

Jandarma ve Sahil Güvenlik Akademisi
Güvenlik Bilimleri Enstitüsü
Güvenlik Bilimleri Dergisi, Mayıs 2023, Cilt:12, Sayı:1, 25-44
doi:10.28956/gbd.1249381

Gendarmerie and Coast Guard Academy
Institute of Security Sciences
Journal of Security Sciences, May 2023, Volume:12, Issue:1, 25-44
doi:10.28956/gbd.1249381

Makale Türü ve Başlığı / Article Type and Title

Araştırma/ Research Article

Orta Asya'nın Yapay Zekâ Jeopolitiği: Rusya ve Çin Örnekleri

The Geopolitics of Artificial Intelligence in Central Asia: Russian and Chinese Cases

Yazar(lar) / Writer(s)

Övgü KALKAN KÜÇÜKSOLAK, Assistant Professor, Department of International Relations, Yalova University, Türkiye okalkan@yalova.edu.tr, ORCID: <https://orcid.org/0000-0002-3052-9728>
Tuba FIRAT, Independent Researcher, tubafiraat@gmail.com, ORCID: <https://orcid.org/0000-0001-7636-9232>

Bilgilendirme / Acknowledgement:

-Yazarlar aşağıdaki bilgilendirmeleri yapmaktadırlar:

-Makalemizde etik kurulu izni ve/veya yasal/özel izin alınmasını gerektiren bir durum yoktur.

-Bu makalede araştırma ve yayın etiğine uyulmuştur.

Bu makale Turnitin tarafından kontrol edilmiştir.

This article was checked by Turnitin.

Makale Geliş Tarihi / First Received :09.02.2023

Makale Kabul Tarihi / Accepted :25.05.2023

Atıf Bilgisi / Citation:

Kalkan Küçüksolak Ö. ve Fırat T., (2023). The Geopolitics of Artificial Intelligence in Central Asia: Russian and Chinese Cases, *Güvenlik Bilimleri Dergisi*, 12(1), ss 25-44.
doi:10.28956/gbd.1249381

THE GEOPOLITICS OF ARTIFICIAL INTELLIGENCE IN CENTRAL ASIA: RUSSIAN AND CHINESE CASES

Abstract

In the 21st century, the Artificial Intelligence (AI) technologies are increasingly transforming the instruments of power and contributing to intensifying rivalry on the dynamics of balance of power. In the context of the Central Asian geopolitics, China's expanding AI technologies do not only serve for its economic growth and national power, but embody future areas of uncertainty in the Sino-Russian relations. Despite the current state of a kind of 'entente cordiale' over their role in the Central Asia, the future developments in the AI technologies can reinforce far-reaching repercussions in their relations. In this vein, this study analyzes the implications of AI technologies in terms of power politics and discusses the future of Sino-Russian relations in the Central Asian context. It addresses the possible utilization of AI technologies under the context of military, economic, and political areas and discusses possible consequences on the future of regional systemic dynamics. Consequently, the study argues that despite ongoing harmonious relations between the two power, the development and utilization of AI as a strategic asset in the Central Asian landscape can generate new areas of strategic competition and challenges for the future of Sino-Russian relations.

Keywords: *The geopolitics of Artificial Intelligence, China, Russia, Central Asia, Sino-Russian relations*

ORTA ASYA'NIN YAPAY ZEKÂ JEOPOLİTİĞİ: RUSYA VE ÇİN ÖRNEKLERİ Öz

Yirmi birinci yüzyılda "Yapay Zekâ" (YZ) teknolojileri güç araçlarını dönüştürmekte ve güç dengesinin dinamikleri üzerindeki rekabete katkıda bulunmaktadır. Orta Asya jeopolitiği çerçevesinde, Çin'in genişleyen YZ teknolojileri yalnızca ekonomik büyüme ve ulusal güce katkıda bulunmamakta, Rusya-Çin ilişkilerinin geleceği açısından da bilinmezlik unsurları barındırmaktadır. Hâlihazırda iki gücün Orta Asya'daki ilişkileri bir nevi 'antant kordial' çerçevesinde sürmekteyse de YZ alanındaki gelişmeler uzun dönemde söz konusu ilişkilerde olumsuz sonuçlar yaratabilecektir. Bu çalışma YZ teknolojilerinin olası sonuçlarını güç siyaseti çerçevesinde incelemekte ve Rusya-Çin ilişkilerini Orta Asya jeopolitiği düzleminde değerlendirmektedir. Araştırma kapsamında YZ teknolojilerinin askeri, ekonomik ve siyasi alanlarda araçsal olarak kullanılması ve uzun dönemde bölgesel sistemik dinamikler üzerindeki olası sonuçları konu edilmektedir. Son tahlilde, Rusya-Çin ilişkilerinin Orta Asya jeopolitiğinde uyumlu bir görüntü arz etmesine rağmen YZ teknolojilerinin stratejik bir unsur olarak kullanımının uzun dönemde söz konusu ilişkilerde meydan okumalara ve yeni stratejik rekabet alanlarına sebebiyet verebileceği tartışılmaktadır.

