

ABSTRACT

for the dissertation submitted for the degree of Doctor of Philosophy (PhD)
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«Systems of humanity: world virtual analysis»

General Characteristics of the Study. This doctoral dissertation is devoted to the investigation of virtuality as a system-forming element in the interpretation of human existence. At present, technological virtual reality constitutes a distinctive environment of life, encompassing virtually all spheres of human activity. As a result, it is no longer merely a technological interface but transforms the very foundations of human perception, communication, identity, and social practices. At the core of the dissertation lies the concept of virtuality as a structural property of consciousness and human systems, expressed in the capacity to reproduce potential worlds and meanings that are not reducible to empirical or technical being, yet possess the ontological status of possibility and reality for the subject. Within the framework of neurobiology and the philosophy of mind, it is argued that virtuality should not be regarded as a secondary phenomenon in relation to reality. Rather, it is from the outset a fundamental field within which human systems – cognitive, social, cultural, and corporeal – are constituted and operate.

Relevance of the Dissertation Research. Contemporary civilization, rapidly advancing along the trajectory of digital technologies, artificial intelligence, virtual and augmented reality, is undergoing a profound transformation of human existence. Virtuality penetrates the deepest structures of life – perception, memory, identity, communication, and spiritual experience—while also reshaping religion, education, politics, and culture. Already today, virtual reality asserts itself as a medium for the transformation of objective reality. At the same time, its influence on the spiritual and psychological world of the individual, as well as on the broader complex of human culture, may carry negative implications. The dissertation emphasizes that virtuality must be considered not only as a product of technology but also as a fundamental property of consciousness and human systems. It manifests in the ability of consciousness to construct imaginary, symbolic, and cognitive worlds that shape perception, identity, social relations, and spiritual life. This calls for a philosophical analysis not merely of technological aspects but also of the ontological, epistemological, phenomenological, and linguistic foundations of virtuality. In a context where social institutions and forms of spirituality are adapting to cyber-reality, scientific knowledge of the nature of the virtual remains fragmented, which underscores the relevance of a comprehensive philosophical analysis of human systems in a world constructed through digital technologies.

Object of the Research. The object of the research is human systems, understood as an integral form of organizing experience, embodiment, consciousness, communication, and social structure in the context of the emergence and manifestation of the phenomenon of virtuality.

Subject of the Research. The subject of the research comprises the ontological foundations, epistemological premises, and phenomenological dynamics of the

transformations of human systems within the virtual world, as manifested in changes of subjectivity, modes of perception and representation, cognitive structures, mental models, and cultural-symbolic codes.

Purpose of the Research. The purpose of this dissertation is to conduct a philosophical analysis of the transformation of human systems within the conditions of the virtual world and to identify the ontological, phenomenological, semiotic, and cognitive foundations of virtuality as an environment for the formation of new forms of human existence.

The objectives of the dissertation research are revealed through the following tasks:

- ✓ to identify the essence and specificity of the conceptualization and historical-philosophical evolution of the concept of “virtuality” in its relation to key philosophical traditions;
- ✓ to systematize contemporary philosophical approaches to the phenomenon of virtuality by identifying their conceptual and methodological foundations;
- ✓ to determine the ontological status of virtual reality and analyze its phenomenological and epistemological dimensions in the context of perception and experience;
- ✓ to examine the relationship between language, consciousness, and virtuality, and to reveal their role in the constitution of human systems;
- ✓ to substantiate virtuality as a property of consciousness, disclosing its role in the formation of identity, cognitive structures, and cultural codes;
- ✓ to justify the shift from reductionism to nonlinear thinking in understanding systems, chaos, and virtuality;
- ✓ to explore the sociocultural manifestations of virtuality, including religious experience, media discourse, and the transformation of the subject in the digital environment.

Methodological and Theoretical Foundations of the Research. This dissertation explores virtual reality from an interdisciplinary perspective, integrating philosophical, linguistic, and semiotic approaches. Its methodological framework combines hermeneutic text analysis, philosophical reconstruction of virtuality concepts, comparative examination of ontological models, and cognitive-linguistic methods. The conceptual foundation of the study draws on I. Wallerstein’s world-system analysis, which addresses the interrelation between “the human” and “structure,” “impersonal forces” and “the actor,” as well as “inertial structure” and “action.” Wallerstein’s approach highlights the conditions under which a system can be consciously reoriented at a point of systemic bifurcation, emphasizing the possibility of human agency within structural constraints. Special attention is given to the methodological implications of G. Fauconnier’s theory of mental spaces and Th. Metzinger’s self-model theory of subjectivity. These frameworks complement the analysis of virtuality as both a phenomenal experience and a mode of self-constitution of consciousness in the digital environment. The study also employs semiotic analysis to uncover the structural features of virtual discourse and its influence on the interpretation of reality.

Main Hypothesis of the Research. Virtuality is not secondary in relation to reality; rather, it constitutes an independent ontological form in which human systems – consciousness, body, language, and sociality – undergo radical transformations. These transformations can be subjected to philosophical analysis at the intersection of ontology, phenomenology, semiotics, and cognitive theory.

Scientific Novelty and Propositions Submitted for Defense

(1) The historical and philosophical continuity of the category of virtuality has been identified, which makes it possible to substantiate its role as a methodological foundation for the comprehensive analysis of virtual reality in the context of human existence. The dissertation argues that such an analysis is not only a reconstruction of the intellectual trajectory of the category of “the virtual,” but also a necessary methodological condition for the development of an integral conceptual framework capable of describing the complex technological and cultural phenomena of modernity –above all, the phenomenon of computer-mediated virtual reality. This historical depth allows virtuality to be regarded not as a derivative or auxiliary notion, but as a fundamental ontological structure, without which the interpretation of digital and immersive technologies inevitably becomes reductive.

