
THE PRESENT AND FUTURE OF TECHNOLOGICAL DEVELOPMENT AND THE CONSTRUCTION OF THE INFORMATION SOCIETY

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This study substantiates the need to use new theoretical knowledge for an objective understanding of the patterns of the development of humanity, their role in the construction of the information society and the digital economy at the present stage. This allows us to understand the causes of the emergence and persistence of the economic crises that have transformed into a global systemic crisis. There is also a danger that the achievements of science and technology can become a means of self-destruction for humanity with the help of its own intellectual high-tech developments. The role and consequences of the use of various modern high technologies in today's development paradigm, including artificial intelligence, are shown. The urgent need for the formation of a new developmental paradigm and the achievement of a crisis-free world in the intellectual and spiritual improvement and self-improvement of humans is substantiated.

Keywords: *new knowledge, developmental patterns; existing and new developmental paradigms, high technologies, Information society, AI, ChatGPT neural network, human, natural intelligence.*

Introduction

Over the past three decades, the world has experienced rapid technological development, which has made it possible to write, speak, and discuss the problems of creation of an information society and a digital economy. Many articles in the Russian journal *Informatsionnoe obschestvo* (Information Society) are devoted to these issues. Six works by the author of this article have also been published in this journal over the years.

All the articles published by the author so far have emphasized the position that building an information society is not only and not so much a matter of technical and technological tasks and problems. Thus, on the one hand, in the very first publication back in 2001 (Bondarenko 2001: 143–144), we argued that the information society should be created for every particular individual. And this would make it possible, with the help of the Internet, to concentrate the entire human community in one crisis-free time space. On the other hand, and this was already written about in our article in 2008 (Bondarenko 2008) and in its continuation in 2009 (Bondarenko 2009), information and

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communication technologies (ICT) should be considered first of all be considered as an ultra-modern means of communication between people in real time, and not as a tool for creating new markets around the planet. Then these technologies will make it possible, at a radically increased rate of change in economic, social, political and other realities, to effectively eliminate imbalances and desynchronization of all processes in the time of production and circulation of goods, money, information and people by coordinating the interests of all participants in this process. But in practice this has not happened. ICT has been used as a means to create new markets. The disparities increased and the crisis situation spread from the economic sphere to all other spheres and eventually became systemic. In other words, the crisis began in 2008 and continues to this day. There are even more questions than answers on the agenda, and the current situation in Russia today seems far from being resolved and dictates the need for a scientifically based understanding.

But understanding these problems, as well as understanding the construction of the information society and the digital economy, and all technological development, is in line with the theoretical understanding of the patterns in the development of the human community. After all, as stated in the same 2008 article mentioned above,

the spread of information, genetic and nanotechnologies, virtual reality, biological computers from DNA molecules will lead to the creation of conditions when it will be possible to connect the human brain to a computer and create a human-machine cybernetic organism – a cyborg. These and other achievements of science and technology have led to the fact that today humanity is on the verge of self-destruction with the help of its own intellectual developments, and in social science and humanitarian terms it has never learned the laws of its development (Bondarenko 2008).

All these my statements were fully confirmed in the following years, especially from 2019, when the Covid-19 infection spread with incredible speed throughout the world, and today a real war has started (Bondarenko 2022a, 2022b, 2022c; Bondarenko *et al.* 2022). Against this background, the need for new fundamental knowledge about the ways of development of the human community in a new scientific paradigm, as evidenced by numerous articles in high-ranking foreign and Russian journals, and the understanding of the consequences of its observance, or vice versa, has increased immeasurably and become actual.

New Theoretical Knowledge for Understanding the Patterns of Development of Human Society

We will give not all, but some of the provisions that became the starting condition in the formation of new theoretical knowledge:

➤ in the new methodology developed by the author for forecasting the future from the future, it was revealed (Fetissov, Bondarenko 2008: 220–270) that the analysis of existing forecasting methodologies based on extrapolation of existing trends showed that they do not take into account the evolutionary processes occurring during crises; they are already incorrect at the time of their use and today 99 % of such forecasts do not come true;

➤ the search for ways to develop Russia and the world has shown that the neo-liberal, Keynesian, totalitarian models, or their mixtures are a source of imbalances and

desynchronization of all processes in the time of production and circulation of goods and money. And this is the source of economic crises;

➤ the scientific paradigm of disparate narrow disciplinary knowledge available today does not allow us to gain a fundamental understanding of the patterns in the socio-economic, political, scientific, technological and all other aspects of the development of the human community. In fact, if we understand the goal of development and the future we need to reach, then we can determine the influence of that future on the present and the ways to achieve it, as opposed to the fact that when extrapolating data from the past to the future has identified completely opposite trends;

➤ discovered the extreme insufficiency of existing knowledge in the social sciences for understanding the meaning and purpose of human existence on Earth.

