



### A Preliminary Study of the Influence of Artificial Intelligence on Globalization

Chang Wang\*

School of International Studies, Jinan University, Guangzhou, Guangdong, 518102, China

Abstract: The emergence and development of artificial intelligence (AI), in essence, still belong to the category of scientific and technological development. However, unlike previous science and technology, on the one hand, its continuous development will bring about the renewal and iteration of production tools and promote the development of productive forces; on the other hand, its application will affect all aspects of social life, including military, political, economic and so on. With the development of artificial intelligence, countries with the technical advantages of artificial intelligence will build strong technical barriers, which will further widen the gap between countries, and thus will further differentiate. The development and wide application of artificial intelligence have brought new changes to globalization. It is mainly manifested in the unique influence of AI technology, which makes the pattern of international power polarized, further exacerbates the deterioration of the old order, and brings new challenges to globalization. The development of artificial intelligence will have a far-reaching impact on globalization.

Keywords: Artificial Intelligence, Globalization, Impact

Publication date: September, 2019
Publication online: 30 September, 2019
\*Corresponding author: Chang Wang, zecard@163.com

# 1 Generation and development of artificial intelligence

### 1.1 Generation of artificial intelligence

Human exploration of Artificial Intelligence (AI) can be traced back to the era of Pascal and Leibniz. Since Turing invented computers, humans have turned to the path of rapid development. Until this day, Alpha Go defeated humans for the first time in the field of Go through computer algorithms. This event marked an important milestone that the artificial intelligence has surpassed the human capabilities in playing the complex game of Go. The history of artificial intelligence in the process of its development as reflected by Pascal, Leibniz, or Turing, or even the Dartmouth conference that marks the birth of the artificial intelligence discipline has been bearing a noble dream of "creating an intelligent system that can act and think like a human being." With the development of science and technology, the content of artificial intelligence is further enriched, whereby the basic foundational theories such as machine perception and recognition principle, knowledge acquisition, expression and reasoning theory, machine learning and algorithms have been established in the field of artificial intelligence. These aspects, without a doubt, have made some progress so far. These theories cover machine learning and knowledge acquisition, knowledge processing systems, natural language understanding, computer vision, intelligent robots and many other aspects.

Regarding the nature of artificial intelligence, Deloitte, a world-famous consultancy, believes that the artificial intelligence at the current stage is largely based on the deep learning technology in the field of machine learning under the concept of artificial intelligence. Its underlying principle is relatively simple, and it greatly depends on data. It is essentially a statistical analysis technique applied on the basis of big data. Deep learning simply classifies the data and information. Humans are constantly dwarfed in face of the massive, high-dimensional information as our brains have great limitations in terms of data storage capacity and computational speed. In contrast, computers are more excellent compared to humans in data storage and computation. The ultimate outcome of combining deep learning methods is that the humans can be surpassed by the computers which can achieve more information, more dimensions, and more accurate classification results in some specific scenarios<sup>[1]</sup>.

### **1.2** Development and future of artificial intelligence

From Marx's perspective, technology is the fruit of various factors originating from human needs and various living and physiological needs such as eating, drinking, living, and wearing. The technology cannot exist separately from human beings. "Technology as a way of human existence is accompanied by human beings."<sup>[2]</sup> "The first premise of all human history is undoubtedly the existence of a living individual. Therefore, the first fact that we need to confirm is that the physical organization if these individuals and their relationship with the nature."<sup>[3]</sup> "The modern natural sciences and the modern industry revolutionized the entire natural world, terminating the naive attitudes of nature and other naive behaviors."<sup>[4]</sup>

As an emerging technology, artificial intelligence has been widely used in many aspects such as military army, politics, finance, economy and other international politics, as well as in health care, aerospace, factories, warehouses, services and daily life. The scope of applications of artificial intelligence will be getting more extensive and comprehensive. Artificial intelligence also highlights the tremendous force behind the social productivity. "With the development of large industries, the creation of wealth depends less on the labor time and the amount of labor that have already been spent, instead, the wealth will depends more on the strength of the tools used during labor time, and this types of the tools themselves... depends on the general level of science and technological advancement, or on the application of the science in production."<sup>[5]</sup> By 2018, artificial intelligence has effectively reduced the labor costs, optimizing products and services and creating new markets and employment. Other aspects of artificial intelligence have also revolutionized the production and life. According to Sage, the emergence of artificial intelligence will bring an additional 14% increase and growth to the world by 2030<sup>[6]</sup>. Looking at the development of artificial intelligence from the basic standpoints and viewpoints of Marxism on the relationship between man and technology, artificial intelligence has still a lot of rooms for development. As we are still not in the exact era of artificial intelligence,

more products that are resulted from artificial intelligence will continue to emerge and become more widely in use with the continuous acceleration of computer speeds and new software developments. We urgently need to think and evaluate its impact, and attempt to give possible corresponding solutions to all the problems.

We continue to be amazed by artificial intelligence system that is currently in use. In the foreseeable future, artificial intelligence will become a way of thinking about social phenomena. Artificial intelligence is participating and creating new social living spaces at an unpredictable rate, and will also change the status quo of globalization. In the next phase, in addition to designing artificial intelligence that is superior to humans in particular fields, humans need to design and create artificial intelligence that transcends human capabilities that humans may not be able to compete. Artificial intelligence may be the most profound revolution that has the great influence to society in history. It is inevitable for us to have a deep thought about the evolution of globalization when we are standing at the crossroads of technology and civilization.

