

VIRTUAL MUSEUM AND ITS PURPOSE

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Abstract. In the article, the authors consider issues related to the study of the virtual museum, the definition of the virtual museum is revealed, its varieties and characteristic features are highlighted. Current trends and promising directions for further development are outlined. The classification of virtual museums from the point of view of cultural studies is given.

The Virtual Museum of the History of communication has always been relevant in modern society. Worldwide, the demand for a digital museum is growing. The collections of virtual museums are represented by various sources – written, graphic (including 3D), audio and video sources. Most virtual museums display original images of text sources, but not in a machine-readable format. This approach significantly narrows the search capabilities of virtual museum information systems (the source cannot be found by the system itself). Similar problems arise with audio and video sources, because they do not have their own description or it is too small, despite the apparent value in the study. Overcoming these problems will improve the quality of generated resources, increase their information return, and increase the use of CG in classical research and education.

The classification of virtual museums from the point of view of cultural studies is given. Virtual museums are products of the computer industry that provide free mass access to cultural heritage. It is noted that virtual museums have a significant potential for the preservation of cultural heritage objects created today. Virtual museums are a new cultural form with its own features and promising functions. Despite the fact that they are developed in Western countries, in Kazakhstan they have not yet really appeared and have not been studied at the academic level.

Key words: virtual museum, technology, museology, exposition.

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ВИРТУАЛДЫҚ МУЗЕЙ ЖӘНЕ ОНЫҢ ҚОЛДАНЫЛУ АЯСЫ

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Түйіндеме. Авторлар бұл мақалада виртуалды музейді зерттеуге қатысты мәселелер қарастырылады, виртуалды музейдің анықтамасына, оның түрлері мен ерекшеліктеріне ерекше назар аударылады. Қазіргі даму үрдістері мен одан әрі дамудың перспективалық бағыттары көрсетілген.

Виртуалды түрдегі музей тарихы қазіргі қоғамда әрқашан өзекті болады. Сандық мұражайға деген сұраныс бүкіл әлемде артып келеді. Виртуалды мұражайлардың коллекциялары әртүрлі дереккөздермен – жазбаша, графикалық (оның ішінде 3D), аудио және видео көздерімен ұсынылған. Көптеген виртуалды мұражайлар мәтіндік дереккөздердің түпнұсқа суреттерін көрсетеді, бірақ машинада оқылатын форматта емес. Бұл тәсіл виртуалды музейлердің ақпараттық жүйелерінің іздеу мүмкіндіктерін едәуір тарылтады (дереккөзді жүйенің өзі таба алмайды). Осындай проблемалар аудио және бейне көздерінде де туындайды, өйткені олардың өзіндік сипаттамасы жоқ немесе

зерттеулердің құндылығына қарамастан, олар аз. Бұл проблемаларды шешу генерацияланатын ресурстардың сапасын жақсартады, олардың ақпараттық тиімділігін арттырады және классикалық зерттеулер мен білім беруде КГ қолдануды көбейтеді.

Виртуалды музейлердің мәдениеттану тұрғысынан жіктелуі берілген. Виртуалды музейлер компьютерлік индустрия өнімдері болып табылады, олар мәдени мұраға жаппай қолжетімділікті қамтамасыз етеді. Виртуалды музейлердің біздің заманымызда қалыптасқан мәдени мұра нысандарының сақталуы үшін айтарлықтай әлеуеті бар екені атап өтілген. Виртуалды музейлер өз ерекшеліктері мен перспективалық функциялары бар жаңа мәдени нысан болып табылады. Батыс елдерінде дамығанына қарамастан, Қазақстанда олар академиялық деңгейде шынымен пайда болмады және зерттелмеді.

Кілт сөздер: виртуалдық музей, технология, музеология, көрме.

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ВИРТУАЛЬНЫЙ МУЗЕЙ И ЕГО ПРЕДНАЗНАЧЕНИЕ

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Аннотация. В статье авторы рассматривают вопросы, связанные с изучением виртуального музея, раскрывается определение виртуального музея, выделяются его разновидности, характерные черты. Обозначаются современные тенденции и перспективные направления дальнейшего развития. Дается классификация виртуальных музеев с точки зрения культурологии.

