INTERDISCIPLINARY ASPECTS OF DIGITAL PRESERVATION OF CULTURAL HERITAGE IN RUSSIA

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Abstract

This article analyses interdisciplinary approaches in the area of digital technologies in the context of preservation of cultural heritage, as well as humanitarian and interdisciplinary aspects of application of virtual technologies in the practice of creating of virtual cultural storages, i.e. virtual museums, and more specifically religious museums in Russia. The article considers the interdisciplinary issues of social scientists, museum workers, art historians in the field of preservation of digital cultural heritage in the information society.

Keywords: cultural heritage, virtual museum, digital technologies, information society

1. Introduction

The modern world is characterized by an increase in the number of objects created or saved through digital technologies. Among them, literary works, works of painting and sculpture, religious objects, music, movies, computer games, virtual reality objects, etc. Study of such artefacts is of an interdisciplinary nature at the junction of the Humanities and Natural science knowledge. In this article we present approaches of social scientists, art historians, pedagogues to the problem of digital cultural heritage in Russia.

New digital technologies and strategies induced considerable extending of the concept of imaginary museum in the sense of A. Malraux to the contemporary notion of virtual museum, on which our essay is focused. This transformation is thoroughly analysed in the context of cultural studies and museology [1-3].

Our paper considers possibilities of digital technologies for preservation of virtual cultural heritage, i. e. artworks and museum artefacts in virtual storages. Their development is widely discussed, within the context of the acceleration of digital experience all over the world [4-5].

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Virtuality is usually associated with the informational nature of modern culture, and the expansion of virtual reality is often associated with post-modern or information society. Thus, it is logical to consider philosophical aspects of virtuality in the framework of concepts of postmodernism and theories of information society.

Using the terminology of postmodernism, virtual reality can be described as "organized space of 'simulacra' (alienated characters), which, unlike signs-copies, not fix the similarities, but differences with referent reality" [6].

'Virtuality' represents an artificial phenomenon in which virtual reality is a three-dimensional model, implemented with the help of computer technologies. Philosophers interpret the term 'virtuality' to refer to an object or a condition, which really do not exist, but can occur under certain conditions as an area of imagination. Nevertheless, there is already a continuing tradition of preservation of digital cultural heritage [CCPWCNH, *Convention Concerning the Protection of World Cultural and Natural Heritage*, 1972, retrieved 11 June 2016 from http://legal.un.org/avl/ha/ccpwcnh/ccpwcnh.html; CPDH, *Charter on the preservation of digital heritage*, 2003, retrieved 10 May 2016 from http://www.un.org/ru/documents/decl_conv/conventions/digital_heritage_charter .shtml; ECPA, *European Commission on Preservation and Access*, 2015, retrieved 10 May 2016 from http://www.digitalpreservationeurope.eu; EVA, *EVA Conferences International*, 2015, retrieved 10 May 2015 from http://www.eva-conferences.com; MediaArtLab, 2010, retrieved 14 May 2015 from http://www.mediaartlab.ru/; RCPADHIDF, *Recommendation Concerning the Preservation of, and Access to, Documentary Heritage Including in Digital Form,* 2003, retrieved 14 May 2016 from http://portal.unesco.org/en/ev.php; UNESCO, *Memory of the World Program of UNESCO*, 1992, retrieved 10 May 2016 from www.unesco.org/webworld/mdm; UNESCO, *World Heritage List of UNESCO*, 2015, retrieved 22 May 2016 from http://whc.unesco.org/en/list].

Representatives of the school of virtualistics in Russia justify the existence of two types of realities: the virtual and constant, each of which is equally real [6; 7; C. Kolovorotnyj, *Suggestivnyj faktor v rabote sistem virtual'noj real'nosti*, HR-Portal, 2005, retrieved 10 May 2016 from http://www.hr-portal.ru/node/29966; V. Lebedev, *Virtual'nyj muzej russkogo primitive*, 2015, retrieved 22 May 2016 from http://www.museum.ru/museum/ primitiv/].

The aim of this essay is to analyse the interdisciplinary approaches of Russian scientists to the problems of digital cultural heritage, including theoretical aspects of development of virtual museums and more specifically, religious virtual museums. In relation to the phenomenon of virtual museum we suggest the term of *digital museumification,* discussed further in this article.