### 2 Factors of influence of globalization

### 2.1 The interpretation of globalization

Globalization is the study of transnational issues on a global scale. The study of globalization began in developed countries of the West. However, globalization is a common topic similarly in the West and the East at present. Yu Keping believes that globalization is a true transnational study, or it can be regarded as a true supranational theory. He believes that the theory of globalization is transnational, comprehensive, inclusive and inherently contradictory<sup>[7]</sup>. Herder defines globalization as: a process (or collectively, processes) of spatial organizational transformation that embodies social relationships and transactions which are measured by their breadth, intensity, speed, and impact - with cross-continental or inter-regional mobility and networks of activities, interactions and power implementation. Therefore, in order to comprehensively describe the historical form of globalization, they have designed four dimensions, including the breadth of global networks, the strength of global interconnectedness, the speed of global mobility, and the impact of global interconnectedness. On this basis, the four pillars, i.e. infrastructure, institutionalization,

stratification, and communication are outlined. These four pillars are therefore used to conduct qualitative and quantitative analysis of globalization<sup>[8]</sup>. This definition (of pillars) is widely accepted by the academic community. From Kant's concept of "peace of eternity" to the establishment of the national alliance and the United Nations, although there are twists and turns in the global development, the overall situation is considered certain. Jacques evangelism elaborated on this assertion in "Constructing the World Community." In the preamble to the UN Charter, it is written: "To save our descendants so that they will no longer suffer from the disaster of war," "re-establish confidence in basic human rights", "to promote social progress and build better standards of living with more freedom", "to promote the economic and social development of the people to establish an international mechanism"<sup>[9]</sup> Aliji described the history of capitalism based on the theory of Marx's capital accumulation with a new perspective. He considered the capitalist world system as a transitional stage in the history of human society and predicts that a new social system will eventually replace the capitalist world system<sup>[10]</sup>. As a matter of fact, the trend of globalization should progress towards the right path on the basis on historical conditions and the future.

### 2.2 Factors of influence of globalization

According to Herder's research, globalization is considered a historical phenomenon. The impact of globalization can be classified into different aspects such as decision-making, institutions, distribution and organization. The contemporary global interconnectedness is not a brand new phenomenon, but it is different because of the era in which it is situated in. Therefore, Herder proposed an organizational structure that can be analyzed. First, analyze the breadth of global networks, the strength of global interconnectedness, the speed of global mobility, and the four dimensions of global interconnection. On this basis, we analyze the four aspects of infrastructure, institutionalization, stratification and interaction. Use qualitative and quantitative analysis of the four aspects to achieve a more accurate description of globalization<sup>[11]</sup>. Friedman provided an analysis of the framework of globalization before and after the Cold War, with eight elements and eleven new elements<sup>[12]</sup>. Therefore, the most important thing in the analysis of globalization is to fully understand the construction and content of the theoretical framework. A precise

framework of Heraldian and Friedmanian metrics is required for understanding globalization in order to make it easier to accept the globalization. In the modern society where science and technology are in rapid development, we should focus on the reality and basis when using indicators and dimensions. In terms of methodology, Herder's main contribution is the provision of dimension and a historical view, whereas Friedman contributed a comprehensive method for analysis. Both methods provide important frameworks in measuring and exploring the influence of historical events on globalization. Therefore, when we analyze the development of artificial intelligence and its impact on globalization, we analyze the state of the three-dimensional space in which it is based on the abovementioned dimensions. Based on the above factors and dimensions, the impact of artificial intelligence on globalization is analyzed with an emphasis on the perspective of science and technology.

# **3** The impacts of the development of artificial intelligence on globalization

The development of artificial intelligence has provided new impetus to the formation of the global power structure, but it is also an important contributing factor to the new, unequal relationship and registration. Keohhan and Joseph Nye pointed out that in a sense it actually helped the already powerful subject. There are four reasons behind this assetion. First, there are barriers to entry and economies in information access rights. Second, access to and generation of new information requires high investment. Third, the inititator is usually the standard of information systems and the creator of the structure. Fourthly, in the case that military power is still of great significance, information technology has helped the strong side. Herder believes that the inequality brought about by information technology is mainly manifested in three aspects. Firstly, the development of information technology has further strengthened the technological advantages that have already been established by developed countries, and has increased the gap in technological development with most developing countries. As a consequence, this led to inequality among the technology traders. Secondly, there is a serious imbalance in the access of information. Whether it is the carrier of information or its distribution to major media in the world, the West has the obvious advantages. Finally, the development of information technology also increased other advantages

of developed countries. The most outstanding performance is that English has become a language in computer programming. This resulted in the actual inequality of different cultural exchanges<sup>[13]</sup>. Therefore, the difference has grown further when the international subjects who took the lead in implementing change to develop their technological strength while simultaneously barriers to technology are built.

