

Natural (Human) Consciousness and Artificial Intelligence: Philosophical Analysis

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Abstract

This paper describes one of the most relevant problems of the modern age and nearest future – the interaction between human consciousness and artificial intelligence. Against the background of such rapid development of technology and, in particular, artificial intelligence, the question rightly arises about the future fate of the relationship between man and technology. This question is relevant primarily because artificial intelligence, by its roots and essence, presupposes at least the parallel existence of human consciousness with such high levels of technology that to some extent can surpass the human mind both in its cognitive potential and in terms of complete replacement the functional power of consciousness itself. In fact, artificial intelligence is a kind of carbon copy of human natural intelligence, with the only difference being that at the current stage of its development, artificial intelligence differs both in the material of its origin and in the general purposes of its application. However, as practice and rapidly developing technologies show, there will be time when the interaction of human consciousness with artificial intelligence will reach such a level when it will be possible to fully talk about the confrontation of two cognitive worlds, each of which will in some way lay claim to a partial or full control over the generation, keeping and further transmission of knowledge and information in the future.

Keywords

Technologies, intellect, artificial intelligence, mind, natural consciousness, artificial intelligence.

1. Introduction

In the modern age of rapid development of technology, the phenomenon of artificial intelligence has gained particular popularity. The widespread use of artificial intelligence is largely due to its multifaceted benefits in many sectors of the modern economy, industry, medicine, education, etc. It is no coincidence that a large number of studies are directed towards an even greater study of artificial intelligence with the aim of even more widespread application in almost all spheres of human activity since its development will enable humanity to move much forward in terms of improving, simplifying and efficient quality of life. Obviously, the widespread use of artificial intelligence has many positive aspects both in the life of an individual person and in the life of the entire society and humanity.

Against the background of such rapid development of technology and, in particular, artificial intelligence, the question rightly arises about the future fate of the relationship between man and technology. This question is relevant primarily because artificial intelligence, by its roots and essence, presupposes at least the parallel existence of human consciousness with such high levels of technology that to some extent can surpass the human mind both in its cognitive potential and in terms of complete replacement the functional power of consciousness itself. In fact, artificial intelligence is a kind of carbon copy of human natural intelligence, with the only difference being

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that at the current stage of its development, artificial intelligence differs both in the material of its origin and in the general purposes of its application.

However, as practice and rapidly developing technologies show, there comes a time when the interaction of human consciousness with artificial intelligence will reach such a level that it will be possible to fully talk about the confrontation of two cognitive worlds, each of which will in some way lay claim to a partial or full control over the generation, keeping and further transmission of knowledge and information in the future.

In this regard, in epistemology, cognitive science, and philosophy in general, a rather urgent need has arisen for a large-scale understanding of artificial intelligence as a phenomenon completely created by man and at the same time as a phenomenon that may at some point get out of control human consciousness.

This branch of understanding artificial intelligence is called the philosophy of artificial intelligence. Part of the research in this area concerns the philosophy of technology and the philosophical analysis of computer science and information. More broadly, the philosophy of artificial intelligence is closely interrelated with the philosophies of mind, cognition, and epistemology. "In addition, because of the focus of computer science on formal languages and their semantic interpretation, the philosophy of computer science draws in topics and inspiration from the philosophies of language and mind" [1]. Another difficulty also lies in the fact that due to the rapid and continuous development of the technologies themselves, the very subject and status of the philosophy of computer science, the philosophy of technology is not precisely defined [2]. Here it is necessary not only to understand the essence of information and artificial intelligence but also to be able to outline the boundaries between the philosophy of artificial intelligence as a separate branch of the philosophy of science and consciousness from the boundaries of other adjacent branches of a philosophical nature in the sphere of understanding modern problems of the scientific development of human civilization [3].