On the basis of the listed and not yet mentioned starting conditions, as a result of many years of research, new fundamental knowledge was obtained, which had not been formulated by anyone before. All stages of these studies are reflected in the scheme of the formation of a new scientific paradigm (NSP) and a new development paradigm (NDP) of Russia and the global world (see Figures 1–4). In this article, due to the lack of space, only those sections and paragraphs of the scheme that are necessary to reveal its contents are presented.

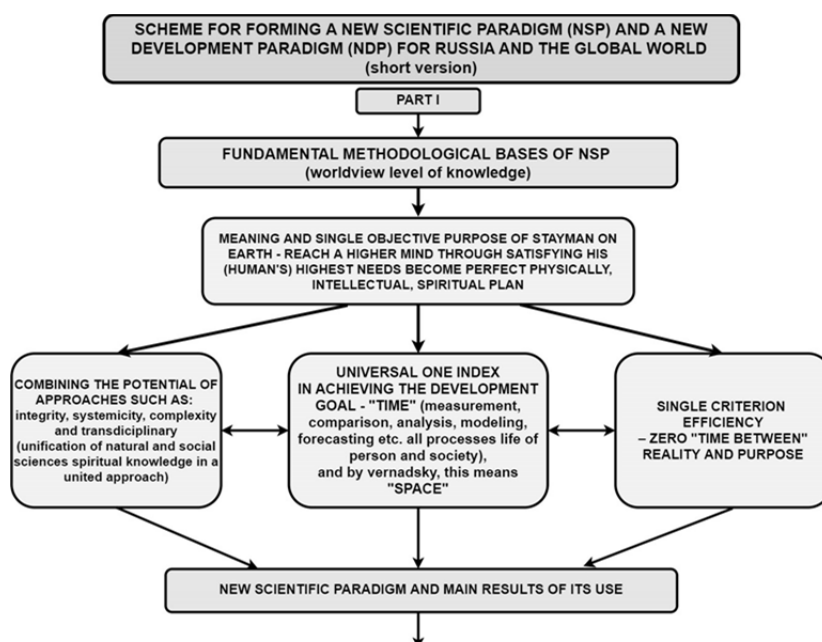


Fig. 1

Source: developed by the author.

Part I of this scheme (see Figure 1 for details) is devoted to the fundamental methodological foundations of the new knowledge of the development patterns. The worldview level of knowledge implies the need to define the meaning of human life on Earth as a single, objectively determined goal of development (Jacobs 2017: 365–375, Rorty, Schmidt 2009; Frankl 2021). The whole experience of human existence testifies

that people can be united by common joy, common misfortune, or common work. But what unites us most strongly is a common goal. Especially if it is an objectively given final goal, which cannot become a sub-goal of a higher order goal within the framework of a person's earthly existence.

Research has shown that such a common goal can only be a person and the creation of such conditions so that an individual could achieve physical, intellectual, spiritual and moral perfection and a high level of consciousness and, on this basis, takes the path of achieving the Higher Spirit. Without understanding this meaning, it is impossible to solve any social and personal problems, it is impossible to solve the problems of one's own development and the development of the country and the world. Improvement and self-improvement of an individual and human society, the desire for the Higher Mind is the goal and meaning of everyone's life. It is important to create a critical mass of people in society who understand this. It is estimated that today there are 25–30 such conscious people out of 1 % of the 8 billion people living on the planet.

