

## INTERNATIONAL RELATIONS IN DIGITAL ERA

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## ANNOTATION

This article discusses the rapid development of the digitalization process in many areas of international relations, the changing political views of countries, the main directions of artificial intelligence (AI) development and the possible technological struggle between countries. This article provides information. The author gave his opinion on the positives and negatives of the planned digitalization of industries and the demand for robotics in the international arena. The fourth industrial revolution is described as the key in the political and economic sphere, which may occur in the near future. As an example, the People's Republic of China provided information on the digitization system. Suggestions and recommendations were made about the digitalization process between developed and developing countries and the opportunities created for the use of artificial intelligence.

**Keywords:** digitalization, Fourth Industrial Revolution, People's Republic of China, artificial intelligence.

## АННОТАЦИЯ

В данной статье обсуждается стремительное развитие процесса цифровизации во многих сферах международных отношений, меняющиеся политические взгляды стран, основные направления развития искусственного интеллекта (ИИ) и возможная технологическая борьба между странами. В данной статье представлена информация. Автор высказал свое мнение о положительных и отрицательных сторонах планируемой цифровизации отраслей и спросе на робототехнику на международной арене. Четвертая промышленная революция описывается как ключ в политической и экономической сфере, которые могут произойти в ближайшем будущем. В качестве примера Китайская Народная Республика предоставила информацию о системе оцифровки. Были высказаны предложения и рекомендации относительно процесса цифровизации между развитыми и развивающимися странами и возможностей, созданных для использования искусственного интеллекта.

**Ключевые слова:** цифровизация, Четвертая промышленная революция, Китайская Народная Республика, искусственный интеллект.

Today it is obvious that the achievements of science and technology have significantly changed the manners and conditions of human life. Looking back at history, we can witness that science and technology have affected all the spheres of society and life of human beings, besides at the same time have radically changed the sphere of manufacturing, provided new solutions to increase labor productivity.

In brief, all of the industrial revolutions that, have taken place in human history, were definitely basement of the improvement of life conditions and the development of countries. In

the upcoming years, we may witness the fourth industrial revolution. This fourth industrial revolution is completely different from the previous human civilization in its complexity and scope. The essence of this industrial revolution is the transition to fully automated digital management of production, through which many spheres are controlled by intelligent systems (and it is reasonable to mention that the role of the human factor will disappear). The discussion of this topic in 2016 took on a new hue thanks to Klaus Schwab, founder and president of the World Economic Forum in Davos and author of the book "The Fourth Industrial Revolution. The term "Fourth Industrial Revolution" was introduced in 2011 as a part of Germany's Industry 4.0 initiative<sup>1</sup>. "Industry 4.0" is the name of one of the projects of the German government's high-tech strategy to 2020, which classifies the concept of "smart manufacturing" within this initiative. (Smart manufacturing) Internet of services is based on a global industrial network. Currently, "Industry 4.0" implies a new stage of organization and management of production, based on which the mobile Internet, manufacturing devices, artificial intelligence and learning machines are organized.

It would not be wrong to say that changes in the balance of power in the course of international relations are inextricably related to the Fourth Industrial Revolution. Initially, we assessed the foreign affairs of states and the positions of these countries in the form of **Joseph Nye's**<sup>2</sup> 3 terms:

- ❖ **Soft power**<sup>3</sup>;
- ❖ **Hard power**<sup>4</sup>;
- ❖ **Smart power**<sup>5</sup>;

We should admit the technology as the factor that can change the balance of power and rules of geopolitical games in modern international relations. Analyzing many experts' views, I would like to propose to apply the concept of "the power of technology or the power of AI" into political science. This concept will come into force as a result of the fourth industrial revolution and will be based on the mechanism of systems capable of making independent decisions due to the digitalization of all directions in conducting and determining the internal and foreign policy of the country, i.e. artificial intelligence (AI) tools.

Looking at the history of China, we can see perfect example and experience. All the achievements of this country were result of efforts to follow the achievement and models of developed European countries and the correct application of them in all spheres. This country's concept of "soft power" has made a great impression on international world order and political science circles. At the VIII All-China Conference of Literature and Art, Hu Jintao expressed the following opinion: "In front of the great flow of different ideas and cultures, the demands of developing the country and improving people's life, the diversity and revitalization of the

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<sup>1</sup> О. В. Гуторович ЧЕТВЕРТАЯ ПРОМЫШЛЕННАЯ РЕВОЛЮЦИЯ И ЕЕ ВОЗМОЖНЫЕ ПОСЛЕДСТВИЯ Дискурс №6 2018. ст-11

<sup>2</sup> *Joseph Nye* - American political scientist who has developed a number of strands, a comprehensive theory of interdependence within the framework of neoliberalism; is a leading expert on international affairs and is currently a professor at Harvard's John F. Kennedy School of Government. John F. Kennedy School of Government.