Виртуальный музей истории коммуникации всегда являлись актуальными в современном обществе. Во всем мире востребованность к цифровому музею растет. Коллекции виртуальных музеев представлены различными источниками – письменными, графическими (в том числе 3D), аудио и видео источниками. Большинство виртуальных музеев демонстрируют оригинальные изображения текстовых источников, но не в машиночитаемом формате. Такой подход существенно сужает поисковые возможности информационных систем виртуальных музеев (источник не может быть найден самой системой). Подобные проблемы возникают с аудио и видеоисточниками, потому что у них нет своего описания или его слишком мало, несмотря на кажущуюся ценность в исследовании. Преодоление этих проблем улучшит качество генерируемых ресурсов, увеличит их информационную отдачу, увеличит использование КГ в классических исследованиях и образовании.

Дается классификация виртуальных музеев с точки зрения культурологии. Виртуальные музеи – это продукты компьютерной индустрии, которые предоставляют бесплатный массовый доступ к культурному наследию. Отмечается, что виртуальные музеи обладают значительным потенциалом для сохранения объектов культурного наследия, создаваемых в наши дни. Виртуальные музеи – это новая культурная форма со своими особенностями и перспективными функциями. Несмотря на то, что в западных странах они развиты, в Казахстане они еще толком не появились и не изучались на академическом уровне.

Ключевые слова: виртуальный музей, технология, музеология, выставка.

Introduction. One of the most popular and wide spread museums in the world is virtual museums. Recently it is used in the World Wide Web. The theme virtual museums are discussed not only among museum experts and art critics, but also in various forums, conferences and on the internet, too.

The creation of virtual museums, and more specifically the development of the first virtual museum dates back to the 90s. XX century, is associated with the movement of human attention to the new digital space, concentrated in the virtual world of a personal

computer and the Internet. In the Internet there are modifications (electronic “clones”) of real cultural institutions (virtual museums, virtual libraries, virtual archives). Virtual museums can be classified according to different principles. In accordance with the development technologies should be allocated static virtual museums containing static information, and dynamic virtual museums, including a set of dynamic effects and providing technologies for user feedback.

By the thematic principle, the classification of virtual museums is similar to the classification of real museums: architectural, natural science, historical, artistic, technical, literary, theater, music, etc.

According to the dominant direction of activity, the following models of virtual museums are distinguished:

1. Educational (emphasis on the aspect of interactivity):
 - Virtual Museum “Secrets of the Egyptian Mummies” (www.mcq.org/momies).
 - Virtual Museum of Communication History (www.vt.ru/18845).
2. Marketing (emphasis on advertising):
 - virtual museum of the automaker Mazda (www.mazdausa.com);
 - virtual museum of Panasonic (www.panasonic.eu/designmuseum).
3. Information (emphasis on information content):
 - virtual museum of match labels (www.phillumeny.narod.ru);
 - a virtual museum of Soviet life (www.kommunalka.spb.ru);
 - virtual museum of the Russian primitive (www.museum.ru/museum/primitiv);
 - Virtual Museum of Sorrows (www.sorrow.hotmail.ru) (Smirnova, 2010:102).

Several main directions can be highlighted in the virtual museum research. They are: the study of virtual museum as a cultural phenomenon; the usage of virtual museums and their possibilities in the sphere of education; the questions of virtual museum creation and design; the comparison of real and virtual museums, etc. But researchers do not often pay attention to the term “virtual museum” and it is used as a matter of course. Moreover, the researchers, users and developers of virtual museums usually interpret this term in different ways. In the usage of term “virtual museum” we can categorize the following main approaches to its content: the concept of “virtual museum” is treated as:

