

Web 2.0, Second Life and Museums: Visit or access to culture?

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Περίληψη

Η χρήση των νέων τεχνολογιών έχει κάνει πλέον μια δυναμική εμφάνιση στον χώρο της πολιτιστικής κληρονομιάς. Οι οργανισμοί μνήμης και ειδικότερα τα μουσεία, αναζητούν διαρκώς νέους τρόπους εκμετάλλευσης των τεχνολογιών αυτών, ώστε να είναι σε θέση να στηρίξουν και να ενδυναμώσουν την επικοινωνία του κοινού με τα πολιτιστικά αγαθά. Στην κατεύθυνση αυτή, οι Web2.0 τεχνολογίες προσφέρουν δυνατότητες για τη διάδοση της γνώσης μεταμορφώνοντας ριζικά τον ρόλο των μουσείων. Η αξιοποίηση της εικονικής πραγματικότητας έχει ξεκινήσει, για τα μουσεία, για περισσότερο από μια δεκαετία. Χαρακτηριστικό παράδειγμα του εικονικού αυτού περιβάλλοντος αποτελεί το Second Life, μέσα από το οποίο πραγματοποιούνται ορισμένες προσπάθειες για την αξιοποίηση των μουσείων, την επίλυση προβλημάτων, την αποτελεσματικότερη ανάδειξή του μέσα στο κοινωνικό "γίγνεσθαι".

Summary

New technologies emerge in the cultural heritage domain in a dynamic way. Memory institutions and especially museums search for new ways to take advantage of them, so as to be able to support and enhance the communication between public and cultural commodities. Towards this direction, Web 2.0 technologies enable the dissemination of knowledge, extending at the same time the role of the museums. The Virtual Museums development is a direction that met great growth the last decade. Second Life is a representative example of this virtual environment. Through this application, museums are trying to effectively achieve their objectives, resolve potential problems and finally achieve a greater role in our social structure.

1. Introduction

The mission of museums has traditionally been to collect, preserve, and interpret works of art. According to the International Council of Museums (ICOM): "A museum is a non-profit-making, permanent institution in the service of society and 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". Museums have a particular responsibility for making collections and all relevant information available as freely as possible, having regard restraints arising for reasons of confidentiality and security (ICOM code of ethics for museums, 2006). Nevertheless, they are active collecting institutions, which must be continuously evolved and renewed, as integral pieces of a continuously changing society (Ζενέτου, 2001).

In the last years, museums seem to go through a phase of revision, with actions addressed to the wide public such as educational programs and application of new technologies. In particular, the use of virtual environments and Web 2.0 applications, (with the parallel creation of the Museum 2.0 era), lead to an optimism that museums can sufficiently correspond to their role and express society's main ideas. Museums manage each country's cultural heritage and, therefore, it's their duty to accomplish successfully and prosperously this task

2. Cultural heritage institutions-Special features

Cultural information is multiform and related to a complex mesh of interconnections. Its absence decreases dramatically the value of cultural objects. Cultural institutions, as already mentioned, are non-profit organizations and maintain different principles from private enterprises, such as the promotion of cultural activities, the public's education and training and the enhancement of artistic creation. They constitute spaces of informal education, where educational process is extremely important, but attendance to this procedure exclusively depends on the visitors' willing.

Another special feature of museums regards the target audience, which is quite wide and with different characteristics, interestings, knowledge. Even though some relative researches indicate that museum visitors are usually of higher education and come from intermediate and superior social layers (Bourdieu et al, 1969, Merriman, 1991, Falk, 1998), their audience still remains non-homogeneous and covers a wide age-related spectrum.

Considering all these features that compose the nature of cultural institutions, we should all agree that the use of information technology has helped a lot in the achievement of their aims. Nevertheless, in some cases, it has caused many problems and new issues have emerged that have to be thoroughly examined. Museums adopt a new evolving role, which is directed not only from the social but also from the technological developments. In this new era, the main element is the participation and the existence of new ways of communication between these institutions and the public.

3. Museums and World Wide Web

WWW offers for the first time a common place in which cultural heritage institutions share similar challenges. There are no geographical restrictions, as the digital content of collections creates a common information environment. Museums already provide their communities with a plethora of resources and services and are now required to offer them in a common global place, expanding the existing communities.

