

## Virtual Reality. What's New?

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**Abstract:** Today, we speak much about virtual reality, arrange conferences and round-table discussions, deliberate about this issue at the seminars. But in fact, what's new the computer virtual reality has brought to us? At first glance, the answer is obvious: virtual reality itself is something new and unknown. And what if we look deeper? What is fundamentally new something unknown before the people got after the invention of the computer virtual reality if we discard the emergence of new technical devices? We shall try to answer these and similar questions in this study. We shall determine the "innovations" of virtual reality having appeared in space and time and in the means of transmitting information in the cyberspace. As well as the problem of self-identification of a person getting into virtual reality. We shall find out how the network society differs from the same in the constant reality. Finally, we shall determine the core values of the virtual space.

**Key words:** Virtual reality, cyberspace, network society, space and time, self-identification, values

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### INTRODUCTION

Today, we speak much about virtual reality, arrange conferences and round-table discussions, deliberate about this issue at the seminars. However, in fact, what is new the computer virtual reality has brought to us? A similar question was aroused at the one of such conferences. At first glance, the answer thereto is obvious: virtual reality itself is something new and unknown. What if to look deeper? What is fundamentally new something unknown before the people got after the invention of the computer virtual reality if we discard the emergence of new technical devices? Nothing, perhaps? We shall try to answer these and similar questions in this study.

Let us explain the terms which we shall use. Virtual reality or cyberspace (both terms will be used) should be understood to mean the technologically created reality. A world, traditional to us will be a constant reality as is a common name in virtualistics (a scientific discipline dealing with the issues of virtuality and virtual reality).

For a start, we shall note the technical innovations received together with the virtual reality. Currently, most of the world's leading companies in the production of technical devices for computers, tablets, smartphones, etc. are working on the developments in the field of virtual reality. There have been created the gadgets such as glasses, head trackers, eye trackers, body motion trackers, data gloves, 3D controllers or 3D mice, feedback devices and stereoscopic displays.

All these devices serve the same purpose: to immerse a person deeper into virtual reality, involving more or all of the available human systems of perception of the

environment and his/her self-identification in the world. So, what is essentially new in this case, the cyberspace gives us in the context of space and time?

### SPACE AND TIME

Firstly, cyberspace has neither restrictions in the movement nor distances and is conditional. A person can move anywhere in the time allotted to the server for downloading any network resource. However, there are worlds where the distance that a player can overcome in its virtual body for the conventional time unit (e.g., per minute) is almost equal to one he/she would have to overcome in the constant reality with the help of his/her real body. But these are only isolated cases. The creators of virtual worlds use the abilities of cyberspace by reducing the distances.

A character of particular nature is created between the modern technical facilities and our consciousness. These relationships make it possible by relying upon rather poor set of perceptual data to finish the whole worlds and spaces that do not have any spatial characteristics we usually face in the physical world. (Dobychina, 2013).

In addition to four coordinates of space and time, a perceptual world is also characterized with values and meanings. The volume of the perceptual world can be changed: the line of spatial variations is determined by the peculiarities of the sensory organs, emotions have influence on the time expansions and compressions and semantic coordinates allow the perceptual world to go beyond the tangible one (Artemyeva, 2007).

Secondly, we may as well call the time in the cyberspace as conventional. It can be easily traced with the help of virtual communication. Virtual communication requires no common space and time. Both conversationalists may be in any geographical latitudes and communicate from different times due to for example, an answering machine, recorded video messages and entries in the social networks or other resources. Besides, when talking, a person may be replaced by its aspect or “part”, carrying out a halfway communication. Conversationalists leave in cyberspace only text messages and their names often replaced with pseudonyms or nicknames. During free movement, the timeline is like to split into many directions, the categories “earlier” and “later” do not work, a reader, a user can move from one fragment to another and then back to previous ones. The movement from start to end is principally impossible because the branching structure itself involves continuous movement (ShaevIu, 2012). The objects form a space and move relative to the subject or themselves. Cyberspace allows building and drawing the entire worlds having no characteristics in constant reality.

### **ABILITIES**

As for the self-identification of the person in the virtual space, no other sensory organs can be involved in addition to those common for us. A recipient also understands the position of his body in virtual reality via sense of touch, sight and hearing. Smell and taste are used less frequently at this stage. While the immersion involves the latest technical facilities, mentioned above, both identification and interactivity are stronger than if the recipient just wears headphones, looks at the computer screen, moves a computer mouse or sets a command from the keyboard.

In our opinion, the newest and most useful thing the computer virtual reality gave us is an ability. The ability to explore the world, relax and have fun, “create in the EVR any image of object, phenomenon or situation”. The researchers of the relevant papers on the future of virtual reality Sterledeva and Sterledev believe that “inventing the EVR is not random and similar to the other inventions of our time (this point of view is most common nowadays) but regular as it is related to the implementation of the deep human nature, namely, our need for freedom and the ability therefor”, i.e., it gave us an opportunity to implement our requirements of freedom. In addition, despite an image of his/her modified body in a virtual reality, the corporeality problems do not bother the user which means that virtual reality made it possible go without corporeality. The user can easily recover after the

death and that means blurring of boundaries between life and death which cannot be overcome in constant reality. Another ability is the overall simulation. “A human creates this world strictly for himself which means that he will be able to create in the EVR any images of any type of the world or person and any type of relations”. Moreover, cyberspace does not contain many of the limitations of the material world, allowing a person to be a reflection of his/her own mind able to overcome immediately huge distances and have access to a huge information reserve.

