

Virtual museums

Observing the famous painting “Le nozze di Cana” by Veronese, Peter Greenaway asked himself: “What the 126 people painted are talking about? In which language do they speak?”. Hence the desire to give life to the painting, animating the Refectory at San Giorgio Maggiore in Venice with the multiple conversations among aristocrats, traders, scholars and servants participating at the [Wedding](#).

Nobody, before him, had made a picture speak: in his elaboration characters talk a contemporary Venetian dialect, obtained with voice recording of five actors and of a few descendants of the portrayed aristocrats. A projector directly pointed at the canvas manages to animate the picture: it seems to move and keeps very clear details. It's 3D digital animation, normally adopted in movie productions. While Greenaway had already animated the Night Watch by Rembrandt and the Last Supper by Leonardo, the Wedding at Cana was the first experience of a picture talking.

Technology transforms the painting in a tale, and cultural experience involves a multidimensional range of perceptions, rather than only sight. This is just an example of the possible combinations between art and technology, offering new and extraordinary experiences. Can we forecast what is the future for the arts? Can we imagine the new frontiers of technology eliminating the physical and cognitive barriers separating individuals from artworks?

Quite often the word “virtual” is associated to culture or museums, but this indicates a variety of approaches and solutions. Starting from a synthetic definition we can consider virtual museums as either the digital multimedia reproduction of an existing museum, based upon virtual reality techniques, or the ex novo creation of a museum structure and experience not existing in reality. Virtuality is much more properly expressed by the latter definition, although the word “virtual” is normally associated with any digital reproduction of reality.

The range of solutions goes from the “lazy” version, consisting of a website offering reproductions of some exhibits (such as the website of the Uffizi Gallery), to a more complete virtual museum merely reproducing a real museum (it could be defined a “static” virtual museum), up to a virtual museum not existing in reality (it could be defined a “dynamic” virtual museum). Such kind of virtual museum includes multimedia databases offering the digital reproduction of artworks belonging to various physical museums, or even of works that cannot be displayed or that have been destroyed. An example will be available on the web with the Adobe Museum of Digital Media, to be opened in short time.

Virtual museums enhance the emotional experience typical of traditional museums, combining the arts with the digital culture, and offering an interactive and immersive approach. Virtual museums allow visitors to experience an interdisciplinary cultural supply, also due to the suggestions, interpretations and projects realised by musicians, audiovisual creative artists, pop icons and innovators; this will bring the museum and its cultural supply much closer to contemporary trends, habits and expectations.

Among the various material tools that can host a virtual museum – such as cd-rom or dvd – the web certainly proves the most effective and appropriate, since it manages to emphasize some of its specific elements: the continuous availability of information, the ubiquity of connections, real time updates, extended exchange.

Virtual museums are characterised by some common features, aimed at allowing users to actively exploit the hypertextual format and the connection network. Beyond such common features (including cultural as well as commercial sections) the most important part of the virtual visit focuses upon collections and exhibitions. Also in its minimal version the virtual museum allows visitors to read texts and to examine documents that are not exhibited in the real museum.

The most immediate reason for the success of virtual museums is the relief of a major constraint, represented by the material obstacles to access; also from the museum's perspective, its virtual version

can substantially widen its cultural supply, "opening" the deposit for the virtual visitors. A similar benefit is the opportunity to fully exhibit works in danger of decay or destruction. And, more in general, there are no time or distance constraints.

Of course, the full enjoyment of a virtual museum requires an active participation on the part of the visitor: the cultural value is properly extracted by the artworks with advanced search, hypertextual links, comparative analyses and all the activities able to craft a tailored experience. But the benefit is a relief of two further constraints: the financial and the cognitive one, which still limit access to museums for a very high number of potential visitors.

A major benefit of virtuality is connected with the technical availability and financial accessibility of high definition monitors granting an extremely high quality of images. This allows virtual visitors to admire even the slightest detail of paintings and artworks in a way that could not be possible in real world museums, where queues, congestion and distance actually allow a limited and partial enjoyment of the exhibits.

Of course, in such a respect a virtual museum must not be considered a substitute for any real cultural experiences, but certainly the perceptive and cognitive opportunities it represents offer visitors a much more complete and deep cultural satisfaction, with no time and space constraints. Of course, this is something already possible with art books, but the virtual experience is preferable since it easily available for everybody, and it substantially offers an indefinite range of benefits: what is contained in dozens of books.

Moreover, virtual museums exert a fundamental educational function. Also in such a respect they overcome the dialogic abilities of real world museums, due to the possibility of creating hypertextual connections in favour of the research process and the identification of the cultural framework which is a major educational goal of any museum.

Virtual museums contribute to creating "an extraordinary educational opportunity, since they are an educational tool par excellence: for their interactive ability involving visitors; for the practically unlimited informational potential; for the real time response to visitors' learning needs also due to the possibility to craft comparisons and personalised visits" (Rossini, 1999).

Last but not at all least, virtual museums are a powerful tool for diffusing the Italian art in the world. An effective example is provided by the Uffizi Touch project, presented at the Art and Restoration Fair in Florence and then landed in Shanghai in the Virtual Uffizi exhibition. Developed by Centrica, Uffizi Touch offers the possibility to magnify 1150 artworks belonging to the museum, including those exhibited in the Corridoio Vasariano, but also a number of paintings locked in deposit, with an extreme richness in details. Museum surfers can base their experience upon multiple keys (diacronic, thematic, comparative, etc.). Such a tool proves useful not only for any visitors, but reveals a high utility also for scholars and experts.

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