The ever-changing scientific and technological revolution continues to be deeply integrated with social and economic development. The universal application of artificial intelligence in labor production tools is a brand-new revolution. Capitalist enterprises generally have entered the stage of modern technological equipment, and artificial intelligence equipment is generally used in production activities. From the perspective of Marxism, artificial intelligence is a product of human practice. At present, the ability of artificial intelligence can greatly surpass human ability in some aspects, but this does not mean that it can be created and developed independently of the interference of human, nor does it mean that the artificial intelligence can grow out of its very identity of technology. Marx believes that human subjectivity is formed in practice and is confirmed and strengthened in practice<sup>[14]</sup>. "The essence of man is not the abstraction inherent in a single person. In its reality, it is the sum of all social relations."<sup>[15]</sup> Whether the artificial intelligence can be capable of achieving the same ability and equality as human beings in term of identity in the future should be the question of the next era. At present, artificial intelligence exists as a technology that has a tremendous driving force in the society. For human beings, it is a simulation of the human brain in the working mode, an enhancement of the logical thinking ability of the human brain, an extension of the human brain, and a huge society in the foreseeable future. Artificial intelligence will become a pivotal tool for people to use in military, economic and other aspects, resulting in a huge impact on the world system. Countries or subjects that master artificial intelligence technology rely on the advantages of artificial intelligence technology to form efficient productivity, further widen the gap in comprehensive strength between countries or actors, resulting in a significant imbalance in the game process among countries. The technological advantages generated by countries with artificial intelligence advantages will inevitably become barriers and gaps between the states and the subjects.

# 3.1 The unique and comprehensive impacts of artificial intelligence technology

Artificial intelligence technology is different from military, political, economic, financial and other power factors in the past, because it has a wide range of influences and unprecedented levels. From the perspective of Marx's epistemology, artificial intelligence represents the essence of modern science and technology. It is the same as stoneware, ironwork, machinery, and robots which are in the same category of labor production tools<sup>[16]</sup>. The development of productive forces will certainly liberate more people from the complicated and bureaucratic physical labor. Therefore, artificial intelligence is first applied in production in all aspects, and in depth. With the in-depth research and development of artificial intelligence, the system with intelligent analysis has become a common trend, and its influence has expanded to all aspects of society. Gradually, the influence of artificial intelligence technology on the national strength will become very huge. It may become an important foundation for the rapid military, political, economic, and financial development. On the other hand, it also applies to all aspects of life in future and becomes an important part of society. Kissinger believes that order always requires a delicate balance between restraint, strength and legitimacy<sup>[17]</sup>. The application of artificial intelligence technology is conducive to the formulation of a universally accepted order, and the formation of universally accepted rules through universal discussion, and the maintenance of universal legitimacy through the strength provided by artificial intelligence to safeguard the system operation of the world. Whether the future is likely to become a unique element of the country to influence the system in the future requires further observation. In 2016, the State Council of China passed the "13th Five-Year National Strategic Development Plan of Emerging Industries", which will promote basic theoretical research and core technology development, and realize the industrialization of human neural computing chips, intelligent robots and intelligent application systems. New artificial intelligence technologies are embedded in various fields. In July 2017, the "New Generation Artificial Intelligence Development Plan" was released to further deepen the deployment of artificial intelligence at the national strategic level, and proposed to achieve the initiator advantage, through the "three-step" strategy<sup>[18]</sup>, in order to realize the

development of artificial intelligence development in China by 2030 in accordance to the blueprint. "We must have the global perspective; place the development of artificial intelligence at the national strategic level, plan systematically, take the initiative to plan and develop artificial intelligence of the next phase in face of the international competition, create new competitive advantages, create new development opportunities, and protect national security with effectiveness."<sup>[19]</sup> In December 2017, the Ministry of Industry and Information Technology issued the "Three-Year Plan for Promoting the Development of a New Generation of Artificial Intelligence Industry (2018-2020)", which detailed the key development directions and goals of artificial intelligence in the next three years. Focusing on the industrialization and integration of a new generation of artificial intelligence technology, we will promote the deep integration of artificial intelligence and manufacturing, and accelerate the construction of a strong country and a network powerhouse. Through the joint efforts of the government and civil innovation, the artificial intelligence industry has achieved excellent development in China. At present, artificial intelligence enterprises such as BAT, Dajiang Innovation, and Excellent Bid which have definite advantages on the global scale were formed. On the basis of in-depth analysis of the artificial intelligence policies of the major developed countries in the world, combined with the actual situation of China's artificial intelligence policy, Yu Hanchao and other scholars have proposed to accelerate the implementation of national policies, provide sustained and stable support for basic research on artificial intelligence, establish open and comprehensive digitalized ecosystem for sharing, strengthen venture capital guidance and deployment of application scenario, establish ethical and legal consensus on five recommendations, in order to promote the rapid development of artificial intelligence industry in China and to accelerate the pace of China on becoming an innovative country and the world's technological power<sup>[20]</sup>. The author believes that in addition to promoting artificial intelligence as an industrial development, we should also focus on artificial intelligence as a basic construction strategy. Through large-scale research and development on artificial intelligence and upgrading, to form a strong traction and a leading force to seek a broader space.

The world's major countries are paying much attention to artificial intelligence. In fact, the countries

with artificial intelligence advantages are building stronger barriers to achieve what the US President Donald Trump said is that the United States is technically leading the world<sup>[21]</sup>. The White House held the Artificial Intelligence Summit and released the "2018 White House Artificial Intelligence Technology Summit Summary Report". The artificial intelligence summit is a major initiative in artificial intelligence since Trump took office. It has released important policy signals for the development of artificial intelligence in the United States, reflecting the importance the Trump administration attaches to the development of artificial intelligence. The European Union and European countries represented by the United Kingdom, France, and Germany are paying much attention to the ethical and legal challenges brought about by the development of artificial intelligence in policy formulation. The artificial intelligence policy released by Japan tends to use artificial intelligence technology resulting from research and development to promote the advancement of robot technology, and thus promote the building of "super smart society." In recent years, the investment in artificial intelligence in the European Union and Japan has also increased rapidly. From the adjustment of artificial intelligence policies in the abovementioned countries, the adjustment of artificial intelligence policies in developed countries is mainly reflected in supporting research and development ecosystems, developing labor markets, removing obstacles in the process of artificial intelligence innovation, big data and environmental strategies, etc., with the aim of maintaining their leading positions in the field of artificial intelligence worldwide.