1. a model of an invented museum created with the help of computer technologies, which exists only in virtual space;
2. a digital object that has the characteristics of a museum, in order to complement, enhance or expand the experience of a real museum through personalization, interactivity and content enrichment;
3. a synonym for a virtual tour of the museum;
4. an understanding of the site of a real museum as a “virtual museum” (as a representative of the museum on the Internet);
5. a collection of digitally recorded images, sound files, text documents, and other data of historical, scientific, or cultural interest that are accessed through electronic media;
6. a real museum exhibition, including the virtual methods and techniques of representation of exhibits (multimedia audio-visual effects, holograms, computer installations, etc.);
7. the online Museum of Computer Art. We understand the term “virtual museum” as an information system, which contains common online collection or several collections of items with metadata, has museum characteristics and allows to carry out the scientific, educational, exhibition and excursion work in virtual space.

The collections of virtual museums are represented with various sources – written, graphic (including 3D) and audio and video sources. The majority of virtual museums demonstrate original images of text sources but they do not present the machine-readable format. Such approach considerably narrows search possibilities of information systems of virtual museums (the source can hardly be found by the system). Similar problems appear with audio and video sources, because they do not have their description or too little of it, in spite of the apparent value in the research. Overcoming of these challenges will improve the quality of the generated resources, will increase their information returns, will increase the use of CH in classical research and education.

Moreover, specialists in the sphere of museology talk about “imaginary” virtual museums, about the illegality of the use of terminals by many sites, indicating that the content of these resources fits into the classical understanding of the word museum.

In some way all users of the World Wide Web had difficulties in finding the necessary

information on the Internet. These reasons are related to the names Internet resources, i.e. with terminology. On the other hand, the user often finds it hard to formulate the query and at the same time difficulties with the selection of the “right word” in order to search for the necessary information.

All users of the World Wide Web in some way collided with the difficulties of finding the necessary information on the Internet. These complexities among other reasons are largely related to the names. On the one hand, the user often finds it difficult to formulate the query, testing difficulties with the selection of the “right word” to search for the necessary information. The creators of Internet resources and web services mostly create difficulties for themselves, by choosing for their own sites and pages’ names and keywords that users do not use in search queries. “Unsuccessful” title significantly limits the rating of attendance of the resource. (Maximova, 2012:102).

Literature review. Virtual museums are primarily seen as virtual representations on the Internet real museums in the candidate’s works of the philological sciences I.V. Rosina and candidate of cultural science O. V. Samakovskaya. However, as it is mentioned above, sites real museums are not the only form of existence of online museums, and virtual museums created on the basis of traditional museums on the World Wide Web constitute a minority.

According to the point of view the Doctor of Arts A.V. Lebedev, “There are only two correct uses of the term “Virtual museum”. The first is a site based on the laws museum design, that is, when there is a constructed space in which images of museum exhibits. The second option is directly reverse. when we speak about the real space, in which are placed electronic images of museum items”.

Perhaps, the interpretation of the term virtual museum as a real museum in which virtual exhibits are placed among other reasons, also with reasoning by analogy: the zoological museum - zoological exhibits, paleontological museum - paleontological exhibits, etc. Such an approach is quite widespread. The “Virtual Museum of Circus Art” is situated in Moscow (Lebedev, 2010:55).

A new cultural form of an integrative nature are virtual museums, existing in the virtual space. By the way, such a multifunctional complex characterized primarily by the presence on the Internet.

According to the A.G. Leshchenko, who is the employee of the Department of museology RSUH, only virtual museum of digital multimedia Adobe “For the first time one cannot be accused of being not a museum”. In other words, other Internet resources using this term, do not quite right. But, as you know, the meanings of words are changing over time. Some words we do not use at all, others are filled with a new meaning. Similar processes occur with the word museum, especially since it is not just a matter about a museum, but about a virtual museum. Therefore, it seems to us quite acceptable the wide application of the term virtual museum in the World Wide Web.

G.P. Nesgovorova, who conducted research on virtual museums with the support of the Russian Humanitarian Fund, highlighted that in the modern Internet there exist two museum sites which have the same functions. This, firstly, representation is real existing museums and, secondly, actually virtual museums, but they are all still called the same: virtual museums (Nesgovorova, 2019:85).

