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ARE WE FACING WITH DIGITAL PANDEMICS - WILL NEW TECHNOLOGY HELP IN POST-COVID ART AUDIENCE?

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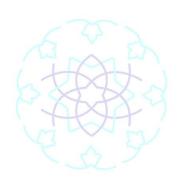
Abstract

Poster as a medium of change has transformed it functionality many times, adapting or following the changes, but the *New tendencies* are requesting a proper transformation due to the advance development of Virtual Reality, NFT's and the upcoming 'Metaverse' in order to preserve the so-called "universal communication vehicle". How can designers integrate in a complex system of virtual technological tendencies in order to tackle the present and forthcome the future? Should old myths be dethroned, old educational methods upgraded, and societies prepared, since the new generations are already aware of the new industrial revolution.

A key part of the process of design is to externalise thinking and feelings, especially the invisible, intangible, apparently abstract ones. The process of making, thinking and feeling visible proves to be a pivotal component of design synthesis, especially when much of design practices, teaching and learning happen virtually. I will share the act of reflection, using visual thinking tools, on inspiring a collaborative sense-making and way-finding. How can complex layered research process lead to further visual possibilities in order to project the future of social design. The simultaneous act of constructing images and deconstructing visual metaphors can become a path-finding creative action preceded and followed by critical reflection.

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This research art project will provide a state-of-the-art on the use of virtual poster in virtual cultural communication, reality, functionality and usability.

Key Words: Graphic Design; Poster; Virtual Reality; Visual Communication; Mass Communication; Social Design; Visual Thinking; Interactive Art; Collaborative Design.

DİJİTAL PANDEMİLERLE Mİ KARŞI KARŞIYAYIZ - YENİ TEKNOLOJİ KOVİD SONRASI SANAT İZLEYİCİLERİNE YARDIMCI OLACAK MI?

Özet

Bir değişim aracı olarak poster, birçok kez işlevselliğini dönüştürdü, değişiklikleri uyarladı veya takip etti. Ancak yeni eğilimler, sanal Gerçekliğin, NFT'lerin ve evrensel bir iletişim aracı olarak yaklaşmakta olduğu söylenen 'Metaverse'in ilerlemesi nedeniyle uygun bir dönüşüm talep ediyor. Tasarımcılar, bugünü ve geleceği ele almak için karmaşık bir sanal teknolojik eğilimler sistemine nasıl entegre olabilir? Eski mitler tahttan indirilmeli, eski eğitim yöntemleri yenilenmeli ve toplumlar hazırlanmalıdır. Çünkü yeni nesiller yeni sanayi devriminden haberdardır.

Tasarım sürecinin önemli parçalarından biri, düşünce ve duyguları, özellikle de görünmez, soyut ve görünüşte soyut olanları dışavurmaktır. Görünür yapma, düşünme ve hissetme süreçlerinin ve özellikle de tasarım uygulama süreçlerinin çoğu; öğretme ve öğrenme sanal olarak gerçekleştiğinde, tasarım sentezinin önemli bir bileşeni olduğunu kanıtlar. Bu çalışmada görsel düşünme araçlarını kullanarak, iş birlikçi bir anlam oluşturma ve yol bulma konusunda ilham verme eylemini paylaşacağım. Karmaşık katmanlı araştırma süreci, sosyal tasarımın geleceğini tasarlamak için daha fazla görsel olanaklara nasıl yol açabilir? Eşzamanlı olarak imgeler inşa etme ve görsel metaforları yapıbozuma uğratma eylemi, öncesinde ve sonrasında eleştirel yansımanın izlediği yolu bulan yaratıcı bir eylem haline gelebilir.

Bu araştırma-sanat projesi, sanal kültürel iletişimde sanal afiş kullanımı, gerçeklik, işlevsellik ve kullanılabilirlik konusunda en son teknolojiyi tartışacaktır.

Anahtar Kelimeler: Grafik tasarım, Sanal Gerçeklik, Görsel Iletişim, Sosyal Tasarım, Görsel Düşünme, Etkileşimli Sanat, İş Birlikçi Tasarım.







Introduction

Culture has always been related to the environment, the resources, and the artifacts that a certain population uses and creates. Knowledge and habits are also part of the culture. Virtual reality is becoming one of the most common methods for re-enacting previous cultures and connecting them with their original environments. Creating 3D virtual worlds is regarded as the most cost-effective, dynamic, and interactive method of merging a culture's surroundings, artifacts, and information.