# **3.2 Segregation of international power by** artificial intelligence

Changes in the overall strength of the world's major powers will be the first thing we will see in the changes of the international power structure<sup>[22]</sup>. There are two distinct tendencies on the international landscape: on the one hand, the various power alliances in the world and the major power relations have undergone profound adjustments and transformations, and the trend of multi-polarization in the world will undergo new developments globally or regionally; on the other hand, the United States is trying to use its advantage in the world's only superpower to try to establish its global dominance and build a unipolar world under its leadership. These two tendencies coexist and they are in a fierce competition, affecting the development of the international situation and affecting its evolution. Varieties of forces coexist and develop, and steadily rise. The trend of multi-polarization is irreversible and tortuous. The United States is arrogant and unpopular for its dominance in the world. The arrogance and dominance cannot be willingly accepted. Changes and transformations are the basic characteristics of a system with social characteristics. Since the distribution of power, interests and concepts of big powers will directly affect the international order, and the influence of big powers on the international order will inevitably be enormous. The interaction between big powers will be related to mutual interests and powers. The main form to express it is to create and promote the system. Every change in the international system constitutes the basis of the world order. The power outside the political, economic, and cultural systems on which any system depends will be promoted. In particular, when major international events or technological revolutions take place, they will have a profound impact on the original international system and the world order.

Qin Yaqing proposed an analytical framework for the transformation of the international system, that is, the ontological changes of the international system are based on the changes in the nature of the system, and the internal changes in the international system are reflected in the changes in the three elements, i.e. system structure, institutional structure and conceptual structure. Using this framework to observe, although the international system shows many signs of changes in the system itself, the ontological transformation of the system has not appeared<sup>[23]</sup>. This framework is equally applicable to the analysis of globalization. When a powerful hegemonic country is heading for decline, this decline must begin in one of the economic and military fields, so that the system can transition to partial balance or partial hegemony system. After experiencing a transition period, the system will truly return to a more balanced state of balance. In the same way, in a fairly balanced power system, the unbalanced development of each unit's strength will make the system first transition to partial balance or partial hegemony system, and then may form a hegemonic system dominated by a certain power. Moreover, this process may be repeated. In the process of becoming the hegemonic system, the system may still return to the balance of power, but the main unit and its strategic relationship under the new balance of power may be different from the previous balance

of power<sup>[24]</sup>. This feature of the international situation and the development of the international pattern is an important factor that constrains the regional pattern change and development, and is also an important factor restricting the development of international relations throughout the world. For example, East Asia has important political, economic, and military powers in the world. The United States, China, Japan, Russia, and ASEAN all have direct interests. Europe, Africa, India, Australia, and Latin America also have various existing interests. This is highly complex, and this becomes one of the hotspots of the assimilation and friction of interests in today's world. The nuclear issue in North Korea, the Taiwan Strait issue, the East China Sea issue, the South China Sea issue, and the Chinese and overseas Chinese issues are all the hot issues in the world. The resulting international influence is related to the East Asian pattern and to the international system. The crisscrossing of many interest groups has led to changes in the political landscape of East Asia along with the changes in the international landscape. A set of rules that clearly define the boundaries and are accepted by many states, and a balance of power that forces the parties to exercise self-restraint when the rules are destroyed. The balance between legitimacy and power is extremely complex, and the smaller the geographical scope, the more consistent the cultural concept of the region, and the easier it is to reach a viable consensus<sup>[25]</sup>.

In recent years, the development of artificial intelligence in China has made China to land on the leading position in some aspects. The United States continues to maintain a good state of development with its leading position in technology. Former US Secretary of State Henry Kissinger considers "it is important for China and the United States to build a new world system." China has made tremendous contributions to the world. China's development model is of great significance to China itself and to other countries in the world<sup>[26]</sup>. The main question that Kissinger thinks is: how China is self-sufficient in its efforts to seek a new world order, especially how to deal with the relations with the United States<sup>[27]</sup>. Since the current rules of the major international order are all led by the West, the international community requires China to comply with the requirements of the rules that China has never participated in formulating. However, they expect the development of the international order so that China can take the central role to participate in the formulation

of future international rules and even to modify some existing general rules. This expectation will be realized sooner or later. From the current point of view, although China is not suitable to change the original strategy of "keeping a low profile", it should choose to maintain an international strategy based on cooperation with the United States and strategically reach a strategic understanding with the United States. However, it does not mean that China will not change this strategy and form a strong change in its strategy in the next two or three decades.

