultural heritage and argues that digitization should not outweigh the heritage it represents (Nyhlén and Gidlund, 2018; Silberman, 2008: 81-91). These debates continue to be valid in various disciplines such as history, archeology, education, library science, museology, architecture, recreation, and tourism, which are deemed cultural heritage sharers (Sabharwal, 2015; Terras, 2011).

Digitization provides key benefits to cultural heritage suppliers and demanders. Thanks to digitization, museums, for instance, can bring cultural objects that are increasing in number and variety and artifacts destroyed or disappeared following devastating circumstances (like wars) into the memory of the society. Digitization in museums may also prevent the risk of heritage-related artifacts from exceeding the museum's carrying capacity and make these artifacts accessible to visitors at a lower cost (Bianchi, 2006: 449). Digital presentations can be a solution to constraints on visit time in terms of museum visitors. Time constraints may be due to the limited time that visitors have or the visiting hours set by the museums. Additionally, museums occupy large spaces that require more time for visits. All these circumstances reduce visitors' interest in museums. In such circumstances, digitization can underline the points that visitors failed to notice, regardless of time and place, and thus deepen their experiences. The detailed information that digitization offers to visitors before the visit can be essential in their decision-making process. Furthermore, visitor groups like students and academicians benefit from digital transfers for education, research, and similar purposes, while digitization can create an alternative solution that allows easy access for disadvantaged people such as the disabled and senior citizens (Bianchi, 2006: 450; Serain, 2016). As an example of the museums that provide such solutions, we can give the following: the Metropolitan Museum of Art, which has adopted open access policy, Rijksmuseum, which made available 125,000 artworks to online visitors (Öztemiz, 2016: 41-42).

Open access to digital cultural information serves as a good knowledge base and provides various economic benefits to stakeholders with synergy and collaboration. Tour operators' use of digital cultural resources during their touring process is an example of this collaboration in the tourism sector. The Virtual Museum of Tourism (MUVITUR) project, which provides data such as documents, objects,

pictures, videos about tourism activities, and the history of touristic places, is one of the digital resources contributing to tour programs (Aurindo & Machado, 2016). This example shows us that digital libraries and databases are essential to creating and developing tourism services (like designing cultural routes).

One of the controversial issues in digitization in terms of the transfer of cultural heritage is accessibility and democracy in participation (Kidd, 2018; Nyhlén & Gidlund, 2018). In this sense, the following points are critical: whether everyone can benefit equally from the digitally transferred cultural heritage, and if not, whether this would be sufficient for the transfer of cultural heritage (Gidlund, 2015). Furthermore, the success of the authorities' digitization of cultural heritage to create a shared cultural identity in building the intended identity is controversial. The considerable research funds by European countries and the European Commission is a clear indication of the growing importance of cultural heritage (Bianchi, 2006: 461-464; Caffo, 2014: 16-17). However, whether undeveloped or developing eastern countries, which fail to participate in these projects, can interactively share cultural heritage elements is among the issues that remain uncertain (Winter, 2013).

Developed and developing countries have remarkable economic, social, political, and administrative differences in heritage tourism. Problems arise in such matters as the society's role in decision making in underdeveloped countries, sharing the benefits of tourism development, ownership of historical sites and artifacts, lack of funding and required skills, displacement (gentrification) for heritage tourism. Even though most of them are also encountered in developed countries, they are characteristic of underdeveloped regions. For instance, mortality rates in some African regions indicate that it is not possible there to prioritize heritage conservation. For the above reasons, there was an external dependency or resorting to external resources in determining and managing heritage sites in these areas (Timothy & Boyd, 2006). Accordingly, although developing countries have a rich heritage, they face the obstacle of Western discourse in presenting them. Westerners often depict heritage on the basis of the production and representation of culture. However, this is an external point of view and does not reflect context-specific facts. It does not cover more profound concepts such as the voice of the local people, their emotional reactions, and the sense of belonging to their cultural heritage (Timothy & Nyaupane, 2009). In this sense, we may argue that digitization can reduce the significant gap between developed and developing countries, while allowing them to express themselves.