The big problem in this area is that artificial intelligence is not a phenomenon that relates purely to technology development. The use of artificial intelligence affects such areas of human activity as ethics, the nature of human consciousness, and the essence of will, emotions, memory, intuition, and everything that is still not known even in the sphere of human nature itself. Of course, observing the work of artificial intelligence provides a person with certain material for understanding the essence of consciousness itself. However, it is not always methodologically correct to reduce the behavior and certain reactions of artificial intelligence to the work of the brain and consciousness.

If we consider artificial intelligence and its philosophical understanding, then in this vein, research dwells on such points as the relationship and (1) the ability of machine intelligence to solve the same tasks and problems that are assigned to the human mind, (2) the similarity of artificial intelligence and human consciousness, (3) reducing the principles of the human mind to the mechanisms of artificial intelligence, (4) what is the role of the emotional component in human consciousness and is there any point in endowing artificial intelligence with emotions and feelings, (5) does it make sense to say that machine intelligence also asking a person about the state of affairs in general, for example, for the sake of maintaining a conversation, etc. [4] All these questions somehow imply a more global question: will there comes a time when artificial intelligence will reach such a level that it will be identical to human consciousness? In other words, is it possible to create an artificial substrate that could become the same consciousness as a human? This leads to a completely fair assumption: if the creation of artificial consciousness is possible, then when can this happen? [5]

These general questions lead to the clarification of two important points. The first is to clarify definitively what human consciousness is as such; second – to understand how dangerous the coexistence of two types of consciousness is – natural (in particular, human) and artificial.

2. The problem of consciousness and its definition

The question of the essence of consciousness is a paradigmatic question and constitutes perhaps the most important aspect of the philosophy of consciousness. Along with the essence of the mind, within the framework of the mind-body problem, cognitive sciences also study such problems as the complex problem of consciousness and the nature of certain mental states. There are many difficulties in this area of philosophy. For example, Danko Georgiev writes "The mind-brain problem is to explain how the unobservable conscious mind and the observable brain relate to each other: do they interact or does one unilaterally generate the other?" [6]. Even more complex is the whole range of problems associated with internal entities, such as qualia, intuition, memory (that is, subjective experience of a mental nature), and the like, which one way or another either enter the space of consciousness or may even constitute the essence of consciousness itself [7].

Consciousness as an object of scientific research and philosophical understanding is an extremely difficult phenomenon for many reasons. The main difficulty in studying consciousness is that, based on many scientific studies, we assume that the functionality of consciousness relates to brain activity and is largely reduced to the activity of the central nervous system. The general definition of consciousness states that it is "a state of mental life of an organism, expressed in the subjective experience of events in the external world and the body of the organism, as well as in a report on these events and a response to these events" [8]. If this is so, then the situation is complicated by the fact that today technical means and instruments do not have the full ability to penetrate the neurolinguistic life of the brain in order to reliably state that it is the work of the central nervous system that corresponds to the activity of consciousness.

In the classical interpretation, consciousness is usually understood as the process of reflection of the surrounding reality by a neurobiological substrate, i.e., the brain. In addition, here, in general, three understandings of consciousness have emerged:

1. In the broadest sense, consciousness is a general physiological function of the body, which is expressed in a reaction to external influences through the perception of objective processes and phenomena;
2. A narrower understanding identifies consciousness only with the work of the human brain, believing that only a person has the ability to consciously relate to the outside world, to himself, thereby developing not only procedures of a conscious nature but also self-awareness;
3. An even narrower understanding explains consciousness as a cognitive-mental activity inherent only to an individual person. That is, each person can say with varying degrees of confidence that it is he who carries out something that he calls consciousness, but there is no certainty attesting to the presence of consciousness in other people for the simple reason that this person is not a representative of the consciousness of another person. This is a kind of extreme cognitive-mental solipsism that takes place in the philosophy of consciousness.