2. Theoretical background - virtuality in the context of social perception of culture

S.V. Erohin believes that art works, including works of fine art, represent nothing like virtual reality. Actually, "virtual dimension of the space of fine arts opened a long time ago and in a general sense we can say that virtual art has always existed: first as copy and image, later as a model and structure. Complementing each other, or sharply conflicting, they created imitative, identifying, escapist and other types of relations between art and reality." [6, p. 331]

For example, the realist painting is based on a fictional (essentially virtual) presentation of perspective. By means of the strength of an artist's talent, two real dimensions (length and width) enter into a special relationship with the third, virtual dimension - depth, creating charm and mystery of classical art. With this method of creating of a virtual image a viewer sees the depth shown in the picture, but at the same time understands that this is only a special technique of creating illusory (essentially virtual) image.

According to N.B. Mankovskaya, "A fundamental aesthetic novelty in virtual art is the ability to perceive, to feel the world of art from the inside, due to the spatial illusion of three-dimensionality and tactile effects, and to sink into it, to turn the viewer into the protagonist" [8]. N.B. Mankovskaya notes that "in the art the virtual reality can be seen as artificial environment created by computer means that one can penetrate, changing it from the inside and feeling a real sensation, and virtuality - as an illusion of reality given to us in the experience of senses: the knowledge of it we get through those very real effects that it produces" [8, p. 34].

Comparing the features of classic, modern and post-modern art V.M. Dianova said: "When classical art is reflected or depicted reality, modernist - sought to transform reality, postmodern, perhaps, invents, creates reality, lives in the world of cyberspace, simulacra, hyper-realism, trying, therefore, to return to us the true, lost, forgotten reality" [9].

To the development of this idea A.J. Demshina adds, "Fine arts today, it seems, got freedom from the substantial and material pressure in the battle for independence from other spheres of culture, which began long before the XXI century" [A. Demshina, *Vizual'nye iskusstva v situacii globalizacii kul'tury: institucional'nyj aspect*, 2011, retrieved 10 May 2016 from http://www.dissercat.com/content/vizualnye-iskusstva-v-situatsii-globalizatsii-kultury-institutsionalnyi-aspekt]. Noting the immense variability of phenomena, included today in the sphere of art, a large number of various texts and processes, called 'art' or 'products of artistic creativity', A.J. Demshina extends the notion of virtuality, attributing it to the variety of phenomena of visual arts.

The researcher stresses that the concept of 'visual arts' is very wide and includes not only visual and screen art. In the sphere of this activity, visual arts are updated with various practices based or focused on visual perception: traditional types and forms of artistic activities (art, theatre, cinema); numerous

art practices, design, variety of TV, video, media forms; sometimes art includes skills of a plastic surgeon, a stylist, a cook. Achievements and tools of visual arts are in demand in non-artistic field (communications, advertising, design). "Development of new technologies not only offered the art new tools, but also affects the institutionalization of visual arts, both in the context of artistic practices, and in other spheres of human activity." [http://www.dissercat.com/content/vizualnye-iskusstva-v-situatsii-globalizatsii-kultury-institutsionalnyi-aspekt]

In the same time, the majority of authors think that fundamental aesthetic innovation of digital art is based on interactivity, allowing to replace the mental interpretation by the real impact of transforming the art object [7, 10-12]. Thus, the use of technologies of virtual reality, computer graphics and digital art completes ideas started in the postmodern era transformation of a recipient from a passive observer into a co-author of an artwork.

3. Classification of virtual reality technologies

The author of the term 'virtual reality' is Jaron Lanier, who wrote that it is "an illusory world in which one is plunged and with which one interacts, and created this world as a simulation system capable of forming appropriate incentives in the sensory field of human rights and to accept his response in the engine field and in real time" [13]. Of course, this is not the only definition. However, we will speak about it, paying tribute to the authority of the company 'Visual Programming Language', which offered the first commercial virtual reality products: gloves 'DataGlove' (1984), helmet 'EyePhone' (1987), as well as 3D rendering in real time, 'Isaac' and 'Body Electric'.

There are several classifications of the phenomenon of virtual reality in Russia. I. Kondratyev proposes to classify them as passive, research, and active according to the nature of human interaction with virtual reality [7]. In passive virtual reality a user is acting as a recipient of information. The research environment gives him the opportunity to select the information flow through the 'free movement' in the virtual space. Whereas, active provides two-way information exchange, allowing the participant to influence a virtual environment.