Cultural institutions' portals, websites, social media accounts, mobile applications are effective means to reach tourists in terms of offering information such

as opening hours, ticket prices, audio guides, and visitor comments (Marty, 2008; Natale & Piccininno, 2015). Social media and smartphone applications dominated by non-hierarchical communication and sharing are also deemed democratization tools frequently used for audience development (Kidd, 2018). However, it is not decisive whether these tools fully serve the purpose of democratization that provides wider access to the place or artifact that is the subject of cultural heritage. More specifically, when digital literacy, which is characterized as the ability to obtain and use information from digital sources, is taken into account in this assessment, the situation may change (Bawden, 2008). There should be sufficient data on whether adequate measures have been taken for visitors who are outside the target audience for reasons like digital literacy or who do not have sufficient digital tools, and -if so- the satisfactory data on what these measures are. In the same vein, the question of to what extent issues such as the success and up-to-dateness of these tools in digital content design can alone be sufficient to ensure success in the digital transfer is among the questions that have not been answered yet.

According to some researchers, the originality of artworks that are the subject of cultural heritage is endangered due to digitization. Darmawan (2011) claims that the representation of the said works in virtual platforms by digital means may problematize reality. Admittedly, the artworks represented on the screen are simulations that do not actually exist, and features such as rotating or magnifying them are out of the boundaries of physics and human logic. In fact, according to Darmawan (2011), cultural heritage requires a dedication that covers all senses. The cognizance developed with real and in-situ experience cannot be produced through new realities (virtual reality and augmented reality). Similarly, Little, Bec, Moyle, and Patterson (2020) also noted the spiritual and emotional significance of artworks, questioning whether the originality that is the essence of the experience can be duplicated.

Some cultural heritage studies claim that digital heritage would disappear faster than any physical heritage and that digital heritage projects cannot reach future generations (Thwaites, 2013: 340-344). This phenomenon raises the issue of the durability and temporality of digital experiences. In this context, whether digitization to be used in the cultural heritage transfer will cause digital amnesia becomes a key discussion topic. Digital amnesia is defined as relying on a digital device to store and remember any information and forgetting them. The basis of this concept is that the individual himself/herself initially remembers and retrieves information while later on relying on digital tools to store and access them. When digitization leaves nothing to remember, the screen stepping between visitors and experience cannot offer a long-lasting, rich experience. Digital amnesia, which can be caused by reasons such as the popularization of smartphones and the growth of

mobile platforms, can also be influential in cultural heritage and tourism (Greenwood & Quinn, 2017).

The fact that tourists rely on digital devices and do not thus record information such as location and route of heritage sites they will visit, activities they may be involved in during tourism activities, and their reservation information in other physical media poses certain risks. For example, the tourist experience may be adversely affected if the communication infrastructure of the destination is not adequate or the relevant digital application is not well-designed. This interaction also raises the debate that digitization makes tourists dependent. In this sense, another issue open to discussion is the disappearance of feelings such as individual adventure and exploration in the tourist experience due to the digital dependency (Greenwood & Quinn, 2017).

Thwaites (2013: 342-343) assessed the positive and negative effects of digitization in transferring cultural heritage and creating cultural consciousness and suggested that the digital experience does not have the representation power to provide information about the whole of the cultural value, while being regarded as a key starting point. In our study, we primarily focus on framing the controversial issues in digital cultural heritage. We also aimed to open a new discussion topic: "Does digital cultural heritage form a conceptual oxymoron?" The criticisms of digital cultural heritage indeed refer to a significant oxymoron in terms of underlining the temporal nature of digitization versus the durability of heritage. Literally, an oxymoron is the use of two contradictory words that seem to be the opposite of each other (Oxford Learner's Dictionaries, 2021). The oxymorons such as the distantness of distances and familiar foreigners are essential terms for the tourism sector. Digital cultural heritage is also an oxymoron building on the words of digital and heritage. Researchers take this conceptualization for granted and find it helpful to research empirically in future studies.