(2) The dissertation substantiates the existence of a profound categorical shift in the conditions of both the existence and the understanding of digital reality, defined as an “onto-epistemological turn.” It is demonstrated that under the conditions of digital mediatization, simulation, algorithmic modification of experience, and the virtualization of everyday life, we are witnessing an onto-epistemological turn in which the very distinction between “being” and “knowing” undergoes transformation. Traditional categories –reality, subject, object, truth, experience, matter, form – prove insufficient for describing what exists within the digital environment, where what is programmable, modelable, and reproducible becomes a mode of being rather than its imitation. This requires a radical redefinition of the criteria of existence, a departure from binary ontology, and a transition toward an event-network, cybernetically dynamic model of being appropriate to the age of digital virtuality.

(3) Virtuality is substantiated as an ontological condition for the formation, existence, and development of human systems. Drawing on contemporary philosophical and scientific research informed by the concepts of nonlinearity, chaos theory, fractality, and systems thinking, the dissertation argues that virtuality is not merely a technological phenomenon or a modality of the imaginary, but a deep ontological condition for the existence and organization of human systems. It is demonstrated that in this context, virtuality does not appear as the opposite of the real, but rather as a pre-real or co-real structure of possibility that contains a multiplicity of potential states, which may not necessarily be actualized yet actively structure the logic of behavior, thought, perception, and sociocultural dynamics.

(4) The foundations of systems thinking have been reinterpreted – from linear causality to the philosophy of chaos and the virtual – and a methodological shift toward nonlinear thinking has been substantiated as a way of comprehending the virtual world. Contemporary philosophical thought is experiencing a turn away from the reductionist and mechanistic paradigm, which affirmed linear causality, univocal

interpretation, and discrete ontology, toward a form of thinking oriented toward nonlinear interconnections, multiplicity of states, and the dynamic nature of reality. The dissertation demonstrates that this shift acquires particular significance in the context of understanding complex human systems, the phenomena of chaos, and the nature of the virtual.

(5) The methodology of world-virtual analysis has been developed and substantiated as the foundation of an integral approach to the study of reality, taking into account nonlinearity and fractality as universal properties of being. In the conditions of the rapid expansion of digital environments and virtual forms of presence, a methodological framework is required that is capable of encompassing the multiplicity of ontological levels at which human existence unfolds. The methodology of world-virtual analysis is formulated as an integral philosophical framework that unites physical and virtual realities as interpenetrating and dynamically interconnected modalities of a single being.

(6) The most significant aspects of understanding virtuality and neurophilosophy have been synthesized in the context of the ontology of mental modeling. The dissertation demonstrates that contemporary neurophilosophy and cognitive science increasingly affirm a model of consciousness as a predictive, simulational, and reconstructive mechanism, in which mental acts do not passively reflect reality but actively model potential scenarios of interaction with the world. This opens the way toward a philosophy of mind in which the virtual is not secondary but rather the primary condition of experience itself.

(7) A methodology for the philosophical analysis of the sociocultural manifestations of virtuality has been substantiated, which has made it possible to examine religious experience, media discourse, and the transformation of the subject in the digital environment. The research identifies the specific features of sacred virtuality and religious experience under conditions of digital culture, determines the mechanisms of subject constitution within media-discursive practices, and documents the trends of transition from the user to the digital subject. The results are reflected in the author's publications: "Freedom of Speech and Self-Expression in the Digital Age: Philosophical Analysis and Challenges to Social Security" (RUDN Journal of Philosophy, 2025, SJR – 0.388); "Socially Significant Information and Issues of the Kazakhstanis' Trust in the Media" (RUDN Journal of Sociology, 2022, Scopus, SJR – 0.280), published in peer-reviewed international journals indexed in Scopus.

Theoretical and Practical Significance of the Research. The theoretical and practical significance of the dissertation lies in the possibility of applying its findings to the development of methodological tools and the theoretical foundation of both the philosophy of virtual reality in general and specific sociological and interdisciplinary studies. The research results may be employed in the design of fundamental and specialized academic courses addressing contemporary issues of social philosophy, the methodology of social and humanitarian inquiry, epistemology, philosophy of mind, and philosophy of language.

Author's Contribution to the Research. The author of the dissertation independently developed the research concept, defined its aims, objectives, and

methodological foundations, and conducted a comprehensive philosophical analysis of the phenomenon of virtuality. The final text of the dissertation was prepared in its entirety by the author in accordance with the principles of scholarly originality, theoretical significance, reliability, and academic integrity.

Relevance to the Priority Areas of Scientific Development and State Programs. This dissertation has been carried out within the framework of the research program «Kazakhstani Society in the Context of Digital Transformation: Prospects and Risks», funded by the Ministry of Science and Higher Education of the Republic of Kazakhstan (Grant No. BR21882302, 2023–2025). The timeliness and alignment of this study with national research priorities and practical needs are demonstrated by its connection to key state policy documents, including: the Concept of Digital Transformation of the Republic of Kazakhstan (Resolution of the Government of the Republic of Kazakhstan No. 269, March 28, 2023); and the Priority Areas of Scientific Development of the Republic of Kazakhstan for 2024–2026, approved by the Ministry of Science and Higher Education, which emphasize digitalization, innovative technologies, and the study of human beings and society in the conditions of digital culture.

Structure and Scope of the Dissertation. The dissertation consists of an introduction, three chapters, a conclusion, and a list of references. The total volume amounts to 221 pages of typeset text. The bibliography includes more than 350 sources, the majority of which are international publications in English. The composition and content of the work correspond to the sequential resolution of the research objectives, while its scope ensures the sufficiency of material for substantiating the principal arguments and conclusions.