



<https://doi.org/10.23939/shv2023.01.025>

ФІЛОСОФСЬКІ ГОРИЗОНТИ ВІРТУАЛЬНОЇ РЕАЛЬНОСТІ¹.
Рецензія: Chalmers, D. (2022). *Reality +: Virtual Words and the Problems of Philosophy*. New York: W. W. Norton & Company. pp. 503

Оксана Голомша

Національний університет “Львівська політехніка”
ORCID: 0009-0006-6519-3407
oksana.holomsha.pz.2021@lpnu.ua

Людмила Мінковець

Національний університет “Львівська політехніка”
ORCID: 0009-0006-0909-0366
liudmyla.minkovets.pz.2021@lpnu.ua

(Отримано: 19.01.2023. Прийнято: 17.04.2023)

© Голомша О., Мінковець Л., 2023

Рецензія присвячена новій монографії “Реальність +: віртуальні світи та проблеми філософії” відомого філософа Девіда Чалмерса. Як видно з назви монографії, в ній автор розглядає філософський потенціал віртуальної реальності для можливого вирішення філософських проблем, а саме: від онтології (проблеми реальності та гіпотези про симуляцію) до цінностей (добротою й щасливого життя у віртуальній реальності).

Ключові слова: *реальність, симуляція, цінність, свідомість, знання.*

PHILOSOPHICAL HORIZONS OF VIRTUAL REALITY².

Review of: Chalmers, D. (2022). *Reality +: Virtual Words and the Problems of Philosophy*.
New York: W. W. Norton & Company. pp. 503

Oksana Holomsha

Lviv Polytechnic National University
ORCID: 0009-0006-6519-3407
oksana.holomsha.pz.2021@lpnu.ua

Liudmyla Minkovets

Lviv Polytechnic National University
ORCID: 0009-0006-0909-0366
liudmyla.minkovets.pz.2021@lpnu.ua

(Received: 19.01.2023. Accepted: 17.04.2023)

The review is devoted to the new monograph “Reality +: virtual worlds and problems of philosophy” by the famous philosopher David Chalmers. As can be seen from the title of the book, in it the author examines the philosophical potential

¹ Рецензія підготовлена під науковим керівництвом доц. Ігоря Карівця.

² The review is prepared under the scientific supervision of Assoc. Prof. Ihor Karivets.

of virtual reality for the possible solution of philosophical problems, namely: from ontology (problems of reality and hypotheses about simulation) to values (a good and happy life in virtual reality).

Key words: *reality, simulation, value, consciousness, knowledge.*

In an age where reality and virtuality are becoming increasingly intertwined, “Reality+: Virtual Worlds and the Problems of Philosophy” by David J. Chalmers provides a thought-provoking exploration of the profound philosophical questions that arise from the realm of virtual reality. From Descartes’ evil demon to contemporary discussions on simulation theory pointed out in the book, it highlights how philosophers have long coped with the complex and persistent philosophical enigma of virtual reality. He touches upon the topics of reality and, with every chapter, shows how deep the rabbit hole goes.

David Chalmers explores the impact of technology, such as virtual reality and artificial intelligence, on our understanding of reality. The author proves the deep authenticity of virtual reality (VR) and how an exciting digital sphere can be considered a true reality in its own right, captivating readers with challenging arguments and making them think a lot about the subject. David Chalmers specifies: “The central thesis of this book is: Virtual reality is a genuine reality” [Chalmers, 2022: v].

In the beginning, the author immediately immerses readers in the history of the philosophical question: “Is this the real life?”. Zhuangzi’s butterfly dream, Narada’s transformation, and Plato’s cave lead us to three big questions: “Can we know whether or not we are in a virtual world? Are virtual worlds real? Can you lead a good life in a virtual world?”. These three questions accompany us throughout the book.

The author introduces the reader to the simulation hypothesis, but not just the one that is Bostrom’s version; Chalmers has his view of this hypothesis. He highlights his understanding and vision of this theory using references to *The Matrix*, even though you can find the idea that virtual reality isn’t genuine reality in this movie, which contradicts Chalmers’ concept.

Also, he raises Descartes’ problem and applies it to the dilemma of the virtual world. Chalmers conducts a primary and superficial analysis of our reality, as we don’t know whether or not we are in a simulation. He takes the point of view that even if we don’t know whether or not we are in a simulation, it doesn’t mean we don’t know whether or not objects are real. If we are in a simulation, at least they are made from bits and they are perfectly real. For many readers, his arguments could sound implausible, but with every chapter, the author gives more arguments why it’s true.

How do you know you are not dreaming? Is it likely that we’re in a simulation? There could be many answers, but in part two, the author focuses on these questions and provides his solutions.

David Chalmers brings to our attention scepticism, according to which we don’t know anything about the external world. Although, even if we are in a simulation, it doesn’t stop us from knowing that a cat is a cat and two plus two equals four. But how do we know what is behind the wall, behind the simulation? As in *Truman Show*, we suppose that reality is defined, but one day we realize that our “normal” life in the “real” world is not quite real because everything is being simulated. But we still know some things about the world. So, we conclude “We can’t know anything substantial about the external world”.