A number of disciplines deal with consciousness as a philosophical and scientific problem, including philosophy of consciousness, psychology, analytical philosophy, neurolinguistics, etc. All of them pose such primary tasks as the origin of consciousness, the relationship between thinking and speech, whether consciousness exists in other animals, whether consciousness is generally beyond the boundaries of the globe, what are the maximum capabilities of artificial intelligence, neural networks, and computer programs, as well as in what state is a person's consciousness when he is still alive but does not show signs of life. As we see, these issues are extremely important, and therefore, in many ways, paramount, since the solution to these issues often determines the possibility of expanding human progress, human lives, scientific and technological progress, and much more.

Over the entire history of the study of the problem of consciousness, several large schools and movements have formed, which in one way or another influenced the development of the philosophy of consciousness and various cognitivist theories. Among others, it is necessary to note both traditional epistemological approaches, such as idealism, dualism, functionalism, etc., and non-classical approaches, such as phenomenology, emergent theory, enactivism, and others.

For example, if we consider the dualistic approach, then within its framework consciousness is conceived as an active element of the binary system “subjective world – objective world”, where consciousness is assigned the role of a representative of the subjective world. According to dualism, the world is divided into physical and mental aspects. The latter carries out a constant process of cognition of the physical, that is, the thing-objective world, but in turn, is not reduced to it. The origins of this interpretation were at one time Plato, and much later they were supplemented by Rene Descartes, whose rational philosophy directly pointed to the higher status of consciousness compared to the physical world of objects. His methodology boiled down to a radical doubt, according to which a person, as a thinking substrate, can doubt the existence of anything except the existence of his own consciousness. Thus, Descartes derived the famous formula “Cogito ergo sum” which is the process of thinking that determines the existence of the thinker, and with it the existence of the rest of the world. Both Plato and Descartes agreed with the short-term life cycle of any material thing in favor of the eternity of the existence of the spiritual world and the existence of consciousness. In the modern dualistic approach, one can single out David Chalmers, who asserts the relative involvement of consciousness in the material-objective world and the fundamental irreducibility of the sciences of consciousness to the sciences that study physical laws, computer technology, or artificial intelligence. That is why Chalmers formulated the so-called “hard problem of consciousness”, where he writes: “The really hard problem of consciousness is the problem of experience. When we think and perceive, there is a whirl of information-processing, but there is also a subjective aspect.” [7] The essence of this formulation of the problem is to determine how a certain physical object is capable of generating consciousness. That is, the difficult problem of consciousness calls for two basic questions:

1. How does the brain generate consciousness?
2. Why the brain generates consciousness?

In his works, Chalmers proposes to strengthen the methods of psychological science in order to bring the question of the nature of consciousness to a higher level, freeing it from various behaviorist influences. But he also agrees that carrying out a detailed analysis of consciousness with the aim of further creating a full-fledged science about it is more than difficult. «Consciousness poses the most baffling problems in the science of the mind. There is nothing that we know more intimately than conscious experience, but there is nothing that is harder to explain». [7]

Also of interest is the so-called *double-aspect theory* of consciousness. Within the framework of this theory, both physical and mental reality is an expression of a broader, fundamental plane, which, in turn, generates a universal reality identical to the universe. Representatives of this theory are philosophers of both classical European thought and more exotic Eastern teachings (for example, Purusha-Prakriti in Hinduism or the Buddhist concept of the Three Worlds (*Trailokya*) – earth (*Bhuloka*), heaven (*Svarga*), and the netherworld (*Patala*) [9] – which boil down to the manifestation of the universal consciousness). In particular, Benedict Spinoza was a prominent theorist of the two-aspect approach. His idea of *Causa Sui* is that reality reproduces itself by being the cause of itself. This root cause acts as a platform for the implementation of both the world of objects and the possibility of understanding and knowing these objects through consciousness.

However, in our opinion, the greatest contribution to the pure philosophy of consciousness was made by the phenomenological movement, especially by its founders – Franz Brentano and Edmund Husserl, as well as its prominent representative Maurice Merleau-Ponty. If at the early 20th century many consciousness researchers preferred the so-called introspectionism in the study of consciousness (Wilhelm Wundt), aimed at analyzing the data of consciousness by observing a person’s own experiences with the limited use of any external tools and outside the generally accepted norms for describing consciousness, then phenomenologists very soon rejected this approach, considering it philosophically naive and untenable.