Anahtar Kelimeler: *Yapay Zekânın Jeopolitiği, Çin, Rusya, Orta Asya, Çin-Rusya İlişkileri*

INTRODUCTION

The 21st century is likely to be the theatre of strong technological transformations through the utilization of Internet of Things, 3D printers, Industry 4.0 and AI. Technology increasingly becomes the main source of power and area of competition in the global politics. Within the framework of technological transformation, it is seen that the next generation AI technologies are likely to play a decisive role on the future of power politics. In this context, this study aims to discuss the implications of AI technologies in terms of power politics and to make an analysis on its geopolitical impacts with a special focus on the Sino-Russian relations in the Central Asian landscape. Since Chinese technological initiatives seem to be challenging for the future of both regional and global dynamics, this study questions whether China's use of techno-political instruments with an aim to expand its engagement in the region will reinforce an area of controversy in the future of Russian-Chinese relations.

Despite the fact that, most of the studies in the IR literature emphasize a collaborative approach between China and Russia, China's rising power with a leading status in the AI technologies stands as a controversial question at the backyard of Russian Federation (RF). Therefore, in this study Chinese and Russian activities in the field of AI are examined under the context of military, economic and political issues with a special focus on the dynamics of power politics in the Central Asia. The study discusses the range of manifestations of power in AI policies and argues that Russian-Chinese relations can shift from a balanced relation of cooperation and competition to the one dominated by a strategic competition in the Central Asian landscape under the growing impacts of technological power elements in the long-term.

1. UNDERSTANDING THE CONTEXT OF THE AI STRATEGIES IN THE RUSSIAN AND CHINESE STRATEGY DOCUMENTS

AI increasingly occupies a greater role in the states' policy agendas for the future of power projection. In a quest for maximizing the advances of AI in diverse sectors, states set specific targets and institutionalize priorities in their strategic

documents. As a "strategic facilitator", the AI's huge potential in transforming the power instruments is highly recognized and increasingly found a place in the national strategy documents and power calculations of Russia and China.

In the case of RF, it is possible to see the ambitious target of achieving a global leadership role by the year 2030 as it is set out in its AI strategy of 2019. In the short-term, Russia's AI strategy includes the improvement of its position in the AI by the year 2024 and in this respect, it has already initiated a scientific agenda that combined the joint efforts of the state and the private sector (Markotkin & Chernenko, 2020). The RF's AI strategy underlines the significance of ensuring its national interests and sets out the guidelines for the development of an "information society" between 2017-2030 (Stanford University Human Centered Artificial Intelligence, 2021, p.9). The RF officially defines the AI within a broader framework by maintaining that "AI is a set of technological solutions that enables you to simulate human cognitive functions (including self-learning and search for solutions without a predetermined algorithm) and achieve results when performing certain tasks, at least comparable to the results of human intellectual activity" (Указ Президента Российской Федерации От, 2019). In addition to the strategic concerns, Russia's general AI strategy aims to utilize the commercial use of the AI facilities (Markotkin & Chernenko, 2020). In this vein, it is possible to claim that the RF perceives AI in a wider framework that ranges from human cognition to economic aspects which can have significant implications in a bid for global power competition.

China presents one of the most comprehensive AI strategy by incorporating diverse elements of AI technologies. China's AI strategy sets out ambitious targets of achieving a global leadership in the areas of unmanned aerial vehicles (UAVs), voice and image recognition, and others by 2025; and emerge as the primary center for AI innovation by 2030 (Stanford University Human Centered Artificial Intelligence, 2021, p.6). China's AI strategy outlines the significance of the areas of R&D and ethical norms, with a special emphasis on the notions of talent development and national security. China's multidimensional efforts include but not limited to the plans which aim to increase the value of its core AI sector to more than 400 billion yuan (about \$58 billion), and to take the lead in the development of ethical standards for the works on AI. With this vision, China aims to double the growth in the core AI industry and to reach a value of 1 trillion yuan (about \$147 billion) (Roberts et al., 2021). It is possible to say that China, which plans to make changes in laws and standards in order to realize all these targets, is

following a systematic and a comprehensive plan to become a global leader within the framework of AI. This systematic and determined vision not only underscores China's will to become a leader in the field of AI, but also raises further questions on the geostrategic implications of AI technologies and policies. In terms of power politics, the AI technologies can play an instrumental role in strengthening China's engagement with the Central Asian geography.

2. CHINA'S AI EFFORTS IN CENTRAL ASIA

With its abundant natural resources, transit routes and market capacity, Central Asia draws China's attention with its huge potential for Chinese products, investments and political ambitions (Schwartz & Montfort, 2020). The issues of access to energy sources and ensuring stability in Central Asia are crucial both for the realization of the Belt and Road Initiative (BRI) and to prevent threats emanating from the region (Mirza & Ayub, 2021, p.438). In its quest for more active role in the Central Asia, China utilizes AI technologies as an instruments of economic, political and military power. AI highlights and accelerates the dynamics of a cycle where technology and power reinforce each other, and in this context, it has the potential to help determine the international order for decades to come. Therefore, with its AI-based products and strategically holistic policies, China introduces a powerful dynamic both to the Central Asian geopolitics and to its relations with the RF.

2.1. Military Dynamics

In pursuit of new sources of competitive advantage, China not only focuses on the intelligentization of its army but also urges for increasing volume of military exports to the region. The rise of military made-in China AI technologies can have long-lasting results for the region. If China becomes the primary source of military AI technologies exporter, this can put the so-called regional de facto duopoly between Russia and China to a test and heighten the risk of new AI arms race in the region.