### **NETWORK SOCIETY**

The phenomenon of social interaction in cyberspace has a number of both similar and quite unique phenomena as compared with social interaction in the constant reality. Cyberspace has contributed to the creation of the network society that appears to us as an aggregate of many virtual communities, arising mainly on the basis of social networks.

As a rule, virtual reality has no fundamental criteria of social stratification such as class and professional affiliation, material differences and the level of education. The unifying principles for these communities can be represented by random factors of low significance in the real world, like negative attitude to literacy (the so-called “grammar-nazi”), common musical tastes, the same car brand, etc. These factors, on the one hand, determine the mobility and instability of virtual communities and on the other hand allow developing such social relations inaccessible to a person in the reality due to the spatial and social limitations (Ziabrina and Maksutova, 2015).

As we have already said, virtual communication requires no common space and time, corporal presence, full participation as well as no need to speak from one's own name.

All communities have their moderators, editors and administrators as a certain element of authority. The moderators monitor the compliance with the rules of behavior in the community and have the right to punish the offender. In addition, they inform users about various events and sometimes send advertising. Editors, in addition to the moderator's powers, can create and delete records on behalf of the community, update the pictures and other stuff. They are mainly engaged in editing of the information provided by the community. The administrator has all possible rights, can create or delete the community. The administrator generally controls the whole work of the community, may assign members to the position of moderator and editor as well as manage any community information and applications available within this community.

Various virtual communities give the person an opportunity for self-identification, self-presentation and self-realization that is not least of human needs and therefore, implementation of these needs in virtual reality enhances the chances of their implementation in the real world.

Let us refer to the differences in the methods of transmitting information. In reality, we can use both verbal and nonverbal communication mechanisms, since we have a body whereby we can communicate. Nonverbal methods include gestures and posture, facial expressions, distance and intonation. Verbal methods are speaking-listening and writing-reading. What do we have from these in virtual medium? The main method of communication is writing reading. Speaking-listening is used less frequently. Methods of non-verbal information transmission can only be used with a body present. Some virtual worlds provide such "function" of using the body for communication. But in comparison with the reality, the familiarity and accessibility of using non-verbal communication exceeds significantly the opportunities of virtual environment.

### **AXIOLOGICAL ISSUE**

Axiological issue plays a certain role in determining the novelty of cyberspace. As in any other world, people need something to focus on to particularly cherish. In our opinion, the researchers of the study "the category of virtual reality in the social and philosophical discourse" have quite fully got onto this issue. The researchers believe that the main value in virtual reality is information and immediate access thereto. Such value as personal freedom undergoes significant changes: "on the one hand, going beyond the boundaries of corporeality, time and space and receiving unrestricted access to the informational field, a person becomes free as never before. On the other hand, virtual reality generates new technologies of remote influence on human consciousness and conditions for its manipulation." (Ziabrina and Maksutova, 2015). The value of personal communication in cyberspace is replaced by numerous impersonal relations, the amount of which exceeds greatly the capabilities of reality but comes short of quality. It is enough to use the fingers of both hands or sometimes even one to count those people being real friends.

### **SUMMARY**

Let us summarize. What is fundamentally new something unknown before the people got after the invention of the computer virtual reality?

The phenomenon of space and time in virtual reality is quite arbitrary which is not true for constant

reality. The mechanism of self-identification is similar to that in the traditional world and involves the same five senses. Methods of transmitting information are more compressed with verbal methods dominating.

However, the constant reality cannot provide opportunities such as the ability to create in the virtual reality any image of any object, phenomenon or situation; the ability to address the need for freedom; lack of problems of corporality and the ability to blur the boundaries between life and death.

Network society is formed without the fundamental criteria of social stratification. The unifying principles for these communities can be represented by random factors of low significance in the real world. However, all communities have their certain elements of authority.

Information and immediate access thereto became the main value in virtual reality. It is not true saying that we do not set a value on information. The idea of "the one, who owns information, owns the world" appeared long before the cyberspace did.

The value of personal communication in cyberspace is replaced by numerous impersonal relationships that on the one hand, creates the illusory sense of "usefulness" and on the other hand, forms the problem of human alienation in virtual reality.

### **CONCLUSION**

The conducted theoretical study serves the basis for the conclusion that cyberspace has become for us a space of additional opportunities unavailable in constant reality. However, cyberspace, like any other of human inventions, also creates a number of problems, mainly related to the rash use of and abuse these opportunities being provided to us. Therefore, virtual reality created by technical means requires further examination by experts of various humanities.

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