Virtual museum means a new phenomenon of culture, a qualitatively new cultural form, generated by information technologies and the development of the Internet. This new cultural form is not reducible to the sites of traditional museums on the Internet or to other existing cultural forms.

Virtual museums are an independent, they were known due to the emergence of information technology and creativity of users.

First of all, the study of lexical data shows, that the words virtual, computer, multimedia, digital, electronic museums, web museums, hyper museums, cyber museums, online museums are used synonymously. The use of words depends on the characteristics of the author’s text. In the names of sites of traditional museums and libraries, the term museums are often replaced by the terms of the exhibition, gallery, collection and exposition. That is, the terms virtual museums and virtual exhibitions, collections, galleries are used synonymously. However, Internet users, as the statistics of “key words” on index, often use virtual museums in the search queries. It should be noted that the word virtual is not always used in the sense of “created by computer technologies, a product of the computer industry”. The term virtual can mean “imaginary, imitating reality, imaginary”.

Andre Malraux was the first person, who introduced the idea of the virtual museum in 1947. He put forward the concept of an imaginary museum (*le musée imaginaire*), a museum without walls, location or spatial boundaries, like a virtual museum, with its content and information surrounding the objects, might be made accessible across the planet. A virtual museum is: “a collection of digitally recorded images, sound files, text documents and other data of historical, scientific, or cultural interest that are accessed through electronic media” (Malraux, 1996:48).

There are various definitions about virtual museums. With no standard definition prevailing for the term ‘virtual museum’, the definition adopted for the purpose of this article describes it as: “a logically related collection of digital objects composed in a variety of media and because of its capacity to provide connectedness and various points of access, it lends itself to transcending traditional methods of communicating and interacting with the visitors being flexible toward their needs and interests; it has no real place or space, its objects and the related information can be disseminated all over the world”.

Another less rigid definition states that a virtual museum can be a digital collection that is presented either over the Web, or to an internet, either via a personal computer (PC), an informative kiosk, a personal digital assistant (PDA), or even to a CD-ROM as an extension of a physical museum, or that it can be completely imaginary. Furthermore, the abstract term virtual museum can take various forms depending on the application scenario and end-user. It can be a 3D reconstruction of the physical museum. Alternatively, it can be a completely imaginary environment, in the form of various rooms, in which the cultural artifacts are placed. (Schweibenz, 1991:65).

One of the first recorded definitions of ‘Virtual Museum’ is dated January 1997, written by Jamie McKenzie and published by the ‘Technology & Learning Magazine’. ‘A virtual museum is a collection of electronic artifacts and information resources – virtually anything which can be digitalized. The collection may include such things as paintings, drawings, photographs, diagrams, recordings, video segments, newspaper articles, transcripts of interviews, numerical databases and a host of other items which may be saved on the virtual museum’s file server. It may also offer pointers to great resources around the world relevant to the main focus of the museum.

In McKenzie’s definition the Internet was not explicitly mentioned. In the 1990s the museum community was still debating about whether the web should be regarded as a possible threat or as an opportunity. The discussion about ‘real virtual’ was also complicated by the emerging notion of the ‘intangible heritage’ (collective memory, etc.) which was inevitably destined to go digital. From the musicological point of view, terminology has started registering a permanent shifting of meanings and accents. The term ‘virtual museum’ in itself, which on this occasion is the focus of our discussion, has been involved in this process: from a sort of a museum showcase reproducing reality on the web or on an electronic device, to a complex independent museum dimension which lives its life in a variety of media. On the contrary, in current museum jargon ‘virtual’ seems inevitably associated with the Internet. (Ryan, 1996:85).

Material and methods. It has to be said that our familiarity with virtual reality is not only a matter of digitization and the Internet. For instance, every day we look at the sun, but the sun we see at that moment is dated eight minutes ago. Many of the stars we can see now in the sky do not exist any longer...they have died for a long time. At the same time, virtual reality has been pursued as a theatrical effect with intriguing results in the past. Introduced into theatres in the 1860s, Professor Pepper’s Ghost startled British theatre goers with an effect that allowed live people or objects to slowly materialize into a scene. This is a technique recently adopted in some museums, for example the Wimbledon Lawn Tennis Museum, where the ‘ghostly figure’ of the famous tennis player John McEnroe speaks to the public in an impressively realistic way by adopting the same method elaborated by Professor Pepper more than a century ago.