In general, museums make use of internet applications for the following reasons:

1. Maintaining a presence on the Internet provides the potential for worldwide publicity (Schweibenz, 1998).
2. Bi-directional communication between museums and visitors: Internet offers an alternative, cheap, and complementary form of information provision and is likely to act as a draw for prospective visitors who would like to see the real thing (Schweibenz, 1998).
3. New more challenging services: virtual exhibitions allow access to material that is otherwise not available (Schweibenz, 1998).
4. Analysis of the characteristics of visitors: gathering information for the improvement of provided services according to the visitors' demands and wishes (Bowen et al., 1998).
5. Creation of an effective and stable relation with individuals: entanglement of visitors with museum's activities, possibility of creating personal files with museum digital content (including personal notes and impressions), material that can upload and publish on the museum's webpage (Bowen et al., 1998).
6. Internet offers remote access to scholarly research of collections in online databases (Schweibenz, 1998).

4. Memory institutions and new technologies

Memory is the basis of information management and circulation. Consequently, memory institutions need to redefine their structure and their services, as information itself is continuously and dynamically changing its shape (Musella and Padula, 1999). The term "Memory institutions" is being used for all organizations that collect, manage, store and finally maintain knowledge and objects about a country's cultural content. (Erway, 2004). Within this framework, the term, apart from Libraries, Archives and Museums, also includes Art Galleries, Cinematheques, Glyptotheques and other institutions that own, produce or manage cultural information.

New technologies allow good visualization and digitization of the original document even on a platform different than that on which the document was produced: the value of a document no longer depends on its platform, but on its ability to communicate value (Musella and Padula, 1999). With the creation of systems for the automatic handling of information, this science has entered memory institutions and other involved in the organization and dissemination of the social memory, bringing powerful tools to support them in their undertakings (Mintzer, 1999). Global internet modifies the

configuration of memory institutions and the scenario in which they exist. Each institution is no longer characterized by the building it occupies: the place in which it is located and how to get its information; boundaries vanish in the similarities of the functions performed, no longer determined by the type of product offered to users. In such cases we speak of a "global museum", referring to the virtual version of it allied with other institutions performing analogous functions, extending themselves continuously one into the other through these analogies (Kouzes et al. 1996).

5. Museum 2.0: Web 2.0 in Museums

Web 2.0 is a term widely defined and interpreted. It was first conceptualized and made popular by Tim O'Reilly and Dale Dougherty of O'Reilly Media in 2004 to describe the trends and business models that survived the technology sector market crash of the 1990s and had certain characteristics in common; they were collaborative in nature, interactive and dynamic (users created the content in these sites as much as they consumed it). Web 2.0 is the network as platform, spanning all connected devices; Web 2.0 applications make the most of the intrinsic advantages of that platform: delivering software as a continually-updated service that gets better the more people use it, consuming and remixing data from multiple sources, including individual users, while providing their own data and services in a form that allows remixing by others, creating network effects through an "architecture of participation," and going beyond the page metaphor of Web 1.0 to deliver rich user experiences. (O'Reilly, 2005). Web 2.0 technologies enhance interaction among individuals and enable people from diverse backgrounds to share their opinions and expertise with thousands of others.

