

Artificial Intelligence and Human Alienation from Mind: Causes, Mechanisms, Consequences

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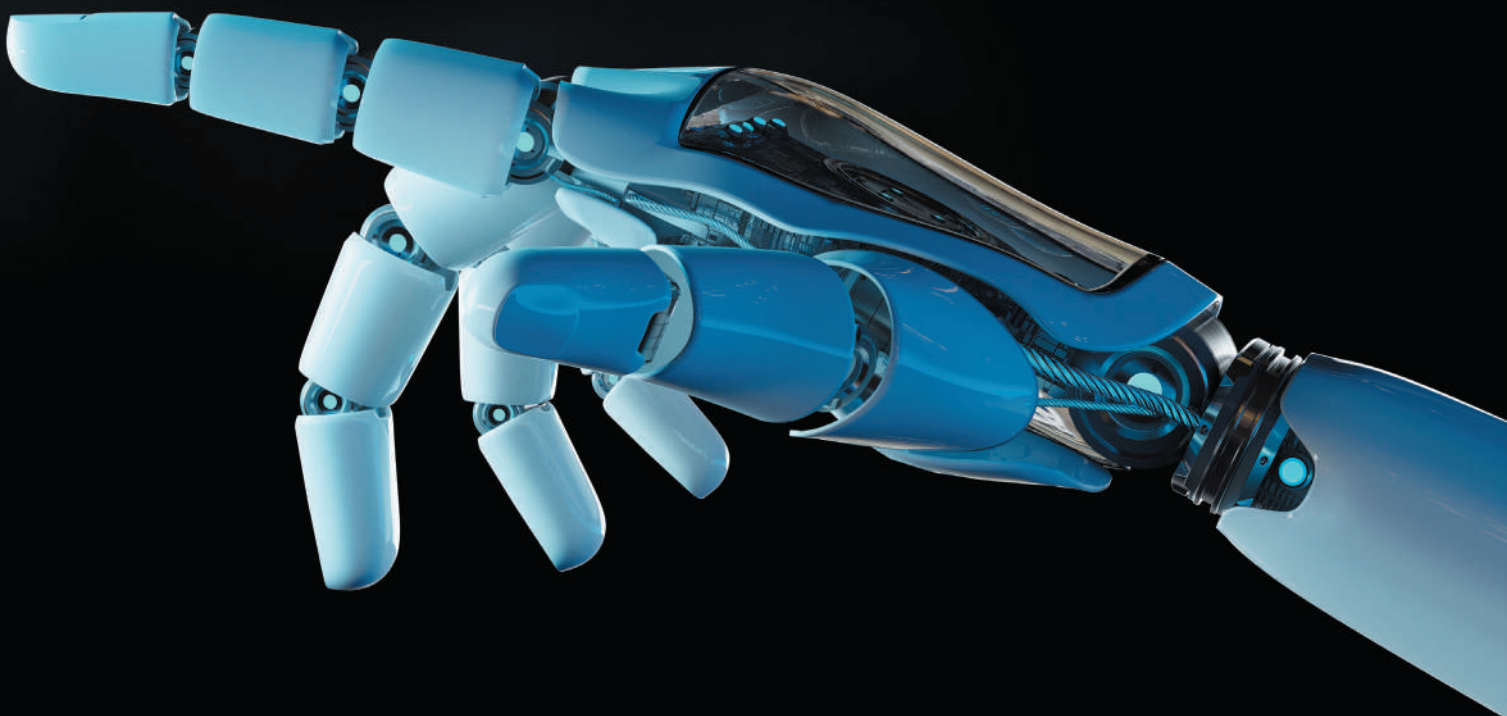
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Modern trends that have developed with the introduction of artificial intelligence technologies into everyday life are considered: a description of the calculator effect, the paradox of a civilized person is provided; statistical data on changes in the Flynn effect over the past century are presented. The importance of creating a complex and unique Universe in which a hierarchy of collateral subordination will be established for the harmonious development of civilization is substantiated.