## **3.3** Further exacerbation of the old order with the widespread use of artificial intelligence

The development and application of artificial intelligence is more of a game of great powers, and the opening of this round of international competition has brought us deeper worries than ever before, because this is not only the competition of artificial intelligence, but also an overall competition of the military, economic and social values. The change in the comprehensive strength of hegemonic countries will be the main starting point for us to observe changes in the structure of international power based on capitalist production methods<sup>[28]</sup>. Russian President Vladimir Putin has said that countries leading in the field of artificial intelligence will become the rulers of the world. Artificial intelligence will exacerbate the imbalance in the development of power among nations. Military and economy are still the most important factors to measure the balance of power between countries, and the geometric power growth brought by artificial intelligence in these two fields will fundamentally change the contrast trend of power among countries<sup>[29]</sup>. It will promote the efficiency of innovation and development of a country's economy, the level of comprehensive social governance, and the country's national defense and security. Artificial intelligence as a high-tech that leads the future, or will reshape the changes in national strength when the country's strength has been centered on technological innovation<sup>[30]</sup>.

The old global governance system and the new problems brought about by the financial crisis are asymmetrical, leading to the disorder of the existing governance order, and the phenomenon of "governance failure" occurs mainly in the form of economic imbalance, political disorder and cultural anomie<sup>[31]</sup>. From the perspective of international relations, Professor Wang Zhengyi believes that the four major

driving forces of the world system are national living space, trade and finance, science and technology, systems and war. The primary driving force for the country to enter the world system is to expand the country's living space. The state creates an economic atmosphere through mutual cooperation, and on the other hand, it creates conflicts due to the distribution of wealth within the economy. The development of financial trade promotes the development of the economic world. The advancement of science and technology as a typical element of survival promotes the development of the industrial revolution and further promotes the development of the international system. The innovation of science and technology promotes the continuation of the world system. Institutions and wars are also important driving forces for the continuation of the world system. Under the same institutional mechanism, hegemonic national interests and public interests are not isolated from each other. Hegemonic states also provide public goods and create public interests for the world system when constructing hegemonic order. These four dynamics have led to the renewal of the world system for 500 years to the present<sup>[32]</sup>. In the previous world division of labor system, developing countries also had the opportunity to change their own destiny by participating in the world division of labor, and the development of artificial intelligence made this division of labor gradually disappear<sup>[33]</sup>. With the path of artificial intelligence intervention in strategic activities is getting gradually clearer, the rigid barriers of the traditional strategic behavior pattern that have been there for centuries have become more obvious under the constant impact of new technologies<sup>[34]</sup>. The application of artificial intelligence in specific environments allows more precise tactical decision-making of the state and subjects' strategic decision-making and execution levels. The negative effects of the old order are being challenged by more countries and subjects. The development of new technologies has rectified the weakness of competition. Although the technology itself cannot be distinctly identified as good or evil, the subjects who are rational cannot choose to refuse in the face of such a huge "temptation" of the strategic competitive advantage that is hardly reversible<sup>[35]</sup>. New game tools and corresponding institutional arrangements will gradually replace traditional programs and become a principal force in reshaping the international strategic system, and this power is entirely likely to bring about a change that is equivalent to the impact of a nuclear-weapon<sup>[36]</sup>. The world is in a stage of rapid development. On the one hand, we must recognize the main elements of the development of the modern era. The development strategies of various countries have already begun on the exploration of artificial intelligence. On the other hand, we need to carefully summarize the past development model, constantly correct policies and re-orient directions, follow the main theme of the contemporary era, master the content and direction of transformation, reduce the risks brought about by the development of new technologies, and use new technologies to lead the human society towards a more prosperous and beautiful future.

# 3.4 New challenges brought by artificial intelligence to globalization

Is the international relationship in the era of artificial intelligence really heading towards the "jungle"? On the eve of the arrival of the era of artificial intelligence, we must be optimistic, but also worry about the challenges and problems it might bring about<sup>[37]</sup>. Artificial intelligence brings new challenges to globalization, including international security, international competition, the challenges of international development, and possibly many else. Jacques evangelism believes that the communities in the world need to develop into a democratic community in order to strengthen the construction of the future world community. Through the control of dangers, it is necessary to control and guide itself through the globalization process to achieve the cooperation and commitment of the most member states and other systems. In particular, its financial and economic control and guidance to achieve a broader and deeper sharing of human values as well as peace and cooperation ultimately achieve a globalized democratic community in line with human nature<sup>[38]</sup>. Aliji pointed out that there are three possibilities for the world order in the future: first, an expanded national alliance led by the United States; second, an equal world market society based on China's economic power; and third, a new world war that can completely destroy mankind. The second possibility will become a reality with the decline of US and the rise of China<sup>[39]</sup>. He also believes that China will play an important role in the construction of the new system. Aliji's elaboration on China's rise is relatively objective. China's current role in the world system is growing and its influence

is growing. From the comparison of strengths between various countries, China has now become the largest economic power second only to the United States. Therefore, an understanding of the relationship between China and the United States has become an indicator and important reference for judging the world pattern of the new era.

We still need to observe whether the future international system is developing in the direction of stability and cooperation, or towards another bloody massacre and war. However, the inception of a positive system requires tempering of human and the gradual transformation of the society that should persist for a longer period of time, and it will not be achieved in the recent generations. The old global governance system and the new problems brought about by the financial crisis are asymmetrical, leading to the disorder of the existing governance order, and the phenomenon of "governance failure" occurs mainly in the form of economic imbalance, political disorder and cultural anomie<sup>[40]</sup>. The old order often will not perpetuate its existence through continuous improvement. It may also be similar to the sudden and rapid end of the Cold War. To establish a new world order, China cannot be the most populous country in the world. Since then, China has made tremendous contributions to the world. China's development model is of great significance to China itself and to other countries in the world<sup>[41]</sup>. However, the formation and emergence of the new structure will certainly be difficult, because the concept, behavior and institutional foundation of order is built on the basis of routine and habitual practice, and the practice is not easy to replace. In view of the fact that the rules of the current major international order are all led by the West, the international community requires China to comply with the requirements of the rules that it has never participated in formulating. The Chinese have agreed in the past two or three decades after careful consideration. However, they expect the development of the international order to enable China to participate in the formulation of future international rules and even to modify some existing general rules. This expectation will be realized sooner or later.