Two Paradigms for the Development of Human Society and the Role of AI in Their Functioning

Together with other basic methodological foundations of new knowledge shown in Figure 1, Part I, in Part II of the scheme (see Figure 2 in detail) the main results of the use of new knowledge (NNP) are indicated. The most important of them, which determines the further development of the human community, is that in the projection of the paradigm of predicting the future from the future and the fundamental understanding of the patterns of development of the human community, it became clear that there can be only two such paradigms on the planet:

- paradigm of the indirect relation of production and consumption to an abstract person;
- paradigm of the direct relation of production and consumption to a particular person.

In the first indirect developmental paradigm, with a long relationship of production and consumption to a planetary scale with an abstract person, the efficiency criterion is measured by profit maximization, in the absence of a single development goal. Today, Russia and the rest of the global world live in this paradigm. It is implemented in their own interests by transnational corporations, their ideologists, such as Jacques Attali (2014) and Klaus Schwab (Schwab and Malleret 2020), and/or those who stand behind them, seeking to completely subjugate humanity to their own interests. Therefore, the object of control and management in this paradigm is a person, their thinking and consciousness. And all the problems of Russia and the global world have are the result of the fact that capitalism has already completely exhausted itself and no new knowledge has appeared to replace it in understanding the further development of the human community. It is against this background that the ideology of Klaus Schwab and his assistant Yuval Noah Harari (Schwab, Vanham 2021; Harari 2017) about a 'new capitalism' appeared (Schwab, Vanham 2021) and a document approved by the UN called 'Agenda 2030', which professes a strategy of total digital control over every person in around the world and measures to implement the 'sharing economy', in which a person owns less and less property or owns nothing at all (Marx and Engels 1954).

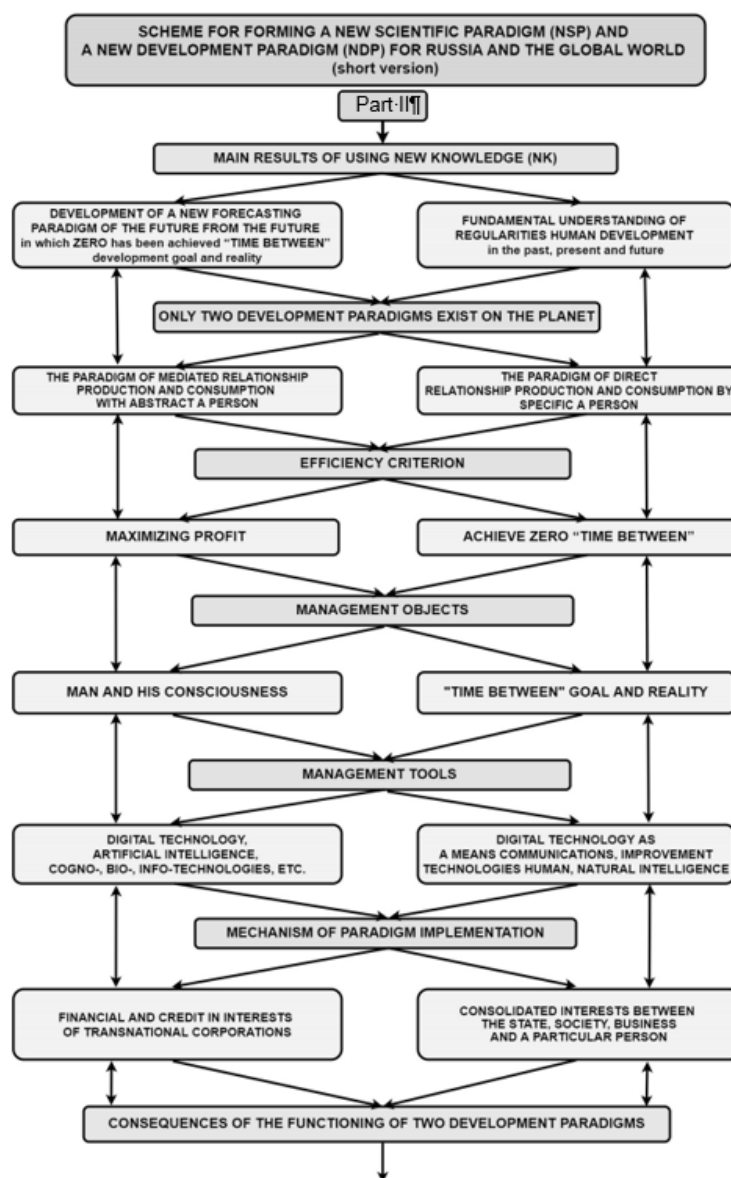


Fig. 2

Source: developed by the author.