Today, in addition to a purely phenomenological interpretation of the nature of consciousness and everything with which it works, two very interesting movements have emerged – neurophenomenology and enactivism.

Founded by the Chilean biologist and psychologist Francisco Varela, *neurophenomenology* in the study of consciousness gives preference to a deep, purely subjective methodology based on the experience of direct data of human thinking. In this regard, neurophenomenologists do not exclude such mental practices of self-perception as Buddhist meditation practices. Among the latter, they distinguish static meditation of looking into one's own consciousness (*shamatha*) and dynamic contemplation (*vipashyana*). Varela and his associates note high confidence in these Eastern meditative practices, stating that, firstly, they are much more effective than traditional scientific approaches to the study of consciousness through technical tools, and secondly, these ancient techniques have achieved more in understanding the subjective experience than European science over the last two or three centuries [10].

In common terms, neurophenomenologists propose a three-phase program of work on the definition of consciousness:

1. Phenomenological era (bracketing), which implies bracketing all information, norms, preferences, and theories about a person and his consciousness;
2. Intuitive immediacy, which lies in the fact that only the subject has direct access to his own experiences and the possibility of their further description. During this phase, the individual must be conscious of every aspect of his subjective experience;
3. Description of experience, when subjects need to describe their experience in such a way that it was, first of all, understandable to themselves. At the same time, he must use terminology that another person could use when describing his or her experience in a similar way so that both people can share their own experiences within the same linguistic space.

It is important to note that in the last phase, when describing the experience of consciousness, subjects should not compare their experience with objective phenomena, but explain everything in such a way that their description remains within the limits of phenomenological reduction, without any access to the objective level of identifying their experience with something external. Such a description is especially important in the sense that it does not reduce the experience of consciousness in the first person to the objectification of all subjective experiences in order to create a universal cognitive science. Reduction (reduction) to objective schemes can happen to every person who studies his own consciousness, and this, in turn, can lead to an analogy of faith in the data of consciousness with the empirical data of objective science [11].

One more direction, called *enactivism*, in our opinion, deserves special attention. In fact, due to the complexity of the object of study, namely consciousness, enactivism is a group of studies of a neurocognitive nature, which, according to the representatives of enactivism themselves, is in an open and unresolved state and is constantly being supplemented by various scientific and psychological innovations. It is noteworthy that one of the founders of enactivism was the same Francisco Varela, only within the framework of this approach he somewhat changed both the methodology and the object environment of his cognitive theory. At the heart of the enactivist paradigm is a complex pattern of interactions between the brain, body, and environment. The main ideas were outlined in the work *The Embodied Mind* (Francisco J. Varela, Eleanor Rosch, and Evan Thompson, 1991).

In general terms, enactivism tends to overcome the duality of man-world, brain-body, subject-object, etc., and also proposes to completely eliminate the established paradigm of considering consciousness from the standpoint of representationism, when the main form of existence of consciousness is a reflection of reality. Enactivists interpret the work of consciousness as a complex inclusion in a broader relationship between a person and the world in all its external influences. In this regard, consciousness not only reflects the world, but is also involved in the active process of generating many aspects of objective situations, both direct and indirect. In other words, "perception is not something that happens to us or in us, but something that we do" [12]. Here we can see some elements of the activity approach in the enactivist philosophy of mind. In enactivism, such active participation of living conscious beings in the process of simultaneous perception and creation of their life-world is called "*autopoiesis*" (ancient Greek *αὐτός* – itself, *ποίησις* – creation, generation).

In the production of one's own world, according to enactivists, consciousness is not necessarily associated only with the activity of the brain. This process includes the entire organism, which is

closely connected in a dynamic way with the external environment. Also, the functionalism of consciousness, according to which consciousness performs a number of obligatory functions of perceiving the world and searching for the most profitable solutions in it, is not at all a significant principle of enactivist methodology. Despite the existing discussions of enactivists both with representatives of other directions and among themselves, the common line of their methodology is that they agree with the decisive role of the observer, recording his subjective experience, along with the fact that this experience is partly created by the observer.

