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**VIRTUAL REALITY AS TRANSFORMATION OF MATERIAL  
REALITY**

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***Abstract***

During the second half of the 20th century, a completely new phenomenon has appeared in life of modern humans that was named virtual reality. Many philosophers, psychologists, educators, public figures have been trying to reduce the essence of the virtual reality. The concept of the virtual reality appears as a result of scientific research in the field of quantum physics, in computer science, aircraft engineering, etc. Currently, many companies are involved in marketing and advertising of various virtual systems that are based upon scientific developments. Mass consciousness of a specific consumer is filled with a concept of possibility of virtually the same emotional feelings and experiences with respect to the virtual reality as in the normal physical state. Information space of the modern society is largely different from that of industrial one and vastly so from the traditional society. Modern society's information space is a virtual reality. Most philosophers agree that development of the modern humankind is impossible without development of information and communication technologies, however, immersion into virtual reality becomes a source of social risks and threats to the society itself. As a result, the virtual reality is perceived as the actual reality, where a person may experience the same emotions as in the actuality. Virtual reality is an artificial environment created by the person him- or herself. The virtual reality has a powerful and completely unpredictable effect on the human psyche.

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## 1. Introduction

The paper analyses the knowledge of virtual reality as a modern socio-cultural phenomenon and established its features. The virtual reality is characterized with dynamism and variability. The virtual reality interacts with the society and naturally leads to fundamental changes in the socio-cultural life of the modern person.

The virtual reality forms a new type of culture, so-called *cyberculture*, where a specific virtual communication is build between persons.

The virtual reality is a certain intermediary between th material world and the subjective world of the modern person. Quite often the virtual reality substitutes the physical, material reality in the modern world.

## 2. Problem Statement

One may say that reflections on virtuality started in antiquity, in teachings of Aristotle. The classical Aristotle's teaching includes a triad, that is, a unity of three principles: possibility – energy – actuality (entelechy). Aristotle presents the triad as a some kind of an integral whole, describing the possibility transforming into actuality by means of energy. For instance, Orlov (1966), professor of Saint Petersburg State University of Aerospace Instrumentation, compares Aristotle's energy with the virtual reality (a phenomenon of virtual). The energy on itself is capable of multitude of things, which is, in his opinion, *a being-in-action*, a *being-in-deed*, but not the *material being* itself.

The virtual reality as a phenomenon of social being became possible in the second half of the 20th century due to development of information and communication technologies. The virtual reality arises and forms in the era of post-industrial (information) society). The post-industrial (information) society has been studied by Castells (2000), Bell (1999), Agazzi (2012), Wiener (1983).

During the 20th century, many philosophers (P. Davis, W.Clifford, A. Pais, K. Hübner, E. Cassirer) were comparing the virtual reality to a physical vacuum. It was largely stimulated by the works of physicists studying the quantum world.

Western philosophers of the 20th century (W. Bricken, M. Krueger, J. Gibson, J. Baudrillard, G. Deleuze, F. Guattari, U. Eco and others) believe that the origins of the arising virtual reality are more related to anthropological foundations of the modern human life, rather than to ontological foundations of being.

Philosophers abstract the idea of virtual reality from its technical implementation. Virtual reality may be interpreted as a set of objects being modeled with real processes, where the content and form of the objects are not the same as those of the processes. Existence of the modeled objects is commensurable with the reality but is seen as separate from it. Virtual objects are, of course, existing, but not as a substance of the real material world. These objects are quite actual, but have not potentiality.

Virtual reality always depends on the physical material reality; if the material reality disappears, the virtual reality ceases to exist as well (Danilova & Nikitin, 2018; Nikitin, 2018).

The following attributes of virtual reality may be identified: generatedness (virtual reality is always formed by some common material reality); actuality (virtual reality exists in practical sense here and now); autonomy of the virtual reality; interactivity.

Taratuta (2007) in his book *Philosophy of Virtual Reality* states that in the modern culture the meaning of virtual and virtual reality inherits all the principal possibilities of constructing a physical, material reality.

### 3. Research Questions

We may justly consider the modern society to be a society of knowledge, that is, influence of knowledge onto formation of a modern person has a large role in the modern society, but in the information society the knowledge is often transmitted as information. Information is not necessarily the knowledge that a person needs in a given moment of time, but there are more and more of both information and information streams around. As a result, the modern person often loses the boundary between information and knowledge; the opinion that Internet may give answers to practically any question is quite wide-spread.

In the modern post-industrial (information) society, intellectual labor gains more and more importance, unlike physical labor. However, recently, due to a large information stream, information processing has become an especially important component of the intellectual labor. Information is a non-substantial, immaterial resource, but thanks to information, changing and transformation of the material reality becomes possible.

In 1973, Bell (1999) called the modern society “a knowledge society” in his book *The Coming of Post-Industrial Society*. Agazzi (2012) highlights that the modern economy and society demand not any kind of human knowledge, but only digitalized knowledge. This type of human knowledge arose in the digital age and allows getting palpable economic profits.

Manuel Castells refines, that during the information age, information becomes both raw material and product of the modern society (Castells, 2000).