China and the RF have a balanced cooperation and competition in the Central Asian region. The dynamics of a balanced cooperation and competition encompass the notion of de facto duopoly between the two powers in which Russia leads the military and political stability spheres, where China leads the issue of economic development (Dubnov, 2018). However, recent years have witnessed a heightened level of China's military presence in the region through the means of joint

exercises, training of military personnel and the building of military infrastructure as well as increasing volumes of arms sales to the region. While China has previously provided 1.5 percent of the Central Asian arms imports between the years 2010-2014, this ratio has not only risen to 18 percent but even surpassed RF's arms exports volume to Turkmenistan and Uzbekistan in the last five years. Between the years 2016-2021, Central Asian states have imported modern weapons from China that included armed drones, communication equipment and UAV (Zanini, 2022, p.2). Despite the fact that the RF remains as a main security provider in the region, these developments reveal that China's spectrum of development goes beyond economic sphere to include the security sector in the Central Asia. While the RF lags behind on the development of the AI technologies, China's ambitious projects on the intelligentization of its military are likely to have future reflections on the increasing volume of its sophisticated military exports to the region. In the long-run, China's increasing profile in the security sector is likely to rise more questions on the future of the delicate balance of the so-called duopoly between Russia and China in the region.

2.2. Economic Dynamics

AI technologies constitute one of the most crucial sector of the Chinese domestic economy and its grand project of BRI. In 2020, the scale of China's AI industry has reached approximately 43.4 billion US dollars with an annual growth rate of 15 percentage (Huaxia, 2021). Considering the Plan entitled "A New Generation of Artificial Intelligence Development Plan" published by China in 2017, it is seen that China aims to become the largest economic power in the world with the contribution of AI (Westerheide, 2020). Companies like Baidu, Alibaba, and ByteDance are clearly at the forefront of AI research, and their products and services are integrating AI into the daily life in and outside of China (Marr, 2021).

Under the conditions of increasing global AI competition, the AI technologies offer broad opportunities for Chinese technology giants not only for the domestic market but also for the realization of Digital Silk Road (DSR). DSR is a digital component of BRI to promote digital connectivity and smart applications and hence plays a crucial role in China's Safe/Smart City projects in Central Asia¹.

¹ The distinction between "safe" and "smart" cities is not clear. While Safe Cities primarily aim to improve public safety through the use of cameras and digital technologies to monitor and inspect suspicious behavior, Smart City technology is mostly attributed to automating municipal functions such as traffic control, garbage collection, power distribution and water systems, along with video

Through the promotion of Safe/Smart City² projects in the region, China has taken a significant step in utilizing the opportunities of AI technologies as a foreign policy asset both in economic and political terms.

Started in Beijing, Jinan, Hangzhou and Suzhou as the four pilot cities in 2003, China's "Safe Cities Project" has initially aimed to meet the needs of manpower and consumers due to the urbanization in the Chinese cities (Lin, 2015). In the next phases, the process of building cyber-connected Safe/Smart Cities have developed further to spread Chinese Information and Communication Technologies (ICT) to the Central Asian landscape. In the digital age where data is the new currency, many Chinese surveillance companies take increasing parts to make profit under the umbrella of the DSR in which Smart Cities project play a prominent role (Yan, 2019). With the Smart Cities, China also aims to provide information to its industry and manufacturers on the extent of the production with the data obtained from monitoring the purchasing and social media behavior of the consumers in Central Asia. Therefore, China's considerable investment in AI technologies and digital connectivity through the DSR in the region reflects both the significance of AI technologies in economic growth and the strategic value of information in diverse areas.

Increasing export rates of smart technologies, such as 5G, to Central Asia create conditions of growing indebtedness and technological dependence on China. For instance, almost 40% of Kyrgyzstan's public debt and half of Tajikistan's public debt are due to Chinese banks (Hoagland et al., 2020). It should be noted that intensifying asymmetric dependencies can generate wide-reaching vulnerabilities both at the national and regional level. For example, in 2014 it was seen that China

surveillance (James Kyngé, Valerie Hopkins, Helen Warrell, 2021). The term "Smart Cities" and "Safe Cities" are used interchangeably in the Chinese literature. For further info: (BBC Future, 2021), (BriefCam, 2021), (Safecity, 2021), (Jonathan E. Hillman, 2019), (卢佩珊, 2019).

² As one of the significant examples of Smart Cities project, the one established in Bishkek, Kyrgyzstan in 2019, has involved installations of fixed cameras at ten intersections and crossroads in the city. In the project, 15 Safe City cameras are placed on the Bishkek highway to monitor and record the actions (Ruowei, 2019). In the case of Tajikistan, a total of 1,200 cameras have been installed in the capital Dushanbe. The project was implemented by the Chinese Huawei with a cost of US\$22 million, of which \$20.91 million was a loan from China within the framework of the Shanghai Cooperation Organization (Ruowei, 2019). Within the Red Speed system under the scope of the Smart Cities project in Kazakhstan many violations such as crossing a red light and illegal parking have been monitored. In Turkmenistan, 133 cameras have been installed on the main roads and streets of Ashgabat under the project that has started in June 2009 (Ruowei, 2019).

has gained TBEA mining rights for gold mines after Tajikistan could not repay the loan to China (Hoagland et al., 2020). On the other side, it is noteworthy that China is very cautious on the aspects of its own vulnerabilities. As it is mentioned in the Article 11 of the State Security Law of the People's Republic of China, which provides the basis for contracting with Chinese technology companies, China may inspect electronic communication tools, equipment and other similar equipment and installations belonging to any organization or individual, when required by state security (Yi, 2021). This article states that all citizens of China, government officials, armed forces, political parties, popular groups, enterprises, public institutions and other social organizations have an obligation to ensure national security. This means that if something is labeled as a violation of national security, then the Chinese government can request information from Chinese technology companies, and the companies are obliged to provide the necessary information to the government. This fact clearly illustrates the range of China's access to variety of strategic sources, such as personal data, through the instruments of technological companies in diverse geographies, such as in Central Asia.

