



# AMERICAN FOREIGN POLICY COUNCIL DEFENSE TECHNOLOGY PROGRAM BRIEF

*China's AI Ambitions and U.S. Competition*

*By: Walker E. Robinson*

## BRIEFING HIGHLIGHTS

- China aims to be the world's leader in AI innovation by 2030 by leveraging its extensive system of military-civil fusion.
- The primary drivers of China's AI program are achieving leadership in AI, economic development and transformation, national security through military modernization, and national pride and regime legitimacy.
- China perceives success in commercial AI and semiconductor markets as directly linked to its geopolitical power, military strength, and espionage capabilities. The country is making significant investments to integrate AI technologies into its national defense innovation, aiming to support military command, decision-making, and defense equipment applications.
- People's Liberation Army strategists anticipate future conflicts to be dominated by autonomous systems with minimal human intervention.
- China's commitment to AI research and development (R&D) can be seen by the country's rapidly growing R&D spending. By 2018, China was spending more on R&D than Japan, Germany, South Korea, and France combined.
- China's extensive use of AI for surveillance purposes, particularly in regions with ethnic minorities, is a direct contrast to the U.S. approach, which emphasizes privacy and civil liberties.
- To counter China's AI goals and protect national security, the U.S. must establish a centralized AI governance body, increase AI education and military research funding, and lead in international AI governance efforts.

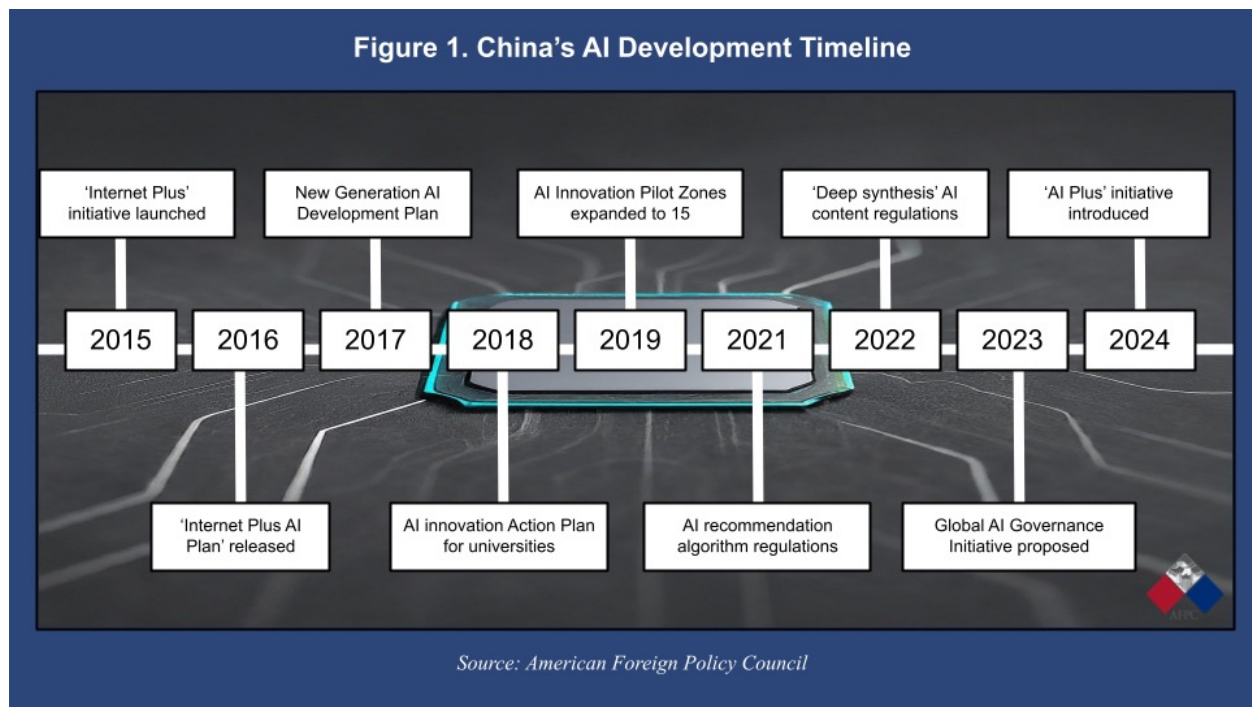


Artificial intelligence (AI) has the potential to transform economies, reshape societies, and redefine what it means to be a global power. China's pursuit of AI advancement poses a challenge to U.S. interests. An analysis of China's AI goals, motivations, and capabilities shows that the Chinese Communist Party (CCP) has prioritized AI as a crucial area of technological innovation and seeks to overtake and compete with the U.S. in this field. China aims to lead the world in AI innovation by 2030 by leveraging its extensive system of military-civil fusion.

