

## EVALUATING THE DIGITAL MUSEUMS IN TURKEY VIA CONTENT ANALYSIS

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### ABSTRACT

In the 20. Century, with the effect of the digital revolution and Information Society, museums have fundamentally changed both formally and structurally, and thanks to the network technologies the virtual museum has occurred. Turkey, as a candidate member of Information Society, has been struggling to adapt to these changes in economical, social and cultural senses. Whereat the government is trying to keep pace with the cultural changes in information society by implementing the "Virtual Museum" applications, which are important information sources in digital era. Within this framework, in this study, the virtual museums which were applied by the Turkish Ministry of Culture have been examined via content analysis. The results showed that, these applications are still insufficient in many ways.

**Keywords:** *virtual museum, digital museum, museums in turkey, information age, content analysis*

## TÜRKİYE'DEKİ SANAL MÜZELERİN İÇERİK ANALİZİ TEKNİĞİ İLE DEĞERLENDİRİLMESİ

### ÖZ

20. yüzyılda, sayısal devrimin ve Bilgi Toplumu'nun etkisiyle, müzeler hem biçimsel olarak hem de yapısal olarak köklü bir değişim geçirdi ve ağ teknolojileri sayesinde sanal müzeler ortaya çıktı. Bilgi Toplumu'na ayak uydurmaya olan Türkiye, ekonomik, sosyal ve kültürel anlamda bu toplumsal yapılanmanın getirdiği değişikliklere uyum sağlamaya çalışmaktadır. Türkiye hükümeti de, bu bağlamda, sayısal çağda önemli bilgi kaynakları olan "Sanal Müze" uygulamalarını hayata geçirerek Bilgi Toplumu'ndaki kültürel değişimlere ayak uydurmaya çalışmaktadır. Bu çerçevede, bu çalışmada, Türkiye Cumhuriyeti Kültür Bakanlığı tarafından kurulmuş olan sanal müzeler yapılan içerik analiziyle incelenmiştir. Elde edilen sonuçlar, bu uygulamaların pek çok açıdan hâlâ yetersiz olduğunu göstermiştir.

**Anahtar Kelimeler:** *sanal müze, sayısal müze, türkiye'deki müzeler, bilgi çağı, içerik analizi*

### INTRODUCTION

The preservation of museums, ruins and various artifacts, which are important elements of the cultural heritage and shared memory of the societies, is very important because they are sources for social scientists in terms of the historical, political and sociological analysis of societies. These artifacts and places serve as mediums that convey the messages of the previous societies' rituals, religion, political systems and social life forms. Preserving such heritages, especially in important historical areas as Turkey, is very important. However, the historical monuments can easily be damaged by natural disasters and human caused conflicts (remember ISIS' harm to the artifacts in Middle East) due to its geography. Many important resources in the area (Turkey and Middle East) have been destroyed throughout history. These demolitions recall the question of what alternative ways may exist to preserve historical and cultural monuments and artifacts.

In this sense, the "Digital Museums" emerge as an alternative way of protecting cultural history. In the "Information Age" of the 21st Century, digital replicas of artifacts, which has artistic and historical importance, are now being created in many developed countries, and even digital artifacts which have artistic value, are produced and presented in digital museums. Turkey, which is a country that is trying

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to be integrated into the Information Age, has started to use various digital museum applications which are mostly created by the state. However, the questions like whether these applications are designed in accordance with the design principles or not, or whether they are user-friendly or not has not fully answered. In this context, the problem of this research is to reveal if the digital museums in Turkey, prepared by the state, are sufficient in terms of design principals.

The purpose of this study is to examine the twenty-nine digital museums, which are accessible in the Ministry of Culture and Tourism of the Republic of Turkey's website, in context of the design principles via content analysis. In this context, answers to the following questions have been sought: "While preparing these virtual museums, are the designers worked professionally?", "Can users easily make use of these virtual museums?", "What kind of improvements can be made on these virtual museum applications?" etc.

## **THEOROTICAL FRAMEWORK**

### **A Brief History of Virtual Museums**

According to International Council of Museums (ICOM) "A museum is a non-profit making, permanent institution in the service of society and of its development, and open to the public, which acquires, conserves, researches, communicates and exhibits, for purposes of study, education and enjoyment, material evidence of people and their environment" (Murphy, 2004). Museum, as a concept, is taken from ancient Greek word "mouseion". In ancient Greek the word meant "seat of the Muses" (poem goddess in Greek), and it was used as a philosophical institution (Lewis, 2016).