In addition, President Xi proposed that the fourth scientific and technological revolution is an important milestone for the transformation in human society. The core of its support is the platform, and the composition of the platform includes the content. In addition to the traditional military, political, and economic content, the content that constitutes the core of the platform also encompasses the development and application of artificial intelligence. The author believes that in the future, artificial intelligence will likely become an important factor in the international order, and become the fourth important factor that can influence the composition of the world system in addition to military, political, and economic aspects. Artificial intelligence is a very enriching concept. It covers machine learning and knowledge acquisition, knowledge processing systems, natural language understanding, computer vision, intelligent robots and many other aspects. Therefore, artificial intelligence is also affecting social development comprehensively in an in-depth manner. Artificial intelligence technology has a very colossal influence on the national strength because it promotes the efficiency of innovation and development of a country's economy, the level of comprehensive social governance, and the country's national defense security. When the country's strength has been centered on technological innovation, artificial intelligence will become a high-tier technology that leads the future, or will reshape the national strength<sup>[42]</sup>. In the previous world division of labor system, developing countries also had the opportunity to change their own destiny by participating in the world division of labor, and the development of artificial intelligence made this division of labor gradually disappear. The next important goal for Western great enterprises is localization and involution<sup>[43]</sup>. The arrival of the era of artificial intelligence will undoubtedly trigger a new round of international science and technology competition, and it will also complicate the international competition situation. There may be more challenges for artificial intelligence in international security, international competition, and international development. Is the international relationship in the era of artificial intelligence really heading towards the "jungle"? On the eve of the arrival of the era of artificial intelligence, we must be optimistic, but also worry about the challenges and problems it may bring about<sup>[44]</sup>. In fact, the countries with artificial intelligence advantages are building stronger barriers to achieve what the US President Donald Trump said is that the United States is technically leading the world<sup>[45]</sup>.

### 3.5 Building the future world community

In our imagination of the future, the application of artificial intelligence technology will make great

changes in the economy, politics and military on a global scale. This transformations in the future situation will not be known for the time being. If some settings of artificial intelligence can be recognized by countries all over the world, the globalized management system may even become a possible expression of the global will in creating a community of the future world and realizing globalization. As Jacques evangelism describes in "Constructing the World Community": the development of the world will make a step into peace and security, with sustained and shared prosperity, open and equal opportunities, and just application of fair legal rules. Human life is holy and noble; human dignity and human rights must be respected tolerance, diversity and pluralism are appreciated. In addition, people are polite and sympathetic in their interactions, emphasizing the healthy balance between private interests and public interests<sup>[46]</sup>.

Kissinger believes that the main question of the future world order is: how China is self-sufficient in its efforts to seek a new world order, especially how to deal with the relations with the United States<sup>[47]</sup>. He believes that "building a new world system is of paramount importance to China and the United States." China has made tremendous contributions to the world. China's development model is of great significance to China itself and to other countries in the world<sup>[48]</sup>. This can be seen from the fact that the West gradually accepts China as a powerful country. Apart from that, China has also proposed international strategies such as building a harmonious world and a human community through the Belt and Road Initiative, the Asian Investment Bank, and the G20, to strengthen its influence on the international system and order. Kissinger said: When two big countries like China and the United States interact are in a state of change, occasional friction is inevitable. China has experienced four generations of leaders. The United States has experienced eight presidents. Even if there are some difficulties in the past few years, cooperation and collaboration is what the overall trend of relations between the two countries is heading to<sup>[49]</sup>.

The future world community needs to be a community of democracy for at least four reasons. First, the need to continuously control the threats to the globalized world requires the cooperation and commitment of the vast majority of member states and other institutions. Second, the globalization process itself needs to be controlled and guided, especially the control and guidance on its financial and economic aspects. Third, peace and cooperation can overwhelm conflicts and wars only through wider and deeper sharing of human values. Fourth, the search for a globalized democratic community stems from the nature of mankind, and the appeal of democracy is that democracy is a morally and politically acceptable form of social organization<sup>[50]</sup>. There is peace and security, there is sustained and shared prosperity, opportunities are open and equal, fair legal rules are applied fairly, human life is holy and noble, there is respect for human dignity and human rights, tolerance, diversity and pluralism are appreciated, people are polite and sympathetic in their interactions, emphasizing the healthy balance between private and public interests<sup>[51]</sup>. Nevertheless, the world in reality is very different: there are ongoing military conflicts within the country, the national quality inspections, thousands of victims and asylum seekers, the same oppressive regimes in most countries, the sprawling corruption and exploitation, prejudice manifested by different forms of public discrimination, huge segregation of knowledge and resources, and unequal distribution of power and income. These conditions are reflected in poverty, illiteracy, famine and health deterioration<sup>[52]</sup>. Any major events in the international and regional areas may affect the policy changes of the main forces, causing changes in the regional situation. As time goes by, the quantitative change will cause qualitative changes, which will eventually lead to the segregation and restructuring of the international pattern. Aliji believes that the free market will only lead to the combination of power and capital, while Smith's ideal model in this regard is in China. This model is essentially the natural growth of the market economy under government regulation. An ideal development model needs to be based on the positive interaction between government and capital. In the past five years, China has been implementing the rules of law in nation governance and is committed to limiting government and capital activities within the framework of the Constitution and laws. This is the focus of President Xi's ruling since he was the general secretary. In fact, the advantage of the Chinese model lies in macroeconomic regulation and control, and the self-restraint of the ruling party<sup>[53]</sup>. Aliji also believes that China's rapidly growing economy has not yet opened up an ecologically sustainable development path for the country and the world because of its excessive dependence on the Western-styled

energy consumption development path<sup>[54]</sup>.

