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Perspectives on Virtual Museum Tours

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PERSPECTIVES ON VIRTUAL MUSEUM TOURS

Abstract: As a number of world museums have closed their doors for the public due to pandemic of the new Corona virus, curators are thinking of alternative ways of audience outreach: 3D virtual galleries are increasingly created, video guided tours shared, digitized collections put online. The new circumstances unquestionably bring potentials for growth, but carry numerous risks and inconsideration, as well. Many theoreticians argue that the crisis of this scale will undoubtedly fasten the digital transformation in museum and arts sector and consequently, in a much more wide sense influence the identity rethinking. However, the research of audience interest to virtual museum tours show there was a peak of just 3 days visiting these, massively followed by a fast decrease even the social isolation was globally still present and museum buildings still locked. Turning back to the genesis of the virtual museums, in the following paper, we will question why there is no interest to virtual museum content. Do tours answer the needs of the contemporary digital-born audience? Do these represent just a copy of settings from physical galleries or use potentials and logic of the new spaces? Will museums finally transform and enter into so many times nowadays mentioned digital shift answering the need of the new, transmedia perception of audience?

Keywords: virtual museum, pandemic, transmedia perception, technology, digital shift

Virtual museum – a brief overview on terminology and history

The very notion of a virtual museum today, along with modern technologies, is most often associated with a space on the World Wide Web, being on a site of some museum institution or an independent exhibition online. However, following Ber-

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nard Deloche and his acknowledgement of the virtual museum (Deloš 2006), we can agree with the idea of museum virtuality regardless of technological development, as each exhibition, from the predecessors of modern museums – curiosity cabinets – were meant to provoke the mind wondering through the virtual paths of mental images. On the other hand, for the purposes of this text we will accept a slightly narrower understanding of virtual worlds expressed in Lev Manovich's position: “By virtual worlds I mean 3D computer-generated interactive environments.” This definition includes existing 3D computer frames – high-quality virtual realities that work with monitors on the head and with photorealistic graphics, salons with video games, video games on CD-ROMs and multiplayer online games, virtual movie realities reproduced on quick time programs, VRML (shaped virtual reality language) scenes and graphical chat environments such as “palace” or “active worlds” (Manovič 2001, 49).

When it comes to the virtual museum world, it is important to mention that several terms are used in parallel and for the same notion: digital museum, electronic museum, online museum, hypermedia museum, Web museum, or Cybermuseum (Schweibenz 2004, 3):

This wide range in terminology is due to the variety of involved disciplines: computer science, library and information science, museology and the museum related disciplines such as archaeology, art, history, and natural sciences, which often developed specific and independent ideas of the virtual museum” (Schweibenz 2004, 13).

Agreeing that the multitude of terms is still used a decade afterwards, Hermon and Hazan emphasize that work is still to be done “for better understanding the (perhaps sometimes subtle) difference between digital collections, online archives and virtual museums” (Hermon, Hazan 2013, 625–26).

Therefore, we will think of the virtual museum as a space online, separate from the physical, a network of data that should be interpreted for the audience, i.e. curated, co-created for and with site visitors, following the needs of the contemporary audience and exhibiting potentials of the *virtual aura* (Hazan 2003) or even *aura without the object* (Groys 2020).

However, the distinguishing feature of the idea of the virtual museum in comparison to the physical one is the *hypertext* and potential of a non-linear exposition where one can cross-reference vast quantities of information (Pascon 1997, 62). In addition, interactive multimedia technologies respond well to the convergence culture in which different (old and new) media collide (Jenkins, 2006). Therefore, from the last decade of the 20th Century when the first CD-ROM virtual museum tours were sold in the souvenir shops of the big museum institutions, with the development of technology, digitalization, the Web and the perception of people – virtual museum tours are every day more numerous, enabling people from all parts of the world to enjoy the content. While these tendencies definitely go along with the

predicted digital shift, there are still many issues to be raised. In this paper, we will come back to the *hypertext* and discuss if the interpretation of content in the virtual museum (as defined in this introduction) relies on this potential or if the old models of the linear and often non-interactive setting still dominate even in virtual spaces.

No Interest in Virtual Tours?

When we talk about virtual museum exhibitions, it is important to note that the museum audience from the very beginning and development of virtual tours has rarely been captivated by such content. Interestingly, even in the current time of pandemic with recommendations for physical distancing, avoidance of being in inner spaces with others, closed borders, and less chances for travelling, the 3D models, video guided tours and curated exhibitions online have again proven not to fulfill the needs of audience.

