COMMENTARY

Aspects of information and spiritual similarity of real and virtual spaces

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Abstract: The results of numerous studies demonstrate the possibility of using the same approaches to studying real and virtual space in the context of their spatial perception. The study of virtual space can be carried out using the same parameters as physical space, and they should be considered equivalent. Virtual space is only one of the strategies for information copying of real space, the result of an irresistible human need to expand the horizons of research. Virtual space does not pose any threat to reality if we interpret the virtual environment as a transformation of the real environment, a new way of studying the mutual penetration of the virtual and real worlds. Learning to navigate in virtual space leads to safer life in real space.

Keywords: spatial perception, virtual environment, information field

1 Introduction

The spatial location of objects, the layout of the environment, and the boundaries of real and virtual environments are perceived in the same way. These processes are supported by a network of brain regions, including the hippocampus, retrosplenial cortex, striatum, and entorhinal cortex, to form representations of the environment and successfully navigate it [1, 2]. Studies have shown that similar neural networks are active even during navigation in virtual environments [3]. The data suggest that in the spatial domain, the same neural architecture is involved in the perception of real and virtual space.

Research has also shown that virtual experience is an effective tool for shaping human behavior in response to social, stressful, and potentially dangerous situations. Research has confirmed the similarity of neural systems and mechanisms in real and virtual environments using neural imaging, electroencephalogram, and electrophysiology. The hippocampus plays a critical role in spatial perception and contains a network of neurons dedicated to encoding space [2]. Similar neural networks in the hippocampus are also active during spatial perception of a virtual environment [3].

Spatial navigation is assessed using virtual environments. It is divided into two types of navigation strategies: allocentric and egocentric. Allocentric navigation describes how cues in the environment relate to each other (map). Egocentric navigation describes how cues in the environment relate to the individual (set of directions). The hippocampus and surrounding medial temporal regions of the brain are involved in the formation of allocentric representations of space. The caudate nucleus and other striatal regions are required for the formation of egocentric representations of space. In humans, similar regions are active during navigation in real environments. Regardless of whether spatial navigation was performed using simple visual inputs (computer screen and joystick for movement) or using more enriched body movements (treadmill and VR headset), the neural networks underlying spatial movement were similar.

In all experiments that included both real and virtual environments, no evidence of differences in the formation of associative dynamic sequence spatial-temporal cognitive maps, navigation was found on spatial abilities. Spatial perceptions were well transferred between real and virtual experiences [4].

2 Information similarity of real and virtual space

Human interactions with the real and virtual environment have an informational status. By exploring the spatial relationships between real and virtual experience, we begin to study how identical the spatial perception of the virtual environment is to the real environment. Objects of

nature and objects of conscious activity have a common basis - they are all created based on the laws of nature, and are subject to the same basic principles. Nature does not build houses, artificial satellites, or paint pictures, but all this is done by people based on an understanding of the functioning of the laws of nature and cannot contradict them. For example, to violate fundamental electromagnetic interactions: gravity, etc. Thus, the only significant difference is that objects of conscious activity were made by people based on material nature and the laws of the Universe.

The Universe can be considered as a quantum informant [5, 6]. The holographic picture of a black hole informs that its entropy, i.e. the measure of unknown information, is proportional to its surface area, not to its volume. The essence of the result is that information about a multidimensional reality can be encoded in a reality of a lower dimension, for example, a two-dimensional one, which looks like the disappearance of the dimension. Information bits contained on a plane can generate a three-dimensional image. This result can be interpreted in the sense that what we call physical material reality can be represented as digital information, real only in an abstract sense, being a complete description of this very reality, and being dual to another, physical description.

Quantum mechanics states: if something is possible, it happens. In the standard interpretation, the probability of some events may be negligible, but it still exists; on a universal scale, the probability of these events becomes 100%. Thus, nature must inevitably store information that man creates: houses, artificial satellites, paintings, including the technical means themselves, and use it. And the informational difference between real and virtual entities is erased. Virtual reality is created consciously.

All possible reality has a visual representation in the form of bits of information: it is given for observation, both in the actual and in the potential state of many life and semantic worlds of different people. There is natural reality and virtual reality, the former may turn out to be the latter and vice versa – they may be indistinguishable at a high degree of implementation of virtual reality (elaboration up to the scale of the Planck length), modeled using a quantum informant. If they cannot be distinguished, then there is no difference between them. Descriptions of the ordinary and the virtual will be identical.

