

## MODERN VIRTUAL TECHNOLOGY AND ITS OPPORTUNITIES

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### ABSTRACT

The article analyzes the prospects for using the capabilities of modern virtual technologies in the information system of society, the strategic importance of socio-philosophical evaluation of indicators of virtual reality manifestation, the direction of research on virtuality, the impact of virtual reality on humanity and its significance in the organization and regulation of human life.

**Keywords:** information society, Internet, virtual reality, digital technologies, transformation, social institution, e-government

### ANNOTATSIYA

Maqolada axborotlashgan jamiyat tizimida zamonaviy virtual texnologiyalari imkoniyatlaridan foydalanish istiqbollari, virtual reallikni namoyon bo'lish indikatorlarini ijtimoiy-falsafiy jihatdan baholashning strategik ma'no-mazmuni, virtuallikni tadqiq etishning yo'nalishlari, virtual reallikning insoniyat uchun ta'siri hamda inson hayotini tashkil qilish va tartibga solishdagi ahamiyati tahlil etilgan. Shuningdek, axborot jamiyati taraqqiyoti sharoitida ijtimoiy institutlar transformatsiyasi, onlayn birlashmalar rivoji va ularning an'anaviy birlashmalar bilan hamkorligi, ijtimoiy kommunikatsiya tizimi o'zgarishiga Internet tarmog'i rivoji va ta'siri hamda zamonaviy ta'lim transformatsiyasi tadqiq qilingan

**Kalit so'zlar:** axborotlashgan jamiyat, Internet, virtual reallik, raqamli texnologiya, transformatsiya, ijtimoiy institut, elektron hukumat

## АННОТАЦИЯ

В статье проанализированы перспективы использования возможностей современных виртуальных технологий в информационной системе общества, стратегическое значение социально-философской оценки индикаторов проявления виртуальной реальности, направления исследований виртуальности, влияние виртуальной реальности на человечество и ее значение в организации и регулировании жизни человека.

**Ключевые слова:** информационное общество, интернет, виртуальная реальность, цифровые технологии, трансформация, социальный институт, электронное правительство

## INTRODUCTION

In the system of the world information society, the effective use of the possibilities of modern virtual technologies is becoming more and more important.

This topic has already created virtual reality - beyond the boundaries of the field of cybernetics, and has become an object of research in fields such as social philosophy, psychology and culture.

Today, the process of wide implementation of information and communication technologies in world practice is also characterized by the virtualization of human activity. Because, as stated by M.Kastels, one of the founders of the information society, "networked structures form the basis of the modern world." [1].

The information explosion at the end of the 20th century - the 21st century is connected with new information and communication technologies, which in turn caused the formation of a new virtual reality, a new space where a person can exist. Among the technologies of virtual data transmission, its advantage is that the Internet not only transmits information, but also serves as a tool for interpersonal, group, and individual communication, and it continues to develop in parallel with the process of information collection, storage, transmission, and protection.

These, in turn, create the need to solve problems at various levels in the social-political, spiritual-cultural life of the society, education and training system.

We believe that the modern age is an informational age that creates a global media environment based on high and digital technologies, which is reflected in every aspect of our lives. As a result, the widespread use of digital economy and management methods based on it in practice has become one of the main factors in the development of the world economy. We believe that the modern age is an information age that creates a global media

environment based on high and digital technologies, which is reflected in every aspect of our lives.

### WHAT DOES VIRTUAL REALITY IMITATE?

It can be known from the researches that the problem of virtuality was first of all attempted to be based on a scientific theoretical basis in the studies of postmodernists at the end of the 20th century, to characterize the conflict between scientific and technical development and culture.

On the other hand, the expansion of the scope of this problem is related to the development of the theory of information society, according to which virtuality is defined as the main and decisive feature of modernity. Different directions of theoretical research of virtuality have been defined. On the basis of such a classification, two ontologies were defined: the study of reality and virtuality according to the ratio of concepts. Thus, three directions were defined. First, the modernity of this phenomenon of virtuality and its man-made nature are studied separately - theories of virtual reality, virtualization, as well as postmodernist theories within this topic. A common feature of such studies is the contrast between virtuality and reality. Second, this approach has become a rather broad and well-described philosophical tradition.

Virtual reality is reality. The concept of "virtual" mass media is often used in the sense of "invented", "does not exist in reality". However, in the scientific discourse, "virtuality" has begun to be accepted as a type of reality. "Virtual reality, which is being talked about a lot these days, is not just another reality that we step into from time to time, but the reality that we actually live in.

In the early stages of the term virtual reality, panorama was understood. Panorama is Greek for field of vision. There are different forms of panoramas, such as drawn, shaped, photographed and video-film types. In IT, a panorama is a 360-degree view. The impact of virtual reality on humanity is clearly manifested in organizing and regulating human life, creating a new form of communication between people, increasing the positive impact of the main spheres of society's life on the spheres of politics, economy, art and tourism, etc.

Virtuality is an object or situation that does not exist in reality, does not exist in reality, but can occur under certain conditions. In virtuality, these conditions are implemented in different approaches. Ontologically speaking, we can learn that virtuality means a certain potential state of being, the existence of a certain active principle in it, a tendency to the occurrence of certain events or situations under certain conditions. With the help

of modern technical means, we can even dive deeper into virtual reality, in which we as a subject cannot separate the things and events of the real and virtual world from each other. Because this world affects a person directly through his emotions.