Digital cultural heritage-related issues that are open to criticism and awaiting discussion are not limited to these. The dynamism of culture and technology requires constant research. Although research on digital cultural heritage has been focused on augmented reality (AR) and virtual reality (VR) technologies in recent years (Kidd, 2019: 55-56), there remains a need for more research to be conducted using diverse methodologies. More specifically, digital cultural heritage consumers should be observed through long-termed studies with respect to their needs and satisfaction levels (Economou and Pujol, 2008: 255; Uzzell, 2009). Moreover, due to the multidisciplinary nature of digital cultural heritage, the exchange of ideas and information between cultures should be globally maintained. In this sense, studies by expert teams from different countries could provide more accurate and comprehensive information (Thwaites, 2013: 344). The limitations of field studies, especially

those of cultural heritage, can be minimized thanks to digitization. To give an example, some beliefs (like Judaism) or particular national identities (like the British) may dominate a cultural heritage study. In such a case, digitization makes it possible to reach a broader range of tourists from various countries and ensure adequate data collection (Poria, Butler & Airey, 2003). Hence, knowing the advantages and disadvantages of digital cultural heritage, assessing them together, as well as questioning the concept per se could open new horizons, especially in heritage tourism studies.

References

- Aurindo, M. J., & Machado, C. (2016). MUVITUR (virtual museum of tourism): A new approach to tourism history. *Journal of Tourism History*, 8(3), 300-309.
- Bawden, D. (2008). Origins and concepts of digital literacy. *Digital Literacies: Concepts, Policies and Practices*, 30, 17-32.
- Bianchi, C. (2006). Making online monuments more accessible through interface design. In L. MacDonald (Ed.), *Digital Heritage—Applying Digital Imaging to Cultural Heritage* (pp. 445-466). Oxford: Butterworth-Heinemann.
- Caffo, R. (2014). Digital cultural heritage projects: Opportunities and future challenges. *Procedia Computer Science*, 38, 12-17.
- Cameron, F., & Kenderdine, S. (2017). *Theorizing digital cultural heritage: A critical discourse*. Cambridge: MIT Press.
- Darmawan, R. (2011). Web 2.0 and idiosyncrasy of cultural heritage: A perspective from Indonesia. In *Handbook of Research on Technologies and Cultural Heritage: Applications and Environments* (pp. 481-494). IGI Global.
- Economou, M., & Pujol, L. (2008). Educational tool or expensive toy? Evaluating VR evaluation and its relevance for virtual heritage. In Y. Kalay, T. Kvan, & J. Affleck (Eds.) *New Heritage: New Media and Cultural Heritage* (pp. 242-260). Routledge: London.
- Gidlund, K. L. (2015, August). Makers and shapers or users and choosers participatory practices in digitalization of public sector. *International Conference on Electronic Government* (pp. 222-232). Cham: Springer.
- Greenwood, C., & Quinn, M. (2017). Digital amnesia and the future tourist. *Journal of Tourism Futures*, 3(1), 73-76.
- Harvey, D. C. (2001). Heritage pasts and heritage presents: Temporality, meaning and the scope of heritage studies. *International Journal of Heritage Studies*, 7(4), 319-338.
- Hemsley, J., Cappellini, V., & Stanke, G. (Eds.). (2017). *Digital applications for cultural and heritage institutions*. New York: Routledge.
- Kidd, J. (2018). Public heritage and the promise of the digital. In A. M. Labrador, & N. A. Silberman (Eds.). *The Oxford Handbook of Public Heritage Theory and Practice* (pp. 197-208). Oxford University Press.
- Kidd, J. (2019). With new eyes I see: Embodiment, empathy and silence in digital heritage interpretation. *International Journal of Heritage Studies*, 25(1), 54-66.
- Little, C., Bec, A., Moyle, B. D., & Patterson, D. (2020). Innovative methods for heritage tourism experiences: Creating windows into the past. *Journal of Heritage Tourism*, 15(1), 1-13.