Keywords: *alienation from mind, artificial intelligence, calculator effect, digital totalitarianism, digitalized human, informational garbage, natural and digital thinking, paradox of a civilized person, waste of thinking.*



Introduction: Phenomenon of Alienation as a Result of Civilizational Development

Modern civilization is focused on the problems of artificial intelligence. This relatively new phenomenon opens up amazing, previously unseen opportunities, prospects, solutions for humanity. People are trying to find application of this tool in all areas – from household appliances to space exploration. And everywhere it comes to finding a way to partially or completely replace a person with algorithms, as well as with machines that perform them. Although formally and technologically such a situation is largely new, it reflects the essence of our Earth's technogenic (industrial) civilization and embodies the fundamental attitudes characteristic for it.

The "civilization" concept comes from the French *civilisation* (originally – transformation of a criminal process into a civil one), then from *civiliser* – to civilize, from *civil* – civilian, then from Latin *civis* – citizen [1]. Many are familiar with the saying "*Civis Romānus sum!*" ("I am a Roman citizen!"). In antiquity, it was a formula for self-affirmation, the superiority of one group of people over all others as bearers of special rights and privileges. Even the poorest Roman citizens received free bread and access to entertainment, and therefore remained the elite. On the other hand, such a special position was based on their inclusion in the legal system – a system of laws that applied only to the Romans and required a special court for them, while others were outside the law and were deprived of any legal protection.

Civilization begins where the law appears. It is it (no matter whether formalized or non-formalized) that regulates the relations inherent to a civilized community, which differ from relations based on instincts or personal experience of a single individual in the animal world. At first, it is a law of tradition or nature, then – a legal law that has not only a limiting function, but also contributes to the transfer of practically valuable knowledge. The procurement of fire, the manufacture of tools – the entire material basis of civilization rests upon knowledge of the laws of nature and the implementation of the algorithms of actions prescribed by them. The law and the algorithm as a sequence of operations are largely identical concepts. The Latin word *lex* (law) in one of the meanings is the order of actions [2].

The main mechanism of self-preservation and development of civilization is the maintenance of those engineering (industrial) technologies that lie in its foundation. Without hunting and gathering technologies, skinning and fire procurement, as well as without other algorithmic actions,

the rules of which are preserved and passed down from generation to generation, social development as an increase in the level of complexity of the organization of society would be impossible. The ordering tool in this regard is certain algorithms that subjects in civilizational processes obey. So, the laws of primitive tribes were built around the need to maintain fire. The industrial society serviced the machines. A person of the 21st century becomes at the service of artificial intelligence: performs functions related to the development of computing machine capabilities, the expansion of its fields of application, as well as its maintenance, while simultaneously being a consumer of digital products. Here, in the process of alienation of labor described by K. Marx, a new dimension opens up.

Until now, the alienation of labor has been built up in several stages: alienation from the instruments of production (they are owned by the capitalist, not the worker); alienation from the results of activity (products do not belong to the worker); alienation from the processes of performing physical labor procedures and from one's own physicality (the human body actually turns out to be part of industrial equipment). This was followed by alienation from the ancestral essence (from ties with ancestors and relatives, with whom neither the land as an object of labor, nor the ownership of tools of labor are no longer united) and alienation of people from each other. With the advent of artificial intelligence algorithms, a person is alienated from the elements of thinking and conscious abilities, from his own individual mind. Let us designate such a phenomenon as the calculator effect not only because these electronic devices process numbers quickly and efficiently and perform complex computational operations, but also because they are all the same – impersonal, like any other machine.

Calculator Effect

The calculator effect is that in the process of performing mental operations, such as counting, some actions are carried out by a mathematical (digital) algorithm instead of a person. As a result, thinking becomes fragmented. During the formation of the concept of an object, the cognition of which is aimed at thinking, essential stages become missing. The idea of the world becomes devoid of integrity, as the person himself is alienated from thinking. Interestingly, one of the most successful calculator brands is called Citizen. The word comes from the Latin *civitas* (city),

which goes back to the same roots as *civis* (citizen) and *civilisation* (civilization). The calculator is the same machine algorithm that replaces an individual in his main component as a biological being endowed with intelligence – in the thinking ability.

The described effect applies not only to computing activities. Algorithms are integrated into absolutely all mental operations: comparison, analysis, synthesis, abstraction, generalization. Getting to the destination, a person uses a navigator and may not even think about which part of the city he is in. There is a case when Japanese tourists in Australia drove a car into the ocean, although they planned to get to an island near the shore. They followed the navigator's instructions [3]. Similarly, in the process of reading the news and searching for the right information, we are increasingly being led by algorithms that record our preferences and issue recommendations for studying only those topics that, from the viewpoint of artificial intelligence, may be of interest to us. Thus, the development of personality stops due to its disconnection from creativity and turning into a consumer of standardized and redundant information.