Sean Sayers, professor of philosophy in European cultures and languages in the University of Kent, UK, is convinced that despite prevalence of information in the modern society and virtualization of the modern life, the society largely retained material nature of labor.

### 4. Purpose of the Study

In this article we are attempting to answer the question: Is virtual reality a new form of material reality or is it only a part of subjective reality of the modern person.

A short period of time is typical of virtual reality. Speaking philosophically, a virtual reality event has no duration or its duration is infinitesimal. That is, the virtual reality event takes place momentarily, in a single moment of time. The virtual reality event cannot exist on itself, without a material object or subject.

If we turn our attention towards the philosophy of Heidegger (2003), in *Being and Time* he wrote of certain events devoid, on his opinion, of duration and stable presence. Heidegger held that such “events” are estranged from the essence of the material item.

Nicholas of Cusa (2002) in his his *The Vision of God* uses the word *virtually* while trying to define the nature of God or all things living in the “mind’s eye”.

In the philosophical teachings of Aquinas (2004), the category of virtuality is also quite important and significant, as it is used to resolve the issue of co-existing realities of different levels and the issue of

forming complex things out of simple things. In Medieval scholastics, the word *virtus* were used to define a relation between the higher and the lower realities.

In the Modern philosophy, all material objects were deemed only natural, physical objects, thus there were no reasoning on any virtual realities.

For example, ancient Greek philosopher Plato stated that ideas are visible, that is, he assumed that there is a possibility for humans to distinguish or see the essence of ideas (Plato, 1990-1994).

Floridi (1999) proves that virtual reality helps modern person to overcome logocentrism of material being and presents the person with “being-in-possibility” (potential being). A person may create their own being applying various methods of transcending.

Influence of the virtual reality onto the modern human culture demands analysis.

Virtual reality is created by certain means of audiovisual communication and information; in a certain sense it has become an umbrella term for many phenomena of the modern culture. A new type of modern information culture is impossible without the global Internet, digital technologies, media space, hypertext, computer product and various formats of graphic communication.

One may establish that development of the digital culture leads to a breakthrough towards a new social reality where artificial intelligence is found side by side with a human individual. For instance, Western European philosophers analyze the mutual relation between the human mind and artificial intelligence.

Many philosophers of the 20th century identified positive and negative features of the modern information culture that is formed under influence of virtual reality.

Among the positive features are:

- dynamism;
- variability;
- interactivity;
- «generatedness»;
- autonomy.

The following may be included with the negative features:

- decentralization;
- destruction;
- “dissipated attention” of an individual in the «virtual reality»;
- derealization;
- identity crisis of a human personality.

By now, several interpretations of virtual reality have formed:

- systemic-disciplinary approach that includes integration of approaches and paradigms characteristic of computer science, robotics, artificial intelligence studies, synergetics, psychology and ergonomics;

- *virtual realities* are seen as a form of different discourses (culturological, religious, prosaic);
- *virtual realities* are interpreted as complex technical systems.

## 5. Research Methods

In this article we used philosophical comparative studies discussing points of view of different philosophical schools and currents of the 20th and 21st centuries that had analyzed post-industrial (information) society and virtual reality.

Dialectical method of studying the *virtual reality* in the modern philosophy allows researching the genesis and peculiarities of transformation of the *virtual reality* during interaction between the technology and the human mind; analysis of conceptual network that cover the *virtual reality* together with synthesis allows revealing a complex system; interdisciplinary approach of philosophical issues in technology and psychology identifies the specifics of relations between the technical, social and psychological realities; postmodernist vision allows characterizing the modern culture as a *virtual culture*, a *cyberculture* with a multitude of different *simulacra*.

## 6. Findings

Results of this research will help in studies of the modern culture, as well as in identifying the results from influence of the virtual reality onto social development processes, as well as peculiarities of changes in human consciousness in realities having being artificially created by humans.

## 7. Conclusion

One may conclude that virtual reality is a part of the material reality, as it is created from the material components (magnetic media, charged particles) during a conscious human activity. Objects created thanks to the virtual reality allows modeling subjective reality of a given person. Currently, interactions between a person and the objective material reality have become more complex, as the person has to interact with an intermediary between the objective reality and the subjective reality, so-called virtual reality. Eventually, the virtual reality is characterized as:

- generated reality;
- type of symbolic reality;
- gnoseologic reality, or a union of subjective and objective;
- reflection of a reflection;
- kind of objective being;
- union of the material and ideal realities;
- objective existence of systemic attribute as a variety of virtual being;
- type of being in non-existence;
- nothing, possible worlds.

The virtual reality affects all the human organs of the senses, in this case human consciousness gets traits of polymentalism, that is, a certain duality in perception of the world around.

Many philosophers of the 20th century agreed that the breakthrough of human into the virtual reality is related to a kind of rebellion against natural, social and technical reality. In the virtual reality everything is much simpler, easier to understand and approach, as most of the complex issues in the virtual reality solve themselves (while the person makes almost no effort).

Naturally, the virtual reality affects spiritual culture and the inner world of every person, one may say, deforming (transforming) the physical, material reality.

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