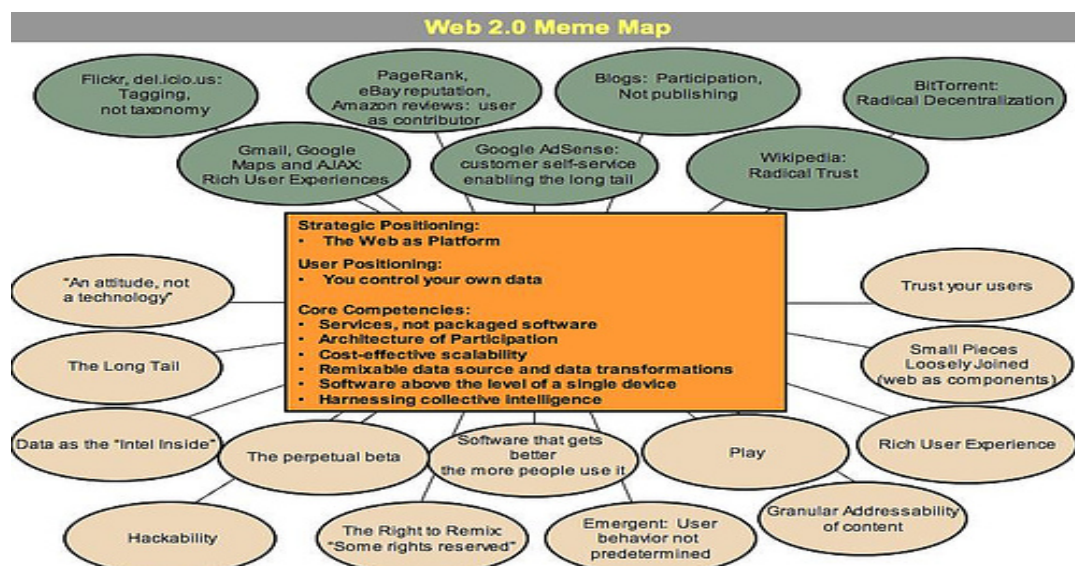


Figure 1. Web 2.0 meme map from Tim O'Reilly

According to the official cite of Museum 2.0, the project explores ways that web 2.0 philosophy can be applied in museum design (www.museumtwo.com). It's a definition of web-based applications with "architecture of participation," in which users generate,

share and curate content. The web started with sites (1.0) that are authoritative content distributors-like traditional museums. The user experience with web 1.0 is passive (Oberlander, 2008). Web 2.0 moves the authority from the content provider to the user. In this new era, museums have the potential to transform their static content authorities to dynamic platforms for content generation and sharing. Web 2.0 opens up opportunity, but also demonstrates where museums are lacking.

6. Museums and Second Life

Museums have been exploring the use of multi-user virtual environments (MUVes) for more than a decade, often in the form of proprietary, non-persistent virtual worlds designed and developed for selected audiences such as teachers and students. Since 2003, the on-line virtual community of Second Life has attracted over 1.000.000 users who are laying the foundations for widespread adoption of MUVes by museums, libraries, archives, and other information organizations. It is a 3D virtual world where users can socialize, connect and create using voice and text chat” (Calef et al. 2002; di Blas, Gobbo and Paolini, 2005; Rothfarb and Doherty, 2007; Urban et al, 2007; Wieneke et al. 2007) and in general can do whatever they choose to enhance their environment (Jewell, 2007).



Figure 2. Print Screen from the Eclipse in Second Life

Why be a part of this virtual world? What do visitors have to gain from all these experiences? Users visit Second Life as an "avatar" (their on-line virtual bodies), and explore areas and features made by other people or institutions, or create new environments or parts of themselves. What they do or where they go depends exclusively on their willing, curiosity and creativity. They have a great sense of freedom, and experience situations that are impossible in the real world. For instance, they can fly; they can be teleported in various places etc.

The majority of museums in Second Life create virtual exhibitions. Visitors become accustomed to clicking on images displayed in their browser to retrieve pre-written textual descriptions of cultural heritage objects (Sumption, 2006). They can click on an object to read a 'notecard' attached to it (Rothfarb and Doherty, 2007). Moreover, users have the ability to develop their own museum collection or extend an existing one. Specifically, through the appropriate option, each registered user can create various types of objects (from a plain artifact to drawings, or even plant a tree in the museum's garden) to places belonging to them, using the "land tool" and by choosing the place they desire, through the option "land ownership". Owning some land automatically means that one should buy it. That can be realized with various ways, such as charging his credit card, or by using prepaid cards designed exclusively for such activities. Additionally, in some artifacts exhibited in virtual museums, visitors can hear a brief description by pressing a button located near the artifact.

7. Characteristics of Museums in Second Life

In this section, some characteristics of Museums in Second Life are discussed (Urban et al., 2007):

- **Scale.**

Museums in Second Life vary in size and scale. They can be represented as single or extended installations and there are no place limitations. Thus, museums can display artifacts on walls, in cases in rooms, or create innovative approaches for displaying them, without any fear of deterioration or theft.

- **Setting.**

Some museums display their exhibitions in one or two buildings, while others in the open air. It is quite remarkable that the Second Louvre Museum tries to create a setting similar to the real museum.

- **Persistence and Evolution**

Change is an ongoing process in Second Life museums. All visitors must realize that museums are evolving very quickly within this new environment, therefore, from one day to another it is possible that they will see a completely different museum, different in shape, spaces, rooms, with more or less collections and exhibitions.

- **Media Richness**

Participants in Second Life are exposed to high media richness conditions. Through the 3D graphic environment, individuals make use of many multimedia technologies, thus interaction with the environment is enhanced.

- **Visitor Engagement**

The main goal of each museum in Second Life is to persuade its visitors that it really worths to spend some time in it, experience various situations, and what's the most important, to persuade them to come back again, to offer them more experiences.

- **Social Interaction**

Second Life museums are places where visitors have many opportunities for social interaction. After visiting an exhibition or an event within the museum, the visitor can relax in a cafe, or in a gift shop, meet other visitors, exchange ideas and views for the existing exhibitions, discuss about art or other things related to what they have already visited.