The quantum wave function of the Universe already contains everything possible – and from the point of view of physics it is everything possible, both virtual and at the same time real, because there is no other reality except that which is given by the wave function. Absolutely everything is created on the basis of the same physical principles, and has one digital description at the fundamental level. Everything perceived can be considered as a single reality. Moreover, everything conceivable, with the exception of meaningless concepts, can be considered real, if we admit that it is impossible to conceive of something unreal, contradicting the laws of nature, including what they could be from the point of view of physics and mathematics. In this case, there is nothing unreal, and everything that is visually perceived, everything for which there is a sign that has the meaning and sense that we give it, is real.

It is the mind, as Vernadsky saw and understood it, that is capable of introducing a person into a new state of unity with the noosphere. Florensky believed that there is a certain information field with which the human mind can interact. In his works on the noosphere, Vernadsky often repeats that in order to achieve unity with the biosphere, a person needs a high degree of information capabilities. Consideration of the issues of the noosphere as an information space is becoming one of the most important problems of our time. That rationality that Vernadsky relied on, describing it as the main quality of a person in the noosphere, as that with the help of which the unification of man and the biosphere is generally possible. Vernadsky considered the noosphere a special information shell that develops above the biosphere.

Vernadsky defined the noosphere as an information state of the biosphere and described it as a planetary sphere of reason, on which the rational activity of mankind is carried out [7]. The term "noosphere" was first used in the works of Pierre Teilhard de Chardin in 1922 in his "Cosmogenesis". Tsiolkovsky K. E. in his "cosmic philosophy" outlined almost all the main directions that underlie the noosphere. The main thesis of his works can be expressed as follows: the infinite, eternal universe continuously generates and accumulates information of different quality. This information is indestructible and eternal as the Universe itself, as the entire infinite cosmos.

According to Russian scientists G. I. Shipov and A. E. Akimov, "the last natural element underlying the Universe and already used in practice are the so-called torsion ("twisted") fields, allowing for the instantaneous dissemination of information. These torsion fields bind together

all natural hierarchies

The torsion theory of the Universe proposes the continuous accumulation of information in the universe, its instantaneous dissemination and the possibility of being read by an intelligent being at any point in space. Moreover, according to the laws of holography, any material microscopic structure contains and allows for the reproduction of information about the entire universe.

3　Information field of the Creator

Information is the substance of the Creator, through which he manifests his essence in the Universe. The Creator manifests himself and his presence through the information field and information flows and the energy of these flows. The information field is the way of manifestation of the Creator, information about the entire Universe.

The first property of the information field is its indestructibility. It does not disappear, its Information serves as the root cause of physical phenomena, such as space, energy, time. The second property of Information is the ability to produce information similar to itself in the form of existence, as well as the ability to transition to completely different qualities. Information can create Space, conditioned by time, energy, make the transition of an immaterial entity into a material entity. The information field of the Creator is a kind of generator of everything that exists and .information about it, carrying a semantic calculation.

Information exists everywhere in the space-time continuum, and is an integral function of consciousness. Information is the cause of changes in space and time... the cause of matter in any form: material - subtle and dense, energy - subtle and dense, field. In short, information is the cause of the existence of the Universe. Information exists at any point in space, it has a holographic structure, i.e. at any point in space there is all the information about the entire Universe. The Universe, containing an infinite content of information, is filled with energies of various qualities and different quantities. The information field of the Creator is distributed knowledge. The consciousness of the Creator was the first organizing factor [8].

Knowledge is a proven result of comprehension of reality; a system of information about the laws of development of nature. Absolute Knowledge is Information for all levels of the Universe, just as the knowledge existing at its specific levels is information for all lower levels in the Hierarchy of consciousness. Consciousness is the process of meaningful perception, understanding and reflection of reality, i.e. the process of transforming information into knowledge.

Thus, the Information Field of the Creator represents the Absolute Knowledge about the process of formation of the Universe, which is the product of the activity of the Consciousness of the Creator, being at the same time Information for the entire Universe, as a guide to implementation by consciousness.

4　Informational spiritual approach to consciousness

Consciousness is connected with the information environment in which the model of reality is formed. The connection of consciousness with information and the information environment unites consciousness and memory as a storage of information in the information environment. The information environment is a system formed from information objects that represent a reflection of fixed or updated properties of real objects. Information objects themselves cannot be a source of processes in the information environment. This requires a change in the properties of real objects that are reflected in the form of information objects. This change can be direct or through other information objects, both those belonging to the same information environment and to other information environments. For example, the reflection of biological, social or economic objects in the information environment is not a full reflection of real objects, since they have a significant information component. This information component is added to information objects by its modeling in the information environment by consciousness.

The most important feature of the information environment is that the main part of the information objects that form it are reflections of the properties of objects from the real big world, which is the main object of cognition and construction of a model of reality. Consciousness can be qualified as a simulator of reality, a means of modeling reality. Consciousness is connected with reality, limited by its forms and laws, but is not its mirror image and therefore is capable of generating in the form of information objects what exists in the real world. Information objects

are formed by consciousness from many reflected different interconnected properties of real objects.