It is true that digital resources are also proving to have a pervasive potential in the context of the museum environment, with the consequence that the virtual museum is also present inside the ‘real’ museum environment, offering visitors and users ‘virtual experiences’. Museums, by definition the kingdom of real, physical objects, are nowadays increasingly going digital because they exhibit or anyway make a variety of digital objects accessible, on the other hand because visitors and users of museums can experience ‘de-materialized’

objects inside the museum and outside the museum, on the web, or via one's digital devices in the heart of the exhibition or very far from it. An outstanding example of the complex process underlying integration between the tangible exhibition and digital devices of a different nature (portable or not) is offered by the ICT structure of the Museo Galileo (Florence), 2011 European Museum Academy Prize winner.

Digital objects, digital experiences are everywhere. De-materialized objects, and dematerialized musicological interpretation of them is a phenomenon we are living with, but without a clear perspective of the possible influence of this on the future shape and role of museums. The virtual dimension offer spaces and experiences that go beyond architectural spaces and beyond collections' limits. Let's try to list very shortly some of the functions that a virtual museum can specifically fulfill:

- Exhibitions online
- Active role of users in building their own collections
- Visual archives of past temporary exhibitions
- Experiencing the backstage of the museum (storages, restoration workshops, etc.) via a webcam, etc.
- Exhibitions of objects destined to disappear in a short time and digitally recorded for 'eternity'
- Enrichment of users' experience: closer access to masterpieces, but at distance (Google Art), augmented reality, 3D modeling.
- RSS: following history in the making
- Objects on show coming from any possible point of the world
- The possibility to compare digital objects of the most different physical natures

The First World War by European has shown the dramatic potential of the creation of 'virtual collections' on the web in a worldwide dimension which has also interestingly brought to light evidence of historical facts ignored until then.

One of the participant in the first social media night at the Dali Museum, Florida indicated that: "I tweet little tips every day and people just follow me. I blog, I am on Facebook, I have thousands of friends on Facebook and this is just how I live". This dimension of the museum's role has been greatly emphasized in recent times. Its roots are found in the specific features of the museum's space: safe, interesting, attractive, entertaining, offering a growing variety of services in addition to its exhibitions, generally large enough to allow people to meet each other, and so on. But the virtual museum can greatly contribute to the growth of this dimension, integrating its tools with the physical sense of the word 'meeting'.

- Social networking and blogging: following the museum daily
- E-learning and participatory learning environments
- Webcams and other devices allowing people to profit from the museum's potential at a distance. The museum Internet site becomes a museum in itself, with most of the social functions of the 'real' museum available through the web.

The Virtual Museum becomes the result of a complex variety of impulses from a complex variety of actors. The web itself has rapidly changed its meaning and role in our lives.

- The web has become an environment is no longer simply tool
- The web is something 'we live in'
- The virtual world is a new human dimension. Facebook, twitter is our second life and so on. At the same time offers a further dimension to our social life but also to our inner life and to our museum experience, too.

The 'real museum' becomes a combination of all these elements which are also involved in an endless process of 'becoming', due to the fast changing technological scene.

We have just entered an era of rapidly changing, growing integration between the physical and virtual dimension as well as growing contradictions and frictions between these two spheres of human experience. This is not a temporary condition, but a permanent and long-term process. Museums are deeply involved in it and have still a lot to learn, but also a lot to offer to enrich the museum's role and prevent them becoming irrelevant or perceived by the community. In 1998 was the first international conference which is called 'Museum and the Web'. Two dimensions are inextricably connected, and the notion of the virtual museum finds its possible evolution in the development of the relationship between these two entities, one quite tangible (the museum environment) and the other one (the Internet) totally immaterial but enormously influential also in terms of musicological thinking for the coming decades.