- **Collection types**

All collections in Second Life display digital representations, offering visitors unique ways to see an object. Individuals can visit different types of collections without physical place and time restrictions.

- **Target Audiences**

It is very difficult to gather information about the visitors' real world identities in such environments. Beyond counting the number of visitors who come through the door and encouraging visitors to leave comments in a guestbook, a few things museum professionals can do to learn more about their visitors.

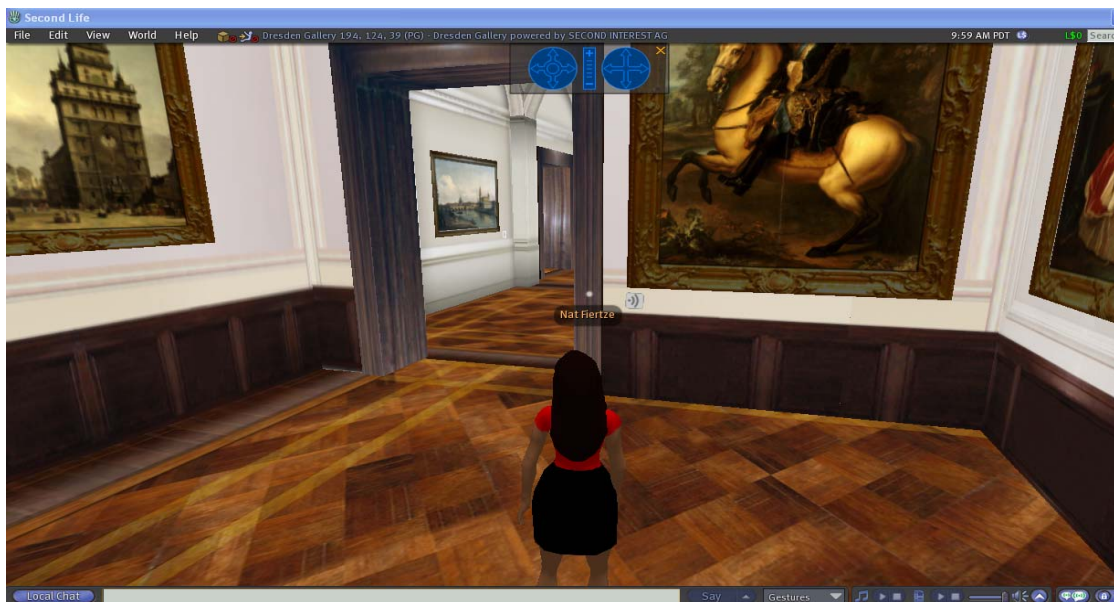


Figure 3. Print Screen from Second Life

8. Advantages and disadvantages of getting into Second Life

Such environments may have significant advantages over more conventional internet-based media (Urban et al., 2007). User-tailored information can be delivered either through dynamic label on objects, or through embodied conversational agents-avatars representing virtual museum curators (Oberlander et al. 2008). The social nature of Second Life is a critical component of understanding what it is and how it can or should be used. The strong point of shared 3D environments is not realism, but rather virtual presence to which realism or high quality is not relevant issues (Di Blas et al. 2005). Specifically, museums audience is expanded on a global level, user-generated content is allowed, and collaboration is enabled. Virtual museums allow wandering, linking and searching activities that promote discovery, offer evolving content and social networks that enable interaction models and built-in economy for donations merchandise etc.

However, there are also some disadvantages. In comparison to other electronic media, including the web, the audience remains still limited. In addition, there are several technical drawbacks, such as hardware and network requirements, the lack of integration with other virtual worlds. Moreover, matters of openness to live content modification, as well as several stability issues still need to be addressed sufficiently (Urban et al., 2007)

9. List of museums in Second Life

There are two kinds of museums in Second Life: those that also have physical appearance, and those that have been created exclusively for virtual visitors. Indicatively, we present a list of museums that users can visit in Second Life: Art Center, Aho Museum, Crescent Moon Museum, Second Louvre Museum, Second Life Science Center, Museum of Flip Animation, SL Computer History Museum, SL Historical Museum, Bayside Beach Galleria-Museum, International Spaceflight Museum, Star Trek Museum of Science, Tarot Card Museum, Fort Malaya Malay History Museum, Virtual Starry Night-Vincent van Gogh Second Life, Avnet Technology Museum, Museum of Robots, Tech Museum of Innovations, Exploratorium, Kirsti Aho Art Museum on NMC Campus.