- Malpas, J. (2008). New media, cultural heritage and the sense of place: Mapping the conceptual ground. *International Journal of Heritage Studies*, 14(3), 197-209.
- Marty, P. F. (2008). Museum websites and museum visitors: Digital museum resources and their use. *Museum Management and Curatorship*, 23(1), 81-99.
- Natale, M. T., & Piccininno, M. (2015). Digital Cultural Heritage and Tourism Recommendations for Cultural Institutions. *Uncommon Culture*, 6(2), 52-64.
- Nyhén, S., & Gidlund, K. L. (2018). 'Everything' disappears... reflexive design and norm-critical intervention in the digitalization of cultural heritage. *Information, Communication & Society*, 1-15.
- Oxford Learner's Dictionaries (2021). "Oxymoron". Retrieved from https://www.oxfordlearnersdictionaries.com/definition/american_english/oxymoron 16.04.2021
- Öztemiz, S. (2016). Türkiye'de dijitalleştirilen kültürel miras ürünlerine açık erişim: Bir model önerisi (Open access to digitized cultural heritage productions in Turkey: A proposed model). (Unpublished doctoral dissertation thesis). Hacettepe University, Ankara.
- Poria, Y., Butler, R., & Airey, D. (2003). The core of heritage tourism. *Annals of Tourism Research*, 30(1), 238-254.
- Sabharwal, A. (2015). *Digital curation in the digital humanities: Preserving and promoting archival and special collections*. USA: Chandos Publishing.
- Serain C. (2016) The contribution of digital technologies to the mediation of the conservation-restoration of cultural heritage. In Ioannides M. et al. (Eds.) *Digital Heritage. Progress in Cultural Heritage: Documentation, Preservation, and Protection*. Euro-Mediterranean Conference 2016. *Lecture Notes in Computer Science*, Vol 10059 (pp. 283-289). Germany: Springer.
- Silberman, N. (2008). Chasing the unicorn? The quest for "essence" in digital heritage. In Y. Kalay, T. Kvan, & J. Affleck (Eds.) *New Heritage: New Media and Cultural Heritage* (pp. 81-91). Routledge: London.
- Smith, L. (2006). *Uses of Heritage*. UK: Routledge.
- Staiff, R., Watson, S., & Bushell, R. (2013). Introduction: place, encounter, engagement: context and themes. In R. Staiff, R. Bushell, & S. Watson (Eds.) *Heritage and Tourism: Place, Encounter, Engagement* (pp. 1-23). UK: Routledge.
- Terras, M. M. (2011). The Rise of Digitization. In R. Rikowski (Ed.), *Digitisation Perspectives* (pp. 3-20). Oxford: Chandos Publishing.
- Thwaites, H. (2013). Digital heritage: What happens when we digitize everything?. In *Visual heritage in the digital age* (pp. 327-348). London: Springer.
- Timothy, D. J. & Boyd, S. W. (2006) *Heritage Tourism in the 21st Century: Valued Traditions and New Perspectives*. *Journal of Heritage Tourism*, 1(1), 1-16.
- Timothy, D. J., & Nyaupane, G. P. (Eds.). (2009). *Heritage tourism in the developing world: reflections and ramifications*. In *Cultural heritage and tourism in the developing world: A regional perspective* (pp. 246-251). Routledge.
- UNESCO (2021). "Concept of Digital Heritage". Retrieved from <https://en.unesco.org/themes/information->

preservation/digital-heritage/concept-digital-heritage
16.04.2021

- Uzzell, D. (2009). Where is the discipline in Heritage Studies? A view from environmental psychology. In M. L. S. Sørensen & J. Carman (Eds.) *Heritage Studies: Methods and Approaches* (pp. 326-333). New York: Routledge.
- Vecco, M. (2010). A definition of cultural heritage: From the tangible to the intangible. *Journal of Cultural Heritage*, 11(3), 321-324.
- Winter, T. (2013). Clarifying the critical in critical heritage studies. *International Journal of Heritage Studies*, 19(6), 532-545.



Gökçe Yüksek is an Associate Professor in the Faculty of Tourism at Anadolu University in Eskisehir, Turkey. Her researches concentrate on tourism transport as well as destination planning and marketing.

ORCID: 0000-0002-1010-8694



Seda Sökmen is a PhD Candidate and Research Assistant in the Faculty of Tourism at Anadolu University in Eskisehir, Turkey. Her research interest is in tourism management, consumer behavior, event experience, social psychology, and museology.

ORCID: 0000-0003-3793-9145