It has been just few months behind us that the pandemics is no longer a global priority, but other problems are involving our everyday functioning with even bigger concerns, like the possibility of new world war or a nuclear bomb attack... In the meantime, we all "woke up" with a very strong feeling that the global tendencies are reestablished introducing new social (digital) interactions and models thru the Metaverse Facebook using Virtual Reality. As we already know "The arts and other manifestations of human intellectual achievement viewed collectively" is how culture is defined. Culture, according to Koentjaraningrat, is a "power of mind" manifested via creativity, intention, and taste, whereas culture is the outcome of creation, intention, and taste [1]. Culture, according to Liliweri, is a group of people's way of life expressed through subconsciously received behaviors, beliefs, values, and symbols that are all passed down the generations through communication. All of these definitions can be summarized as 'The arts and other manifestations of human intellectual achievement viewed collectively" is how culture is defined. Eventually this theory introduced (in a better way) the Covid-19 pandemics as a teaser to the escapism of social interactions and introduce possible new culture. Furthermore, these actions foster the physicality of knowledge as a set of automatisms incorporated in the body.

Local cultural attributes may be a source of inspiration for developing innovative products in the context of globalization. The poster as living artefact identifies, portrays the actual narrative, but also the social climate and human mentality of the time in which it was produced.







Posters communicate by themselves; they do not require a particular location or a proper environment to do so. From this perspective, poster art gives us a secure feeling and takes us truly into the realm of visual expression, which forces us to think deeply about the past and present.

One of the dynamics in the evolution of the creative sector is the culture and development of the times. Slowly but steadily, the course of history transformed society's way of life. Cultural items that no longer meet market demands are likewise affected by lifestyle changes.

Approach

Virtual reconstructions have been increasingly popular in recent years, allowing visitors to immerse themselves in a digital environment that re-creates buildings and relics from a certain historical period and location. Virtual reconstructions that simply show static items, on the other hand, give a restricted user experience. Virtual reality involves mental transportation and can occur without any technology — for example, a well-done set in a theater. Technology simply allows simulations that previously were rare and costly to build to become pervasive.

Therefor I started my journey with the VR technology, enhancing my personal reflections to understand the challenges of art in the face of the pandemic. Stress has become a routine and our collective everyday life, was and still is *digital*. The mobile phone has become a book, the laptop is a notebook and the TV is a box full of various content; the entire culture is slowly but surely changing. Since then, our lives toke on a different perspective and the responsibilities forced a new course in the role of designers and artists.

We were constantly surrounded by information about the pandemic and the Covid-19 virus, which forced us to limit our social needs. Starting from March 22, 2020, every day i created one poster... All of my posters and visual thoughts were a personal expression and a reflection of a personal experiences. The landscapes were dominating, perhaps because of the quarantine,





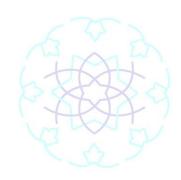
followed by the collage and collage expressions that have a tendency to manifest my personal attitude and relationship towards the isolation and help me articulate my personal growth as a visual artist - This cycle of posters I called "Reflections on the New Reality".



Figure 1. The official poster of the exhibition, Laze Tripkov 2021

The social and emotional turmoil have been my guiding principle and support in my creative play of symbols, signs, meaning, visual poetry, expressions, attempts at minimalistic deliberation, aesthetic improvement... It strived to prioritize the issues of the new times. That's why, in this article I will stay focused on the elements that can help in preserving those values, thru personal experience.





Following, the approach that I implemented had several stages:

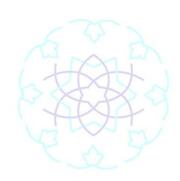
- 1. Analysis phase compare create test implement
- **2. Development phase** *design transform adapt produce*
- 3. Execution phase set up test -
- **4.** Experience phase *questionary workshop debate*

Phase 1 - Analyze

The main focus in this phase was understanding the transformation of the 2d to 3d in virtual space, understanding the technology and software, programing and gestures including the interactivity, motions, spaces, transitions and forms. Main challenge was certainly creating the virtual reality contextualization of the 3-dimensional space, having on mind the character of the 2-dimensional visual form of the poster, and trying to adapt the space, plan and content. The analyzes were with Focus on possibilities of What can technology and Virtual Reality do for the cultural values of different media in order to enhance new audience, bring old, reestablishing the museum in order to reinitiate old/new feeling of belonging, inspiration, thru the old/new virtual poster?

Having on mind the gaming aspect of the VR, I am familiar with the advantages and disadvantages of the technology and design interactions, and on the other hand I managed many projects and exhibitions that prioritized the role of the poster, also as director of Museum of Contemporary Arts in Skopje had helped me to better understand the culture and the understanding of the upcoming challenges.





