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## The digital memory for the cultural heritage in the 21st century

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### Keywords

Memory  
Digital  
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### Abstract

The concept of memory has been redeveloped since the beginning of the 20th century. Social memory is directly related to the cultural heritage, which includes memory, and the protection and transfer of heritage. Technological applications that ensure sustainability of tangible and intangible cultural heritage in the 21st century are included in cultural institutions and internationally UNESCO projects. In this study, it was aimed to evaluate the concepts of memory, about the using in the international and historical documents of the cultural heritage. In the study, the concept of memory was focused in terms of cultural heritage, and the technological applications developed against the loss of information and documents of universal value were examined. The Memory of the World Register developed by UNESCO in 1997, is within the scope of documentary heritage. From Turkey, Observation and Earthquake Research Institute Kandilli Observatory Manuscripts, Hittite Tablets, Süleymaniye Library Ibn-i Sina Manuscripts Collection, Evliya Çelebi Travel Book, Kultepe Tablets, Divan-ü Lügâti't-Türk and Piri Reis's Map, Karatepe Tablets recorded in the list. As a result of the study, the importance of transferring information and documents that have universal value as a world heritage to digital media has been emphasized and the aspects of the using technology in culture have been evaluated.

## 1. Introduction

Memory actually tends to forget and remember, as well as relatively qualitatively, to misremember or reinterpret the past. It is in question that memory can mislead its owner, distort the common reality, as well as provide the opportunity to reinterpret events.

The concept of memory is used to express common values for societies, together with the word social or collective (common) with a general definition developed at the beginning of the 20th century. In the social sense, the concept of memory not only has the distinctive features of various countries in the world, but also points to the common characteristics of societies. The disturbance of the international community about cultural heritage preservation have also resulted in the popularization of the world heritage concept (Buyar & Unal 2022).

Today, when we think of the world as a large mansion, we know that objects from the past thrown into the attic determine your present and future situation.

When we consider the world as our common residence, it becomes important to record the past rather than ignore it. It would be wise to take advantage of technological opportunities while doing this. In this context, international organizations are developing various projects on the conservation of world memory.

In this study it was aimed to evaluate the concepts of memory, about the using in the international and historical documents of the cultural heritage.

## 2. Method

### 2.1. Memory, collective memory and cultural heritage

According to Bergson, the concept of memory records everything that is perceived in detail in daily life in the form of images, appearances and memories in a chronological manner in the time process. Memory necessarily accumulates everything perceived according to utility or other criteria (Bergson 2007; Anepçioğlu &

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Kurt 2019). The culture is the whole of human knowledge, belief and behavior and all kinds of material and spiritual creations that are parts of this whole (Usta & Gafar 2022). Culture depends on the passing on of learned knowledge between individuals, through teaching and copying. The duration of cultural memories depends not just on the amount of social learning but also on the fidelity of information transmission. The transmission indicates that the accuracy with which information passes between individuals (Laland & Rendell 2013). However, the concepts of memory and culture both have social and inter-communal meanings because they cover the past and provide cultural transfer.

The concept of memory can be used synonymously with the concept of memory, as well as by emphasizing the quality of storage and preservation, and by choosing the word memory. For example, according to Sancar, memory has become an interdisciplinary concept, a concept that can be evaluated within the scope of cultural heritage in the art and literature environment and includes cultural memory. Cultural memory is the organ of remembering non-daily events. And the cultural memory tends towards certain points in the past" (Sancar 2016, Ünay Selçuk 2018).

When the use of the concept of memory in various fields was investigated, the concepts of collective and social memory were developed by Aby Warburg in the early 20th century. Collective memory, which can be expressed in the form of collective memory, is formed by the permanence of values that are accepted as common in society. The content of memory and its organization, how long it will be preserved, are determined not by the capacity and orientation of the individual, but rather by external conditions, the conditions of the social and cultural framework (from Assman 2015 by Bayraktar 2017). These descriptions, which reveal the common and permanent characteristics of the society, are clarified with the concept of cultural heritage. Halbwachs developed the concept of "social frameworks of memory"; by facilitating and influencing the recollection of the individuals in it, society creates a space for individuals to make their memories permanent and to find them again (Halbwachs, 1925). In the field of cultural memory, which Assman classifies under the title of meaning transfer, traditions take place as a way of transferring and reviving cultural meaning. The concept is valid not only for monuments, temples, idols, but also for anything that transcends the boundaries of object memory, such as symbols, icons, representations that contain meaning, by translating the introverted time and identity sequence outward (from Assmann 2015 by Bayraktar 2017). Collective memory products consist of "transmitted by mutually recognized codes" in the definition of folklore and are passed on from generation to generation as "intangible cultural heritage" (Oğuz 2007). But nowadays it can be cultural assets can be seen to have tangible and intangible qualities at the same time.