<sup>3</sup> *Soft power* - a country's language and culture play a key role in international relations, it is a concept of "soft power" that directly or indirectly affects world politics and business relations.

<sup>4</sup> *Hard power* – is one of the concepts aimed at deterring a country through economic or military pressure.

<sup>5</sup> *Smart power* – this concept is a concept derived from the content of soft and hard power, a concept that offers powerful opportunities while maintaining a balance.

cultural life of society are our important and urgent questions. How do we properly guide the development of state culture, create a new and vibrant national culture, enhance the international competitiveness of our state culture and finally strengthen the "soft power" of the state<sup>6</sup>.

China's main goal in building up "soft power" is to find its role and influence in the world. We see almost no military actions in this country's foreign policy. Indeed, soft power has served to increase the enormous power of the Chinese state and to build socialism.

Recently, the fact that China has been paying serious attention to the fields of technology and artificial intelligence can be bases of views that China will host the fourth industrial revolution. Currently, China is focusing on development and appliance of artificial intelligence (AI) in the country, applying smart technologies ("technological power or AI power") in the fields in wide range, and the main purpose of this is to defeat the United States of America to become the world leader in this field.

The first thing to note is the pace of development and the systemic nature of the revolutionary transformations are encompassing all spheres of society. Underlying such sweeping changes are a number of important technologies, They are divided into three groups according to Klaus Schwab:

- ❖ Physical (physical),
- ❖ Digital (digital),
- ❖ Biological (biological),

Physical, the block includes unmanned cars, 3D printing, advanced robotics, and the development of new materials whose qualitative characteristics include lightness, strength, flexibility, and processing systems. Examples of such materials include nanomaterials such as graphene<sup>7</sup>, which is growing in popularity at an incredible rate in today's world. For example, it has unique properties: on the one hand, it has the ability to bend and easily become a tube, on the other hand, it has the strength and impact resistance comparable only to diamond<sup>8</sup>.

Amazing news in the field of biology. It seems to have appeared only in the 1990s. The 20th century genomic sequencing project was launched, with the last chromosome sequenced in 2006, and today significant progress has been made in reducing the cost and simplifying genetic sequencing. The DNA<sup>9</sup> sequencing procedure allows a person to determine their predisposition to diseases such as diabetes, heart disease, and malignancies, as well as to adjust their lifestyle and reduce risk factors. However, the human mindset continues, and now there is not only genetic sequencing, but also gene activation or correction. Synthetic biology is evolving rapidly, its possibilities until recently seemed fantastic. We are talking about organizing the body by recording DNA, creating biological systems with the desired properties. Awareness of the possibilities of synthetic biology expands the circle of people interested in its development, so

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<sup>6</sup> Цзайци Лю. «Мягкая сила» в стратегии развития Китая. Мин.прос.Китая. 2019 ст, 147-155,

<sup>7</sup> Carbon is a material consisting of a crystal lattice of hexagonal atoms. Graphene is a single lattice 1 atom thick. qatlami.

<sup>8</sup> Булатова И. М. Графен: свойства, получение, перспективы применения в нанотехнологии и нанокompозитах // Вестн. Казанского технолог. ун-та. 2011. № 10. Ст. 46.

<sup>9</sup> The genetic code - is a unique system of prescribing genetic information in the order of nucleotides in a nucleic acid molecule characteristic of living organisms. Deoxyribonucleic acid (known in the DNA molecule) determines the number of different amino acids in the structure of the nuclear synthesized chain and their ordering.

now more than a hundred laboratories around the world conduct research, combining science and technology to design and create biological functions and systems<sup>10</sup>.

At the heart of the digital block is the Internet, a product of a system capable of enabling interaction between services, places and people through interconnected technologies and platforms. For this reason, we can talk about the active development of many means of connecting things of the physical world (such as sensors) with virtual networks, which will have a significant impact on the management system not of individual enterprises, but of all activities of all industries. The Internet is creating new ways for institutions and individuals to interact and collaborate. For example, the use of blockchain (or blockchain) technology allows not only the systematization of all data, showing any activities in the network, the quality of data storage and rapid retrieval when necessary, but also significantly improves any field. This technology involves the implementation of various ideas in almost any field, from banks to passport office data storage<sup>11</sup>.

It can be seen that the result of the introduction of new technologies is supposed to be realized only through the automation of labor and productivity growth. Technological advances and the power of artificial intelligence (AI) can destroy a number of jobs, increase unemployment and widen the gap between male and female roles. According to R. B. Fuller, founder of the synergy principle, "automation makes humanity far less efficient"<sup>12</sup>.

