Heritage as an Alternative Driver for Sustainable Development and Economic Recovery in South East Europe

The influence of information technologies on the availability of cultural heritage

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Abstract

Information technologies have offered new possibilities of the development of the market of tourist services and led to the creation of various client oriented information systems in the museum business. Museums have started to introduce information technologies in the sphere of accounting, storage and research into collections, to use multimedia, which include both traditional static visual information and dynamic information (such as speech, music, video footage and animation). TicketNet has helped greatly to attract more visitors. QR-codes revolutionized the museum business. Nowadays all museums have their own websites and experts believe that the number of virtual visitors will exceed the number of real ones in the near future. Therefore, scientists face a new problem of researching both negative and positive consequences of cultural heritage transfer into virtual reality.

1. Introduction

Nowadays information society is being formed in all developed countries due to the increasing role and importance of information in the development of human civilizations, which has become notable lately. Traditional ideas of the quality of life are changing dramatically in the process of the development of information society. The quality of modern people's life largely depends on the level of their consumption of information products and services as well as their availability. Mobile telephony, personal computers with the access to the Internet, multichannel digital television and automobile global positioning systems are inseparable attributes of modern society. It is difficult to imagine everyday life and professional work without them.

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According to American economist Alvin Toffler, "modern world is on the threshold of great social changes, technical and cultural innovations. Technological shifts have a great impact on all spheres of social life…" [1]. Outstanding scientists J. Stiglitz [2], G. Stigler [3] and others have investigated the influence of telecommunication technologies on the development of information society. Information technologies have created new opportunities for the development of services market and led to the creation of client oriented information systems in the financial sector, insurance, transport, health care, education and tourism. All this led to the appearance of new forms of access to the world cultural heritage.

2. Use of telecommunication technologies in preservation of cultural heritage

UNESCO charter [4], Convention on the Protection of the World Cultural and Natural Heritage of 1972 [5], the Universal Declaration on Cultural Diversity [6] are international documents that deal with the problems of peculiarities of cultures and cultural heritage. All these documents determine two main tasks: "to preserve the integrity and fruitful diversity of the cultures of the States Members" and "to promote the free flow of ideas by word and image". The solution of these global tasks is possible only on condition of creation of favorable international climate based on the equality of all cultures, respect for cultural rights, promotion of international dialog and protection of cultural heritage.

The diversity of languages, national cultures and confessions is unique historical and cultural heritage of Russia and Republic of Tatarstan. It deserves to be represented in the world information space. This rich heritage must be processed, analyzed and prepared for introduction into the world information space. Nowadays electronic resource "Cultural heritage of peoples of Tatarstan" is being created. It will unite electronic collections of different establishments of education, science and culture. Digitized museum exhibits, rare books, and manuscripts, unique architectural structures will enable any person to get acquainted with either cultural heritage of Tatarstan and culture of separate nations or its individual manifestations, which satisfy personal, educational or scientific interest.

It is well known that during the years of market reforms the interest to museums in Russia declined drastically. The funding of establishments of culture was reduced and dozens of museums were closed. When the standard of living of Russian people began to grow the interest to museums revived. However, it was clear that demonstration of exhibits could not attract as many people as there used to be in the golden age of Russian museums. Modern means of telecommunication appeared to be very helpful.

The first step was introduction of information technologies in the sphere of accounting, storage and research into collections. Today two distribution systems prevail on the Russian market of accounting and storing software: automated system (AS) "Museum" (created by The Main Information and Computer Center (GIVC) of Ministry of Culture of Russia) and Complex automated museum information system (CAMIS) (software developed by OJSC "Alt-Soft", St. Petersburg). There is a module "CAMIS-MEV" in this automated system, which enables to prepare and publish in the Internet catalogs of different museum issues on the basis of the created database of museum collections [7].

Later museums began to use multimedia, a special type of computer technology, which unites traditional, static, visual information as well as dynamic (speech, music, video footage and animation). This concept includes a wide range of information technologies which use various software and technical means in order to influence people (readers, listeners and spectators) more efficiently. All this equipment (projectors, touch-sensitive screens, and plasma displays, web cameras, controlled remotely) is conventionally called automated exposition workstations. The museums of the Kazan Kremlin and the National museum of Republic of Tatarstan (where a virtual exposition was created at the end of 2012) can serve as a good example of application of multimedia technologies.

TicketNet has helped greatly to attract more visitors. It enables customers to buy tickets to all museums of the world via a personal computer. This system makes it possible to support different categories of customers, take into account their social status, keep clients' database, perform noncash sale and sell souvenirs and printed materials.