All arguments aside, under the conditions of technological superiority over Russia, China remains to be a principle option for the Central Asian states in the short term. However, in the long run Central Asian states can become more determined to decrease their dependence on Chinese technologies and hence choose to work with alternative companies such as the Russian ones. By diversifying different sources of technology, Central Asian states can prevent monopoly of any state and thus open the way for growing technological competition. Increasing dependencies on any state, in this case China, can be functional in exploiting vulnerabilities and achieving strategic gains.

2.3. Political Dynamics

China instrumentally uses growing number of cooperations in the areas of digital economy, e-commerce and AI to expand its presence in Central Asia. Under the context of the DSR, the Chinese project of Smart Cities have been launched with a special focus and a strategic role in adding greater value to China's leverage on Central Asia. In an atmosphere of increasing surveillance, there are sound reasons to claim that China's huge investment in Smart/Safe Cities can serve to alter the geopolitical dynamics of the region both through the increasing dependency on Chinese technologies and its increasing smart power in the region.

Despite the technological advances it provides, the scope of the China's data extraction raises serious concerns on the utilization of the AI technologies. Experts argue that although these systems promote advantages of convenience and cost savings, they still bring three basic risks in terms of socio-political spheres. Firstly, the ability of authoritarian governments to continuously monitor people brings the heightened risk of digital totalitarianism. Secondly, the usage of Chinese technologies carries the risk of access to sensitive data by the Chinese companies and the government. Thirdly, these technologies create vulnerabilities to an extent that it becomes easier for Chinese companies to press a button to shut down a city's activities (James Kyngé, Valerie Hopkins, Helen Warrell, 2021).

China's role as a supplier of digital mechanisms for surveillance especially raises criticisms on the issue of exporting digital authoritarianism (Feldstein, 2019, p.48; Ramanand, 2022, p.14). By delinking trade from human rights, China's digital export policy not merely contributes to tightening control of the authoritarian regimes in the region but also reinforces increasing dependence on the Chinese technologies for the survival of these regimes. China's authoritarian control on information also reveals itself on the race for future technologies such as the AI chatbots. In the quest of developing AI tools similar to ChatGPT, Alibaba has recently released its Tongyi Qianmen AI chatbot. Following the launch of Tongyi Qianmen, the Cyber Administration of China was quick to unveil the draft rules concerning the functioning of these technologies (including the range of the content they are allowed to generate)³. Since these technologies can become an important stake at the future of AI race, whether countries in the Central Asia will prefer to use Chinese ones under the framework of strict regulations can become a matter of concern. In such a controversial issue, some analysts argue that these rules will slow down the technological progress in exchange for orderly society (Al Jazeera, 2023). However, in an authoritarian landscape such as the Central Asia, it will not be a surprise to see the common usage of Chinese chatbot technologies that undergo a security review by the authorities. On the fine line between innovation and censorship, this regulatory and restrictive approach can offer the opportunity to limit the content on politically sensitive issues and hence can be instrumental at the hands of authoritarian regimes.

³The draft rules include the prohibition of the content that questions state power, national unity, and socialist values (Bastian, 2023).

With a spatial analysis, China's advanced position in the AI is likely to produce significant geopolitical consequences in the region through its proactive digital export policy and increasing asymmetric dependencies in diverse areas. In the long run, increasing dependencies of authoritarian regimes can be weaponized in the political disputes and thus serve for China's national interests in the geopolitics of the region.

3. RUSSIA'S AI EFFORTS IN CENTRAL ASIA

By acknowledging the political implications both in the regional and global power competition, Russia highly concentrates on developing AI technology, especially on the military technology. Despite the fact that Russia seems to lag behind the US and China in the AI competition, it acknowledges very well the unlimited potential of the AI and accelerates its efforts to close the gap with the technology leaders. In that vein, the RF prioritizes investing on AI and follows the AI efforts of the US and China both in scope and expenditure (Bendett, 2018, p. 177).

Under the context of the implications of AI technologies to policy instruments, however, China and Russia follows different paths in the Central Asian landscape. While China focuses more on integrating AI technologies both to the military and civilian dimensions of its policy tools in Central Asia, Russia's AI efforts have been mostly limited to the military technologies in its regional vision. Under the conditions of RF's strong presence and interests in the region, China's broadening role and holistic view in utilizing the AI technologies raise concerns on the risks of increasing competition within the Sino-Russian relations. To be able to grasp the emerging dynamics and the possible policy implications of the AI technologies in the region, this section analyses the RF's perception of utilizing AI technologies in the Central Asian geopolitical landscape.

3.1. Military Dynamics

The RF sees the significance of developing AI technology mostly from the security perspective (Nocetti, 2020, p.17). Under the context of increasing AI arms race for smart weapons, Russia has systematically focused on developing a robust strategy for using intelligent weapons technology, such as unmanned aircraft systems and robotic technology in warfare. The Russian drones play a critical role in monitoring the vast geography, such as the Arctic and parts of the Northern Sea Route, and the UAV is considered to be a valuable asset in responding to the asymmetrical opponents in the North Caucasus or Central Asia (Facon, 2016).