In the next decade, if China still maintains its current economic growth rate, China will become a big country that has the economic strength parallel to United States, with the GDP that is very close to the United States. By then, China and the United States will have a greater impact on globalization. It is necessary for us to analyze the international situation of globalization and formulate correct foreign policies, so that China can further expand its participation in and lead the development of globalization as to promote the development of China's socialist cause!

### References

- [1] Deloitte, The future of intelligence will we be replaced by artificial intelligence? A discussion starting from AlphaGo Zero, https://www2.deloitte.com/cn/zh/pages/innovation/ articles/artificial-intelligence-and-machine-learning.html
- [2] Cheng HD, Liu W. Context: The real and existing fields of technology[J]. Journal of Northeastern University (Social Science Edition), 2014:6.
- [3] Selected Works of Marx and Engels[M]. Beijing: People's Publishing House, 2012(1):146, 60.
- [4] Complete Works of Marx and Engels[M]. Beijing: People's Publishing House, 1998(10):254.
- [5] Marx and Engels Anthology[M]. Beijing: People's Publishing House, 2009(8):195–6.
- [6] Deloitte, White Paper on China's Artificial Intelligence Industry, 2018, https://www2.deloitte.com/cn/en/pages/ innovation/articles/china-ai-industry-whitepaper-intelligencedriven-by-innovation.html
- [7] [English] David Helder, [English] Anthony McGrew, [English] David Goldbright, [English] Jonathan Peraton, Yang Xuedong, Zhou Hongyun, Chen Jiagang , Song Songyan and other translations. Global revolution: politics, economy and culture in the era of globalization, Social Science Literature Publishing House, 2001.04, first edition, whole preface.
- [8] [English] David Helder, [English] Anthony McGrew, [English] David Goldbright, [English] Jonathan Peraton, Yang XD, Zhou HY, Chen JG, Song SY and other translations. Global revolution: politics, economy and culture in the era of globalization. Social Sciences Literature Publishing House, 2001(04):9.
- [9] Editor-in-Chief of Harvard Yenching Institute, edited by Jacques Evangelism, "Constructing the World Community" [M]. Phoenix Publishing Group Jiangsu Education Press, 2006 First Edition, Introduction.
- [10] Xu JJ. The Logic of China's Rise Comment on Aliji's Theory of World System. Journal of Jiangnan Social University, 2018, 20(03):62–7.
- [11] [English] David Herder, [English] Anthony McGrew, [English]

David Goldbright, [English] Jonathan Peraton, Yang XD, Zhou HY, Chen JG, Song SY and other translations. Global change: politics, economy and culture in the era of globalization. Social Science Literature Publishing House, 2001.04, first edition, P8–10.

- [12] [United States] Kegley, [United States] Vitkop. Global Agenda: Issues and Perspectives. Peking University Press, 2004, First Edition, P298–306.
- [13] [English] David Helder, [English] Anthony McGrew, [English] David Goldbright, [English] Jonathan Peraton, Yang XD, Zhou HY, Chen JG, Song SY and other translations. Global revolution: politics, economy and culture in the era of globalization. Social Science Literature Publishing House, 2001, 04:18.
- [14] Selected Works of Marx and Engels[M]. Beijing: People's Publishing House, 2012(1):146, 60.
- [15] Selected Works of Marx and Engels[M]. Beijing: People's Publishing House, 2012(1):146, 60.
- [16] Xu XH. Re-understanding of Marxist theory of surplus value – Based on the realistic analysis of the universal application of enterprise artificial intelligence[J]. Tibet Development Forum, 2017, 05.
- [17] [United States] Henry Kissinger, "World Order" [M]. CITIC Publishing House, First Edition, August, 2015, Chapter 6, P303–4.
- [18] By 2020, the overall technology and application of artificial intelligence will be synchronized with the world's advanced level; by 2025, the basic theory of artificial intelligence will achieve a major breakthrough, and some technologies and applications will reach the world's leading level; by 2030, the theory, technology and application of artificial intelligence will reach the world's leading level, becoming the world's major artificial intelligence innovation center. Quoted from the "Development Plan of New Generation Artificial Intelligence" of the State Council of China, July 2017.
- [19] State Council, "Development Plan of New Generation Artificial Intelligence", July 2017.
- [20] Yu HC et al. Analysis and Recommendations of Artificial Intelligence Policy. Science and Technology Herald, 2018, 36(17):75–82.
- [21] "I want the United States to win through competition, not by blocking out currently more advanced technologies. We must always be the leader in everything we do, especially when it comes to the very exciting world of technology!" Donald Trump's tweet, February 21, 2019.
- [22] Liu M. Interpreting the Transformation of the International System by World System Theory and Globalization Theory, Modern International Relations, 2009(01):48–55.
- [23] Qin YQ. Continuation and Change of the International System. Diplomatic Review, No. 1, 2010.
- [24] Liu F. Order Transformation in East Asia: A Perspective of Security and Economic Relations. World Economy and Politics, 2016(05):32–55, 156–7.