In addition, the author brings up the idea that we are sims – intelligent beings in a simulation. He lays the following arguments in support of this idea³:

1. At least one in ten non-sim populations will each create a thousand sim populations.

2. If at least one in ten non-sim populations will each create a thousand sim populations, then at least 99 per cent of intelligent beings are sims.

3. If at least 99 per cent of intelligent beings are sims, we are probably sims.

4. So: We are probably sims.

Although this reasoning seems to be plausible, D. Chalmers contrasts them with those that deny the existence of sims, calling these objections “sim blockers”. We can’t know for sure if human-like simulations are possible, as we don’t know whether or not consciousness and physical processes could be simulated. Moreover, it can’t be guaranteed that we won’t go extinct before being able to run simulations, and any other civilization would be interested in creating sims. However, there is still nearly a 25 % chance that we are sims.

In the next part, he gets back to the ideas of René Descartes and proves wrong one of the premises of the Cartesian argument: “In a simulation, nothing is real”, which uses simulation to justify world scepticism. David Chalmers talks about why things are still real even if we are part of a simulation.

Next, we move to the topic of reality as Chalmers suggests five ways of thinking about what’s real: reality as existence, reality as casual power, reality as mind independence, reality as non-illusoriness, and reality as genuineness. The author touches on the philosophical

³ Many reviewers draw attention to these arguments of D. Chalmers. For instance, Ch. Lassiter & A. Kagan (2022), A. J. Vaidya (2023).

implications of VR technology. Chalmers explores the question of what it means for a virtual environment to be “real”. After a long philosophical reflection, he concludes, that if we are in a perfect simulation, the objects we perceive are real if they meet all five criteria.

After all, virtual reality experiences can be just as vivid and meaningful as experiences in the physical world, raising the question of the nature of consciousness. It shouldn't make a huge difference whether objects are made from bits or protons and electrons. Moreover, if we are in a simulation, simulated photons and everything is real, according to the “it-from-bit” hypothesis. This hypothesis posits that the fundamental building blocks of the universe, such as quarks, are made of bits. The idea of quarks, the smallest known particles, being essentially composed of bits, the elementary units of digital information, presents a cutting-edge insight that invites readers to see the interconnectedness of the digital and physical worlds, the relationship between information and reality, and the boundless possibilities that arise from such a paradigm-shifting hypothesis. In a time when the overlap of science, technology, and philosophy is shaping our understanding of the world, the ideas raised in this chapter and the theories born from the “it-from-bit” hypothesis seem extremely interesting to explore both for engineers and scientists.

But what about God? If there is a simulator, we can call her a local god, since she may have world power and wisdom in our universe. But she cannot be called cosmic god because she does not have power in the cosmos as a whole. Also, the rapid pace of growth and advancement in the field of artificial intelligence is nothing short of astounding. What we have witnessed in recent years is tempting to think that in the long term, AI will be more efficient than humans. If it happens, we can assume that AI systems will manufacture many more simulations than biological ones.

The fourth part is called “Real Virtual Reality”, where readers can get acquainted with reflections on what the virtual reality we are creating now is capable of. Issues of deep fakes and fake news must be discussed on these pages, especially during these challenging times of Russian aggression, when these problems have become particularly acute. As geopolitical tensions escalate, the threat of deep fakes and fake news inflames the challenges of verifying information, which can impact public opinion and even incite new conflicts.

Also very intriguing are concepts of the Metaverse, a virtual reality space where people can interact, create, and share experiences. The pandemic has been the catalyst for the process of development of the metaverse. In recent years, there has been a growing interest and investment in virtual reality, augmented reality, and related technologies, with major technology

companies and innovators actively pursuing the development of the metaverse concept. The recent re-branding of Facebook as Meta, short for “metaverse”, has highlighted the growing importance of these new immersive technologies. Therefore, it's crucial to establish a philosophical point of view on this issue and the “Reality+” is a good source for achieving this.

However, it is confusing why the author often makes rather specific assumptions about what exactly the future will be and in what way humanity will develop. For instance, he said: “In years to come, the headsets will get smaller, and we will transition to glasses, contact lenses, and eventually retinal or brain implants”. Remember how a hundred years ago people pictured how the future would be and now we see that their ideas have little overlap with the present: there are no moving towns, no domes covering big cities, and we cannot control the weather. It's hard to predict how that's going to play out, so I would not be as sure as David Chalmers is.

In the 5th part, we turn to the question of mind and consciousness, one of the cornerstones of philosophy from the very beginning of this science. People can argue, that consciousness can't be simulated, that is why we do not live in a simulation. Today's VR technologies create even a bigger gap between body and mind, leading to Descartes' idea of dualism. Given that we live in an impure simulation, we can think of our mind and consciousness as something from the physical space, whereas our body is in the virtual world.

This brings us to another question: “Can consciousness be simulated?”. We could perfectly simulate neurons, glial cells, and other parts of the brain and then just simulate physical processes in the brain.