Also in the scientific literature other classifications of virtual realities are sorted in the following groups: conditional, projective and edge realities [6, p. 330; 8, 14]. Conditional virtual realities belong to those that model (schematize) certain situations or actions (processes). Projective are realities, designed on the basis of some of ideas such as reality created on the basis of scientific theories, Lastly, edge realities are those representing a combination of ordinary reality with virtual reality and allowing for the widening of the consciousness of a specialist, subsequently arming him with vision and knowledge that he here and now cannot possess [6, p. 331].

Virtual reality may be characterized by the following features:

- parentity - characteristics associated with the production of virtual reality by means of activity of any other reality external to it, thus originating reality is called constanta;
- relevance - feature showing that in virtual reality there exists only 'here and now', only while the reality generating it is active;
- autonomy - feature based on the fact that virtual reality exists in its own time, space, and laws of existence;
- interactivity - feature suggesting that virtual reality can communicate with all other realities (including parent reality) as ontologically independent of them.

Instruments for the implementation of virtual reality are digital. In relation to the development of virtual museums and digital methods of preservation of cultural heritage we propose to specify the term of *digital museumification*. Our definition of this term is follows: digital museumification is a process of transformation of visual images of original museum objects and their data to their virtual images and virtual information. This transformation usually happens in the complex of a virtual museum storage.

4. Digital computer art

Digital art is a new area of artistic creativity that exists at the intersection of Science and art and is connected with fine arts, music, literature, etc. In this paper we will focus on such areas as painting and sculpture and also will consider virtual worlds as a kind of a virtual museum.

There are at least two approaches to the questions of classification of digital computer art: traditional and artistic-technological. The first is based on the classification of works of art in graphics, painting, sculpture, photography, depending on the peculiarities and use of means of artistic expression and artistic techniques. The second approach is based on a combination of traditional forms of the classification of works of fine art, reflecting the dependence of art works from the technologies of their creation and the primary environment of their existence. In the framework of this classification are allocated traditional, pseudo-digital, digital, tradigital: from 'traditional' and 'digital' and digital-traditional technologies [6, p. 239-243].

Traditional technology is aimed to create digital copies of works that are not intended for storage in virtual space. Objects to copy become works of traditional fine art, in the creation of which digital technology has not been used, as the main medium of their existence is a reality.

Such works are digital copies of masterpieces of painting and are often designed to expose them to the Internet, creating electronic databases, preparation for publication of artistic albums, exhibition catalogues etc. This direction is connected with such international projects as 'Corbis', 'Google Arts', 'Russian Museum: Virtual Branch'. Digital copies of works of art are very popular in education, commerce, museum practice, etc. For example, they are used by auction houses in preparation for trading, organization of educational

process in schools and universities, and the establishment of databases in museums.

Pseudo-digital technology is used to create artistic works based on traditional materials to transfer them later into digital format, mainly for display in the virtual space. The primary environment of existence of such a work becomes a virtual space. The 'material form' is one of the stages of creation of digital works. Some of the works were originally intended for placement on the website of the artist and his/or her art-blog. The originals of works are author's works, then digitized and published in the web.

Digital works of art are intended for existence in the virtual space, which are created with the help of special digital devices and software. The originals of such works exist only in digital format, and any materialization is a reproduction: "printing is a non-numeric printed reproduction of an original digital works that can only exist in cyberspace" [14, p. 19]. As an example one can also cite R. Chang [15]. On the basis of combination of traditional and traditionally digital techniques (tradigital) works are created. Technology emerged in the late 1980s. The term was first used in the early 1990s by the American artist Judith Moncrieff and was used for description of works that were created by her and her colleagues in the group 'Unique Editions'. The group's task was to help digital technologies gain a foothold in the fine arts, just as a century ago it could make photography. To denote a new artistic medium they used the term 'tradigital media' and to refer to an art movement that uses the possibilities of this medium — the term 'tradigitalism'. The most remarkable project of the group was 'Print Image Experiment', which resulted in the development of inkjet technology wax printing and the exhibition *Exhibiting the Digital Atelier: Prints by Unique Editions and Participating Artists*. The exhibition, held in December 1997 - January 1998 in the Gallery of the George Washington University (USA), was a success. Works were made by the members of the group using a large-format printer Phaser of Textronix. They used powder paint based on wax, notably bright, saturated colours, and the quality of which was not dependent on the material surface - paper, wood or metal.