The developing industry is characterized by a narrow specialization of labor. It is in the **virtual cloud**<sup>13</sup> (A private cloud is a virtual environment that belongs to a specific owner and uses it for its own needs. A public cloud is such a virtual environment whose owner provides services to anyone. Hybrid infrastructure is a computing system sharing both private and public cloud resources<sup>14</sup>) is based on specific projects and tasks assigned to potential implementers, which inevitably leads to fragmentation and isolation of work activities. At the same time, while the classical view of the division of labor and the use of various forms of specialization was expressed in terms of increased productivity, Karl Marx is remembered for his concern that specialization might deprive the worker of the meaning he seeks in his work. Perhaps R. B. Fuller, who believed that over-specialization was pernicious, was quoted as saying that it changes a person, i.e., it "disables a wide range of search settings"<sup>15</sup>.

The new technological reality places high demands on specialists in any field and ensures that basic knowledge of information and communication technologies, together with mathematical and financial literacy, creates a unique image of a successful person. A system will be formed in which high performance and success of people depends on the ability to think critically and creatively, initiative, social and cultural awareness, constant adaptation in different conditions,

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<sup>10</sup> О. В. Гуторович ЧЕТВЕРТАЯ ПРОМЫШЛЕННАЯ РЕВОЛЮЦИЯ И ЕЕ ВОЗМОЖНЫЕ ПОСЛЕДСТВИЯ Дискурс №6 2018. ст-12

<sup>11</sup> О. В. Гуторович ЧЕТВЕРТАЯ ПРОМЫШЛЕННАЯ РЕВОЛЮЦИЯ И ЕЕ ВОЗМОЖНЫЕ ПОСЛЕДСТВИЯ Дискурс №6 2018. ст-13

<sup>12</sup> Fuller R. B., Applewhite E. J. Synergetics: analysis of the geometry of thinking. New York: Macmillan Publishing Co. Inc., 1975. Page-57.

<sup>13</sup> Virtual cloud - is a virtual environment (cloud service) in which you can run virtual computers (servers) that you can access remotely. Physically, it consists of hardware (hardware) and virtualization software (hypervisor)

<sup>14</sup> О. В. Гуторович ЧЕТВЕРТАЯ ПРОМЫШЛЕННАЯ РЕВОЛЮЦИЯ И ЕЕ ВОЗМОЖНЫЕ ПОСЛЕДСТВИЯ Дискурс №6 2018. ст-13

<sup>15</sup> Fuller R. B., Applewhite E. J. Synergetics: analysis of the geometry of thinking. New York: Macmillan Publishing Co. Inc., 1975. Pages-58

the ability to master new skills and approaches. I would not be wrong in saying that success depends on a person's technical literacy. Understanding and controlling technology is the foundation of your well-being and the realization of your ambitions. Passive consumers of technology are at a disadvantage, which inevitably leads to greater inequality between people. The use of the latest technologies will be crucial not only to the economy, but also to the well-being of the entire country. Their support, encouragement and widespread implementation are seen as the basis of the movement toward a global information society. A systematic transition to the Internet infrastructure is also necessary. At the same time we should realize that failure or delay in realization of this task may cause society to lag behind global trends. According to C. Schwab, this "winner takes all" principle plays a key role in relations between people and between countries in this principle of the fourth industrial revolution<sup>16</sup>.

The Fourth Industrial Revolution implements a number of principles that should form the basis for the development and governance of society. The transfer of key government functions to digital platforms requires freedom of information, open data, open communication, open budget and open parliament. The introduction of the latest web technologies, e-government processes, informing the public about problem situations and solutions, and a civil society control system. The implementation of these principles will increase pressure from both the applicants for power, and from society, social groups and individual citizens, who as a result of awareness will become more demanding in their expectations. The reality of information creates a unique situation in which it is very easy to gain and lose power through modern technology, but very difficult to implement it<sup>17</sup>.

We are increasingly aware that new relationships between people, social groups, society, and the state arise with the formation and development of the digital mass information system. Their high convenience gives the interacting units access to a wide range of economic, political, social, cultural and ideological relations, which are characterized by very close connections. Such changes, expected in the fourth branch, can bring both benefits and harms, for example: on the one hand, thanks to modern technology, everyone has the opportunity to express their opinions and participate in solving public issues, on the other hand, such opportunities can be used for bad propaganda.

## LITERATURE

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<sup>16</sup> Шваб К. Четвертая промышленная революция / пер. с англ. М.: Эксмо, 2016 ст-40

<sup>17</sup> О. В. Гуторович ЧЕТВЕРТАЯ ПРОМЫШЛЕННАЯ РЕВОЛЮЦИЯ И ЕЕ ВОЗМОЖНЫЕ ПОСЛЕДСТВИЯ Дискурс №6 2018. ст-15