QR-codes revolutionized the museum business. Today visitors who come to many museums have a preinstalled application in their phones and the whole content in their native language can be downloaded via Wi-Fi access point. If a visitor gets interested in any particular exhibit, he can scan a plate with the QR-code with the help of his smartphone and get the podcast, photos and the relevant text. All QR-codes are connected to the open source application for all museums. The number of young visitors to museums, which use this system, has increased considerably. Sheremetyev Palace, "Raznochinny Peterburg" and Museum-institute of the Roerichs were the pilot projects of the introduction of this system in Russia. Nowadays nearly all museums have their own websites. The purpose of the site is determined by its potential visitors. The structure of the site, its design and its navigation must help a person to perform all the actions he is interested in. It is especially important for those museums which struggle to attract new visitors, friends and sponsors. The way the museum is shown in the information space is a significant factor in the competition for visitors.

Information technologies helped to actively use new methods of processing and presentation of information as well as preservation of intangible heritage. The UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage (2003) defines intangible cultural heritage as "the practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artifacts and cultural spaces associated therewith – that communities, groups and, in some cases, individuals recognize as part of their cultural heritage" [8]. The convention assumes that preservation of the fragile, "intangible" non-material cultural heritage requires the creation of specific conditions to ensure its viability when "living cultural manifestations" become material in the form of notes, audio and video recordings, which enables to preserve them as cultural heritage.

The first Internet projects dedicated to the problems of preservation and research into Russian folklore appeared in the second half of 1990s. At that time digital version of the folklore fund of the archive of Nizhniy Novgorod State University, the archive of phonograms of the Institute of Russian literature of the Russian Academy of Sciences and several other projects were created. The section of the Fundamental electronic library "Russian literature and folklore" devoted to Russian folklore was set up. It is based on separate electronic scientific editions – an independent completed full text information and program product, which underwent scientific and editing processing and contained information about any genre of folk art. It is accompanied by hypertext links, end-to-end full text search, possibility of parallel scanning and comparison of texts and other materials, which creates unique information environment for the access to cultural heritage.

The characteristic feature of most projects on applying of modern information technologies for the convenience of study, propaganda and preservation of folklore is their implementation in academic institutes. For example, the website of the seminar "Folklore and post-folklore: structure, typology, semiotics" of the Institute for Advanced Studies in Humanities (IASH) of the Russian State University for Humanities is aimed at the development of new areas of folk culture, which were previously neglected by researchers and application of modern (including computer) technologies and methods in folkloristic [9].

3. Conclusion

Therefore, on the one hand, information technologies have played and are still playing a great role in the appearance of new museum programs, exhibitions, multimedia products, which increases client orientation of modern museums and makes the access to them much easier. On the other hand, experts predict that in the nearest future the number of virtual visitors to museums will exceed the number of real ones. "Internet relations" will be in the center of museum public relations. Nowadays the interest to museums in Russia and all over the world is permanently growing, the number of visitors is increasing, and the museums of the Kazan Kremlin can serve as a good example. However, if the predictions of experts come true, information technologies, which revolutionized the museum business, can cause the decrease in the number of visitors and a subsequent museum crisis.

The analysis of Internet resources allows making a conclusion that in modern Runet there are not enough specialized sites dedicated to preservation of intangible cultural heritage. The cultural heritage which has been studied most thoroughly is that of the European part of Russia, Russian North, which attracts scientists studying folklore due to the preservation of ancient examples of Russian traditional culture.

References

1.   Toffler, A. (2006). Revolutionary wealth, New York: Knopf.
2.   Stigler G. The Economics of Information. – Journal of Political Economy, 1961, vol. 69, No 3
3.   Stiglitz J. Information and the Change in the Paradigm in Economics - American Economics Review, 2002, vol. 92, No 3.
4.   Constitution of the United Nations Educational, Scientific and Cultural Organization. URL:
     http://unesdoc.unesco.org/images/0013/001337/133729e.pdf (accessed February 24, 2014)
5.   Convention on the Protection of the World Cultural and Natural Heritage of 1972 URL: http://whc.unesco.org/en/conventiontext/ (accessed
     February 24, 2014)
6.   The Universal Declaration on Cultural Diversity URL: http://portal.unesco.org/en/ev.php-
     URL_ID=13179&URL_DO=DO_TOPIC&URL_SECTION=201.html (accessed February 24, 2014)
7.   WEB-resource-portal "Museums of Russia" URL: http://www.museum.ru/ (accessed February 24, 2014)
8.   Convention for the Safeguarding of the Intangible Cultural Heritage URL: http://www.unesco.org/culture/ich/index.php?lg=EN&pg=00022
     (accessed February 24, 2014)
9.   Folklore and post-folklore URL: www.ruthenia.ru/folklore/ (accessed February 24, 2014)