In communication, we are increasingly replacing entire conversation blocks with demonstration videos and memes. Algorithms make us coffee, do cleaning, build cars and already learn how to drive them, launch rockets into space, process volumes of data in seconds that a person cannot consider even in a lifetime. With the advent of new technologies, society became more powerful, but there was less and less room in it for the individual in his natural manifestations. Let us call it the paradox of a civilized person. The less he is, the better and more powerful he is. The more we subordinate our lives to the laws, the better we execute them. For an ideal performance, it would be good for us to disappear altogether – first reducing to the “golden billion”, then to the “diamond million”, which will then inevitably degrade as a society and become zero, like Ancient Rome.

Natural and Digital Thinking

Civilization includes the installation of replacing the individual with algorithms and machines, since man is a natural being. In the same way asphalt replaces grass; tractors and cars – horses; communication on the Internet – live contact. Civilization is aimed at replacing the natural with man-made. The creation of artificial intelligence in this context

is a necessary stage in the development of the so-called civilized (but not civilizational) community. And the root cause is as follows: everything is based on engineering and technology. They exist according to the same principles as Live Nature (living organisms): at the entrance they have raw materials and energy, at the exit they have products (services) useful to humans and technological waste according to the scheme: (raw materials + energy) – product (service) = waste. The difference is that the waste of technical production cannot be used by technology or life to the fullest, as it happens with the waste of living organisms.

The entire biosphere, a small part of which is a human, is formed from vital waste: biohumus, which contributes to the fertility of previously lifeless soils; oxygen, which we breathe and which ensured the creation of an ozone layer saving life on the planet; carbon dioxide, thanks to which a greenhouse effect appeared, which increased the average temperature on the planet by 32 °C, without what neither the biosphere nor us would exist, since all the oceans would remain covered with ice [4]. The wastes of the technosphere, on the contrary, damage the biosphere, as they are poisonous antagonists and take away the space that previously belonged to it – in the air, water and soil.

Thus, any technogenic civilization (terrestrial humanity is no exception here) does not just replace Live Nature, but also fights with it and destroys it – first on a material level, and then on a spiritual and social level. According to the same logic, material and information raw materials turn into digital products, as well as into material and informational waste, which increasingly fill up the living space and living thinking with a digit. This is the calculator effect – the material subject of an industrial object creating a digital product and informational waste, i.e., digital garbage.

The analogy between the thinking process and technical production may seem controversial to someone. Nevertheless, in our opinion, it deserves consideration if we want to give a comprehensive assessment of artificial intelligence. It is necessary to understand that it is a product of technology, not nature. Therefore, artificial intelligence must somehow absorb and refract principles of operation of technology.

The raw material for thinking is information or data (quantitative and qualitative). Through their processing, we form ideas, beliefs, knowledge, worldview, goal-setting and build our actions on their basis. A by-product of thinking (waste) also turns out to be information, i.e., a digit.

However, it undergoes changes in the thinking process. Compared with informational raw materials, informational waste significantly changes its structure, becomes orderly according to the formal parameters of cognitive activity. In the same way, raw materials change their structure in technological cycles. For example, a product such as thermal and electrical energy is obtained from coal. The waste will be flue gases, ash, slag, sludge, etc. The chemical elements of which they consist were also contained in coal, but now they are structured and correlated in a different way. At the same time, if coal existed as a matter harmoniously integrated in nature, then from the moment of its extraction from it and through changing its structure, we get substances that violate the natural balance. It is worth noting that a similar process in nature does not lead to the same results. Waste products of all living organisms in the biosphere of the planet are effectively integrated into food chains. Approximately the same situation occurs when comparing natural thinking with digital thinking.

It is proposed to understand natural thinking as the activity carried out directly by the human brain; the digital one – by computer algorithms. The specifics of the waste or by-products of the first is as follows:

- they may remain not recorded in any way;
- the energy used for their production has a natural origin and is embedded in the natural energy exchange;
- being recorded, they can effectively integrate into the thinking processes of other subjects.