Namely, Michael Alexis, Marketing Director of Museum Hack, examined the trend of visiting virtual museum tours around the world during March and April 2020, in the moment of the highest population closure due to the strong intensity of the Coronavirus pandemic at that time in Europe, parts of Asia and North America. A large number of newly created or strongly promoted online content offered by almost all world museums due to the locked doors of their buildings first attracted the attention of the audience, which consumed these in large numbers from their own homes. However, as Google Trend shows, virtual museum tours were popular for four days during March 2020, and then the public's interest dropped sharply, even though the museums were still locked. (Alexis 2020)

Such statistics raise many issues. Some of them certainly concern the needs of the audience, i.e. its perception, the way in which virtual tours are made and the question of whether they use the potentials of digital space and contemporary technology or just copy established models of the setting in the physical space. Therefore, we will analyze what the strategies of audience involvement in online tours are, which are the most common platforms for virtual museums, and how these tours correspond with the transmedia perception of a younger, digital-born audience. We will see that each approach to the virtual museum tour creation has its advantages, however, I would say, neither is all-embracing.

Nevertheless, many theoreticians would argue that, currently, there are two trends in virtual museums, which stem from fundamentally different technical approaches. One is the use of general-purpose Virtual World platforms, in which the museum space and artifacts are modeled and exposed. For instance, many museums, real and fictional, have been created within the Second Life Virtual World. Another trend is the use of panoramic images and video tours to present captured aspects of an existing museum collection. Currently very successful in this domain is the Google Arts and Culture Project hosting high-resolution representations of art works and collaborating with many museum institutions.

3D Virtual Galleries and Traditional Expography

One of the main issues which, I would argue, makes virtual museum tours uninteresting for visitors, is that they often just copy models of existing physical settings, while there is rarely an attempt to offer innovative interpretation and immersion of the audience into the logic of the digital world.

Writing about a 3D museum tour on the Internet, Lijana Makteviš argues:

Dynamic movement is not part of the experience that virtual reality museums offer to visitors. Internet users do not move through virtual chambers, but occupy fixed positions in the center of the gallery. The walls of these galleries rotate, creating the illusion that a stable observer turns his head to search three-dimensional space (Makteviš 2013, 283).

However, this aspect of staticity which is mentioned could easily be overcome. After witnessing the PokemonGo game and extreme advance of technology, the fact is that the virtual museum is not following the pace and the term still refers to a gallery in a digital space relying on the principles of classical expography:

Although visitors can move to another fixed position, they are limited by technological rather than physical barriers. Only those observation positions designed by software designers are available. The visitor's experience of the possibility of movement is limited because in virtual galleries, reality is defined exclusively in visual categories. Virtual observers are offered a limited bodily experience, where visual and occasionally auditory perception is emphasized (Makteviš 2013, 284).

With this kind of the tour, designed by someone else's mind, visitors do not feel invited to interact with the exhibited material, to research on their own, or to let their mind wonder through virtual spaces, but they give up quickly. The default interactivity of the new media in this context is again shown not to be fulfilled, as the movement of our hand (which controls the mouse), does not necessarily involve deeper mind processes. A media theoretician, Lev Manovich will come to a very important conclusion for understanding the relationship between the new media and observers/users:

When we use the concept of interactive media exclusively for computer-based media, we are faced with the danger of interpreting interactivity literally, equating it with physical interaction between users and media things (press a button, choose a connection, move the body), to the detriment of psychological interaction. The psychological processes of filling, hypothetical shaping, invocation and identification, (...) are wrongly identified with the objectively exist-

ing structure of interactive connections (Manovič 2015, 99).

We could easily apply these notions to the virtual museum tour and the involvement of its audience.

Throughout the research of the mentioned Second Life Virtual World platform, I came to the conclusion that the majority of museums here maintain a real-life metaphor by displaying artifacts on walls or in cases in rooms, even though there is no explicit need to do so. Richard Urban, Pail Marty, and Michael Twidale, library and information scientists, argue:

In a world where the sun always shines, there is no reason not to display artifacts in the open air or even floating in mid-air; since Second Life avatars are able to fly, museums in Second Life can take innovative approaches to displaying artifacts that maximize vertical space as well as horizontal. With no need to worry about artifact theft or deterioration over time, developers of museums in Second Life may choose to display their collections in vast open spaces rather than forcing visitors to move from room to room in a single building. (Urban 2007).