Phase 2 - Develop

Facing this crossroads, the poster carries the necessary predisposition, most fitting tool to inform, to identify, and to induce. The message in the form of visual communication is clear, convincing, seductive, poetic, argumentative or rhetorical. Eventually, poster would sustain the same values in the 3d interactive virtual space, but it has to dimensional limitation and readaptation to its visual appearance as virtual availability, effects, content, interactivity, tendencies.

After the approach has been determined, as second step is to determine the development plan. The final step in the assignment phase is to specify the level of immersion and the target hardware. They both directly influence each other, so it is not always necessary to achieve the highest immersion level possible.

Using virtual reality technology, it can not only show the three- dimensional simulation model of the poster, but also can "roam" in to the ambient of the poster imposing new simulation, which can be shocking, charming or surprisingly different transforming plain space into virtual site. With the development of computer technology and other related technologies, the functions and browsing forms of digital spaces have also undergone great changes. From the early introduction of graphics and texts, it gradually evolves into three-dimensional virtual scene roaming and interaction supported by virtual reality technology.

Phase 3 – Execution

This stage was aimed to present the challenge and the effect of the visual transformation of the poster, and at the end to present this kind of cultural project for the first time in Macedonia, additionally made and created to serve its purpose in the Museum. VR is the effective tool to promote values and to help break through the traditional way of promoting/communication or presenting art and culture. The exhibition was set up in the first part of the gallery space and the





VR room (computer, VR set and sensors) was set in the back. Both spaces were divided by a huge panel wall, on which on the front, a projection was displaying what was the VR user activity in the moment.



Figure 2. Example 1: Isolation Moon - Poster, and the interactive content adapted in VR

The biggest challenge was to create as much as possible a similar 3d space projection, that would both be interactive and presenting or bringing as much as possible closer to the main concept behind the virtual poster.

Phase 4 - Experience

Virtual Reality can be conductive. The heritage of many cultures is a whole in itself. According to traditional protection and inheritance methods, they are usually displayed in museums. Using virtual reality technology, we can construct "experience culture or experience belonging" to restore and reproduce a comprehensive and complete virtual simulation legacy





space. By using virtual reality technology, not only can poster related to intangible cultural institutions, but it can help to preserve, intrigue and enhance new audience to understand the technological possibilities, their engagement in mora natural way, to grasp the future as a stable environment, controlled by feelings and emotions.

I would like to stay bit longer on the experience stage, as some of the results and answers were surprisingly interesting to me as an artist, and to the design community as well, putting the main focus on the following 8 segments (*read bellow*) with nonspecific target groups. Since the exhibition was opened for almost 3 weeks, different groups of visitors were registered in the museum – starting from my son Jakov (age 12) and his friends till the oldest ones were between 70-78 years old.



Figure 3. From left to right: my son, the youngest user age 12, and the posters exhibited in the first

The precise number of visitors would be difficult to specify, since it was under strict Covid-19 measures, but approximately around 2000-2500 people visited the exhibition in the Museum.





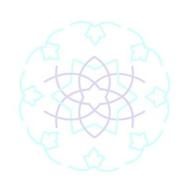




Figure 4. The LCD projector was connected to the VR and was projecting the content of the user

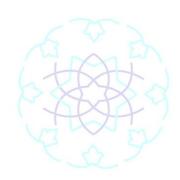
The main focus regarding the questionary was set on different age categories, as I mentioned before, staring from 12-22, then graduated students and young people between 23-33, then 35-50 and the last one was above 55 (the limited target audience). The group between 12-22 years old, were mostly high school students, coming from gymnasium and artistic school from Skopje, mostly second, third and fourth year. The second subgroup in this segment were the faculty students, mostly represented by those who study art and design, but also form the mechanical engineering and architecture.

Below is the questionary, that was given to the visitors to help for this research and project exhibition:

Questionary								
No.	Questions	Answers						
		SA	A	N	D	SD		
1	Was the VR an interesting experience?							
2	Did VR made this exhibition more interesting along							
	with the posters?							