The very first museums in the history occurred in ancient Egypt and Mesopotamia. In these civilizations the valuables were gathered in the temples, and after the wars, the victorious rulers were exposing their trophies as a symbol of power. Collecting artistic objects has first started in Ancient Greek, and treasury buildings was built in in important places to display these artifacts. Then in Hellenistic period these places were used for social activities and philosophical conversations, and after a while these "mouseions" became intellectual people's gathering places.

Throughout the history museums continued their evaluation. After Roman contribution, the museums as we know today first emerged in the 15th century with the effect of Renaissance intellectuals. In 20<sup>th</sup> Century, "Information Revolution" has changed both the meaning and the structure of the museums. With time, after the different types of museums occurred, thanks to the computers, Internet technology and emergence of browsers "Virtual museums" began to be discussed. With the emergence of World Wide Web, especially with its transformation into a multimedia environment thanks to "Mosaic" browser in 1993, virtual museums started to be used extensively in the countries with necessary infrastructure (Huhtama, 2002:1).

### **Definitions and Features of Virtual Museum**

It is easy to say that today's digital or virtual museums make Malraux's vision real. The virtual museums are defined by Schweibenz (2004) as "...a logically related collection of digital objects composed in a variety of media which, because of its capacity to provide connectedness and various points of access, lends itself to transcending traditional methods of communicating and interacting with visitors...; it has no real place or space, its objects and the related information can be disseminated all over the world". Also Schweibenz stated in his same study that the virtual museum is no competitor or danger for the "brick and mortar" museum because, by its digital nature, it cannot offer real objects to its visitors, as the traditional museum does. But it can extend the ideas and concepts of collections into the digital space and in this way reveal the essential nature of the museum. (Schweibenz, 2004). In a way this is the reason why these originally digital collections and the digitized versions of actual exhibitions might be considered as museums. They can provide the same intellectual and artistic delight as mortar museums does; even if it is not at same level. Schweibenz explains this as follows; "A virtual museum does not house actual objects and therefore lacks the permanence and unique qualities of a museum in the institutional definition of the term" (Schweibenz, 1998:190).

Besides this general definition, Veltman (2001) gave two quite distinct definitions to the term virtual museum: 1). It can mean an electronic version of an existing physical collection. In the interests of clarity, we shall call this a digital museum. 2) It can mean an imaginary museum without any necessary physical counterpart (Ulusoy, 2010: 38). The latter idea was influenced by the French writer Andre Malraux's (1947) idea of "imaginary museum" (un musée imaginaire) without walls. The reason why Malraux started questioning the museum's traditional role as an institution was the spreading of photography. Because, photography, as a visual technology, enabled the people, who may not have a chance visit a museum, to see the artifacts through their photographic reproductions. (Huhtamo, 2002).

Websites need to compensate some qualifications to be counted as a virtual museum. As Hoptman states a virtual museum provides multiple levels, perspectives, and dimensions of information about a particular topic: it provides not only multimedia (print, visual images through photographs, illustrations or video, and audio), but, more important, it provides information that has not been filtered out through these traditional methods" (Hoptman 1992: 146). Even though a website contains images of an artifact if it can't compensate these qualifications it can't be considered as a virtual museum.

According to Veltman (2001) the digital museum experience would not replace the physical museum experience and the experience with the real artifacts. Still it provides some opportunities for the visitors. First of all, through the global internet network any user with appropriate digital skills is able to reach the online content and digital reproductions of the artifacts. Also it provides visitors a multimedia environment, which physical museums may not provide all the time, and through this media it provides an opportunity for users to experience potential dynamism of objects and their stories.

In this framework, as Soren (2004) states, it can be said that virtual museums have 13 goals;

- *To encourage people to look more carefully to the artifacts presented in physical museums by luring them to the actual museums. In the age of entertainment people's, especially young people's, interest on the knowledge, art and history is very limited. Virtual museums might offer an alternative way to stimulate on these.*
- *To include to the tour, the affects like, smell, touch, voice which may be inappropriate in a public physical museum. This way they can provide more realistic experiences for the users.*
- *To direct the visitors to find the artifacts quicker. This is especially necessary for the experts and professionals, whom are working on history, arts and alike fields, to easily reach to the artifacts and information they need for their studies.*
- *To raise awareness about the artifacts which are stored back in the warehouses. Most of the valuable artifacts are stays inert in the warehouses of the museums. The museums are commercial entities, and the curators' job is the make them more attractive. So, the choose the best artifacts to lure people to the museums and leave the rest in the warehouses. Thanks to the virtual museums, all these artifacts can be seen by the visitors; because there is no limitation of stored data in the web.*
- *To provide context to the objects. Many objects in the museums have been taken from actual places, and in a sense they are lack of context. Thanks to the virtual museums and augmented/virtual reality technologies, visitors are able to see them in their original state. This way all the information about the artifacts and the context of the artifacts are more understandable for the visitors.*
- *To provide an opportunity to virtual restoration and reconstruction for the museums; by that way to make easier the physical restoration of the museum. Reconstruction and restoration in physical environments for museums is too hard and expensive. By doing*