The specifics of the by-products of digital thinking:

- they are mandatory recorded on digital media;
- the energy used for their production is of artificial origin and disrupts the natural energy exchange that has developed in the Earth's biosphere;
- a significant part of them is not integrated into the thinking processes of subjects of natural thinking, but, on the contrary, violates and destroys them, which is described in more detail above through the "calculator effect" concept.

Let us consider the above with an example. Take the algorithm that generated the cover of *Cosmopolitan* magazine. Allegedly, the neural network completed the task in 20 s, based only on a textual description as initial data: "...wide-angle shot from below of a female astronaut with an athletic feminine body walking with swagger toward camera on Mars in an infinite Universe, synthwave digital art" [5]. In addition to the cover itself, which seemed

the most successful to the research group, at least a dozen more images were created. This is just waste. Electricity was spent on their production. They are not needed by anyone and will never be used. Nevertheless, they take up space on a server or computer hard disk, can be thrown into the Internet and there, along with the necessary and important information, they will turn out to be just noise, an obstacle to finding the right material. In other words, they become noospheric informational garbage, invading the processes of natural thinking and polluting it in the same way as waste from technological production pollutes the biosphere.

Informational Garbage

The result of the fact that a person began to transfer a significant part of mental and creative operations to artificial intelligence algorithms for execution is an overflow of the informational field with informational garbage. According to the authors, this leads to the degradation of natural thinking in the same way as the oversaturation of the biosphere with material waste of the technosphere leads to its destruction.

Informational garbage produced by subjects of natural intelligence mostly appears when digital algorithms are included in the thinking and creative processes. Thanks to the latter, the creation of intelligent products is significantly facilitated: computer programs correct grammatical errors, can independently compile texts, perform graphic image processing, make collages and carry out visual data editing, process and generate new audio tracks. Since the creation of an intelligent product is significantly simplified, its quantity may exceed the actual needs. As in technological process: a product that is not consumed turns out to be a by-product, ceases to be a product and becomes a waste.

The processes of creating non-recyclable waste of thinking are cumulative. On the other hand, the products of natural thinking are forced to compete with the products of digital thinking. This is another mechanism for replacing a person. In the end, an individual can be completely displaced. Firstly, there will be no need for the products of his thinking and creative abilities. Secondly, these abilities themselves will be unsuitable for efficient work in the new conditions. In the abundance of informational garbage, we may be unable to find the informational raw materials we need for thinking.

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The Need to Control and Limit the Application Scopes of Artificial Intelligence

According to the authors' opinion, the main essence of the described crisis of natural thinking is the loss of the integrity of people's ideas about reality, defragmentation, clip perception, ever increasing dependence on gadgets and algorithms, alienation of a person from entities previously inherent only to him and deconstruction of the very idea of him in the logic of dehumanization and transhumanism. Both in the case of the antagonism of the technosphere and the biosphere, and in the confrontation of techno- and biothinking, it is possible to resolve the situation in principle only through the separation of these systems in space or, more precisely, in the sphere of use. Therefore, just as it is important to bring out the harmful part of the technological industry into near-Earth orbit [6], so it is necessary to distinguish the areas of application of natural human (i.e., biological) and artificial engineering (i.e., machine) intelligence. For example, leaving everything related to cultural, political, legal, social, educational, scientific and other creative activities for the former one. For the latter – only technological aspects and assistance to a person (but without decision-making) in the informational (computational) part that does not relate to the concepts "consciousness", "humanity", "personality", "worldview", "spirituality", "morality", "ethics", "virtue", "culture", "goal setting", "planning", etc. Artificial intelligence is for technology; natural intelligence is for humans. However, the question remains: how to make this separation? It turns out that, as in the case of the task of transferring the industry into space, limiting the application scope of artificial intelligence requires political will and international purposeful interaction.

It should be noted: the professional community engaged in the study and development of artificial intelligence is well aware of the degree of danger posed by developments in this area. First of all, of course, attention is paid to the threats associated with the use of algorithms in the production of military equipment. The UN has been calling for international regulation of developments involving the creation of "thinking" algorithms for several years. "People should have good reason to trust that AI systems can bring individual and shared benefits, while adequate measures are taken to mitigate risks. An essential requirement for trustworthiness is that, throughout their life cycle, AI systems are subject to thorough monitoring by the relevant stakeholders as appropriate" [7], the Recommendation

on the Ethics of Artificial Intelligence states. Nevertheless, so far these words remain unheard, on the contrary, the state programs of the USA and China continue to develop technologies, in fact, having entered a new arms race.