Moreover, new theoretical knowledge has made it possible to identify the main contradiction in the development of the indirect developmental paradigm and its consequences (see Figure 3, Part III of the scheme), which lies in the fact that further technological race without changing the developmental paradigm can become fatally dangerous for humanity.

In this way, the scientific and technological achievements of the twenty-first century, instead of ensuring the development of individuals and society as a whole, will be-

come their fetters. And this could lead to a new, deep, systemic crisis, to all kinds of wars, including real ones, and to a possible apocalypse. Karl Marx (Marx and Engels 1954) once warned about the possibility of such a situation at one time and I discussed it in detail in many publications, including three articles in 2022, which show in detail that with the development and application of high technologies, it is necessary to synchronously make a transition to a new immediate development paradigm. And this is extremely important to understand and realize, because in 2023 it became known about the rapid development of neural network AI. Especially such variants as the version of the neural language model ChatGPT-4, 5 and others. It is capable of learning from large amounts of data generated from the Internet, social networks and other resources. That is, from repositories of information from the past (and, as has already been proved, sometimes false information), formed from data from the beginning of 2021 using algorithms developed by specialists in order to impose on society their vision of the patterns of world development. No sooner had it appeared than the developers of this direction of AI development themselves began to write about its negative impact on the socio-economic life of society, comparing it to an atomic bomb and talking about its danger to humanity, even to the point of destroying civilization. To save humanity, they called for neural networks to be switched off (Metz 2023, Metz and Schmidt 2023).

Various options for government regulation are offered. For example, while in October 2018 Xi Jinping in the PRC declared the need to strengthen leadership, improve planning, define tasks accurately and strengthen the foundation in order to promote the deep integration of AI into China's socio-economic development, then in June 2023 the Chinese authorities were already concerned about the national security risks associated with AI, and decided to wait until the United States jumped into this abyss (Xinhua 2023; Yashlavsky 2023).

Russian and foreign experts also warn of the great risks of introducing AI into all spheres of society (Shkolnikov 2023). In this regard, two articles by Leonid Grinin, Anton Grinin and Igor Grinin, published in 2023, are particularly noteworthy. The first article is entitled 'Artificial Intelligence: Developments and Concerns. A Look into the Future. Information Technology and Artificial Intelligence: Past, Present, and Some Forecasts'. And the second article is entitled 'Artificial Intelligence: Developments and Concerns. A Look into the Future. Artificial Intelligence: Terra Incognita or Controlled Force?' Its authors not only give a detailed explanation of the concept of 'artificial intelligence', especially 'generative', but also analyze numerous forecasts of its development and warn that the use of AI in society is certainly dangerous. At the same time, however, the authors argue that as long as the desire to create a powerful artificial intelligence, which in its capabilities comes closer to the so-called general/universal AI, is supported by forces, including giant corporations, the proposed desirable actions to limit and channel the development of artificial intelligence will not bring results. It is emphasized that the threats and dangers of the development of AI are considerably aggravated by the monopolization of its development by states, intelligence services and so-called globalists, who seek to control all changes in society solely in their own interests. The authors propose a number of different measures to prevent the development of negative and even very dangerous processes as a result of the use of AI, but are not sure of their effectiveness (Grinin L., Grinin A., Grinin I. 2023a, 2023b).