*these reconstructions and restorations in digital environments first the managers of the museums might save both time and human power.*

- *To bring together the artifacts which may not be gathered physically, in a fictional space.*
- *To provide information about the exhibitions.*
- *To provide information about the history of the information. In the physical museums visitors have limited time to spend, and most of the museums' entrance is paid. So most of the times, the visitor are unable to gather all the information about the exhibits and artifacts. On the contrary while examining the exhibits; the visitors of the virtual museums might spend all the time they want. By this way they can gather all the information they need.*
- *To provide an opportunity to see the collections far away. This is especially very important for the average visitor. For them visiting collections far away might be impossible because of variety of limitations. Thanks to the virtual museum technology, any user with adequate skills is now have an opportunity to see these collections.*
- *To provide an opportunity to see the collections which are not open to the public for various reasons. Some collections are private or some of them are too sensitive for human effect. Virtual museums make these collections available to be visited; because they minimize human effects on the artifacts.*
- *To protect original and unique artifacts by reducing the effects of transportation, wearing and lighting. Some collections are mobile, and they are taken by some private companies to different countries in different times. Sometimes these transportation processes can damage the artifacts irrevocably. Thanks to digital museum technology transportation of the collections might not be necessary anymore, and they can be protected easier.*

Schweibenz (2004) states that there are four types of digital museums. First one is the “brochure museum”. Brochure museum is a Web site which contains the basic information about the museum, such as types of collection, contact details, etc. Its goal is to inform potential visitors about the museum (Schweibenz, 2004). It can be said that this is a kind of a website which advertises the institution. The second kind of virtual museum is the “content museum”. This is a Web site which presents the museum’s collections and invites the virtual visitor to explore them online. The content is presented in an object-oriented way and is basically identical with the collection database. It is more useful for experts than for laymen because the content is not didactically enhanced. The goal of this type of museum is to provide a detailed portrayal of the collections of the museum (Schweibenz, 2004). Content museum is a kind of academic institution, and generally used for scientific and art studies by the professionals. The third type is the “learning museum”. Learning museum is a Web site which offers different points of access to its virtual visitors, according to their age, background and knowledge. The learning museum presents information in a context-oriented way, instead of presenting it in an object-oriented way. Its goal is to make the virtual visitor come back and establish a personal relationship with the online-collection. By this, it aims the lure the visitor to visit the physical museum and see the real objects. (Schweibenz, 2004). It can be said that this learning museums are the orientation environments for users to get a glimpse and get used to the exhibitions. The last type of digital museum is the “virtual museum”. For Schweibenz this is the next step of learning museums. Besides providing information about the collections; virtual museums also provides links to other digital collections in other institutions. By doing this, it links all the museums and artifacts to each other, and creates one giant, global exhibition. Thus, thanks to the virtual museums, André Malraux’s vision of the “museum without walls” became real (Schweibenz, 2004). With the virtual museums the visitors would not only see a specific exhibition but they can also be able to understand it’s context by seeing them together with the other related exhibitions.

When it comes to virtual museums in Turkey it is seen that the very first application of virtual museums, which was realized with the support of government, was the digitization of Topkapi Palace collection in early 1990s. However, due to lack of sponsorship and technical support and highly qualified staff; the project was cancelled (Atagok & Ozcan, 2001:42). After this trial There are plenty

of virtual museum projects which were applied with the support of different utilities. These were digitization of Istanbul Painting and Sculpture Museum, Panorama Museum of 1453 Istanbul Conquest (2009), the establishment of Information Technology and Project Development Branch (which aims to digitize all museums and cultural heritage) in 2006, "Museum With No Frontiers" Project etc. Unfortunately, because of the insufficiency on being in connection with the virtual museums abroad prevent modern applications for virtual museums from being used for the state museums in Turkey for a long time.

## **METHOD**

This research is a qualitative content analysis study. In the study, the content of the chosen virtual museums, which are media specific to the information society, was examined in the context of the criteria prepared by the researcher.

The sample of this study was determined as the virtual museums which are created by the government. There are many different virtual museum types and private virtual museum owners. The reason why the government-backed virtual museums were chosen to study on, not the private virtual museums and exhibitions, is because these museums are pioneer on the field, easy to access and appeal to more people.