"Escape from Freedom" Mechanisms in Industrial and Post-Industrial Society

The optimism that is being found in society in connection with the expansion of the application scope of artificial intelligence deserves special consideration. In our opinion, this process involves the same mechanisms, which E. Fromm defined as "escape from freedom" [8] and which previously caused the emergence of totalitarian regimes, and now can result in the emergence of a new type of social structure – digital totalitarianism or digital fascism. Before describing it, we will give a few quotes from this German sociologist relating to the processes and states of the psyche that lead to social unfreedom and alienation from mind.

The scientist writes: "The new freedom is bound to create a deep feeling of insecurity, powerlessness, doubt, aloneness and anxiety. These feelings must be alleviated if the individual is to function successfully" [8]. For the most part, people "cannot go on bearing the burden of 'freedom from'; they must try to escape from freedom altogether unless they can progress from negative to positive freedom. The principal social avenues of escape in our time are the submission to a leader, as has happened in Fascist countries, and the compulsive conforming as is prevalent in our own democracy," continues E. Fromm [8]. "Often he is well adapted only at the expense of having given up his self in order to become more or less the person he believes he is expected to be. All genuine individuality and spontaneity may have been lost" [8]. "By becoming part of a power which is felt as unshakably strong, eternal and glamorous, one participates in its strength and glory. One surrenders one's own self and renounces all strength and pride connected with it, one loses one's integrity as an individual and surrenders freedom; but one gains a new security and a new pride in the participation in the power in which one submerges. One gains also security against the torture of doubt" [8].

These quotes describe the situation that developed in the 20th century and led to the emergence of fascism in Europe. However, all these statements and observations are true for the 21st century, too. The only difference is that the "unshakable eternal and beautiful force" is not

the state, a political party with its ideology or a great personality of the leader, but artificial intelligence algorithms and digital technologies lying in their base. The modern individual, who in liberal countries is given a great negative "freedom from", being unable to transform it into something positive, is ready to renounce his "I" in order to gain confidence and be involved in the great power of digital thinking.

A mass person turns out to be ready to transfer to artificial intelligence the right and duty to make decisions in as many areas as possible. Let our digital friends plot the route for us, run businesses and stock markets, diagnose diseases and give recommendations for their treatment, choose music to listen to, books and news to read, movies to watch, count votes in elections and conduct trials, making supposedly objective and impartial decisions. We will only possess and use all this, be great because of the greatness of the incredible computing power that will be at our disposal. With the help of algorithms, we will be able to improve genetic parameters before the birth of a child, and then improve the human body by implanting chips and taking drugs that will expand our capabilities. We will be able to instantly master complex professions and gain the necessary knowledge, for example, through augmented reality systems and neural networks integrated into glasses, mastering new languages or learning to fly a helicopter. However, we ourselves, i.e., our "I", will become maximally leveled at the same time. On the one hand, we will become consumers, on the other – slaves, since a slave is only a tool serving the subject of thinking and decision-making. The slave himself does not think and does not makes decisions.

Digital totalitarianism is no longer an anti-utopia, but a new reality, the space of existence of which is steadily growing, threatening to engulf the entire modern human civilization. Totalitarianism (from Latin *totalis* – whole, total, complete ← *totalitas* – wholeness, completeness) is a political regime implying an absolute (total) control of the state over all aspects of public and private life. The widespread introduction of gadgets and artificial intelligence algorithms is doing a better job of providing control tools than any police service that has ever operated.

Digital totalitarianism is much more awesome than all previously existing systems of this kind because the subject of power and control in it is impersonal. Instead of a person (a politician, a policeman or a neighbor in a communal apartment), artificial intelligence performs the functions of control and making a number of decisions about encouragement or punishment – supposedly neutral and objective. The layman cannot see any evil intentions in his actions, which means

that he cannot but accept what is happening for granted, as some natural forces, which, however, are not such.

The presented author's analysis shows that the pessimistic scenario of the development of events does not necessarily imply the uprising of machines and the physical destruction of people by them. Probably, people will be eliminated in a different way – mentally. We will simply cease to be thinking beings, delegating this quality to machines, and thereby cease to exist as a species. The history of a reasonable person will end by this, he will be replaced by a digitalized, bio-digital convergent.