The term 'tradigital' has been widely used by artists and theorists of culture. In modern literature you can find the terms 'traditional digital television' or 'traditional digital animation'. Despite the wide dissemination of the term, theorists of art do not have a common idea about the process of creating 'tradigita' objects. Features and use of the term were discussed by D.S. Krause [D.S. Krause, *The Unique Editions Print Image Experiment Project*, 2015, retrieved 22 May 2016 from http://www.markv.com/], L. Wray [16] and others.

D.S. Krause uses this term to describe the works created with the use of digital technologies preceded by the implementation of traditional. Lisa Wray calls tradigital those art objects, which began in a traditional and ended in a digital environment.

The advantage of Erohin's classification [6, p. 251] is that it allows you to bring some clarity to the problems of work with digital, pseudo-digital and

traditional art pieces. Controversial, from our point of view, is the dividing of hybrid forms of artistic artefacts on traditionally-digital and digitaliy-traditional. The term 'tradigital', from our point of view, is sufficiently complete for the characteristics of such art objects.

However, we cannot ignore the following argument of the researcher: "In any case, art work has only one original, determined by the last corrections or additions made to the work - 'final touch'. If this 'final touch' is made by a digital brush, then the original of the work exists in virtual space, and the work itself should be considered as a digitally-traditional, if it is made by a traditional brush — it exists in real space (the work itself in this case should be viewed as traditionally-digital)" [6, p. 253] As Renaissance artists mastered the knowledge of anatomy of man and animals, artists of the virtual world get to know the structure of cyberspace through the development of techniques for digital sculpting and virtual reality.

5. Socio-cognitivistic aspects of virtuality in the information society

In the context of theories of the information society virtuality is seen as continuation of human subjectivity [13], as a factor of evolution, promoting the formation of a 'man of a new breed', who will create his cyberdelica politics and culture of the XXI century [12, p. 56], as a basis of the virtual world, which itself begins to act as a basis of other worlds [6, p. 328].

I.V. Kulagina considers virtuality as a specific feature of human reality, suggesting the concept of virtual reality as a variant of socio-cultural reality and stressing such quality of the process of virtualization as informational socialization. The proposed concept is based on the existence of two components of virtuality: static and dynamic. The first component is expressed in a "set of virtuations and foci of virtualization, generating a field of inter-subjective meanings in culture, the second one is fixed with regard to the existence of different types of communication in the framework of the information culture and in connection with the dominant strategy in the increase of active and passive components of virtuality in the consciousness of a subject" [17].

Changes, which appear in society with the development of digital technologies, are so significant, and the rate of change is so high, that comprehensive scientific understanding does not always follow them. These changes are also determined by significant changes in the psychology of a man and his perception of the world. Opposition and cooperation of a man and a machine revealed serious contradictions, and at the same time showed, how great are 'reserves of strength', traditionally developed in a culture of human approach to creative and ethical problems.

At the same time, we can definitely say, that the human mind was not ready for adequate perception of virtual reality. V. Lebedev notes that "the displacement of the traditional space-time benchmarks within a virtual reality form in people tolerance of violence, death, murder as an inconclusive act, not causing irreversible damage to the existence of another person"

[http://www.museum.ru/museum/ primitiv/, p. 213]. This example illustrates one of the most dangerous trends of the digital art on the consciousness of the modern person. However, there are less noticeable, routine manifestations of the impact of human interaction with the computer, visible in the psycho-emotional overload, uncritical attitude to information contained in the Network, which sometimes results in 'computer addiction' of an 'information person' phenomena.

The solution of these problems lies in the sphere of sociological, anthropological and cognitive studies aimed at harmonization of interaction between man, machine and society. The institution, which is increasingly linked with the study of the mentioned set of problems, which more profoundly settles the questions of social adaptation of a person through knowledge, becomes a museum.