The RF has embarked on numerous initiatives to sophisticate its military, to integrate AI to its defense industry and to use these technologies in different theatres, such as in the Central Asia. The RF has begun to utilize the advanced military technologies in strengthening its engagement in the Central Asian landscape. For instance, while the Russian military base in Dushanbe-Tajikistan has received S-300 anti-aircraft missile systems in the fall of 2019, an agreement was signed between the Parliaments of Kyrgyzstan and Russia to allow the RF to deploy short and medium-range UAV unit in the Kant region in June 2020. According to the Agreement, two Orlan-10 multi-purpose UAVs are to be sent to Kyrgyzstan throughout 2020 to increase the effectiveness of the army and offensive aviation (Joint-Forces, 2020).

Despite Putin's ambitious perception of the capability of the AI technology, the RF seems to be slow to develop projects in the military aspects of the AI. While the Russian military began to conceptualize the term AI after the Army 2017 Military-Technical Forum, it was in August 2022 that the Russian Ministry of Defense has announced the official creation of an AI department for integrating the AI technology in weapons development (CNA, 2022, p.2). While it is difficult to assess the exact military AI capacity of the RF, the consequences of Russia's lag behind in the cutting-edge military technologies has already begun to be reflected in its military export to the Central Asian region. Despite the fact that the RF remains as the principal security partner and the largest arms supplier to the region (Pieper, 2022, p.30), its regional clients look for alternatives in importing UAV from different sources. For instance, to bridge the gap in unmanned aerial systems Kazakhstan has made a deal with Israeli Elbit Systems, where as Uzbekistan has opted for Chinese Wing Loong-1, and Turkmenistan has purchased Chinese CH-3 and WJ-600 armed drones (Zardykhan, 2022).

Under the current conditions of war with Ukraine and large sanctions on its defense sector, the future of the RF's defence sector to catch up with the AI military technologies seems to be ambiguous. While the RF continues to be the largest arms exporter to the region, the asymmetric power of the AI technologies as a strategic facilitator can serve to multiply the stake of the rival AI exporters in the region. Given the fact that the Central Asian region exhibits significant disruptions and dynamics of insecurities then the region carries a strong potential to become one of the most crucial theatre of operations for the AI military technologies. In this respect, it is possible to argue on the potential of the AI-based military

technology competition to pose challenges to the RF's 'dominant position' in the long run.

3.2. Economic Dynamics

Despite the fact that the RF's current AI development efforts mostly focus on the security sector on the basis of foreign policy tools, the Russian national strategy attaches special importance to the development of AI with a view to increase its market share in the global market (Moscow, 2021). Since the range of AI based products, such as the ones used in China's Smart City Projects, can generate long term impacts on the foreign policy calculations, then the RF's domestic AI ecosystem should be analyzed with a broader view.

The RF has launched a Digital Economy Programme in 2018 with an objective to use digital technologies to assist enterprises in integrating the function of automation (Sullivan, 2022). The RF frequently uses AI in industrial enterprises, banks, telecommunications, and retail sectors. Russia's AI system is primarily managed by state-owned firms, a combination of the government and the private sector (Petrella et al., 2020). When we look at diverse examples, such as the US, the government plays a major role in funding some AI research and purchasing AI-enabled technologies, particularly in the defense sector, but most of the investments in applied AI are undertaken by private companies in the US. In China, private firms are the driving force behind technological progress, including AI, although state-owned firms play a larger role in the economy.

While Russia possesses substantial resources to devote to the AI projects, it still lags behind the main competitors in the short and medium term. Russia has some structural deficiencies that restrict the development and effective functioning of the AI ecosystem. The problematic areas in the AI sector include: shortage of personnel, weakness of venture capital market, brain drain, limited start ups and restricted space for the private sector companies. Russia's strict approach which capitalizes on state and leaves a very little room for private enterprises limits its ability to harness AI both in domestic and foreign spheres. This factor paves the way for low penetration of Russian products into foreign markets such as in the Central Asia (Bendett, 2022; Petrella et al., 2021, pp.75-79).

In the field of AI development, China has grown to be a significant partner for the RF. The technology sanctions of the US have motivated both nations to develop domestic alternatives to US semiconductors, operating systems and other technologies (Sullivan, 2022). In that vein, Russian-Chinese fund was founded to

pursue opportunities in new technologies and to invest in AI technologies such as facial recognition, computer vision, etc. Despite its technological advantages, part of the Russian elites maintain serious reservations about the future of the cooperation. In this respect the controversial issues of protection of intellectual property, share of AI innovation in military, and disaggregation of data produced in Russia are considered to be critical from the perspective of Russia's sovereignty. The concerns signalize the range of discontent on the basis of growing asymmetry between China and Russia in the technology field. Even under this cooperative framework, the long term trends of increasing asymmetry between the two powers can have repercussions not only for Russia's strategic autonomy but also for the balance of power in the Central Asia (Nocetti, 2020, p. 42).

3.3. Political Dynamics

Unlike the US and China, Russia is not positioned as a global leader in the AI technologies. Although the national strategy addresses the RF with a crucial capacity to become one of the global leaders in the development of AI technologies, it does not seem likely to succeed in this goal in the short run (Markotkin & Chernenko, 2020). According to the technology related indicators of AI, while China has 228 super-computers, the US has 117 super-computers and the RF has only 3 supercomputers that are among the 500 most powerful computers in the world currently (Markotkin & Chernenko, 2020). Therefore, despite Russia's expertise in some of the specific areas of the AI development and applications, it is still possible to argue that it could only achieve a more pervasive success in different areas of AI as of today.