The forms these take will now be examined. 'VR' cannot have the complexity of the real objects. Virtual museum comes from Greek dynaton (gr. δυνατον=possible) and it means "that in potential" and exists in potential form and not in reality (Sylaiou, Economou, Karoulis, White, 2008:166).

Results and discussion. In fact, there is much discourse about the permissibility of the application of the name virtual museum of creators of Internet resources, the content of which, according to some participants from the museum community, not corresponds with the traditional understanding of the word museum.

Sometimes advanced graphic systems that are used for computer reconstructions adopted by virtual museums may be too realistic. They are based on partial evidence; however, they suggest an impression of good knowledge of the past. Also, advanced graphic systems present the 'image' as true, giving the sense of misleading accuracy. When the reconstructed item has a lot of missing elements information on how similar cases might have looked like, in order to reconstruct it. But, in these cases, the result will not be an explanation of the past, but a personal and subjective way of seeing it. A good 'image' can give the impression to the viewer that museologists know more than they actually do. Some products of computer reconstructions can be considered as scientifically accurate, because they seem to be accurate. The term "user" is used for virtual museum visitors, because, in order to retrieve information on virtual exhibits, computer skills are required. This means that the computer illiterate are automatically excluded and a lot of visitors encounter difficulties with understanding the use of plug-ins and other applications that need to be downloaded from the Internet and installed in order to retrieve information from sophisticated virtual museum exhibitions.

The idea of the ambiguity between reality and virtuality can be first traced in the Metaphor of the Cave in The Republic of Plato, where people take as real fact that is an illusion. Prisoners that have been chained and held immobile can only see at a wall in front of them. Behind them, there is a fire and between them and the fire there is a walkway with shadows of moving things and creatures. So, they consider the shadows and the echoes as the only 'reality' and the reflections of objects more important than the objects themselves. When it comes to building virtual reconstructions, even if there is a degree of accuracy, the one-sided view of the reconstructed site is still wrong. Computer reconstructions that offer only one aspect of the subject they examine and do not provide any alternative reconstructions, contradict the fact that there are many ways to examine the Past. In virtual reconstructions there is only one aspect of the subject that has been reconstructed and no alternative reconstructions have been created. Some high-quality and sophisticated virtual museums involve collaborations between museologists and computer experts. In such cases, communication problems often arise between those with theoretical knowledge in museology and those with practical knowledge of computers. In most circumstances, the software itself used by virtual museums is not accessible to museologists and computer scientists stand between them and the data. In some cases, it is probable that the past is both misinterpreted and misrepresented. The visualization results are impressive, thus fulfilling a primary goal, more specifically general public consumption, but without, in turn, serving the museum goals. Virtual museums may provide users with fragmented museum related information that often bear no obvious information with each other or refer to a useful context. In addition to this, some virtual museums suffer from the lack of clearly identified purposes. (Ryan, 1996:85).

Their design must be carried out according to their *raison d'être* and the information provided must be organized in order to construct a narrative. A virtual museum has to define its target community/ies, its aims, its content and how this will be structured and delivered. Throughout all the creation phases of the virtual museum, evaluation studies that involve real users must be undertaken, in order to identify the parts of the program that need further improvement.

With the use of imaging technology, Web3D, VR, AR, MR, haptics and handheld devices as PDAs, museums can exploit all possibilities of the new media, analyze and answer in various ways to visitors' needs, enable an intuitive interaction with the displayed content and provide an entertaining and educational experience. The benefits of virtual museums are noteworthy as far as museum curators are concerned and in terms of documentation, conservation, research and exhibition. The virtual museums have the potential to both

preserve and disseminate the cultural information in an effectively and at a low-cost through innovative methods and tools. They are an engaging medium with great appeal to a variety of groups of visitors and can promote the 'real sites' by providing information about museum exhibitions and offer an enhanced display of museum artifacts through emerging technologies. Various groups of end-users such as tourists, students and specialists can take advantage of them and satisfy their learning and entertainment needs. The visit of virtual museums can be an enjoyable and productive experience that draws the user into involvement and participation and help the promotion of real museums.