Digitalized Human

A digitalized human is a potentially new species of living beings, a species of the genus *Homo* from the family of hominids in the group of primates. Under certain circumstances, he will be able to have a special physiological structure, as well as appearance, behavior. His defining distinctive feature is the introduction of various kinds of chemicals and electronic devices into the body; the mediation of most of the mental processes by artificial intelligence algorithms integrated into the global information network. In fact, residents of technologically developed countries already have many signs of a digitalized human, the emergence of which is due to the increasing role of gadgets, as well as the information received and processed with their help. The decisive step in the context of the proposed evolutionary leap should be the integration of biological and digital technologies into the unified system of regulation of human status and behavior. Today we are already close to this in terms of the technical feasibility of such a system [3]. If it is formed up, the probability of the appearance of global digital totalitarianism will increase by orders of magnitude.

In order to more clearly see the trend of replacing a person with a computer in the field of intellectual activity, we present some statistical information [9], reporting that during the 20th century the level of intelligence on average increased significantly. This phenomenon is called the Flynn effect – a statistical occurrence that is expressed in a gradual increase in intelligence quotient (IQ) over the years, both in particular countries and in the whole world. This process seems paradoxical: this growth has been observed for decades, therefore, it is difficult to explain it by evolutionary-genetic factors as a literal "wisening" of the human race.

J. Flynn showed [9] that from 1934 to 1978 the average IQ of US residents increased by 15 points – about three

points for each decade. Similar studies in other countries have yielded similar results. Thus, a New Zealand psychologist described a 20-point increase in IQ of Dutch conscripts from 1952 to 1982. However, experiments conducted after 2000 demonstrated a decline in the Flynn effect: IQ growth slows down, stops or even gives way to a decline. In 2004, the data on IQ of Norwegian conscripts showed that after the mid-1990s, growth stopped and was replaced with a decline. Studies by T. Tisdale and D. Owen, conducted in 2005 and in 2008, demonstrated that the IQ test results of Danish conscripts grew from 1959 to 1979 by three points per decade; during 1979–1989 increased by only two points; during 1989–1998 – by 1.5 points; during 1998–2004 decreased by the same 1.5 points. In the future, the situation only worsened. It is important that the turning point, when, after a long period of growth, people's intellectual abilities began to decline, chronologically coincides exactly with the beginning of the computerization of society. Natural thinking in the presence of an alternative (replacement) turns out to be simply redundant.

Civilizational development reaches its culmination, gaining the possibility to replace not only the natural environment surrounding an individual, but also the individual himself in his natural dimension. Taking into account the fact that humanity, due to this, gets at its disposal new unprecedented computing capabilities, and a digitalized human may seem superhuman to someone, this situation is sometimes assessed as progressive. Some believe [3] that it is good to transfer the function and the right to make key decisions to a sufficiently developed artificial intelligence. However, before agreeing with such statements, it is necessary to figure out whether artificial intelligence is capable of fulfilling the role promised to it and which it is already taking over.

Fundamental Limitations of Artificial Intelligence

What is intelligence and artificial intelligence?

We consider the automatic car control system to be an intelligent system and, moreover, we are sure that an automated car is controlled by artificial intelligence. Is it really so? Is there really a smart house in which we can open a window with the help of a smartphone, although it is uncomfortable to live in this house, and sometimes it is dangerous for health? Is it possible to call a smart city a place where millions of people live and work, where "smart" "green" electric cars kill hundreds of residents, including children,

on the streets every year, as previously they were killed in car accidents by environmentally dirty cars equipped with an internal combustion engine? The soil is covered with asphalt under electric cars; being in them, just like in ordinary cars, you will need to stand in traffic jams for hours and breathe carcinogenic fumes from asphalt heated in the sun and tire and roadway wear products.