In October 2019, a national AI strategy on the development of AI was published by the Presidential Office of the RF. As Putin has stated in his speech in Moscow in 2017, Russia aims to prevent a monopoly of any country in the field of AI. The RF claims that if it stands as the leader of the development of AI, it will share its technology with the rest of the world, as it has already done previously on atomic and nuclear issues (Future of Life Institute, 2020). The RF's national strategy for the development of AI includes two crucial dates that symbolize its ambition for the leadership role in AI: the year 2024, as the RF is expected to significantly improve its position in the field, and the year 2030, a monumentary date to catch up with the developed countries and achieve its global purposes (Markotkin & Chernenko, 2020).

As compared to China's ambitious policies and assertive steps, Russia stays behind China especially on the digital arena. While China possesses a large domestic market and diverse capabilities, Russia lacks these conditions and faces technical difficulties that delay the nationwide deployment of deep package inspection tools (Weber, 2020). The Deep Packet Inspection (DPI) system reveals a systematic operation that analyzes Internet traffic and blocks the data flow of a particular service instead of blocking it all (Kolomychenko, 2018). In this term, Russia's attempt to ban Telegram in response to its refusal to comply with Russia's request to access to the encrypted messages of the users represents an example (Kolomychenko, 2018). Due to the technical insufficiencies, the Russian authorities, which have blocked access to many online services, such as Viber, Volvo, and Xiaomi, suspended the attempt to block Telegram. On the other hand, as a result of the disagreement between Kremlin and the cabinet of the federal government, there is a delay in the establishment of the DPI system. While the cabinet supports the installation of this equipment, Kremlin officials have stated that the new Internet isolation law has technically come into force but cannot be effectively implemented in all parts of the country (The Bell, 2019).

While China's approach to AI reveals its political aims related to the transition to a knowledge-based competitive economy, it can be argued that Russia basically focuses on AI-supported military weapons by improving its capabilities and subsequently aims to gain a serious advantage in AI technologies (Bekzod, 2021). Unlike China, the political leaders who are influential on Russia's AI policy have not handed over the strategy to institutional actors; instead, they directed the entire process of drafting strategies, developing AI technology, and executed related projects to politically connected people at the top of Russian state companies, such as Sberbank (Bekzod, 2021). Since internal institutional dynamics are significant in developing the architecture of the AI technologies then it is possible to discuss the possible consequences of AI technologies as a foreign policy tool in the long run. In that vein, it is likely that the strict domestic structure can pose significant challenges on the development of the RF's AI technologies which can have negative consequences on the competition of AI technology both on the regional and global scale.

CONCLUSION

The usage of AI technologies has become one of the strategic priorities for the big powers. As a strategic facilitator, the AI technologies offer wide range of opportunities to influence policy implications and geopolitical calculations. This

study argues that, the strategic utilization of AI technologies by Russia and China exhibits a strong potential to transform their cooperative relations and to fuel new areas of strategic regional competition in the long run.

Despite their crucial advantages, the AI technologies still comprise only a part of the power instruments. Therefore while a limited focus on the AI policy implications will remain insufficient to be able to explain the whole picture, it is still significant to shed light on the dynamics of transforming power relations. With a special reference to Putin's call for AI leadership on the way for global rule, this study maintains that both China and Russia devotes a special attention to the development of AI technologies for the future of balance of power.

For decades, Russia has positioned itself as the dominant power in its backyard, the Central Asia. However, despite Russia's strong presence, the patterns indicate China's growing stake in the region. China's development and utilization of AI technologies play a crucial role in its initiatives and active policies in the region. While Russia highly concentrates on the security sector of the AI under its foreign policy tools, China follows a holistic path to integrate AI technologies in diverse areas. China's strategic AI approach serves to reinforce increasing asymmetric dependencies with the regional countries and hence paves the risk of vulnerabilities in the face of China.

China systematically integrates new AI technologies to its economic and technological investments and continues to increase the export of smart weapons and military deployments in the Central Asia. By skillfully introducing the Smart Cities Project, China not only bolster economic and strategic spectrum of opportunities but also raises concerns on the issue of exporting digital authoritarianism to the region. In this respect, the instruments of AI technologies serve both to assist the authoritarian regimes and to facilitate asymmetric dependence on China. Despite the criticisms of exporting digital authoritarianism, China continues to sell surveillance technologies and increases its stake and influence in the Central Asian geopolitics.

Russia seems to lag behind China's pace in the development of AI technologies despite its broad expertise and investments in the field. The RF has mostly focused on the AI technologies in the security sector as a foreign policy tool. Under the dynamics of Central Asian geopolitics, the RF mostly utilizes AI technologies in monitoring the vast geography and responding to asymmetrical opponents. Besides

this, Russia has been strengthening its military bases and facilities by integrating the AI based military technologies in the region.

China and Russia developed harmonious relations in recent years. The cooperative sides of the relations dominates the analysis in the literature, yet the complex and costly dynamics of the relations carry the potential to outweigh the benefits of the cooperation. In this respect, Central Asia can become a theatre of clashing national interests of the two powers and China's expanding spheres of influence can reinforce a shift in the direction of relations. While the AI is likely to transform into a competitive power instrument especially in the Central Asian landscape, the factors of China's ambitious utilization of AI technologies, increasing asymmetric dependencies in favour of China and Russia's technological inadequacy may generate serious imbalances and challenges in the upcoming period. Although the official Sino-Russian relations continue to be characterized by cooperation and strategic partnership, increasing Chinese engagement through the integrated policy instruments of AI technologies can exacerbate the competitive dynamics of the relations under the context of the Central Asian geopolitics in the long run.