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3	Do you think that interactive and user generated			
	content, offers bigger involvement of the audience?			
4	Do you think that the interactive concept thru VR			
	offered better understanding of the exhibited			
	posters?			
5	Does all museums in Macedonia need to include VR			
	technology as part of their exhibits?			
6	Would that enhance additional audience?			
7	Would you be rather interested in viewing the			
	exhibition from home thru personal VR?			
8	Would VR make you come to an exhibition?			
10	Can VR help improve school activates and educate			
	in a better way?			
	Would you rather attend classes thru VR or go to			
	school/faculty?			
11	Is 2d form outdated and has to be replaced by the			
	Virtual?			
12	Should art become more virtual?			
13	Would you attend painting/drawing/sculpture			
	classes thru VR?			
	Would VR improve your knowledge of the study			
	specifics?			
Writ	te your comments and your feedback:			



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No.	Questions	Answers						
		VG	G	N	В	VB		
1	Representation of quality of room size in Virtual							
	Reality?							
2	Representation of quality of content in Virtual							
	Reality?							
3	Representation of quality of interaction in Virtual							
	Reality?							
4	Representation of lighting quality in Virtual Reality?							
5	Representation of sound quality in Virtual Reality?							
6	Representation of material quality in Virtual							
	Reality?							
7	Representation of quality of execution of the posters							
	in the Virtual reality?							
Writ	e your comments and your feedback:		1					

The set of answers and information's coming from the questionary and the specific discussion I have provided with different groups of visitors, individuals, artists and professionalism, were sharing their objective and subjective opinions, thoughts and believes. The methodological outcome, coming from the overall activity, can be formulated in the following questions:

- 1. What are the challenges that we are facing with the new global paradigm?
- 2. Where is the designer in this whole process?
- 3. What would be the future of the poster as it is no longer "art of the streets", when NFT's are taking over the virtual highways?





- 4. Should graphic design transform itself, again?
- 5. Can design help and transform the museums and galleries?
- 6. Should faculties reshape and introduce more virtual approach?
- 7. Will there be a substitution and "no go" back to the human feelings?
- 8. If we were scared by the computer technology influencing the design thinking, then what would our fears be like in near future?

Audience (Target Group)

In the previous paragraph I wrote about the specifics of the target groups and the diversity in age and interests. I would say that Virtual Reality has both positive and negative impacts. Regarding some of the previous researches connected with the VR, has found that virtual experiences, such as seeing prosocial or antisocial conduct, can have an impact on how we act in the actual world. Cultural shifts have already begun. According to a recent research published by the Kaiser Family Foundation, children aged 6 to 16 spend more than eight hours each day outside of the classroom consuming digital media. It is impossible to ignore how this digital lifestyle is influencing people's worldviews.



Figure 5. *Segment of the poster exhibition*



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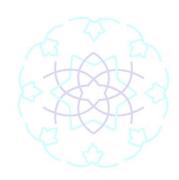
A number of psychological studies have shown that virtual reality representations of ourselves alter our thinking and behavior. Wearing a taller avatar will make us feel more secure in the physical world, and wearing one that is beautiful will make us act more socially. Wearing handicapped avatars can help us become more sympathetic, while wearing healthy and energetic avatars can help us modify our food and exercise habits. Even modest levels of exposure to avatars can alter our behavior.

From the above mentioned, the audience still cannot be determined precisely because of several factors and my experience with the exhibition goes in line with that. It is worth mentioning that there is no specific market that targets the person who makes the final purchase – usually those are being influenced by a variety of internal and external influences. Also, the target group between 6-16 they are familiar with the option that the VR is offering but the purchase value is still high and it should pass thru the stage of adjusting to the market and wider audience. The results from the whole research have shown the following:

- The most familiar and informed target group about the VR, were the 12-22 years old teenagers most of them have already been in contact with the device and used it mostly for gaming overall they were very familiar with the possibilities, opportunities, advantages and functionality. This target group knew how to use the device without previous introduction. They showed huge emotions and empathize and identify themselves with the virtual posters and the possibility of connecting them with in the virtual reality.
- The second target group (23-33 years old) were familiar with the VR devices and the possibilities that VR technology offers. Some of them were using it for the first time, but mostly they were well informed by the social media (Facebook, Instagram, YouTube). While using the device they had small difficulties with following the content vs







functionality. This target group didn't know precisely how to use the device, they need the introduction.

- The third target group (35-50 years old) had difficulties in understanding how this technology advances the presented art form on this subject. Some of them were familiar with the technology from the movies and medicine related videos, they were specially informed about the possibility how it can help and improve quality of the human health. This target group didn't know how to use the device at all, they had problems with physical balance and they need the introduction and guidance through the trial. Usually, they spent less time and were very quick.
- The last target group (above 55 years) have overheard about the VR, thru literature and magazines. They showed the biggest interest in trying and using the VR and understanding the comparative concept and approach. From all of the ages, they spent most of the time available to enjoy the interactivity, functionality and possibilities of the virtual content and along with the youngest group they were the most curious to explore.

