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Going fully virtual in conceptual thinking

Abstract

This paper exams on the feasibility of making art and the spaces of its presentation fully virtual, free of material form. Seeing contemporary art turning conceptual since mid-20th century, has technology open the path to full virtuality in 2020s? Is human cognitive and neural system ready for such turn in perception? If the millions of years old socio-physiological ties to the environment are broken, can the artistic messages be reconfigured consciously?

Converging on the topic from both practical and philosophical perspectives, we try to draw attention to the issues and to provide essential outlines for the answers.

My name is Pavel Matoušek and I'm going to talk about challenges of presenting works of art digitally and about artistic possibilities of virtual space itself.

To begin, let me shortly introduce myself. My point of view comes from three angles. First of all, I'm a visual artist, mostly working with photography. I often exhibit abstract images commenting on ways of seeing, but I also tend to work with conceptual documentary style. Secondly, I a PhD student in a field of human perception. This is obviously very wide area, but I focus on specific phenomena and authors, such as John Dewey and his concept of Art as experience.

Third, I work as a freelance photogrammetry creator. This means creating photorealistic models of cultural heritage protection sites, but also reproductions of physical artworks such as sculptures for VR representations.
So all together, I try to keep my perspective open and to be realistically critical at the same time. And to clarify here, I'm going to use the term virtual reality – VR or augmented reality – AR very widely in this presentation.

The perfect photogrammetric quality of digital reproduction gives some people false sense that we see the artwork in VR just as it is physically. And that our experience with it could be equal. But it is not. We don't know which features of the artifact were omitted and which are made more apparent in the visualization. It has no aura, we don't feel the space and fine connections between the work of art and the world around it, we don't feel the material, and so on, there's so much that is described as an irreplaceable artistic quality in art history books that we are missing here.

But the biggest gap, in my opinion, is the time and attention deficit caused by the medium of VR itself. We don't have the patience to observe artifacts in VR and feel it for hours which is necessary for media such as painting – we don't even do it for more than couple of seconds. Visual art is mostly meant for long term perception, many people can't really get in touch with it even in physical art galleries, unless spending long minutes with each piece. And still, they best relate to pieces they have home (should they be that lucky to own quality artworks).

To be just, there's no stopping us from doing that in VR, we, or at least me personally, are just not accommodated to patience in digital worlds. And I don't believe this is going to change anytime soon. Patience and tranquility is not in DNA of virtual presentations.

To quote an article in the Smithsonian magazine[1]: is it enough for you to visit the newly build concrete replica of Caverne du Pont d'Arc instead of the actual Chauvet Cave, the prehistoric jewel in France? It looks the same, it might even convince some of the less advanced experts in art history. Yes, it's impressive, and it's a great educational tool. But it is not the place, where the history happened some 40 thousands years ago.

And that's the same with, say, Picasso – you can see printed reproduction of his works in every art history book. But you would never think of it as an actual artwork by him. This metaphor is harder to imagine for digital media, photography and video. But is watching Nam Jun Paik on youtube the same as watching it on his old tv in a museum? The harder we try to make it work, the more layers of realism and sensual inputs we add, the bigger the lie is. Nevertheless – you are not looking at paint covered

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1   https://www.smithsonianmag.com/arts-culture/are-replicas-changing-way-we-experience-art-180960224/

canvas or any other materia, but at shining LED crystals of your monitor or VR glasses.

Digital models and reproductions are
a) not produced by the artist himself or herself,
b) its goal is not to be a work of art,
and c) its goal is to be a mimésis, a reference to, a metaphor of the actual artifact.

So, as curators, when talking about physical or analog art, we mustn't think of VR presentation as an actual art exhibition or its replacement, but instead as a medium to promote art, to teach about it and to make it approachable and visible for society. Digitized art data can be invaluable for on-line education and does allow museums to reach their visitors at any time and at any place. It can be great for accompanying programs to exhibitions and events, providing even more information, also for other curators and art scientists.

One of the huge advantage of digital presentations is the possibility to provide addition layers of data with it. It can be audio or text commentary, there could be video and other hyperlinks connected to it. This way, we can also make the connections between individual artifacts more apparent.

Currently, one of the most important applications of VR and digital modeling is a scientific accessibility to cultural heritage sites data, especially in the unrest world we are living in. We can easily visualize huge amount of information very conveniently, all with precise measurements and 1:1 textures. The best example would be the city of Palmyra in Syria, that has been, luckily[2], very well documented before it met its demise in 2015. These data are also publicly available[3] and make for a great educational tool, especially now when most schools became turned on-line. This is one of mission of museums worldwide nowadays, even in regional institutions, such as in Usti nad Labem.[4]

Post-processing technology also allows us to imagine or rebuild some of the destroyed parts of statues or architecture if necessary. In future this may prove invaluable to preserve and to study the lost cultures of the world. Further, VR-scanning technologies are now becoming available for wider variety of audience and users, and also can be used for creating awareness of local under-represented art – re-imaging it in different "light" and to bolster relationship between the people and the place where they are living.[5]

Of course, there is a very specific set of rules, that are now actually being established, year by year, to make all this work correctly. One of them is the field of User Experience, UX, which becomes ever so important…

Speaking of which, the user experience is the most obvious pain in today's pre-build so called virtual exhibition systems, such as Kunstmatrix.com. Navigating in the space sucks, perspective is not there and the little things like artwork descriptions on the walls don't make sense in its comparable size. Not to mention various graphical glitches in textures and lighting. The overall experience is boring after couple of minutes and there's nearly not enough emphasis on the exhibited images themselves, as they

