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REALITIES AND VIRTUALITIES: THE NETWORKING OF VIEWERS, INFORMATION AND SPACES

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Abstract – The viewer, the museum, the curatorial staff and the technological applications form the contemporary network of cultural experiences. The technological support becomes a cultural relationship, when it is a commentary on the societal contemporary technological issues and their multiple applications.
Key Words: Virtual Reality, Information, Network.

Riassunto – **Realta' e Virtuale: Networks di Visitatori, Informazioni e Spazi** – I visitatori, gli spazi museali ed i curatori rappresentano, con le nuove applicazioni tecnologiche, i network per le esperienze culturali contemporanee. Il supporto tecnologico puo' divenire un oggetto culturale, quando rappresenta un commento sulle problematiche delle applicazioni scientifiche della societa' contemporanea. .
Parole chiave: Realta' Virtuale, Informazione, Network.

1. – Introduction

Traditional museums were mainly conceived as place for preserving, protecting and showing works of art. Information was limited to the reference and the place where the object was coming from. The objects, lost their original symbolic meaning, obliged the visitors to an archeological cognitive operation to reproduce from memory the picture of the piece's context.

In the past 30 years, most of the museums have integrated film projections and other techniques to allow the visitors a deeper experience in the original cultural environment of the objects [VALENTINO, 1993]. The introduction of multimedia technologies helps the museums to show the pieces in their whole context, offering more immersive experiences, in time and space, through different channels [GALLUZZI et al., 1997][BERGAMASCO et al., 2002] [BROGNI et al, 1998].

Technology had a similar evolution. Nowadays, some technicians and scientists are working to explore new fields, to create new technology and device, and, only after, to find a use for what they designed. The large amount of media, mobile devices and wireless systems are the magic pot where artists and designers started to take from. New ideas of using a mobile or a PDA came out, when the original designer never thought about it. Their freedom of use and flexibility are the key for new forms of information systems.

Virtual Reality for many years was a technology aiming to show a 3D reproduction of the real based on the concept of inducing the people to feel the sensation of 'being there', in a virtual space [WITMER et al., 1998].

Recently, new approaches of how to measure the sense of reality in a virtual reality system are being explored. The behaviour, the psychological, physical and

physiological reactions during a virtual experience are becoming the dominant clues for an effective system [SANCHEZ et al., 2005].

The users' experience is paramount to the success of a system: graphics and reconstructions are only channels for producing immersive and complete experience. Therefore, can we think of shifting this requirement on the museal world? Can we design technological systems, using virtual reality and media to offer immersive and complete experiences to the visitors? Can we help them to have all the required information, plus something else? Can we let the user to move from passive to active along its own explorative path? [PINKER, 1997].

2. – Virtuality and Innovative Experimentations

The idea we are working on is to generate new methodologies and applications to display and present of 'art objects' in an informative, entertaining and participatory manner. The use of the term virtuality is broadened, and encompasses a set of digital information that can be displayed throughout museum spaces by diverse technological means. PDA, wireless network, 3G mobiles, game platforms and complex Virtual reality systems are examples of the elements that could be used for an interactive visit on a museum or more complete consultations of bank of data. These applications can benefit not just the visitor, but also the expert searching specialist information on a network of different channels.

A 3D visualization could be made for an archaeological site, but also for a library, where books and images and movies are placed in virtual landscapes [RUFFALDI et al., 2005]. Visualization on some panels or walls is available even for a small group of people, not only mono-user. Handset and mobiles could be the remote control of the museal environment, downloading video and images, or allowing the visitor to send him/her-self the data he/she stored during the visit. Buying catalogs, DVDs or any items should be an easy task using the same interface. Presence sensors on floors or walls could be interactive feedback for setting up simulations or information channels (even commercial!).

In adapting technologies within communication systems' frameworks, existing museum settings need to be taken in consideration. The present concept is to exploit present technology as well as offer 'innovative' experimentations either on a one off basis or as a permanent museum feature. A balance between technological interactions with the public and cultural promotion cultural is another primary consideration in incorporating virtual reality in museum settings.