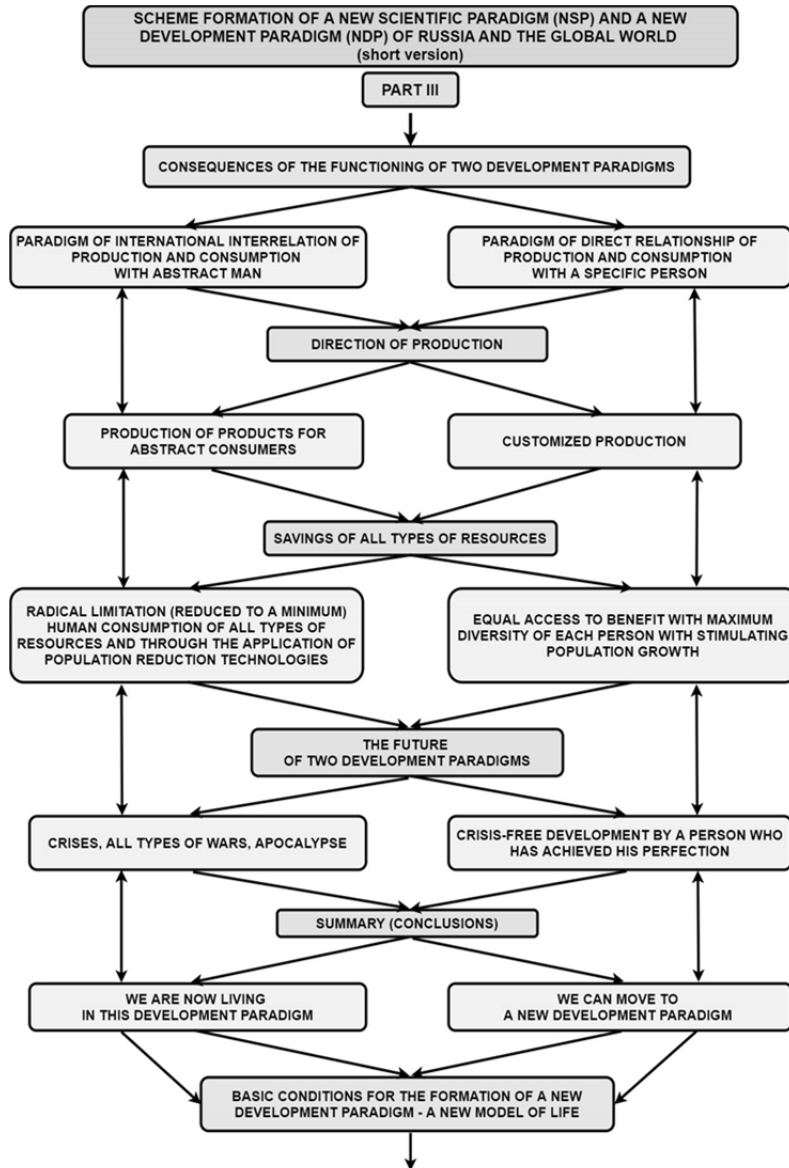


Fig. 3

Source: developed by the author.

There were also some foreign experts who claimed that the development of generative AI is the wrong direction for technological development and that it should be banned (RIA 2023). But our research has shown that it is impossible to stop the improvement of artificial neural networks or to completely disable them in the indirect development paradigm, because the interests of the giants of this industry, for example, Google, Microsoft, *etc.*, who receive the highest profits for their developments, and the interests of the globalists in maintaining power, are too great all over the world. The UN

Secretary-General believes that AI could contribute up to \$15 trillion to the global economy by 2030. At the same time, Antonio Guterres emphasizes that he is ‘amazed and shocked’ by the development of generative artificial intelligence... and believes that ‘even the developers themselves have no idea what their outstanding technological achievements can lead to’ (TASS 2023). But in May 2023, Russia's government issued a decree approving the Concept of Technological Development until 2030, in which AI developments are listed in the first line among other technologies (The Russian Government 2023).

Our research has shown that only in the second immediate development paradigm can (see Figure 3) can all the conditions be created for abandoning the development of AI, especially as a means of tracking