2   whc.unesco.org/en/list/23/documents/ -the polical development in the region was foreseen by UNESCO and thus the site has been captured digitally in time

3   sketchfab.com/search?q=palmyra&sort_by=-relevance&type=models

4   sketchfab.com/matousekfoto/collections/usti-nad-labem-museum-highlights

5   sketchfab.com/matousekfoto/collections/usti-nad-labem-region-heritage

usually cover just a small fraction of your field of view. These are some of the things that are not to be paraphrased and copied in VR, but instead should be re-thinked and integrated into the interface itself. Honestly, there's no need for a gallery-like space to present the artistic projects in the first place. Of course, the system is still evolving and getting better and better. And the final goal is to look at art (or at any visual experience) without noticing its medium – or in this case, its interface.

However, there are of course actual works of art that were created directly IN and FOR the virtual space, using its specifics and limits intentionally. Similarly as net art only works in you old web browser. There are thousands of great conceptual and spatial projects in VR that are now starting to be accepted as works of art (by MOMA and others). Some of those are actually also video games, but mostly they are unique tailored experiences, both visual and physical, fully immersive fictional worlds of creative concepts and inspiring visuality. To name some of the successful artist, we can see works by Rioji Ikeda[6] or Laurie Anderson[7]. On the other hang, there also some of the patterns that are no to be follow, such as spacial recreations of famous painting in the virtual space, often with a lot of pathos and low artistic quality[8].

So yes, it is very much possible to curate visual art exhibition in VR, but we are talking about completely different things than what we see online 99% of the time. Viable approaches all look very different than virtualised white cubes with small photo-reproduction of paintings in it. You don't need a white cube in VR to get isolated from the outer world – you already are pretty solidly away from it. And I'm not only talking about viewing it with goggles, your monitor is more than enough.

VR presentation is also breaking the entire history of architecture-art relationship, its meanings and traditional curatorial approaches depending on it. Is that good or bad? What have we learned from the theory of the White cube[9]? There, in a space isolated from outer world and contexts, artifacts connect with onlooker in a different way. This can be both good or bad by the ethics and meanings of the exhibitions.

Now, VR is one step further from space, away from any context (other than the interface) and also away from the way of our physical perception, including our senses' calibrations that we have been practicing for millions of years in physical world. There's a term in neuroscience – Corollary discharge[10]. Shortly, it's a brain function responsible for coordinating our senses, our body and our consciousness. It makes us aware of ourselves and of our actions.

Thanks to the discharge, when we turn our head to side and our point of view changes, we know it was us who made that happened and it's not the earth moving around us. This doesn't have to be the case in VR, there we have little assurance of anything. Another example could be focusing our eyes at the four centimeter distance of the goggles and being offered a sharp view of a large space of several meters or more there. It doesn't make a lot of sense for our previous experience with eyes, right? That kind of disparity and isolation both physical and from our own senses might be some of the Brian O'Doherty's darkest dream.

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6   www.youtube.com/watch?v=S-vSFDZGfF4
7   www.youtube.com/watch?v=WBFyCy5xQuk
8   www.youtube.com/watch?v=0hAURjJHS4c
9   www.tate.org.uk/art/art-terms/w/white-cube
10   for deeper explanation look here: www.frontiersin.org/articles/10.3389/fnint.2020.00042/full

By default, there's zero bonding of artifacts displayed in VR to anything, in space or in time. The only bond is their virtual appearance which points to their creating in 21ˢᵗ century. There's mostly zero sense of user's own body and limbs in the process. There's no feeling, no smell, zero unexpected or random elements. As described by famous neuroscientist Anil Seth[11], the only difference between conscious reality and hallucination is the amount of control over the perceived sensations our brain has.

Through to its knowledge and past experience, brain is presenting us its best, least distorted version of reality. The more direct information is brain fed, the better (and less mentally demanding) vision we are getting. With less sensual data, brain is forced to ever re-create definitions and meanings of objects and phenomena we are seeing in VR – and basically rethink their essential properties for the real world. And this is exactly what good artist, designer or curator can take advantage of when creating for VR.

There's a lot to do and to discover about VR and no doubt that the future of visual art and its presentation can be full of surprises. We could argue that the advances in technology are just way too fast and our society, educational system and philosophy just fails to catch-up. That means we are failing to put it in theoretical context, to interpret it and to criticize it. It's a paradox that thanks to technology, we are able to develop more and more technology faster than we are able to develop our own imagination and critical thinking about the world.

To leave you with a resume—only the artwork newly created directly for virtual spaces can be perceived as an actual artwork there. There's no replacing of experiencing "classical" physical art directly for now. We must be very much aware of the distinction.

Yet virtual realities and augmented spaces are excellent tools for transferring information and data, for education and entertainment, for fictional worlds, for playing and training our brains, for telling stories and presenting concepts. It can be curated — pre-aranged, enriched and "tooltiped" in a similar way and perhaps even better than a physical exhibition – but only as long as we follow its specific set of rules and UX settings. And we need to start thinking differently about it.

Perhaps art gallery or museum curators can now work with 3D and UX designers just as they are cooperating with exhibition architects and installation technical crew.

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11   viewer-friendly explanation in TED presentation: www.youtube.com/watch?v=lyu7v7nWzfo