To examine the chosen virtual museums, a review form was prepared by the researcher. To prepare this form first the related literature was examined and some research questions were found. Then, with support of two experts, who are experts on media design and visual design, the validity of these questions was discussed. After discussion and with the advices of these experts the following questions were determined:

- What type of virtual museums are used in the web site of Turkish Ministry of Culture?
- Are the images of the artifacts used in the virtual museums clear?
- Are there any clear written explanations about the artifacts and exhibitions?
- Is it easy to use these virtual museums? Are there enough tools to navigate in these museums?
- Are the multimedia facilities used effectively in the design of these museums?

Finally, via the road map, which was prepared with the experts mentioned above, the virtual museums prepared by the sponsorship of Turkish Ministry of Culture was examined by the researcher.

## **FINDINGS**

In the web site of Turkish Ministry of Culture 29 virtual museums are available for users to visit. 20 of these Museums are content museums created via 360-degree panoramic photos, 3 of them are brochure museums and 6 of them are regular content museums. Also 8 of the museums are inaccessible. In the framework of this research the brochure museums and the inaccessible museums were excluded from the study. In this context; 18 of the 29 museums were evaluated.

After the evaluations, it is seen that in 13 museums the images, which is used to show the artifacts and exhibitions are not clear. They are either blur, shot from wrong angle or incorrectly illuminated. The images which were used in the rest of the museums are clear. But it is hard to enter these 5 museums if one's internet connection is not strong enough because of the image sizes. In the research, it's seen that while the designers were using the related images, instead of taking consider the visual suitability of the image (lighting, focusing, less distortion etc.); they have focused to the technical quality of the images. This doesn't provide a better quality exhibition, especially for the users with poor connection. On the contrary this is an important insufficiency when considered in the context of user-friendly design.





**Image 1.** Examples of unclear images. In the photo, which is on the left, it can be clearly seen that there are reflections of other artifacts; and in the right one lighting is inaccurate. (<http://www.kultur.gov.tr/TR,96600/muzeler.html>)

In a further examination it is seen that in 3 of the museums with no clear image, while recording the objects there were visitors in the museums and they block the appearance of artifacts or their reflections are seen through the glasses. It is not known if the designers did that to provide more lifelike experience; but clearly it lowers the pleasure for the virtual visitors. Because, the people in the images distracts the user from the artifacts. Because it can be seen that these people doesn't aware that they are being captured, and they stand in inappropriate places and blocks the artifacts or they move and create blurs in the photo. Also in 3 of the virtual museums, the images are not clear during the virtual tour; but they have external catalog pages in their web sites. In these catalogs images are clear. However instead of using the virtual tours opportunities, using these external pages to get informed about the exhibition lowers the reality affect of the tour, and it creates a perception like the users are visiting a brochure museum, not a virtual one.



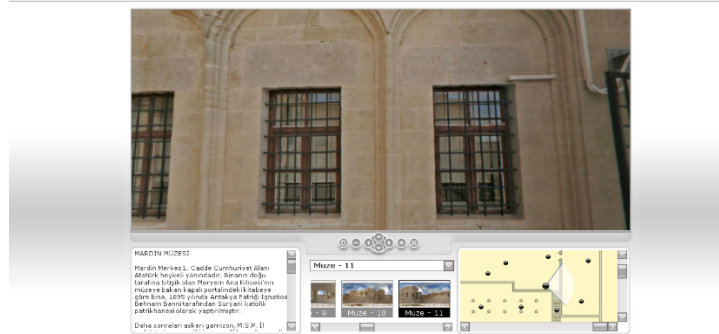
**Image 2.** People walking around in the museums during the image shooting. (<http://www.kultur.gov.tr/TR,96600/muzeler.html>)

In all the web pages, which consists the virtual museums, there are short introduction texts about the museums. However, in 14 of the virtual museums there aren't any clearly legible texts that promoting the artifacts, and only the names of the artifacts are given. This is an important insufficiency because if the visitors aren't professionals on the field, or if they doesn't have any preliminary information about the exhibitions, the images wouldn't make sense for them. This situation lowers the artistic or historic pleasure that the user get from the artifact, and also it lowers the reality effect of the virtual tour. In 2 virtual museums, these writings are attached the external catalog pages in the web sites and if visitor wishes (s)he can see the information by using these pages. This also affects the quality of the tour, because the external pages functions more like a brochure museum. Finally in the rest 2 virtual museums visitors can access these text by clicking on the artifact. This is the most appropriate way to provide written information about the artifacts while creating virtual tour, and it seems like only two of the museums have the competency.