What VR imitates Virtual reality (VR, English virtual reality, VR, artificial reality) is a world created by technical means, transmitted to a person through his sensations: sight, hearing, touch and others. virtual reality?

Virtual reality simulates both exposure and responses to exposure.

To create a convincing set of sensations of reality, a computer synthesis of the properties and reactions of virtual reality is performed in real time.

Virtual reality objects usually behave close to the behavior of similar objects of material reality.

The user can influence these objects in accordance with the real laws of physics (gravity, water properties, collision with objects, reflection, etc.).

However, often for entertainment purposes, users of virtual worlds are allowed more than is possible in real life (for example: fly, create any objects, etc.).

Virtual reality should not be confused with augmented reality.

Their fundamental difference is that virtual reality constructs a new artificial world, while augmented reality only introduces individual artificial elements into the perception of the real world.

Technical tasks that are solved when providing immersion in virtual reality:

- \*Image Broadcast ○ VR Headsets ○ MotionParallax3D Displays
- \*Virtual retinal monitor
- \*Sound broadcast
- \*Simulated tactile sensations ○ Leap Motion ○ Gloves ○ Controllers
- \*Tracking ○ Optical ○ Ultrasonic

## STRUCTURING OF VR

Although there is a classification to define a specific type of "reality", there is also a classification by types within the concept of virtual reality [3]

Passive virtual reality - an autonomous graphic image and its sound accompaniment, not controlled by a person. Exploratory virtual reality - the ability to select options for image and sound scenarios provided to users in a limited number.

Interactive virtual reality (interactive virtual reality) is a virtual environment that the user can control and manipulate according to the laws of the synthesized world using special devices with the tracking function.

Tracking in virtual reality is a special technology that underlies human interaction with the virtual world.

It is aimed at accurately determining the coordinates and position of a real object (for example, a hand, head, or device) in a virtual environment using three coordinates (x, y, z) of its location and three angles (a, b, g) that specify its orientation in space.

## APPLICATIONS OF VIRTUAL REALITY

Virtual reality is becoming more and more popular.

Despite the fact that the initial impetus for the development of VR was received from the gaming industry, in recent years VR has found its way into areas such as medicine, military affairs and astronautics.[4]

Virtual reality differs from objective reality, including our everyday life, because it is a specific state of consciousness. Similarly, virtual reality technologies are researched in the system of philosophy, psychology, aesthetics and social and humanitarian sciences in general. From this point of view, now it is of urgent importance to research virtual reality technologies, to determine the criteria of their application, their role in knowledge and practical activities, their relationship with the category of probability, the nature of virtuality in general with the properties of the universe and existence. According to B.V. Markov, telecommunications technologies enable democratization at the transnational level.

A unique definition of virtual reality is given in S.S. Khoruzhii's article: "Virtual reality, virtual events always have the characteristic of partially realized and relative existence, and are characterized by the lack or non-existence of one or another event of empirical reality". The fundamental research on the phenomenon of virtualization is the monograph "Virtualization of society" by D.V. Ivanov. It explains the logic of virtual reality as replacing real objects and actions with images - simulations. The author distinguishes three main characteristics of virtual reality: immaterial effect (what is depicted creates the effect of existing objects); conditionality of parameters (objects are artificial and changeable); ephemerality (freedom of entry/exit, i.e. allowing for re-existence in case of interruptions). Also, the author offers solutions to several problems in the work.

## CONCLUSION AND DISCUSSIONS

First, in order to apply the dichotomy "real/virtual", it is necessary to observe and research the genesis of social reality. Secondly, in order to create a model of social changes such as "from reality to virtuality", it is necessary to generalize various empirical phenomena. Secondly, social changes such as "from reality to virtuality" can provide a solution

to this problem as a result of research on the processes that took place in the 20th-21st centuries and formed the social core of the proposed concepts - virtualization can provide an example and a single principle of social changes. In order to create a model, it is necessary to generalize various empirical phenomena.

Thirdly, in order to determine the theoretical status of the concept of virtualization, it is necessary to compare it with the models of society transformation used in the modern socio-humanitarian field. So, we can say that the ontological nature of virtual reality and virtualization mechanisms is still in the process of understanding and understanding in the modern scientific world. The main part of the research is carried out within the framework of electronic virtual reality, and when the researchers talk about this process, i.e., the new view of the transformation of society, about its "virtualization", they mainly mean the virtualization related to the space of the Internet network.

Today, we are witnessing that the virtual space is increasingly covering the human socio-cultural sphere and how true the above scientific hypothesis is. On the one hand, technical support creates the necessary conditions for socio-cultural activities and provides the necessary weapons, on the other hand, the availability of such weapons to everyone does not leave the need to turn to experts in the field. For example, opening a page of an event on a social network can certainly arouse great interest in the Internet audience. But on the other hand, the virtual world also attracts those who are eager to attend the event in reality. Because it is possible to observe every event without going, without spending financial, emotional and physical effort. According to F. Hammit, virtual reality is "a direction created on the basis of a "friendly" functional-interactive interface for human action in the world of electronic information.

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