A natural question arises: on what basis is electric energy considered the safest and most environmentally friendly for those electric cars? In fact, it is safe only at the place of its consumption, and not at the place of its production. No need to go far for examples:

- the environmental disasters in Chernobyl and Fukushima are the result of industrial production of electric energy obtained from the atom;
- acid rain, global warming and the destruction of the protective ozone layer of the planet are a by-product of thermal power plants;
- flooded thousands of square kilometers of fields and forests are the result of the construction of hydroelectric dams, which not only block the migration routes of fish, but also grind all living things with their turbines, sending down a nutritious broth for the reproduction of pathogenic microflora [10];
- wind turbines that kill millions of birds [11] because they do not see the rotating turbine blades. In addition, the blades, in which speed of movement can reach the speed of sound, create an intense noise and vibration (from low-frequency to high-frequency, as a result of which earthworms (a source of soil fertility) are dying in the area) and make life unbearable for people even a few kilometers from such supposedly "green" power plants;
- humming wires of high-voltage power lines, under which it is impossible to grow and graze cattle. Moreover, it is dangerous to live and work nearby because of a strong alternating electromagnetic field [11].

One can argue about how composite a mechanism of an electric car is and how difficult it is to control it with six simple actions: "gas", "brake", "forward", "backward", "left", "right". And why is involvement in driving a car becomes the main and defining feature of something insanely "smart", nicknamed "artificial intelligence"? However, since the very concept of intelligence came from a *Homo sapiens* – the pinnacle of perfection of living matter, it is necessary to find the essence of this term not in mathematics and physics, not in philosophy and business, but in the "Life" concept, i.e., in living organisms.

The basic structural unit of any living organism is the DNA molecule, in which all its genetic information is recorded. There are hundreds of billions of parts in this molecule – atoms of various chemical elements [12] embedded in well-defined places in a molecular-spatial structure of the highest complexity. There are only a few thousand parts in an electric car. So, from an engineering point of view, the DNA molecule is unimaginably complex – it is millions of times more complicated than an electric car. DNA is even more complex than all innovative technologies combined, created by thousands of generations of people of our civilization (about 100 bln people who lived on the planet in total) over a long human history (more than a million years, since the invention of the first bonfire): bolts and nuts, bridges and skyscrapers, internal combustion engines and turbines, rockets and airplanes, cars and railways, computers and smartphones, as well as thousands and thousands of other engineering technologies.

The DNA molecule is also more complex than the entire inanimate part of our vast Universe (i.e., without planet Earth), stretching for tens of billions of light-years, consisting of trillions of trillions of planets, stars, galaxies and clusters of galaxies. After all, the Universe, which, according to one of the theories, emerged randomly from the singularity as a result of the Big Bang, was formed over billions of years (during the expansion of energy and matter in three-dimensional Space) under the influence of physical laws that arose in the singularity, which we then called the laws of physics. They are the “genes” that created our Universe. Such dead (i.e., inanimate) physical “genes” can be described by much simpler mathematical formulas than the genes of the DNA molecule that give life. The formation of planets, stars, galaxies and their clusters occurred mainly under the influence of just one of the features of matter – its inherent gravity [13]. It is this main “gene” of the growth and development of the Universe that has fulfilled its important mission: it has collected hydrogen into stars and ignited them, including the Sun; created black holes that formed galaxies around them; collected rocks and stardust into planets, including the Earth, on which life was born, perhaps the only one in the boundless Universe.

The industry consists of its industrial “bricks” – units, mechanisms, equipment, various technological processes and materials, with which factories, power plants, roads and other industrial systems of countries, regions and the Earth’s technogenic civilization as a whole are then built. At the same time, its entire industrial power – the terrestrial technosphere – in its intellectual potential, as well as the entire intellectual

potential of all people who lived on Earth and created this technosphere for thousands of generations, as justified above, is very much inferior to the intelligence of the Creator who invented such a “simple brick” of any living organism (but not life and the biosphere in general) as the DNA molecule.

Every living cell of any living organism is millions of times more complex than DNA, and, for example, there are about 40 tln of them in an adult human body alone [14]. All the tissues, organs and systems of our body are composed of these cells (there are about 230 types of them): 850 muscles, 208 bones, 230 joints, 10 main systems, 78 organs, dozens of glands, billions of endocrine cells that produce thousands of completely different secretions, hormones and biologically active organic substances that regulate the most complex biochemical reactions – metabolism in cells and organs. In addition, the human body is endowed with a most complex internal transportation system – more than 100 bln blood vessels alone with a total length of about 100,000 km with 25 tln “vehicles” [15], i.e., red blood cells (if all red blood cells are placed in one line, close to each other, it will stretch for almost 200,000 km), and also has its own informational network – nerve fibers with a total length of about 150,000 km. At the same time, there is a huge number of all kinds of links (energy, informational and productional) both inside the body and with the outside world, the exact number of which is impossible to calculate: it is likely to be more than googol, but this number is unimaginably large.