6. Theoretical and practical aspects of development of virtual museums in Russia

Throughout the twentieth century, the Museum has changed dramatically, because of the many innovations that have occurred in the time. The 20th century was marked by events in the socio-economic and political life, which noticeably influenced the cultural situation in a whole. One of the main vectors of the development of society was the struggle of totalitarianism and democracy, the planned and market economy. These processes did not avoid affecting museum theory, museum practice and museum building, which process is reflected in the following definitions. Traditional attitude to Museum as a "research or scientific-educational institution engaged in the acquisition, preservation, study and popularization of monuments, natural history, material and spiritual culture" [14, p. 8] was replaced by the understanding that Museum has become a "multi-functional social and cultural institution, with a broad opportunities for personal development" [18].

The complex problems to be solved by art museums and galleries has expanded, and "to protect the autonomy of art, the Museum has to play the role of coordinator, guiding the dynamics of an audience, and modern technology, and the situation in the different loci of development of artistic creativity" [http://www.dissercat.com/content/vizualnye-iskusstva-v-situatsii-globalizatsii-kultury-institutsionalnyi-aspekt].

A prerequisite for the democratization of society, expressed in de-ideologization of all spheres of life and culture was the development of everyday life culture, or plain culture, as an alternative to the official one. In the context of our study, it is important that the emergence of culture of everyday life contributed to the revision of the concept of Museum object, cultural heritage, methods of its preservation and development towards a broader interpretation of these bases for Museum scientific categories. "Gradually the concept of heritage includes a wide range of material objects, the phenomena of nature, as well as non-material forms of culture (for example, information technology), reflecting

different aspects of relationship between a man and nature, global and regional trends in development, etc." [18]

Virtual museums, as a specific area of implementation of the concept of virtuality, are generally used for remote access to artworks and cultural objects, and to develop the imagination of a museum visitor. Having behind almost half a century history of development, virtual museums have reached quite high level of development and today on the portal of Culture of the Russian Federation are about 300 virtual museums [http://www.culture.ru/museum/]. Among them, the most effective are virtual versions of those real museums that are in the top ten in attendance: the State Hermitage Museum, St. Petersburg [https://www.hermitagemuseum.org], the State Historical and Cultural Museum 'The Moscow Kremlin' [http://www.kreml.ru/], the State Russian Museum, St. Petersburg [http://rusmuseum.ru/], the Novgorod State United Museum Complex, Novgorod the Great [http://novgorodmuseum.ru/], Kirillo-Belozersky monastery, Kirillov [http://www.kirmuseum.ru/], Vorontsov Palace-Museum, Yalta [http://worontsovpalace.org/], Solovetsky State Historical-Architectural and Natural Museum Complex, Solovetsky village [http://solovky.ru/], Vladimir-Suzdal Museum Complex, Vladimir [http://www.vladmuseum.ru/rus/ index.php].

It is remarkable, that half of the most popular virtual museums in Russia demonstrate complexes of churches and monasteries, inextricably linked with the spiritual values of the people. However, there are not so many virtual museums showing contemporary art collections, as there are in Europe or the United States.

With regard to possibilities of the virtual space for full functioning of a museum of religion, we can consider the successful activity of the State Museum of History of Religion in St. Petersburg. The museum has the following electronic resources: website of the State Museum of History of Religion [http://www.gmir.ru/], a Collection of photographs of the Imperial Orthodox Palestinian Society in the State Museum of History of Religion [http://palestina.indrik.ru/], a page in the Russian social network 'VKontakte' and an article on the site of Wikipedia.

The structure of the Virtual Museum of History of Religion on its website consists of the following sections:
1. Virtual exposition. The virtual exposition repeats the structure of the exhibit of the real Museum of History of Religion, which in its turn consists of the following sections: Archaic and traditional beliefs; Religions of the ancient world; The emergence of Christianity; History of Russian Orthodoxy; Catholicism; Protestantism; Religions of the East: Buddhism, Hinduism, Taoism, Confucianism, Shinto, Islam; and Children's section 'Beginning of beginnings'.
2. Mediatheque
3. Information sources
4. Restoration. Research. Discussion.
5. Virtual excursions. The virtual tour includes visits to ten tourist sites:

- The State Museum of History of Religion,
- Orthodox churches of St. Petersburg,
- The Holy Trinity Cathedral of the Alexander Nevsky Monastery ,
- Saint Nicholas Naval Cathedral
- The Church of the Smolensk icon of the Mother of God at the Smolensk cemetery and the chapel in the name of the Holy Blessed Xenia of St. Petersburg,
- The Church Of Saint Stanislaus,
- Lutheran Church of Saint Michael,
- The Church of St. Catherine of the Armenian Apostolic Church,
- The mosque of St. Petersburg,
- The Grand choral synagogue of St. Petersburg,
- St. Petersburg Buddhist Datsan

The main feature of the virtual tour 'Religious world of St. Petersburg' is that the visitors can create its route themselves. In order to get more information about the confessions, it is recommended to start with a virtual visit to the Museum of the History of Religion, the only one in Russia, and one of the few museums in the world representing the history of origins and development of religion.