These researchers add that this would also avoid a sense of claustrophobia when visiting a virtual museum gallery. Another advantage which virtual museum spaces have is that these 3D models of buildings could so easily change their shape or size from one visit to the next, creating an always special and new experience.

Finally, built-in multimedia technologies provide opportunities for displaying unique types of collections that may be physically impossible to display in real life museums. The International Spaceflight Museum, for example, offers a solar system simulation where visitors can stand in the middle of a model of the solar system, calibrate it to any date in history, and watch the planets revolve around them. Museums in Second Life can offer unique experiences that would be prohibitively expensive in real life museums, allowing visitors to find out what it would be like to be caught in a tsunami (at NOAA's Meteora Island), take a rocket ship ride into space (courtesy of the International Spaceflight Museum), or parachute from the top of the Eiffel Tower (in Paris 1900), Urban, Marty and Twidale (2007) will conclude after a detailed review of the Second Life virtual platform museums.

Potentials for Virtual Encounters

Another important issue when it comes to reasons why the virtual museums are not as visited as expected is the one considering social relations and contacts during the visit. In contemporary times it is expected for the museum to be a forum for discussion, a space for education and entertainment, and not a place for lonely wondering through the vast collection of objects. Programs such as group guided tours through exhibitions, conferences, seminars or forums taking place in the museum

and performances within the exhibition confirm this thesis. Therefore, the virtual museum audience is also searching for encounters and possibilities to exchange impressions. The document that curators and employees of museums from all over the world filled in together during the first months of the pandemic, offering reflections on what content in the virtual space and to whom to offer, and what the audience's reactions to them will be, indicates the need for opinion exchange and socialization during the virtual museum tour, more precisely, within the tour in the digital space. There was even a notable group of visitors who come to these tours on a virtual date during the lockdown.²

However, while many 3D galleries do not show other visitors but leave the virtual spaces empty, within the previously analyzed Second Life platform each avatar can meet others on the same spot at the moment, observe their motions and actions and communicate to them in real-time. There is also often a constructed space for different talks, exchanges and performances in the virtual museums of the Second Life World. On the other hand, within the Google Arts and Culture Project, there is no possibility for any such kind of virtual encounter. Still, this platform has the great advantage of high-resolution images which surpass the perception of a human eye and offer a much more detailed perspective on the museum object. The problem of the lack of social encounters within tours in the Google Arts and Culture Project could be surpassed using other tools and media for virtual tour creation. The example of good practice in this context, which occurred during the lockdown and closed museums in Italy, was the activity of Poldi Pezzoli House Museum which organized Zoom guided tours with a guide and up to 20 participants in a specified time. The guide created the tour using the Google Arts and Culture Street View 360° option, virtually walking with all participants through the gallery. As the evaluation of this project confirms:

Google Arts & Culture offers an amazing feature: the possibility of zooming paintings images to a very high detail. This was definitely the highlight of our tour: the possibility of showing minute details of the artwork, normally quite difficult to appreciate in real life, definitely gave a special feeling to the experience. (<https://www.invisiblestudio.net/post/coronavirus-tips-to-organise-a-virtual-visit-to-a-museum-using-google-arts-culture>, 2020).

Another feature that proved useful was to have extra visual material at hand so everyone could switch over from the StreetView experience. In this manner, an interaction with the audience was achieved and they all communicated via chat or by audio. Finally, even though the tour was recorded and placed online, there was no follow-up interest in this version almost at all. Consequently, we can conclude that the audience prefers and is attracted to exclusive programs and the possibility of

² “Who are our COVID audience segments based on emotional need?”, open Google document research sent to museum professionals during April and May 2020.

social interaction during the tour. Virtual museum tours should therefore concentrate on social interaction, and, we will see later on, on the principles of co-creation, transactive thinking, and transmedia content.

Virtual museum within *Convergence Culture*

We have seen in the previous example of the tour using Google Arts and Culture Street View 360° and the Zoom meeting application with the presence of the the museum guide as well, that the combination of different media is a good recipe for fulfilling audience needs. Reflecting on the current efforts of museums to sustain the audience in the times of pandemic, museologist Sandro Debono argues:

What will matter now, more than ever before, is not the digital. What I think will matter much more is the careful choice of engagement tools that each museum will go for to best communicate its ethos, ideals and experiences.