Thus, to summarize this review of some theories and programs in the field of modern cognitive science, several general conclusions should be noted. Firstly, the more different ideas and methods of cognition of human consciousness arise, the broader the problematic itself becomes, indicating the complexity of the object being studied. Secondly, the very setting up of the study of consciousness by a person studying consciousness with the help of consciousness itself leads to well-known paradoxes, if not metaphysical, then at least of a logical nature. This, however, does not in any way discredit the importance of the study of consciousness as such. Thirdly, representatives of various cognitivist theories have long recognized the fact that in many respects European and Western science is inferior to those spiritual and mental practices that from time immemorial have been cultivated by many Eastern and other thinkers, and even entire nations. Fourthly, almost all cognitivist studies emphasize the direct dependence of science itself on the work of consciousness, which leads cognitivism to the idea that it is necessary to first sufficiently develop the science itself and its technical tools, and only then begin a full-scale study of consciousness, which is in basis of any scientific method. Thus, research in cognitive science once again demonstrates how difficult the question of the nature of consciousness is.

3. The problem of coexistence of natural (human) and artificial consciousness

In relation to the study of problems associated with the development of artificial intelligence, many questions naturally arise. To what extent are the norms of the public adapted to the implementation of artificial intelligence? Are there relevant questions in relation to artificial intelligence? How much technological progress has jumped ahead of the ethics of mankind and how necessary it is.

It is also worth pointing out that the English expression artificial intelligence itself does not have any personal or subjective character. In other words, artificial intelligence is not an anthropomorphic concept. When translating into other languages, a number of difficulties arise with what is meant by intelligence. For example, in English, intelligence means the ability to reason rationally, through some kind of pragmatism, the use of logic, common sense, and much more, in general, everything that is connected with concrete and direct logic [13]. In this regard, in the Russian language, intelligence is also understood as high erudition, the presence of some kind of consciousness, and often even self-consciousness.

In this regard, if we apply the concept of reason and consciousness in relation to artificial intelligence, then we can say that we have high hopes for artificial intelligence. In many ways, it is simply impossible to talk about artificial intelligence in this way, since this is already a question of high ontology, of the theory of knowledge. It is one thing to understand artificial intelligence as just some kind of machine that teaches itself to first calculate something and then perform an innumerable number of operations aimed at implementing its initially specified functions. Another thing is to understand under artificial intelligence the whole space of consciousness, self-consciousness, and some conscious acts of cognitive activity, which, in our opinion, is almost impossible.

Of course, we can reduce human consciousness to the work of artificial intelligence. And such attempts have been made repeatedly both in the philosophy of consciousness and in more precise scientific theories and concepts. However, the big question remains how beneficial it will be for all parties if we imagine that artificial consciousness is finally created. For at least a general understanding of the problem of the relationship between human consciousness and artificial

intelligence, it is important to distinguish such concepts as (1) intellect, (2) artificial intelligence, (3) mind, (4) consciousness, and (5) artificial consciousness. Here we see that intellect is a narrower entity in nature, while consciousness includes, among other things, also intellectual activity.

In general, we can consider these entities as follows, related to mental activity of both natural/human origin (intellect, intelligence, mind, consciousness) and artificial nature (artificial intelligence, artificial consciousness).