REFERENCES

- Al Jazeera. (2023). *As Alibaba Unveils ChatGPT Rival, China Flags New AI Rules*. Retrieved April 29, 2023 from <https://www.aljazeera.com/news/2023/4/11/as-alibaba-unveils-chatgpt-rival-china-flags-new-ai-rules>
- Bastian, M. (2023). Alibaba Launches Its GPT-4 Competitor as Beijing Crashes the Chatbot Party. *The Decoder*. Retrieved April 30, 2023 from <https://the-decoder.com/alibaba-launches-its-gpt-4-competitor-as-beijing-crashes-the-chatbot-party/>
- BBC Future. (2021). *Safe Cities: Using Smart Tech for Public Security*. Retrieved June 17, 2021 from <http://www.bbc.com/future/bespoke/specials/connected-world/government.html>
- Bekzod, Z. (2021). *The Challenger and the Outsider: Why are China and Russia Interested in Promoting AI Development?* International Affairs House. Retrieved July 20, 2021 from <https://www.internationalaffairhouse.org/the-challenger-and-the-outsider-why-are-china-and-russia-interested-in-promoting-ai-development/>
- Bendett, S. (2018). The Development of Artificial Intelligence in Russia. In N. D. Wright (Ed.), *Artificial Intelligence, China, Russia and Global Order*. Air University Press, 168-178.
- Bendett, S. (2022). Russia's Artificial Intelligence Boom May Not Survive the War. *Defense One*. Retrieved April 28, 2022 from <https://www.defenseone.com/ideas/2022/04/russias-artificial-intelligence-boom-may-not-survive-war/365743/>
- BriefCam. (2021). *Video Analytics For Safe & Smart Cities*. Retrieved June 28, 2021 from <https://www.briefcam.com/who-we-serve/safe-smart-cities/>
- CNA. (2022). *Artificial Intelligence and Autonomy in Russia: A Year's Reflection*. Retrieved October 1, 2022 from <https://www.cna.org/reports/2022/09/Artificial-Intelligence-and-Autonomy-in-Russia-A-Years-Reflection.pdf>
- Dubnov, A. (2018). *Reflecting on a Quarter Century of Russia's Relations With Central Asia*. Retrieved March 2, 2021 from <https://carnegieendowment.org/2018/04/19/reflecting-on-quarter-century-of-russia-s-relations-with-central-asia-pub-76117>
- Facon, I. (2016). *A Perspective on Russia*. Retrieved March 8, 2021 from <http://drones.cnas.org/reports/a-perspective-on-russia/>
- Feldstein, S. (2019). The Road to Digital Unfreedom: How Artificial Intelligence is Reshaping Repression. *Journal of Democracy*, 30(1), 40-52

<https://doi.org/10.1353/jod.2019.0003>.

- Gigova, R. (2017). Who Vladimir Putin thinks will rule the world. *CNN*. Retrieved March 17, 2021 from <https://edition.cnn.com/2017/09/01/world/putin-artificial-intelligence-will-rule-world/index.html>
- Hoagland, R., Wolkov, N., & Karibayeva, A. (2020). *China's Growing Influence In Central Asia Through Surveillance Systems*. Retrieved May 13, 2021 from <https://www.caspianpolicy.org/wp-content/uploads/2020/09/PB-Chinas-growing-influence-in-CA-through-surveillance-systems.pdf>
- Huaxia, E. (2021). *China's AI industry scale exceeds 40 bln USD in 2020*. Xinhua. Retrieved August 13, 2021 from http://www.xinhuanet.com/english/2021-07/09/c_1310052462.htm#:~:text=China%27s AI industry scale exceeds 40 bln USD in 2020
- James Kyngé, Valerie Hopkins, Helen Warrell, K. H. (2021). Exporting Chinese surveillance: the security risks of 'smart cities.' *Financial Times*. Retrieved August 18, 2022 from <https://www.ft.com/content/76fdac7c-7076-47a4-bcb0-7e75af0aadab>
- Joint-Forces. (2020). *Orlan-10 UAV Systems For Kyrgyzstan*. Retrieved August 18, 2022 from <https://www.joint-forces.com/defence-equipment-news/33546-orlan-10-uav-systems-for-kyrgyzstan>
- Jonathan E. Hillman, M. M. (2019). *Watching Huawei's "Safe Cities."* Retrieved August 15, 2022 from <https://www.csis.org/analysis/watching-huaweis-safe-cities>
- Kolomychenko, M. (2018). Russia tries more precise technology to block Telegram messenger. *Reuters*. Retrieved June 20, 2022 from <https://www.reuters.com/article/us-russia-telegram/russia-tries-more-precise-technology-to-block-telegram-messenger-idUSKCN1LF1ZZ>
- Lin, E. (2015). *China's safe cities serve as solutions and opportunities for growth*. Asmag. Retrieved July 15, 2022 from <https://www.asmag.com/showpost/19628.aspx#:~:text=Safe Cities as a Solution,to as safe city projects.>
- Markotkin, N., & Chernenko, E. (2020). *Developing Artificial Intelligence in Russia: Objectives and Reality*. Carnegie Moscow Center. Retrieved June 21, 2022 from <https://carnegie.ru/commentary/82422>
- Marr, B. (2021). China Poised to Dominate the Artificial Intelligence (AI) Market. *Forbes*. Retrieved May 13, 2021 from <https://www.forbes.com/sites/bernardmarr/2021/03/15/china-poised-to-dominate-the-artificial-intelligence-ai-market/?sh=23cd4d6d1b38>