Referring to the phenomenon of Harry Potter, which has succeeded in becoming not just a book bestseller, but a whole universe of movies, video games, action figures, Lego sets, web-based newspaper, social media groups, and even an amusement park, he points out that: "...digital transformation is about talent, not technology. The digital may be perceived to be the magic wand museums need at this hour, but wands need a Harry Potter to work" (Debono 2020).

This thinking, informed by Henry Jenkin's notion of convergence culture is, I will agree, the crucial point of departure when thinking on all levels of a museum's functioning, especially with the creation of the virtual museum tours. As Jenkins explains, convergence is the coexistence of old and new media together, but it actually "occurs within the brains of individual media consumers and through their social interactions with others." Media convergence impacts the way we consume media and it changes our perception, making people capable of doing many activities in parallel: "A teenager doing homework may juggle four or five windows, scan the Web, listen to and download MP3 files, chat with friends, word-process a paper, and respond to e-mail, shifting rapidly among tasks" (Jenkins 2006, 21). The new consumers are also more socially connected, as well as much more dynamic with migratory shifting from one media to another, and noisier and more public than the users of traditional media. Therefore, transmedia storytelling has emerged in response to media convergence, while content which is co-created and participatory is very welcome.

One example in favor to this is a recent museum campaign that has fast gone viral: a recreation of works of fine art and posting of photos on social media. Inspired by a Dutch Instagram user, the *stay-at-home art challenge* was taken over by the Rijksmuseum in Amsterdam and the Getty Museum in Los Angeles, who invited

their followers to recreate some art works from their collection. Soon, almost all the big museum institutions in the world joined in, resulting in tens of thousands of images contributed to social media and “half a million users started their own Facebook groups sharing photo imitations of famous paintings from different museums around the world and creating a living ‘archive of creativity in isolation’ (Grincheva, 2020). This activity does not show just how the audience is willing to participate in creating content, but it also indicates a high level of visual and media literacy of all art work re-creators.

On the other hand, thinking on museum institutions in times of crisis and new ways to keep museums accessible, Erica Lehrer and Shelley Ruth Butler hope museums will engage their audiences critically in the digital space. Standing for virtual curating and co-creation, and not just collecting (adding to museum collections), which is already very common, they point out that people’s relationships to museums should be open to the most radical re-thinking:

We urge museums to view the current ‘state of exception’ not only as a constraint (which it obviously is), but as a moment to experiment. For instance, museums could offer design software that allows exhibitions to be re-curated on a web platform, or re-captioned with new interpretive texts. Imagined shows could be curated whole cloth by aspiring curators, museum critics, students, and community groups. The interactive online game-in-development Occupy White Walls, for example, sidesteps art-world gatekeepers by allowing users to not only curate virtual exhibits, but build and populate whole virtual museums (Butler 2020).

Accordingly, except for more use of the advantage of contemporary technology and social media, the concentration on all-encompassing virtual museum projects which respond to the dynamic, transmedia perception of an audience is preferable. Therefore, the potential of interpretation within the digital exhibiting space relying on the mentioned hypertext and networked mode of operation is vast.

Writing about positive aspects of digital art history, Maja Stanković gives an interesting example of how one contemporary art work could be interpreted in a 3D form, interactively or virtually. She takes a *Mona Lisa Bazooka* (London 2007) piece by Banksy. Explaining this (on first glance a quite simple intervention in the public space) Stanković gives a model of presentation of a complex work in its meaning. It visually indicates intersection points of different registers: art, culture, socio-political circumstances and advertising – all interwoven in a message the artist sends through his work (Stanković 2020). This chained and visual interpretation is very convenient for the virtual space and if used for further virtual tour creation, it would probably communicate well to a digitally born generation accustomed to images and screens and not to linear textual data.

Finally, technology is developing so fast that many museum tours are already applying Virtual Reality (VR) and Augmented Reality (AR) tools. What these new

realities bring is not just an innovative approach to presentation, but a possibility for completely new categories of thinking and perception for a Man. Achille Mbembe pointed out the current moment as a trans-human turn in which human reasoning has reached its' limit, delegating it to the computational mind. However, we could foresee a great opportunity to the development and rethinking of our (societal) as well as the museum (and therefore virtual museum as well) identity. Inspiring initiatives in this context are done by contemporary new media artists who are indicating new perspectives to the whole museum and art sector, and much wider.