Overall, Virtual Reality (VR) is becoming an increasingly essential instrument for shaping of the culture, communication, and popularization, as well as highlighting technological challenges and analyzing the effects of interaction on user engagement, sense of immersion, and learning effectiveness as well as a testbed for interactive informations and evolving the virtual poster as old/new media. Technology evolves, and so does the use of virtual assistants in digital culture, from basic 2D characters to complicated interactive 3D. This also demonstrates how VR is used from user's perspective as well as from a design perspective. It will also take into account the discussion of current approaches' strengths and flaws, as well as unsolved difficulties, resulting in a compilation of recommendations and best practices to follow when developing VR-based cultural heritage applications, including posters.





Usability And Functionality

Culture is extremely important for the future of any country. Art and creativity nowadays is more a category that is left out of some systemic qualifications and national and educational strategies, being compensated by unnecessary subjects or data. Designers contribute significantly to the culture, environment and economy. This needs to be further recognized and accepted in both public/state/educational and corporate domain. Design over the last 40 years has evolved into a new paradigm of development. It has been transformed into a serious tool to make aesthetically pleasing and desirable products a key role in promoting the idea and also in people's lives. It is a discipline that leads to economic growth, shapes human interactions with objects and systems and improves the quality of life of citizens. VR reality can contribute to that role in large.

Interaction between users and virtual content is a crucial element of any immersive visualization environment. The common types of interaction methods are: tangible, collaborative, device-based, sensor-based, multimodal, and hybrid interaction methods. Tangible interfaces allow direct manipulation and interaction with virtual information through physical objects. Hybrid interfaces integrate a range of complementary interaction interfaces to devise a method that combines different characteristics from the above categories. For instance, a combination of collaborative, and multimodal interfaces.

To make full use of new technologies and new media, and provide various new channels, models and methods for the cultural institution by introducing the advantages of virtual reality technology, will certainly create bigger awareness of the legacy, will create bigger awareness of cultural identity, awareness of certain cultural, nationality, community and above all it will preserve and sustain the value of poster.





Case Observation

Creativity is an element strongly related to the idea of originality and novelty; culture and context shape our perception of it. Through body movement and time, emotions are translated into intangible/visible elements, which helps enhance self-reflection and engage in collective awareness.

The current trend is to populate these worlds with virtual humans (VHs) who have an appearance and behavior that is very similar (hopefully identical) to that of the original inhabitant, essentially virtual actors who can interact with the environment and the user himself through human-like manifestations (moving, speaking, using tools, and so on).

By carefully assessing whether a given immersive reality technology or interaction method can enable the following:

- Engagement: does the technology or method enable engagement? What is the level of engagement supported?
- Collaboration: Does the technology or method support collaborations?
- Remote Collaboration: Does the technology or method support remote collaboration?
- Relationship between users and virtuality: does the technology or method enable interaction and relationship between users and virtuality?
- Relationship between reality and virtuality: does the technology or method enable interaction and relationship between reality and virtuality?
- Relationship between users and reality: does the technology or method enable interaction and relationship between user and reality?





Conclusion

Bearing in mind the problems and progress that await us designers on the road to the future and by preserving the authenticity, the cultural outreach by design is extremely important for the future of any country. Art and creativity nowadays is more a category that is left out of some systemic qualifications and national and educational strategies, being compensated by standardized models limiting the experience and possibilities. With the transformation of the media like poster and finding his place adapted by the virtual reality technology, a variety of new ways of inheritance of cultural achievements can become more approachable, also suitable for the needs of the age of network and information, which will inevitably promote the values of art and culture.

People have used media for millennia, but today's media is more appealing to the senses. Virtual reality tricks the brain into believing that digital events are occurring... It affects practically every aspect of life, including social contact, education, entertainment, and almost all aspects of existence. According to psychologists, this is referred to as "mind wandering." Daydreaming, imagining, and other forms of mental amusement have always been popular among humans. In terms of sight, sound, feel, and odor, virtual reality allows the mind to go to places that appear to be as real as their actual equivalents.

Acknowledgments

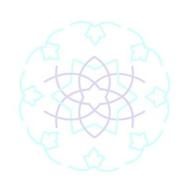
The research has examined the function and benefits of virtual reality as a new technology in cultural institution and heritage inheritance, as well as the new techniques of integrating or introducing the poster as a tool for virtual articulation and addresses the use of this new technology in virtual transformation allowing the poster medium to reaffirm his functional aspect in the new realm. Also, it will reaffirm the role of the poster as a link between transformational concepts and human attachments to visual messaging from 2d to 3d reality.





The creation and innovation of design values by enhancing the cultural heritage is a critical strategic goal for improving cultural soft power in new times, improving people's cultural quality, and creating powerful cultural tides. New technology has opened up new possibilities for the development of cultural heritage.





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