- Mirza, M. & Ayub, S. (2021). Sino-Russian Competitive Collaboration for the Central Asian Sphere of Influence. *Journal of the Humanities and Social Sciences*, 2021, 25 (4), 437-450. <https://doi.org/10.3176/tr.2021.4.04>
- Moscow, I. (2021). *Russian AI market overview*. Retrieved April 25, 2022 from <https://ict.moscow/en/projects/ai/>
- Nocetti, J. (2020). *The Outsider: Russia in the Race for Artificial Intelligence*. Russie, Nei Reports, No.34, France.
- Petrella, S., Miller, C., & Cooper, B. (2020). Russia's Artificial Intelligence Strategy: The Role of State-Owned Firms, *Orbis*, 65 (1), 75-100. <https://doi.org/10.1016/j.orbis.2020.11.004>
- Pieper, M. (2022). *The Making of Eurasia: Competition and Cooperation Between China's Belt and Road Initiative and Russia*. Great Britain: Bloomsbury Publishing.
- Ramanand, D. (2022). Sino-Russian Cooperation and Competition in Central Asia, *Journal of Defence Studies*, 16 (2), 3–30.
- Roberts, H., Cows, J., Morley, J., Taddeo, M., Wang, V., & Luciano Floridi. (2021). The Chinese approach to artificial intelligence: an analysis of policy, ethics, and regulation. *AI & Society*, 36, 59–77. <https://doi.org/10.1007/s00146-020-00992-2>
- Ruowei, L. (2019). *华为和中信国安投资超10亿美元发展乌兹别克斯坦数字基础设施 (Çev. Huawei ve CITIC Guoan, Özbekistan'ın dijital altyapısını geliştirmek için 1 milyar ABD) dolarının üzerinde yatırım yaptı*. Sliuxgc. Retrieved May 13, 2021 from <http://web.siluxgc.com/UZ/20190426/16656.html>
- Safecity. (2021). *What is safecity?* Retrieved July 1, 2022 from <https://www.safecity.in/>
- Schwartz, H. A., & Montfort, P. (2020). *Russia's Recent Military Buildup in Central Asia*. Center for Strategic & International Studies. Retrieved April 2, 2022 from <https://www.csis.org/blogs/post-soviet-post/russias-recent-military-buildup-central-asia>
- Stanford University Human Centered Artificial Intelligence. (2021). *Artificial Intelligence Index Report 2021*. Retrieved April 20, 2022 from https://aiindex.stanford.edu/wp-content/uploads/2021/03/2021-AI-Index-Report-_Chapter-7.pdf
- Sullivan, L. (2022). *Artificial Intelligence in Russia*. Geohistory. Retrieved May 25, 2022 from <https://geohistory.today/artificial-intelligence-in-russia/>

- The Bell. (2019). *Russia is struggling to implement the nationwide DPI system it needs for 'Internet isolation.'* Meduza. Retrieved May 28, 2022 from <https://meduza.io/en/news/2019/11/01/russia-is-struggling-to-implement-the-nationwide-dpi-system-it-needs-for-internet-isolation>
- Weber, V. (2020). *The Sinicization of Russia's Cyber Sovereignty Model*. Council on Foreign Relations. Retrieved June 1, 2022 from <https://www.cfr.org/blog/sinicization-russias-cyber-sovereignty-model>
- Westerheide, F. (2020). China – The First Artificial Intelligence Superpower. *Forbes*. Retrieved May 20, 2021 from <https://www.forbes.com/sites/cognitiveworld/2020/01/14/china-artificial-intelligence-superpower/?sh=3ed735cc2f05>
- Yan, Y. T. (2019). Smart Cities or Surveillance? Huawei in Central Asia. *The Diplomat*. Retrieved May 25, 2021 from <https://thediplomat.com/2019/08/smart-cities-or-surveillance-huawei-in-central-asia/>
- Yi, X. (2021). *State Security Law of the People's Republic of China*. Ministry of National Defense of the People's Republic of China. Retrieved October 5, 2021 from http://eng.mod.gov.cn/publications/2021-06/29/content_4888389.htm
- Zanini, A. (2022). *China's New Military Posture in Central Asia*. Retrieved July 26, 2022 from https://nesa-center.org/dev/wp-content/uploads/2022/05/2022-0426_Chinas-New-Military-Posture-in-Central-Asia.pdf
- Zardykhan, Z. (2022). *Central Asia rushes into armed drone race as regional arms transfers brew: Drone diplomacy and geopolitics of arms race in Central Asia*. Global Voices. Retrieved August 30, 2022 from <https://globalvoices.org/2022/07/07/central-asia-rushes-into-armed-drone-race-as-regional-arms-transfers-brew/>
- Указ Президента Российской Федерации от 10.10.2019 г. № 490, (2019) (testimony of ПРЕЗИДЕНТА РОССИЙСКОЙ ФЕДЕРАЦИИ). Retrieved August 30, 2022 from <http://www.kremlin.ru/acts/bank/44731>
- 卢佩珊. (2019). *2019年中国人工智能行业政策解读概览*. Retrieved August 31, 2022 from https://pdf.dfcfw.com/pdf/H3_AP202008061396710412_1.pdf?1596711832000.pdf