An important part of the information environment is accumulated knowledge, existing in it as constant or updated information objects depending on the spiritual improvement of consciousness and awareness of the spiritual nature of the entire world, which manifests itself everywhere: both in man himself and all living beings, and in all phenomena, objects and processes. Spiritual nature is perfected by God, and therefore, manifested in consciousness, it will give access to the information field of the Creator.

There are no concepts to define the information field and information of the Creator. Time in it is represented by the signs of a dynamic, changeable space. It is possible to interact with the information field of the Creator through spiritual vision and consciousness. Knowledge of the lives of saints helps to form spiritual vision, spiritual life, spiritual consciousness, accumulate spiritual experience and interact with the information field of the Creator through the Holy Spirit. Comprehending through the Holy Spirit the width and length, height and depth of the teachings of Jesus Christ, we move towards godlike perfection. His wisdom, acting in us through the Holy Spirit, creates more perfectly than we do with our abilities. He directs our thoughts and desires according to the will of the Creator according to His plan. Man becomes a creator in the Universe. When our spirit unites with the Holy Spirit, we move to the spiritual information form of creativity. The information of the Creator through spiritual consciousness becomes creation of perfect reality.

Real information space is a substance in which living information is created, moved and consumed. The space of living information is a communication environment for living information objects. They are branches of a universal wave function, the amplitude of which determines the degree of interference. Living information objects interfere in accordance with the state of objects in space. Relations between them are determined only by content. Spiritual consciousness transforms coherent living information objects, forming reliable semantic information objects about reality in memory. Spiritual consciousness evaluates changes in space in a timeless information paradigm, in contrast to secular consciousness, which evaluates changes in space in a time information paradigm. [9, 10]. Informational semantic objects of spiritual consciousness are similarly correlated with changes in the states of space.

5   Conclusion

According to the Revelation of John the Theologian - Apocalypse: what will happen to people in the last times will be explained by their spiritual state, and will be conditioned by the information field in which humanity will find itself. The information space of Satan, removed from the Holy Spirit, gives birth to mortal reality through unrighteous consciousness. Electronic money, systems with AGI, tracking systems, information Internet resources - all this creates a certain ideal system of governance. Management of the state, the masses, and above all human consciousness.

In the information field of the Creator, physical and semantic manifestations permissible for implementation are recorded. Psalm 18:3 describes the natural methodology of the systemic process of cognition for the improvement of life in space, in accordance with the spiritual nature of consciousness. Everything in space is connected through information. Everything is permeated and can be represented by information. Information is the fundamental basis of interaction, as a single essence of the Universe.

Spatial information about the Universe is stored in the information field of the Creator. According to the author of the article, the information field exists and functions according to spiritual laws. The soul enters information about life into the information field of the Creator day after day. According to Psalm 18:3, day after day the soul activates consciousness, at night knowledge opens to the soul for good daytime requests of consciousness. Consciousness is a tool for processing information from interaction with the real and virtual environment. Information interaction of a person with the environment is carried out by the soul, which, in accordance with desires and the information environment, animates human activity through a complex spiritually rational system. The soul is constantly interacting with the information field of the Creator, requesting the necessary information. The information field is the information memory of humanity. Each person has an information promise in it, which records information about his spiritual life.

The interaction of a righteous good soul with the information field of the Universe allows one to obtain additional reliable information, to form a more objective spatial information

similarity of navigation in real and virtual space [11–15]. At the current stage of technological development, reliable useful information and information similarity of navigation in real and virtual space are of current importance for the development and revitalization of perfect virtual systems with AGI [16, 17]. Perfect virtual systems with reflexive AGI are focused on reliable information, unlike modern generative intelligent systems (GenAI), which cannot yet distinguish fact from fiction.

AGI and robotics are coming together to create innovative solutions for controlling robots, enabling them to adapt to different environments. OpenAI's commitment to advancing artificial general intelligence (AGI) is evident in its efforts to develop complex robotics solutions. OpenAI and Figure have unveiled a groundbreaking AI robot that is fully autonomous and interacts with humans. The robot's built-in cameras interact with a visual-language model. The robot can follow commands, find objects, and hand them over to humans. Reflexive AGI will help multi-sensory robots demonstrate natural intelligence capabilities [17].

Reflexive AGI will help multisensory robots to more fully demonstrate the behavioral capabilities of natural intelligence [17]. Interference animation of information images of virtual space using spectrographic and holographic technologies, independent of time, reliably models the interference animation of similar information images of real space.

Conflict of interest

The author declares there is no conflict of interest.

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