(1) Let's say, intellect is the ability of the mind to determine what is actually true and what is false, and how to solve problems by applying logical operations. In this regard, there is another problem with the separation of intellect and intelligence in the philosophy of consciousness [14], which is that within the framework of the classical understanding, intellect is largely understood within the framework of such a question as "How do people know things?" Depending on the intensity of the work of the intellect itself, various typologies and gradations of the intellect itself were created (for example, Aristotle divided the intellect into passive and active [15]). On the other hand, in the psychological *theory of multiple intelligences*, the difference between intellect and intelligence is essentially insignificant and boils down to the fact that intelligence consists of eight types of local intellects, each of which is responsible for its own area of development of intelligence as a whole. In general, this is true, since human intelligence is not a simple mechanism that reduces the work of consciousness to a simple question-answer pattern. That is, the theory of multiple intelligences differentiates human intelligence, as a whole procedural mental entity, into specific types of intelligence, which further define intelligence as a single general ability. There must be more to intelligence than short answers to short questions—answers that predict academic success; and yet, in the absence of a better way of thinking about intelligence, and of better ways to assess an individual's capabilities, this scenario is destined to be repeated universally for the foreseeable future [16].

(2) In this regard, we see that intelligence is a structurally more complex mental formation and, within the framework of some concepts, can serve as an integrative phenomenon that can combine both local intelligences and entities that may partially not relate to purely intellectual activity (for example, the framework of intelligence can also include emotions, abstraction, sensory perception, etc.). After a thorough review of the relevant literature, Hutter and Legg defined intelligence as "an agent's ability to achieve goals in a wide range of environments" [17]. However, the main feature that distinguishes intelligence from intellect is the ability to perceive or infer information and to retain it as knowledge to be applied toward adaptive behaviors within an environment or context [18]. In other words, if we follow the logic of explaining the difference between intellect and intelligence, remaining within the framework of the theory of multiple intelligences, then we can say that all the material collected by local intellects is analyzed and structured by a more general and universal human ability, which we call intelligence. The same qualities attributed to intelligence can be applied when describing artificial intelligence. Therefore, when translating into other languages, this concept should be carefully translated as "artificial intelligence" but not "artificial intellect".

(3) Next comes the concept of mind (sometimes, reason or mentality). The mind covers a wider range of functions and abilities of the human brain than intelligence and even more so intellect. The scope of the mind includes the vast functionality of ideas, actions, processes, and procedures that can be produced by the human mind. That is, the mind thinks, imagines, remembers, wills, and senses, or is the set of faculties responsible for such phenomena [19]. The mind also carries out processes such as perception, receiving pleasure, feeling pain, experiencing faith, and manifesting emotions, desires, and intentions. All these procedures are quite contradictory in their interaction with each other, and therefore it is customary to divide the work of the mind into conscious and unconscious levels. Often the mind is contrasted with the body, matter, or corporeality, which in the philosophy of consciousness is called *the mind-body problem* [20].

(4) Next we look at consciousness. It should be noted that our consideration of psychological dimensions takes into account their volume. This means that we are moving from simpler to more complex and, therefore, extensive in content. Therefore, although the mind is a rather voluminous phenomenon in the world of human mental activity, it is worth noting one quality of

consciousness that makes it somewhat broader and more universal than the mind. This quality is self-reflection or self-awareness. The fact is that all the activities of the mind are directed towards the external world, and all the functionality of the mind is concentrated on working with external material entering it (including data from the human body itself, as the bearer of the mind, since the mind perceives even bodily data as external material for further processing). However, when it comes to understanding the very activity of the mind, when the human mind switches to analyzing what it – the mind – is doing, here we are already talking about self-reflection, self-awareness, or simply consciousness. It may be awareness, awareness of awareness, or self-awareness either continuously changing or not [21]. Thus, consciousness is everything that the mind is in its essence, plus the process of introspection by the mind of its own activities. In other words, the mind that comprehends itself is consciousness.