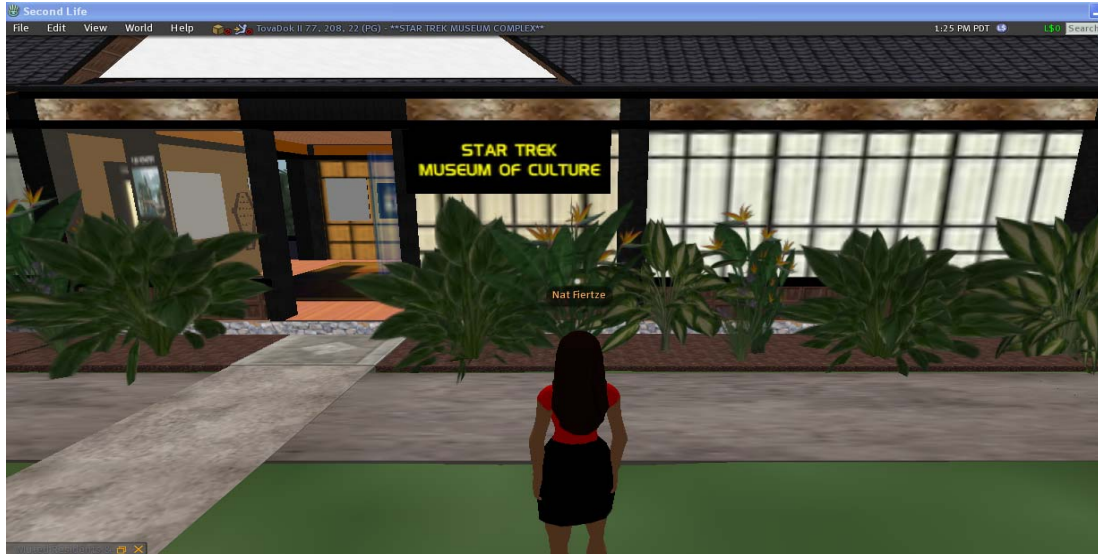


Figure 4. Print Screen from Star Trek Museum of Culture in Second Life

In addition to the previously mentioned museums, there is a remarkable number of galleries with variety of themes and interactive activities. Some of them are: Apple Gallery, Art Loft, Digital Femme Gallery, Enigmatic Artworks, Gallery of Independent Art, Grand Gallery, Mysterio Gallery, Muse Art Gallery, Towers Gallery, and Phaedra Sands Gallery. The basic difference between galleries and museums in Second Life, is that residents have the opportunity to buy artworks using their SL\$ money, something that they can't do it in case of their visit in a museum.



Figure5. Virtual Starry Night-Vincent van Gogh Second Life

10. Virtual worlds in Greek institutions

It is a fact that in Greece the number of museums that effectively utilize World Wide Web is very limited considering the importance of their collections. The majority of museums do not maintain a site in the internet, thus it is essential to rely on other organizations or institutions (Tourism Ministry, Ministry of Culture, Universities, and individuals) in order to show and exhibit their art collections (Καβακλή και Μπακογιάννη, 2002). The Foundation of the Hellenic World is one of the greatest institutions in Greece that uses virtual reality systems, open to wide public, with applications developed by Visual Reality experts. It was founded at 1998, aiming to apply an experimental technology to enhance Greek cultural heritage research and dissemination.

11. Conclusions

Simply by providing the public with access to data is insufficient to satisfy the goal of public education. Museums need to offer enriched, value-added content, so as to achieve better quality services. They need to exceed their physical limits, adopt new perspectives, enhance their role in changing socio-cultural and economic landscape, and enable further promotion of the social significance of the industry's activities. According to André Malraux "A museum without walls has been opened to us and it will carry infinitely further that limited revelation of the world of art which the real museums offer us within their walls." (Le Musée Imaginaire, 1965)

In the arts we have definitely entered into "the digital era". Millions of visitors can enjoy major works of art of the whole world at the tip of their fingers, on the monitor of their computer. The museum on the web is a different kind of museum. It is certainly not a substitute of the real museum, it is a new museum! The problem is not only to "digitize" everything on the web, but to produce new contents, to propose new activities, to explore new links within the arts. So, what's next? Some people believe that we are gradually moving to Web 3.0, to more personalized services. Web 3.0 will be the creation of high-quality content and services produced by gifted individuals using web 2.0 technologies as an enabling platform. If this is the future, museums will have to follow, in the sense of Museum 3.0.

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