Through the ages cultural transmission in societies provided by visual arts, monuments and architecture. Artists and architects have carried out various studies and work on the concept of memory, with the subject of forgetfulness, which is experienced in the world due to

the rapid transformation that took place with the Industrial Revolution. In today's world, where technological developments and social transformations took place after the industrial revolution, individuals and artists felt the need to connect to their memories. It is in question that artists consciously keep in their memories the events and subjects they feel and their connections with the past, protect them, and reflect this concept to their works and works whenever they want (Annepçioğlu & Kurt 2019).

The inclusion of the concept of memory in artistic life has raised awareness of memory culture from the individual to the society. In the academic literature written in Turkish and based on the studies in this field, it is seen that the word "memory" is generally preferred as the equivalent of the word memory in English. Although these two words are used synonymously, it is pointed out that the meanings of "protection and preservation" in the origin of the word memory do not correspond to memory and its derivatives (Bursalı 2017). Considering the social meaning of memory and the protection of cultural heritage, they are interrelated concepts. As the definition of cultural heritage expands, it has been observed that works, architectural monuments and documents of universal value have increased both in terms of numbers and content.

Cultural heritage determined by UNESCO as the legacy of physical artefacts and intangible attributes of a group or society that are inherited from past generations, maintained in the present and bestowed for the benefit of future generations (UNESCO, 2022).

In tangible culture, "preserved objects also validate memories; and the actuality of the object, as opposed to a reproduction or surrogate, draws people in and gives them a literal way of touching the past" (UNESCO, 2022). Tangible cultural heritage assets point to the timeless definition as they belong to the present time, future as well as the past.

Tangible culture are two important components in life of societies (Alyilmaz, 2010, Uysal 2013), The most important step to be taken in order to protect this culture as desired is the documentation of the Works in terms of national and universal culture (Kaya 2021, Alptekin 2019, Şasi 2019, Ahmet 2018). In terms of cultural heritage protection, preserving these assets and transmitting them to the future generations is critical (Kanun 2021, Alptekin 2019, Ulvi 2020, Yakar 2017). In the process of documenting cultural heritage, traditional techniques have left their place to digital techniques, as their efforts to acquire the right data in the shortest time have developed in technology in recent years (Yakar 2017).

## **2.2. The role of technology in preserving cultural memory**

The most important step to be taken in order to protect these works as desired is the documentation of the works.

Technical applications for storing in memory, which are considered among the socially beneficial aspects of technology, are today accepted as a permanent solution worldwide. Private, foundation or state-affiliated

cultural institutions, especially museums, carry out applications such as databases for long-term storage of works, objects, information and documents, and virtual collections on their websites. These applications provide up-to-date solutions and enable the transfer of tangible and intangible cultural assets as well as information and documents for the future in a permanent way.

In the 21st century, tangible cultural heritage values such as monuments, architectural structures, works of art that have survived from the past, and intangible cultural heritage values that can be summarized with various cultural transfers such as traditions and customs, oral culture, handicrafts, which may occur in the protection and storage conditions of the world heritage, can be transferred to digital memory if it is necessary.

Today, the cultural heritage, which transcends the borders of countries and is owned and responsible for the world, has been expanded to include tangible and intangible cultural assets with the definitions developed in the process. Social memory, which enables the creation of the original identity of societies, includes visible monuments and structures, as well as the values of the society such as art, craft, tradition, custom and ritual. This wide-ranging concept necessitates the delivery of more diverse and numerous documents in the field of application to the future.

Throughout the ages, the intellectual and cultural heritage of humanity has been preserved mostly in written forms such as manuscripts, books and magazines. Unlike other individual memories, these documents cover generations and centuries (van der Hoeven 1996). For this reason, it preserves a wide spectrum of human history from the classic to the popular.