- [25] [United States] Henry Kissinger, "World Order" [M]. CITIC Publishing House, first edition, August 2015, preface, page XVIII.
- [26] [United States] Henry Kissinger, The Establishment of a New World System is Essential for China and the United States, The Second Global Think Tank Summit, 2018.
- [27] [United States] Henry Kissinger, "World Order" [M]. CITIC Publishing House, First Edition, August 2015, Chapter 6, pp. 292–3.
- [28] Liu M. Interpreting the Transformation of the International System by World System Theory and Globalization Theory. Modern International Relations, 2009(01):48–55.
- [29] Wang Y, Chen DD. Marching towards an offensive realistic world? - International Relations in the Era of Artificial Intelligence. Contemporary World, 2018(10):22–6.
- [30] Chen DD. Artificial intelligence or a more segregated international power pattern. Beijing News, 2018.
- [31] Qiao YQ. Community of Human Destiny: Chinese Logic in Dealing with the Dilemma of Global Governance. Theoretical Monthly, 2018(04):20–6.
- [32] Wang ZY. "The World System and the Rise of China". International Relations Research, 2018(05):161.
- [33] Gao QQ. "Edge Risk" and China Mission of Developing Countries in the Era of Artificial Intelligence. International Observations, 2018(04).
- [34] Feng S, Zhou YQ. The Mode Change of National Strategic Behavior in the Era of Artificial Intelligence: Towards Competition between Data and Algorithms. International Outlook, 2018, 10(04):34–59, 153–4.
- [35] Feng S, Zhou YQ. The Mode Change of National Strategic Behavior in the Era of Artificial Intelligence: Towards Competition between Data and Algorithms. International Outlook, 2018, 10(04):34–59, 153–4.
- [36] Feng S, Zhou YQ. The Mode Change of National Strategic Behavior in the Era of Artificial Intelligence: Towards Competition between Data and Algorithms. International Outlook, 2018, 10(04): 34–59, 153–4.
- [37] Chen DD. Artificial intelligence or a more segregated international power pattern, Beijing News 2018.
- [38] Jacques Evangelism believes that building the world community requires four conditions. Editor-in-Chief of Harvard Yenching Institute, edited by Jacques Evangelism, "Constructing the World Community"[M]. Phoenix Publishing Group Jiangsu Education Press, 2006 First Edition, Introduction.
- [39] Xu JJ. The Logic of China's Rise Comment on Aliji's Theory of the World System. Journal of Jiangnan Social University, 2018, 20(03):62–7.
- [40] Qiao YQ. Community of Human Destiny: Chinese Logic in Dealing with the Dilemma of Global Governance. Theoretical Monthly, 2018(04):20–6.
- [41] [United States] Henry Kissinger. The Establishment of a New World System is Essential for China and the United States,

The Second Global Think Tank Summit, 2018.

- [42] Chen DD. artificial intelligence or a more differentiated international power pattern. Beijing News 2018.
- [43] Gao QQ. "Edge Risk" and China Mission of Developing Countries in the Era of Artificial Intelligence. International Observations, 2018(04).
- [44] Chen DD. Artificial intelligence or a more segregated international power pattern. Beijing News 2018.
- [45] "I want the United States to win through competition, not by blocking out currently more advanced technologies. We must always be the leader in everything we do, especially when it comes to the very exciting world of technology!" Donald Trump's tweet, February 21, 2019.
- [46] Editor-in-Chief of Harvard Yenching Institute, edited by Jacques Evangelism, "Constructing the World Community" [M]. Phoenix Publishing Group Jiangsu Education Press, 2006, first edition, page 180.
- [47] [United States] Henry Kissinger, "World Order" [M]. CITIC Publishing House, First Edition, August 2015, Chapter 6, pp. 292–3.
- [48] [United States] Henry Kissinger, The Establishment of a New World System is Essential for China and the United States.

The Second Global Think Tank Summit, 2018.

- [49] [United States] Henry Kissinger, The Establishment of a New World System is Essential for China and the United States. The Second Global Think Tank Summit, 2018.
- [50] Editor-in-Chief of Harvard Yenching Institute, edited by Jacques Evangelism, "Constructing the World Community"[M]. Phoenix Publishing Group Jiangsu Education Press, 2006 First Edition, Introduction.
- [51] Editor-in-Chief of Harvard Yenching Institute, edited by Jacques Evangelism, "Constructing the World Community" [M]. Phoenix Publishing Group Jiangsu Education Press, 2006, first edition, p. 180.
- [52] Editor-in-Chief of Harvard Yenching Institute, edited by Jacques Evangelism, "Constructing the World Community" [M]. Phoenix Publishing Group Jiangsu Education Press, 2006, first edition, page 180.
- [53] Xu JJ. The Logic of China's Rise Comment on Aliji's Theory of the World System. Journal of Jiangnan Social University, 2018, 20(03):62–7.
- [54] Xu JJ. The Logic of China's Rise Comment on Aliji's Theory of the World System. Journal of Jiangnan Social University, 2018, 20(03):62–7.