Examples of networked virtual events are *The Telegarden* by Ken Goldberg (1995), *Fenlandia: View from Sutton Gault* (2004), by Susan Collins and *Trasa Warszawa Berlin* (2004), organized by Transmediale and Goethe Institute Warsaw. The issues of virtual networked events are philosophically retraceable to Descartes [COTTINGHAM, 1996] and raise social problems divided into technical and moral categories. Therefore, what is the impact of technological mediation on human values? [GOLDBERG, 2001]. By posing the problem of interaction between the real viewers, the virtual viewers, the technological representations and the museum itself, the order of engagement becomes a

matrix, raising methodological issues of constructions and forms of networks which can be shaped by the technological display of the museum object.

The relationship between new media and pre-existing realities generates a conflict between real and virtual, which impacts on contemporary social reality and individual identities [ROSENAU, 2004]. "These interactions are not 'virtual' in the sense of 'immaterial'. On the contrary, Andrea Baker (1998) has shown… the interaction formed in the supposedly 'virtual' environment has profoundly 'real world' consequences" [LISTER et al., 2003].

The museum events and display of objects in virtual spaces becomes in itself a form of communication and commentary on contemporary society, as well as a reflection of the structures and frameworks constructed by society itself. The museum of science can implement structures that comment on the 'new values' of knowledge and social impact of the virtual network [LOVEJOY, 2004].

The analysis of virtual networks must be concerned with the issue of communication through images and structures and how these images affect society and reflect the changes within it. This is in a context where the 'technological images' affect the modus communicandi and reflecting the present cultural context. [MANOVICH, 2001]. A networked event is concerned with meaning: "how it is produced in and through particular expressive forms and how it is continually negotiated and deconstructed through the practices of everyday life" [MURDOCK, 1989] [MURDOCK et al., 1989]. This is a technological cultural research "concerned with the way that audience members interpret media artifacts and incorporate them into their worldviews and lifestyles"; the audience is seen as "active subjects, continually struggling to make sense of their situation, rather than as passive objects" [GOLDING et al., 2000].

In this context it is particularly relevant the comment of architect Margherita Guccione, MAXXI – The National Museum of 21st Century Arts, who states that: "the confrontation between this historical patrimony and the contemporary languages benefit both" [FRANCESCUTTI, 2005]. It is necessary to implement a connubium between technological representations, viewers and social commentary, which in the case of museum of sciences can generate alternative audiences through technological applications.

The existence of the technological/curatorial team has to be considered as an integral part of the museum technological framework and electronic communication networks. These should not be regarded as contextual backdrop to technology use, but as necessary elements of a sociotechnical museum system and knowledge experience [LEA et al., 1995]. The function of a virtual networked museal project is that of 'connecting' the management of the human element to the management of the technological context [KELLNER, 2002].

The scope of the virtual network of knowledge and participation is multiple and it has to secure a 'life style' proposal, which, through repeated visits, generates the 'affection' necessary not just to 'receive' visitors but also to create, increment and stabilize a fundraising policy. The new participatory culture is taking shape at the intersection between technologies, do it yourself media production and horizontally integrated organisations and narratives.

This framework reinforces the necessity to generate relationships between the network and the visitors in order to use the network conduciveness to relationship

building and identity branding. [HOFFMAN et al., 1995]. Forms of representations and display are not just linked to categories of virtual or real, but to a series of middle grounds applications, which can enrich the viewers' 'experiential freedom' of the museal event's and participatory process.

3. – Conclusions

The use of technological applications and their 'implications' represents 'in its own right' forms of entertainment, when these applications are expression of creativity and commentary on the technological frameworks of contemporary society by artists whose practice is based on philosophy of science, ethics and social impacts of technologies.

These applications, beside being new art products which enrich the museum gallery archive, reveal new structures and relate to contemporary commentaries, which capture interests and attentions of a more variegated audience.

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