Undoubtedly, the Creator was an engineer (but not a banker, politician, economist, philosopher, priest or oligarch), and the human body is more complicated in its engineering complexity than anything that our technocratic civilization has created in the entire history of its existence, by myriads of myriads of times, and it is impossible to define this complexity more precisely than abstract “myriads”.

Let us imagine a person lying in a coma. His body functions normally, organs and systems work properly, while the work of this hyper-complex creation is controlled by his brain without anyone’s help. However, such person does not have consciousness. Is it possible to say that in such a state he has intelligence? Of course not.

Conclusion: Possible Scenarios for Further Development

We began to use the term “artificial intelligence” to refer to primitive process control systems, like a car, with the help of primitive machines – hardware-computers, which are, in fact, high-speed calculators. At the same time, it should

be noted that such an "intelligence" has no consciousness, spirituality, worldview, morality, ethics, virtue, culture, goal-setting. After all, it is obvious that the ability to count quickly and manage any processes, both technological and vital, is not included in the concepts "mind" and "intelligence".

According to the authors, the main reason for the emergence of ideas that the digit should guide the individual, society and humanity as a whole is the desire of the "global elite" to obtain super profits with uncontrolled and irresponsible management of humanity, reduced to the level of a digital biorobot-convergent, where each digitized humanoid being will become only a faceless ant or a working bee in a hive.

From an engineering point of view, an attempt to create a "brave new world" of inclusive capitalism is no better than the idea of creating a world in which, for example, an incredibly complex virus, such as COVID-19, will control the flight of a primitive Boeing aircraft. Specialists in the field of digital technologies, and they supposedly "know everything and can do everything", will easily "teach" the necessary piloting skills. The fact that the simplest virus made up by the Creator is incredibly more complicated than any of the most elaborate man-made machine, which is described in detail above, is at least confirmed by the fact that we know how to design and manufacture aircraft from scratch and then improve them, including autopiloting, so that they fly even better. But the virus is something different, a person is not able to construct it from scratch, from atom to atom, he can only somehow modify a natural virus, completely unaware of the long-term consequences of such an engineering transformation.

It is well known that the management of simple systems should be handled by more complex ones, and not vice versa, as it is planned to do in the virtual universe currently being created. In addition, the control system should be more complicated to manage by many, many orders of magnitude. Obviously, the mentioned airplane cannot be controlled, for example, by a mosquito, millions of times more complex than a virus, and even a monkey, even more complicated. The "successes" of the so-called "artificial intelligence" (they are all imaginary, not real) are due not to the fact that it is supposedly very "smart", but to the fact that it was generated and accompanied by the creator – a human intellectual. Moreover, not by him alone, but by a society, and not just the society of some single African tribe, but by that of the entire Earth's technocratic (i.e., industrial) civilization.

It was civilization that gave each person the main components of his personal intellect – awareness, spirituality,

morality, culture, goal-setting, knowledge, including scientific knowledge, created over thousands and thousands of generations of the development of *Homo sapiens* and the Earth industry as a whole, which, in fact, allowed the development of a high-speed computing digital machine. This means that a stillborn (because it is not alive), unreasonable and spiritless child of the technological progress called "artificial intelligence" should by no means be guided by its creator – a person with a real living intelligence. Otherwise, everything will be like in the story with an airplane controlled by a virus, a mosquito or a monkey: after taking off, such a "smart" device will certainly crash, at least for the simple reason that, even after learning how to control the equipment, a mosquito will not learn how to use it reasonably.

The essence of civilization, which consists in establishing an order parallel or alternative to the natural one, can be implemented in the ultimate perspective only in three scenarios. The first is the global oppression of all living things and the displacement (replacement) of it with artificial ones. The second is the rejection of the civilizational (technological) path of development and the return to the wild, accompanied by the triumph of nature. The third is the establishment of a balance between nature and artificial forms of arrangement of matter and thought. The latter scenario is possible only with a strict distinction between the technosphere and the biosphere, including segmentation of the areas of application of digital and natural thinking. Space is for industry, Earth is for life. Artificial intelligence is for technology, human intelligence is for human society.

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