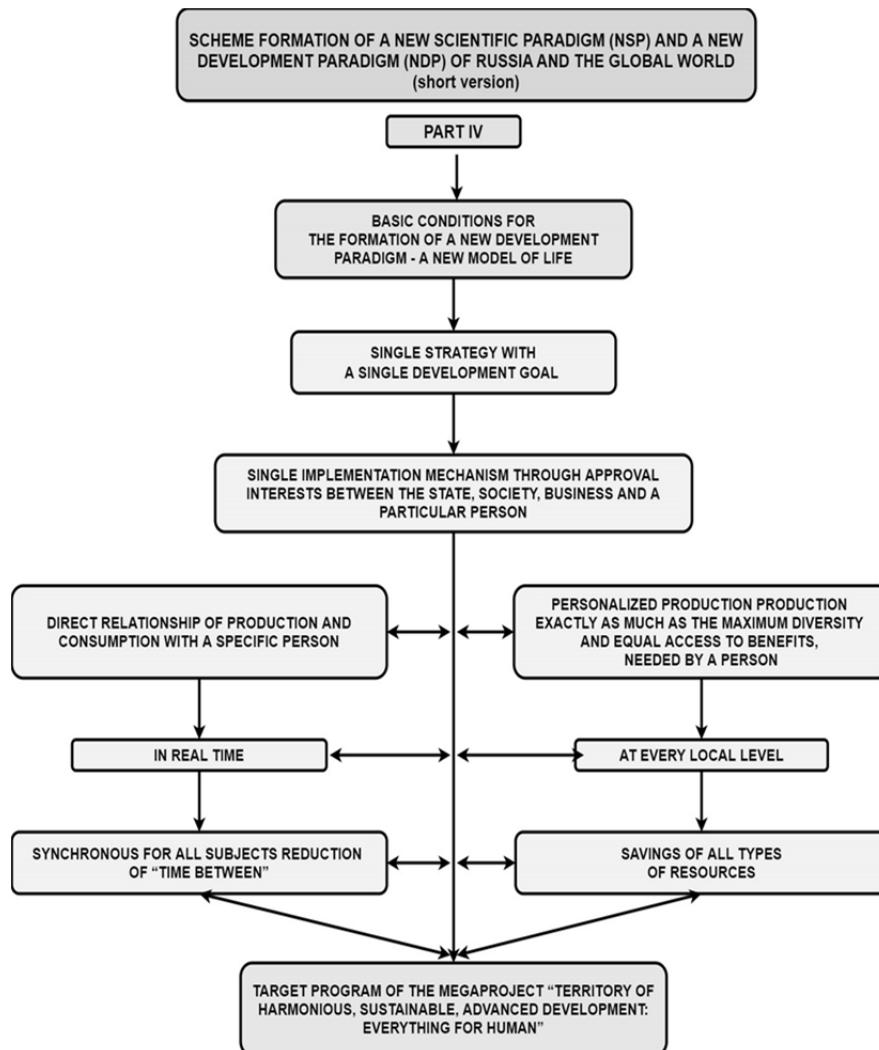


Fig. 4

Source: developed by author.

An individual and the control of the consciousness. This means that there is an urgent need to develop a model of life with a single goal and development strategy, with a single mechanism for implementing this strategy through real-time coordination of the interests of the state, society, business with the interests of each individual person (see Figure 4). Such a model will ensure the achievement of goals for each individual person with minimal resources, ever decreasing working time costs and increasing opportunities to use free time for physical development, intellectual growth, mastering spiritual and moral principles and generating new knowledge from the noosphere for one's own improvement. For example, Nikola Tesla's ideas about the power of visualization (Seifer 1996), or the philosopher Nicholas Roerich's idea about the power of creative thought: '...for there is neither space nor time for thinking' (Roerich N.d). Information about the world, its past, present and future will be instantly available to humans, which cannot be generated by the most advanced AI, which can only access information from the past. When the time to achieve a goal in a person's life is reduced to zero, everything will happen at the level and at the speed of thought, because all the structures of the giant neural network of the brain will begin to work synchronously with each other, synchronously with the neural network of other inhabitants of the planet and the neural network of space and the entire Universe. And only now is there an information society for everyone and an information society for each individual person. Russia already has all the prerequisites and trends for the transition to the New Development Paradigm (NDP).

Conclusion

The new knowledge, based on the methodology of predicting the future from the future, on the understanding of the patterns of achieving this future and the common goal of its development, makes it possible to ensure the rapid development of the human community with leaps and bounds in relation to this goal, to overtake other countries without catching up and to lead them into a new paradigm of life. Mastering this knowledge will be the basis for the fact that the need to develop various generative AI models will disappear by itself. And the consequences of its (AI's) use, predicted today by experts at the highest level, from job losses to the destruction of cybersecurity systems and the enslavement of humanity, will remain the prerogative of science fiction writers. The object of management in this developmental paradigm of the human community will be the 'time between' the achievement of the goal and reality, thereby bringing the future closer to everyone and to each individual at an ever faster pace.

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