Moreover, it's interesting how Chalmers sees the idea of transferring the brain to virtual reality, considering two ways – instant transfer and the gradual addition of new information to form a copy. The idea of incremental shaping seems more appealing since it seems the best way to create a true-to-life replica of a person. Chalmers also believes: “That seems the best bet for surviving the process and coming out conscious on the other side”. Here is the point where we run into the paradox of the Ship of Theseus. This paradox can be formulated as follows: “If all the constituent parts of the original object have been replaced, does it remain the same object?”. Maybe, after changing one part of the brain, consciousness is lost. Maybe, consciousness suddenly disappears, after we change more than half of the brain.

But if we suppose, that every part of the brain is a perfect copy of the original, we can conclude that simulated brains can be conscious. And if that is possible, then our consciousness doesn't rule the pure simulation

hypothesis and one major sim-block also could be eliminated. David Chalmers proves why the fact that we are conscious does not refute the simulation hypothesis and does not mean that we are not in the simulation, since it is equally compatible with both realities.

In addition, Chalmers explores applications of VR technology in various fields. He examines how it might be applied to therapy and mental health care. He points out that VR therapy can completely alter the way we treat mental illness.

Chalmers contends that VR has the power to revolutionize the field of education. He believes that in the future kids will be able to experience science experiments, travel to different locations, and learn about historical events in ways that were previously not feasible.

Lastly, the author investigates how VR can transform the way we consume and experience media in the area of entertainment, offering immersive and interactive gaming experiences.

In part 6, the author reflects on how it would feel to live in a virtual world. What it's like to lead a good virtual life? To answer this question better, David Chalmers turns to various philosophical theories, such as the hedonism or philosophy of Ubuntu. He points out how higher pleasures, such as pleasure derived from arts matter much more, than lower pleasures, such as the pleasure of eating. There is an appealing idea of living in the virtual world and coming back to a nonvirtual one only to give birth.

Furthermore, the author raises ethical and societal issues about life in a virtual world and unusual questions about simulated lives. He touches on the question of whether or not simulated beings have moral values and how we should treat them based on that. If we care about moral values in simulated beings, we should treat them as if they do, even though they don't have them.

Also, Chalmers speaks of the concept of hierarchy within simulated realities, as creators of simulated worlds could be considered "gods". Despite this, he highlights that this notion of "god" is far from a conventional supernatural conception. Therefore, there is no need to worship or reverence the "gods" of simulated worlds.

In the seventh part, David Chalmers interestingly covers the idea of the representation of human perception. The idea of the Earth and the Twin Earths and how we should picture substances that behave equally but consist of different elements is fascinating. He asks the question: "Do Hypatia (studying H-O) and Twin Hypatia (studying XYZ) mean different things by "water"?" Similarly, we can compare Earth and Sim Earth, so over time we should expect that many words would shift from being virtual-exclusive to being virtual-inclusive.

Unusual is also the idea of scientific anti-realism that says that we shouldn't believe that, for example,

quarks exist. And scientific anti-realism doesn't say that they do not exist, it simply says that we should not believe in them based on just theories.

In addition, in this part, the author delves into the issue of whether we are Boltzmann's brains in a dream world, or maybe we're just a part of a local simulation (perhaps only Lviv is simulated), or a temporary one (only a limited period is simulated), etc.

Compelling is the concept of the dream hypothesis. The idea that we've been dreaming our whole lives means that our dream is our reality. It creates the perfect analog of a simulation hypothesis. If we dream, everything in our world is real. We may have different looks in the world of dreamers but it does not mean that this life is unreal.

One of the many delightful aspects of this book is how each part stands on its own, not assuming prior knowledge or understanding, making it accessible and engaging for readers of diverse backgrounds and levels of expertise. The different parts don't even presuppose each other and can be read in any order.

Chalmers' style is eloquent and engaging, making the book accessible to everyone. He delves into the philosophical, ethical, and technical aspects of VR technology, providing readers with numerous examples and real-world applications to illustrate his points.

Furthermore, one of the book's standout features is Chalmers' adept use of references from various movies, TV shows, and music, to accurately express his viewpoint. While reading, you'll see references to *The Matrix*, *The Truman Show*, *The Black Mirror*, *BoJack Horseman*, *Rick and Morty*, and others.

In conclusion, *Reality+* is an insightful exploration of the potential of VR. Chalmers' book makes readers think about the benefits and drawbacks of this technology, such as discrimination and inequality, pointing out the importance of tackling these problems as technology continues to evolve. This book will serve as a valuable resource for understanding the potential and implications of VR.

JIITEPATYPA/REFERENCES

Chalmers, D. (2022). *Reality+: Virtual Worlds and the Problems of Philosophy*. New-York: W. W. Norton & Company.

Lassiter, Ch., Kagan, A. (2022). Review of David Chalmers, *Reality+: virtual worlds and the problems of philosophy*. New York: W.W. Norton & Company, *Phenomenology and Cognitive Science*, October. URL: <https://doi.org/10.1007/s11097-022-09864-0>.

Vaidya, A. J. (2023). [Review of the book *Reality+: Virtual Worlds and the Problems of Philosophy*, by David J. Chalmers]. *Philosophy East and West* 73(1), 1–6. URL: <https://doi.org/10.1353/pew.2023.0017>.