7. Conclusions

The phenomenon of the virtual museum, from our point of view, can be effectively examined in the context of the anthropological approach. 'Digital museumification' does not require termination of the functioning of a monument and withdrawing it from the socio-cultural environment. The widespread use of this approach in museum practice has led to the emergence of live or environmental museums, creating solid non-verbal images of phenomena of history, culture, religion, nature, possessing great gnoseological possibilities. Appeal to a person as the main figure of museum communication became to be known in museum theory and practice as the anthropological approach. The merits of this approach are related to the issues of Cultural and Philosophical anthropology. It is also reflected in the development of the method of 'digital museumification' or creating of virtual museums.

We witness now the revision of the concept of chronological framework of cultural heritage and the concept of uniqueness and authenticity as necessary attributes of a collection item. The development of information technology has seriously changed the anthropological characteristics of a person. Communication gradually moves from personal relations to belonging to online communities. This trend represents a major civilizational anthropological challenge, which puts a difficult task before the scientists working in the field of Social, Religious and Museum studies (teachers, social psychologists, philosophers, theologians, professional museologists). It is especially important to create such communicative technologies in the humanitarian sphere, which, on the one hand, can maximize the benefits of the Internet, but at the same time

serve to hold an individual from being totally absorbed by computer screen reality. Experiences in the development and use of virtual museums are of a great interest in this regard [19-22].

Museumification of entire areas contributed to the emergence of new institutions of the museum type, enriched modern typology of museums and marked a new milestone in the theory and practice of preservation and development of cultural heritage. One of these territories became the Internet and virtual worlds, where there began to appear virtual museums that reflect events and phenomena, generated by the development of information technologies.

Rapid development of economy and social sphere of the post-war civilization, intrinsically connected to its informatization, were accompanied by the rapid moral ageing of created material and spiritual benefits. "The inevitable in this case blurring of the boundaries between past and present, tradition and innovation, formed a thought about the legality and expediency of preservation of realities not only of the past, but also of modern life and culture." [18] Obviously, all the above-mentioned material has a direct relation to museums which operate in virtual space.

The term 'virtual museum' is used to characterize a variety of projects connected with digital technologies in virtual and museum spaces. It may be represented by publications of collections of works of fine art and electronic expositions of museums in the Internet. "Electronic expositions in museums include a wide range of projects in which the use of information technology vary from the creation of devices, with the help of which a visitor receives information about museum items, to multimedia expositions, where the main role is played already not by the real thing, but a multimedia product, which itself becomes an exhibit." [L. Nol, *Information technologies in museum practice*, 2011, retrieved 14 May 2016 from http://museolog.rsuh.ru/nol_kniga.html]

Internet publication of collections of works of fine art and cultural objects in Russia date back since the 1990s. For more than twenty years not only the number of published materials has increased, but a formation of genres of such publications also began. We build our summary according to the classification developed by S.V. Erohin [6]: it includes traditional, digital and hybrid works. We refer to the first type as a collection of digital copies of works of art, not intended for display in the virtual space. Digital and hybrid works created by artists using digital technologies or based on a combination of traditional and digital technologies, feel comfortable in both virtual and physical world.

Before becoming acquainted with examples of implementation of the above-mentioned directions, the authors advise a visit to the Virtual Museum of Russian Primitive – a resource, created in Russia at the turn of the Millennium by experts in the field of arts and information technology. This museum, which represents the result of the imagination of a talented group of people, resides in the virtual building with rooms, where works of art are exhibited; in the museum there is a staff, there are excursions, a virtual snack bar where visitors can meet

authors [http://www.museum.ru/museum/primitiv/]. So, in the information society a virtual museum may become not only a copy, but also an original prototype of a real museum. And the role of virtually in preservation of images and data of cultural and historical artefacts cannot be overestimated.

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