It should also be noted that for a long time, there was no specific definition of consciousness. That is, for many centuries, thinkers and scientists have defined mental activity more as the mind; that is, as something engaged in the process of perception and further processing of external material entering the human mind. Even in Aristotle, we do not find a strict definition of the mind as such. For Aristotle, perceptual awareness was somewhat the same as what modern philosophers call consciousness [22]. In a strict sense, the first person to draw attention to the self-reflective nature of consciousness was the English philosopher John Locke. He, in particular, defined consciousness as “the perception of what passes in a man’s own mind” [23]. Since then, a fairly clear understanding of the distinctive feature of consciousness as an entity has emerged, which turns the activity of the mind on itself. In this regard, consciousness, as the mind turned to its own activity, makes the essence of the mind much more complex and allows us to separate humans from other animals from the point of view of intellectual criteria. “If awareness of the environment . . . is the criterion of consciousness, then even the protozoans are conscious. If awareness of awareness is required, then it is doubtful whether the great apes and human infants are conscious” [24].

(5) And finally, we are approaching a general description of artificial consciousness, which actually constitutes the main problem of this study. If we speak with confidence about the previous four mental entities (although this confidence is conditional due to the lack of a complete and final definition of intellect, intelligence, reason, and consciousness), if only because the above entities exist, then in the case of artificial consciousness it comes to say for now that is only in hypothetical terms. The whole point is that today humanity has not yet created something that even remotely resembles consciousness as such, that is, a certain artificial substrate that would have the ability to comprehend itself. Whether this is good or bad is a matter of time and the technological era as a whole. The main thing is that this issue directly affects universal human values of ideological and social order. This problem is important in the sense that the very idea that next to people – conscious beings – will be adjacent or cohabiting with a certain substrate that has the ability to compete with people in the mental plane, definitely makes all of humanity think about how useful, safe, and reasonable such a neighborhood is.

If the creation of artificial intelligence is a useful idea in many ways and has already proven its correctness in practice (artificial intelligence and neural networks are actively and successfully used in modern medicine, navigation, the service sector, industry, etc.), then the creation of artificial consciousness is absolutely another area of human technological progress. Here the question, in essence, concerns the creation of a machine that, intellectually, spiritually, and emotionally, will claim the right to be called the same person with the only difference that this creation will consist of a different material. The problem naturally arises that if the material from which artificial consciousness is created is not of natural biological origin, but of artificial origin, then, accordingly, such consciousness will functionally differ from human consciousness. If so, then artificial intelligence may be much more perfect than the conscious essence of a person. What could this lead to in this case? Perhaps to a hopeless struggle between a less perfect man and a more perfect machine, which will be fully aware of both its superiority and the shortcomings of the consciousness of human origin. There is also the issue of how practical it is to create artificial consciousness at this stage if there is a risk that it could take over and ultimately

discredit natural human consciousness. There is heated debate about this issue among both scientists and philosophers of mind.

4. Conclusion

Now we see and understand that the problem of creating and further developing artificial intelligence to some extent leads to the creation of artificial consciousness. This, in turn, inevitably leads a person to comprehend his role and the actual potential of human consciousness before the coming era of the dominance of machine consciousness. Definitions of artificial intelligence such as “the computational part of the ability to achieve goals in the world” [25] or “the ability to solve hard problems” [26] definitely provide positive hope for solving many complex technical problems and tasks that are sometimes beyond human capabilities due to the low performance of the human mind compared to the capabilities of artificial intelligence. But the problem is that a person will somehow not be able to stop using only artificial intelligence as a programmed machine system. Modern developments in the field of artificial intelligence are gradually leading to the emergence of artificial consciousness, which can be fraught with the fate of all humanity, both in a positive and negative sense. And here much will depend on the self-awareness of the artificial intelligence developers themselves, their goals, and their mission.