Except that the tangible and intangible cultural heritage of the UNESCO World Heritage List, it is of great importance that significative documents are registered, preserved and shared in a universal context. In this way the concept of “documental sustainability” was put forward (Akyüz Levi 2021). It can support the evaluation transfer of cultural heritage with a holistic perspective. This approach is broad to encompass cultural heritage types and diverse societies.

With this purpose, in 1992, UNESCO defined the Memory of the World Program under the title of “Building Information Societies” as “protecting the documents and information that constitute the historical, cultural and social memory of humanity and which are in danger of disappearing due to various natural disasters, especially wars, or social reasons, as common values of humanity, and as one of the measures of protection, to ensure that it is shared in the digital environment”. The main goal of the program was explained as “to facilitate the preservation of the documentary heritage of the earth with the most appropriate techniques, to assist in universal access to the documentary heritage, to raise awareness around the world about the existence and importance of the documentary heritage” (UNESCO World Memory Program, 1996). The Memory of the World Registry, which was created within the framework in question, contains the documentary heritages of almost every country and continent selected since 1997, with a variety of history, language and art. Documents

reflecting social and political life from many countries of the world, international historical treaties, postcards, photographs, documentaries, motion pictures, festival or concert recordings constitute a large collection. The common point of documents belonging to different subjects, countries and cultures is that they have the characteristics of a periodical document heritage of humanity, they can be recorded digitally and they can be shared without any time and place limit. While the transfer of historical artifacts and documents to digital media helps to stop the effect of physical conditions on the temporality of time, the shareability of the digital document paves the way for international accessibility and research. From Turkey in 2001 Boğaziçi University Observatory and Earthquake Research Institute Kandilli Observatory Manuscripts, Boğazköy Hittite Tablets, in 2003 İbn-i Sina Manuscripts Collection at the Istanbul Süleymaniye Library, 2013 Evliya Çelebi Travel Book, 2013 Kültepe Tablets, in 2017 Divan-ü Lügâti't-Türk and Piri Reis's Map, in the year 2022 Karatepe Tablets are recorded in the World Memory list. (UNESCO World Memory Program, 2022). Turkey with its rich cultural heritage, is on the list with a valuable collection from Assyrian tablets to Ottoman period manuscripts.

The collection was created by bringing together manuscripts and terracotta tablets, which are the first written texts in history, under the same title. Drawing attention to the importance of written and visual documents that have survived as a world heritage, the selection points to the shareable and usable nature of digital memory for large audiences. As it is known, applications such as photography and video used in documentation are technologies that can be used at the first stage in the preservation, storage and transmission of social memory. Today, storing documents in digital environment and providing accessibility has been accepted as a more common and reliable method. In the early years of the UNESCO Memory of the World Program, recordable CD and DVD technologies were used and their abilities in long-term preservation and storage were evaluated (Bradley 2006).

One advantage of the technological systems is that the sharing of digitalized intangible cultural heritage values on the online platforms of museums can support other researches, be accessible, introduce and increase social awareness (Ertürk 2020).

### **2.3. Problems encountered for digital memory**

The fact that technological devices have a certain useful life, and that innovations in technology quickly disable the previous system or device can be counted among the negative qualities. Nowadays, systems that do not require external tools such as cloud volume and virtual memory are preferred because CD and DVD tools do not have long-term storage characteristics.

However, virtual storages such as the cloud can cause irreversible problems such as data loss that may occur due to threats such as copying or technical disruptions, basically shows that the use of traditional physical documentation and storage methods cannot be abandoned.

### 3. Discussion and conclusion

UNESCO World Memory Program, ensures that the intangible cultural heritage, which is actually an artifact value, can be considered together on the digital platform. Digital platforms have an introductory and interest-increasing sense as they make information storable as well as facilitating accessibility.

However, it is clear that any copy or reproduced document with a long-lasting nature cannot replace the original work or document. It can be foreseen that the problem can be solved in a multi-faceted way by eliminating the technical problems that digital technologies may be insufficient or creating insecurity, and simultaneously improving the long-term physical preservation conditions of documents.

It is considered as an important advantage that digital documentation and storage are easily accessible by the researcher and that physical documents that can be damaged by external factors can survive longer in the virtual environment.

The UNESCO Memory of the World Register, which is among the application examples of data storage, is important in terms of digitizing information and documents, bringing together the cultural data of societies from various subjects and periods, creating the common memory of the world and making it widely accessible.

### Conflicts of interest

The authors declare no conflicts of interest.

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