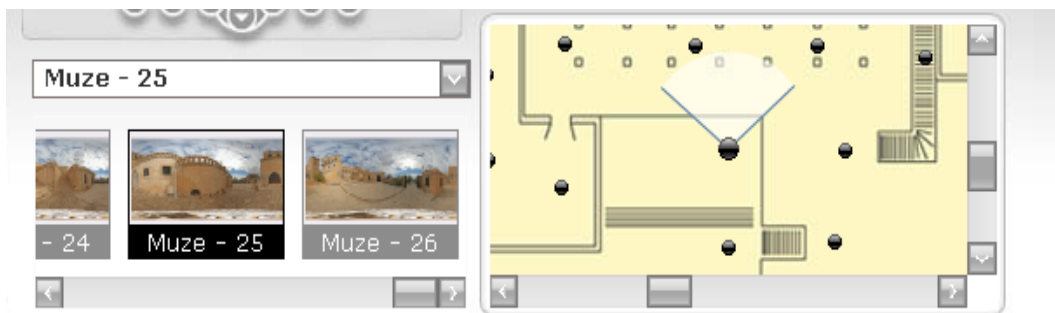
**Image 3.** Unexplained artifacts (on the left), and example of an external explanation page (on the right)  
(<http://www.kultur.gov.tr/TR,96600/muzeler.html>)

In none of the 18 virtual museums, which are included in the assessment, the virtual tours are supported by any videos, audio descriptions or suchlike multimedia. Only one of the museums has a background music during the virtual tour. This is also an important insufficiency when considered in the context of user-friendly design, because it make the user feel like (s)he is watching a photo slideshow. Also, because of these deficiencies it is hard to label these web sites as virtual museums. Because, they don't fulfill the necessary features which were clarified in the definition of virtual museum.



**Image 4.** Example of a virtual museum page (<http://www.kultur.gov.tr/TR,96600/muzeler.html>)

In 17 of the museums visitors can use maps to wander around in the virtual museums during their virtual tour experience. And in one museum there isn't any map to use. This is an important feature, because helps user to navigate through the artifact (s)he would like to examine. Also, these maps increase the user-software interaction and by doing this they give more control to user and a better virtual experience. Finally; in 10 museums, it is easy to navigate, to direct the screen, and to enter the desired location. But in the rest 8 museums it is pretty hard to do navigate, to direct the screen, and to enter the desired location.



**Image 5.** Example of a navigation map which is used in the virtual museums.  
(<http://www.kultur.gov.tr/TR,96600/muzeler.html>)

## RESULTS

It can be said that virtual museums are both a profit and a necessity of the information society. For a contemporary society, to create and maintain cultural heritage, to ensure that citizens have access to this heritage, and to be linked to international exhibitions (which means being an information society) virtual museums have critical importance. Virtual museums are very important media for both creating a digital heritage and, protecting and disseminating the mortar heritage by digitizing them for the members of information society. Turkey has a very wide history and whereat it has a very wide variety of artifacts. However as a candidate member of information society, Turkey is still at the very beginning of the road but it is eager to create its own virtual museums. But, unfortunately during this research it is seen that the virtual museums in Turkey are not capable of fulfilling the basic necessities of being a virtual museum. This occurs as follows;

- First of all it is seen that the images that used in these virtual museums were created very amateurishly. This prevents users to live an experience close to reality.

- In these virtual museums, multimedia facilities were not used good enough. Therefore, the visits to these museums are more like a watching a photo slide show than a virtual tour experience.
- Generally it is hard to use these virtual museum applications for the visitors and they were not designed user friendly.

There are countless of virtual museum applications around the world. Especially, in western countries with high internet connection, quality examples of virtual museums (such as British Museum's virtual tour- can be reached from <http://www.britishmuseum.org->) but the problem here is that many countries with highly rich historical and cultural heritage do not have the necessary technological infrastructure. Therefore, it is impossible to create digital replicas of the artifacts in these countries and because of variety of reasons (human effects, natural disasters etc.) many of these artifacts are destroyed. Also, even if they did not destroyed, they wouldn't have been visible to the world, and in a way they would be lost for the global cultural heritage. Turkey is one of the countries which has rich culture and history, so in this sense Turkey's efforts to establish virtual museums seems admirable but insufficient. As a result, it can be said that virtual museums are important tools for protecting and spreading countries' history and culture. Therefore, virtual museum field is supposed to be considerable for the academy and more studies should be done on this topic. So, within in the framework of this study's results, in the future studies, the researchers might investigate the ways of developing these virtual museums, and recommend new applications of virtual museums. Also, they can deeply examine the better applications of digital museums and they can bring suggestions for correcting the practices in Turkey.

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