The virtual museums enrich the museum experience by allowing an intuitive interaction with the virtual museum artifacts. A comparison between real and virtual museums indicates that there still are important issues for virtual museums to solve. Good collaboration must be ensured between cultural heritage specialists (museum curators, historians, archaeologists, etc.) and information science specialists to achieve optimal results and in order to avoid dependence on market-produced software and to promote open-source software that may be produced with the aid of cultural heritage specialists. Virtual museums cannot and do not intend to replace the walled museums. They can be characterized as 'digital reflections' of physical museums that do not exist per se, but act complementarily to become an extension of physical museums exhibition halls and the ubiquitous vehicle of the ideas, concepts and 'messages' of the real museum. Their primary aim was to investigate and propose models for the exploration of the real purpose and conceptual orientation of a museum. (Jackson, Bazley, Patten, King, 1998:96).

Conclusion. All in all, the XXI century should be a time of innovation, new technologies to be able to survive, to become novel, as science and innovation have become an inseparable twist. The modern scientific-theoretical approach requires a different approach to the museum's work, that is to say that it is necessary to meet the requirements of the modern society, to have radical breakthroughs in the organization of museum work, to have a new methodological approach, to form a scientific and technical base of museums, and to combine it with practice. The common feature of these efforts is that the information can be received by the visitors quicker and easier without time and space limitation. Although the development of museum seems to benefit from the application of digital technology, digitization of the museum has also brought with it some disadvantages. For example, the physical museum is becoming more isolated and functionless without visitors participation; meanwhile, the audiences are also losing the opportunities for sharing and communicating their viewpoint with others. From the user's point of view, the digital museum is not to replace the traditional museum; conversely, the digital information should complement the physical museum.

Analysis of the functional capabilities of virtual museums makes it possible to qualify virtual museums as a powerful factor in the development of culture, which makes them a promising resource of the cultural policy. Virtual museums realize their social function by providing free mass access to cultural values for all social groups. Virtual museums are a channel for bringing people to the culture and a modern mechanism of cultural inheritance. They ensure the preservation of cultural heritage through innovation; forms a single cultural space, while preserving the national traditions and cultures of the people; develops the creative potential of the population; promotes the development of new cultural forms and art forms, etc.

Virtual museums create tourist motivations, contributing to the promotion of the regional tourist product in mutually comprehensible ways: virtual museums of traditional museums are modern advertising tools; Virtual museums of administrative units inform about the tourist advantages of the region; private virtual museums form a new kind of motivation for cultural tourism, related to the interest in family genealogy and the compilation of historical family chronicles.

Virtual museums increase the level of creative activity of the population by targeting Internet users for intellectual, creative work, generating new ideas, and stimulating innovative processes in the social and labor sphere. Virtual museums provide wide access to artistic achievements of various cultures for all layers of the population, providing highly artistic samples for home creation.

New technologies provide new possibilities and impose new restrictions. Despite significant advantages, a virtual museum also presents drawbacks. Virtual reality cannot have the complexity of the real objects. The problem is that advanced graphic systems that are

used for computer reconstructions adopted by virtual museums may sometimes be too realistic. They are based on partial evidence, but they suggest an impression of good knowledge of the past. Sometimes advanced graphic systems present the ‘image’ as true, giving the sense of misleading accuracy.

The ‘Virtual Museum’ can be seen as the most recent step in development. A museum is a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment. Virtual museums preserve for the future generations objects of contemporary art, existing both in traditional form and created with the help of computer technology. Besides, virtual museums retain works of art created from short-lived materials.

Thus, web museums contribute, first of all, to the popularization of the artistic achievements of our time.

We can not hope for a better financing of museums starting tomorrow, so there is a process of reconsider the museum as a public institution serving the society and being open to the public. A museum plays an essential role in modern society and does not duplicate any of the existing socio-cultural institutions, but brings its original contribution to science, culture, education and tourism. Museums must look for new ways of working and attract the public to the museum.

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