5. References

- [1] Turner, Raymond. *Philosophy of Computer Science*. Oxford Bibliographies. DOI: 10.1093/OBO/9780195396577-0224.
- [2] Tedre, Matti (2014). *The Science of Computing: Shaping a Discipline*. Chapman Hall.
- [3] Turner, Raymond; Angius, Nicola (2020). “The Philosophy of Computer Science”, in Zalta, Edward N. (ed.), *The Stanford Encyclopedia of Philosophy* (Spring 2020 ed.), Metaphysics Research Lab, Stanford University.
- [4] Russell, Stuart J.; Norvig, Peter (2003). *Artificial Intelligence: A Modern Approach* (2nd ed.), Upper Saddle River, New Jersey: Prentice Hall, p. 947.
- [5] Fearn, Nicholas (2007). *The Latest Answers to the Oldest Questions: A Philosophical Adventure with the World's Greatest Thinkers*, New York: Grove Press, p. 55.
- [6] Georgiev, Danko D. (2020). “Quantum information theoretic approach to the mind–brain problem”. *Progress in Biophysics and Molecular Biology*. 158: 16–32.
- [7] Chalmers, David (1995). Facing up to the problem of consciousness. *Journal of Consciousness Studies*. 2 (3): 200–219.
- [8] Lektorskiy V.A. Soznaniye. *Novaya filosofskaya entsiklopediya*. Institute of Philosophy of Russian Academy of Science; National Socio-Scientific Fund – 2nd edition. – M.: Mysl’, 2010.
- [9] Maruvada, Surya N. (2020). *Who is Who in Hindu Mythology – VOL 2: A Comprehensive Collection of Stories from the Puranas*. Notion Press. ISBN 978-1-64805-686-4.
- [10] Overgaard, Morten; Gallagher, Shaun; and Ramsøy, Thomas Zoëga (2008). An Integration of First-Person Methodologies in Cognitive Science. *Journal of Consciousness Studies*. 15(5):100–120.
- [11] Fuller, Andrew R. (2008). Chapter 11. Neuroscience and Religion. *Neurophenomenology. Psychology and Religion: Classical Theorists and Contemporary Developments*. Fourth Edition. Rowman & Littlefield Publishers. pp.304-314.
- [12] Wallis, Charles; Wright, Wayne (2009). Chapter 11: Enactivism’s vision: Neurocognitive basis or neurocognitively baseless?. *The Oxford Handbook of Philosophy and Neuroscience*, Edited by John Bickle. N. Y.: Oxford University Press. 635 p.
- [13] McCorduck, Pamela (2004). *Machines Who Think* (2nd ed.), Natick, MA: A. K. Peters, Ltd.
- [14] Colman, Andrew M. (2008). *A Dictionary of Psychology* (3rd ed.). Oxford [etc.]: Oxford University Press. ISBN 9780191726828.
- [15] Davidson, Herbert (1992), Alfarabi, Avicenna, and Averroes, on Intellect. *Oxford University Press*, p. 6.

- [16] Gardner, Howard (1983). *Frames of Mind: The Theory of Multiple Intelligences*. Basic Books, New York, p. 4.
- [17] Legg, Shane; Hutter, Marcus (2007). "Universal Intelligence: A Definition of Machine Intelligence". *Minds and Machines*. 17 (4): 391–444.
- [18] Sharma, Radha R. (2008). *Emotional Intelligence from 17th Century to 21st Century: Perspectives and Directions for Future Research*. Sage Journals. Vol. 12.
- [19] "Mind". *American Heritage Dictionary of the English Language*. Houghton Mifflin Harcourt. 2016.
- [20] Clark, Andy (2014). *Mindware*. New York: Oxford University Press. pp. 14, 254–256.
- [21] Rochat, Philippe (2003). "Five levels of self-awareness as they unfold early in life". *Consciousness and Cognition*. 12 (4): 717–731. doi:10.1016/s1053-8100(03)00081-3.
- [22] Caston, Victor (2002). "Aristotle on Consciousness". *Mind* (PDF). Oxford University Press. p. 751.
- [23] Locke, John. "An Essay Concerning Human Understanding" (Chapter XXVII). Australia: University of Adelaide. Archived from the original on May 8, 2018.
- [24] Thomas, Garth J. (1967). "Consciousness". *Encyclopaedia Britannica*. Vol. 6. p. 366.
- [25] McCarthy, John (1999). *What is AI?*, archived from the original on 4 December 2022, retrieved 4 December 2022.
- [26] Minsky, Marvin (1986). *The Society of Mind*. Simon and Schuster.