While using technology for creative expressions, the new media artists raise many issues considering exhibiting space, the materiality of artefact, audience interaction and manners of interpretation, which all shed a new light on virtual museum potentials. An interesting example in this context is the recent exhibition made for the Acute Art app-based platform. Using the Augmented Reality application, artist Brian Donnelley, known professionally as KAWS, launched the exhibition "Expanded Holiday" showing his trademark clown sculptures throughout the world simultaneously thanks to the AR application for mobile phone and invisible to the naked eye. These sculptures were floating several feet above the ground over 11 locations: Doha, Hong Kong, London, Melbourne, Paris, Sao Paulo, Seoul, Taipei, Serengeti National Park, Tokyo, and New York City. "When I realized the quality that could be achieved and experienced in AR, I was immediately drawn to its potential," KAWS expressed in a statement:

I have been creating objects and exhibiting works in public spaces throughout my career, and this allows me to expand on that in a whole new arena. The possibilities of locations and scale are endless, and I'm excited to start a new dialogue in this medium (Reiner-Roth 2020).

Between many other artistic projects conducted lately, one fascinating example is the work of experiential studio Marshmallow Laser Feast. Fusing deep experiences of nature, science and technology, they create VR installations. These art works are immersing observers into the virtual reality offering a non-human perception, a point of view of different animals and plants in the natural world:

One fascinating consideration is how time can compress and expand depending on what organism you embody. Humans can watch a film at 25 frames a second without perceiving a pause – the images seamlessly flow. A dragonfly is a finely tuned killing machine with eyes so close to its brain that its effectively living life at 300 frames per second. When it watches the same film it sees a slide show, each frame holding for an equivalent of 12 seconds. A dragonfly has better colour vision than anything in the animal world. It can see well into the ultra violet and infra-red spectrum through its almost 360-degree eyeballs. We can get a glimpse of those colour spectrums through specialised cameras and this informed the way we created that world,

Barnaby Steel, creative director of experiential studio Marshmallow Laser Feast will explain illustratively (Krichewsky 2020).

Nevertheless, what projects like this are succeeding in, is to make us start repositioning ourselves in the world and therefore maybe understanding better the needs of the coming *consumers* of contemporary world;

“I think virtual reality can take us one step closer to nature than filmed documentaries. Rather than having an experience of nature through the rectangle of a screen, being able to embody other organisms is a whole other level of connection and empathy. It also takes us out of our own body which breaks the human centric feeling that reality is just what we see.” (Kirchewsky 2020)

Inspired by the current situation of proliferation of virtual museum tours due to lockdown and recommendations for physical distancing, in this paper we have tried to offer some of the reasons why these tours are not as interesting as expected to museum audiences. We looked back to the beginnings of the museum apparition in digital spaces and researched the most common models of virtual museum interpretation today. Therefore, we can draw a conclusion that many virtual tours just copy the real-life museum setting and rely on linear storytelling. On the other hand, informed by the notion of convergence culture, the transmedia perception, as well as concepts of co-creation and co-curation, we recognized some examples of good practice when it comes to virtual museum content that fulfills the needs of the audience. Finally, we recognized a great potential in the new media art works which are opening other horizons and making us question our own perception and position within a wider transhuman context.

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PERSPECTIVES ON VIRTUAL MUSEUM TOURS (summary)

This research is informed by the response of museum and arts sector to the “new reality” in the times of crisis caused by the pandemic when the doors of cultural institutions across the whole world are locked, recommendations of social distancing are stressed, but when the proliferation of the virtual museum content is happening as well. Therefore, the goal of the paper is to analyze perspectives of the virtual museum, potentials it has considering audience outreach and new exhibiting models, but also limitations and problems museum professionals face when creating it.

It was however, necessary to dedicate attention to the origins of the virtual museum and terminology used in this context at the beginning. After reviewing the existing tendencies considering virtual museum perception and creation, it is analyzed why the audience is not as interested in these exhibitions as expected. Therefore, the history of virtual settings created on different platforms is researched, advantages of this medium are stressed, but problems in its functioning are recognized as well. It is concluded that many online platforms still repeat the traditional models of expography and do not rely on the logics of the digital environment and perception of the digital-born contemporary audience. However, aspects of audience socialization, participation, new transmedia perception and expectations are also analyzed. Finally, overviewing the examples of the good practices of museum activities online which were popular during the lockdown, as well as of the new media art creation and representation and successful use of virtual and augmented reality technological tools in this context – some potentials and solutions for virtual museum development are recognized.

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