This commitment has been recently reaffirmed at the highest levels of government. During the second session of the 14th National People's Congress on March 5, 2024, Chinese Premier Li Qiang introduced the new AI Plus initiative, emphasizing the development of "new quality productive forces at a faster pace" with a focus on science and technology innovation and industrial system modernization.<sup>1</sup> In a June 2024 speech at a major Chinese science and technology (S&T) conference, Chinese President Xi Jinping reemphasized the strategic importance of AI. Xi also stated that China must "accelerate S&T innovation in new-generation information technology, AI, quantum technology, biotechnology, new energy, new materials, and other fields, and cultivate and develop emerging industries and future industries." Additionally,

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Xi noted that “emerging industries such as integrated circuits and artificial intelligence have flourished,” touching on China’s progress in these critical areas of technology. Xi also stressed the need to “promote high-level S&T self-reliance,” indicating China’s desire not only to become a leader in AI innovation and development but also to decrease Chinese reliance on foreign supply chains and resources.<sup>2</sup> To effectively shape U.S. strategy and understand the implications of China’s AI ambitions, it is essential to examine the CCP’s AI strategy.

#### *CHINESE AI STRATEGY*

The CCP views AI as an important technology for the future of global military and economic competition, particularly with the United States. To achieve global leadership in AI, the CCP has made significant investments and developed national plans (Figure 1), such as the New Generation Artificial Intelligence Development Plan (AIDP), published in 2017, which states:

The rapid development of artificial intelligence (AI) will profoundly change human society and life and change the world. ... AI has become a new focus of international competition. AI is a strategic technology that will lead in the future; the world’s major developed countries are taking the development of AI as a major strategy to enhance national competitiveness and protect national security.<sup>3</sup>

China perceives success in commercial AI and semiconductor markets as directly linked to its geopolitical power, military strength, and espionage capabilities. Under Article 7 of China’s National Intelligence Law, Chinese technology companies are legally obligated to cooperate with the military and state security services.<sup>4</sup> People’s Liberation Army strategists anticipate future conflicts to be dominated by autonomous systems with minimal human intervention. They believe that superiority in AI algorithms, data processing, and cognitive capabilities will be crucial for battlefield and intelligence supremacy. The ability to protect one’s own AI assets while compromising the enemy’s assets is seen as a key determinant of victory.<sup>5</sup>

Under China’s national AI strategy, the CCP has expanded its “national team” beyond just individual companies to include 15 National New Generation Artificial Intelligence Innovation and Development Pilot Zones as of 2021.<sup>6</sup> These zones, located in major tech hubs and emerging AI centers, lead AI development across the country.<sup>7</sup> This approach allows China to leverage its diverse regional strengths while maintaining a coordinated national strategy.<sup>8</sup>

Currently, China’s AI industry is still in the early stages of development. Despite an estimated 50 companies in the process of creating new AI models, many of these companies still face issues with getting investments and insufficient computing power. However, the

CCP is taking steps to make the industry more competitive and thus solve some of these issues, including through the previously mentioned AI Plus initiative.<sup>9</sup>

Ultimately, China's AI endeavors boil down to one major goal: to surpass the U.S. in AI technology and application. By doing so, the CCP seeks to achieve global leadership in AI and simultaneously strengthen its political, economic, and military power. The CCP's determination to become the world's leading AI power can be attributed to a few important driving factors.

### KEY DRIVERS OF CHINA'S AI AMBITIONS

The primary drivers of China's AI program are achieving leadership in AI, economic development and transformation, national security through military modernization, and national pride and regime legitimacy.

### CHINA'S RECENT AI ACHIEVEMENTS

In the past few years, Chinese companies have made impressive strides in AI development and implementation. Most notable are advancements in AI, large language models, autonomous vehicles, health care, and quantum computing. Additionally, China's progress in creating

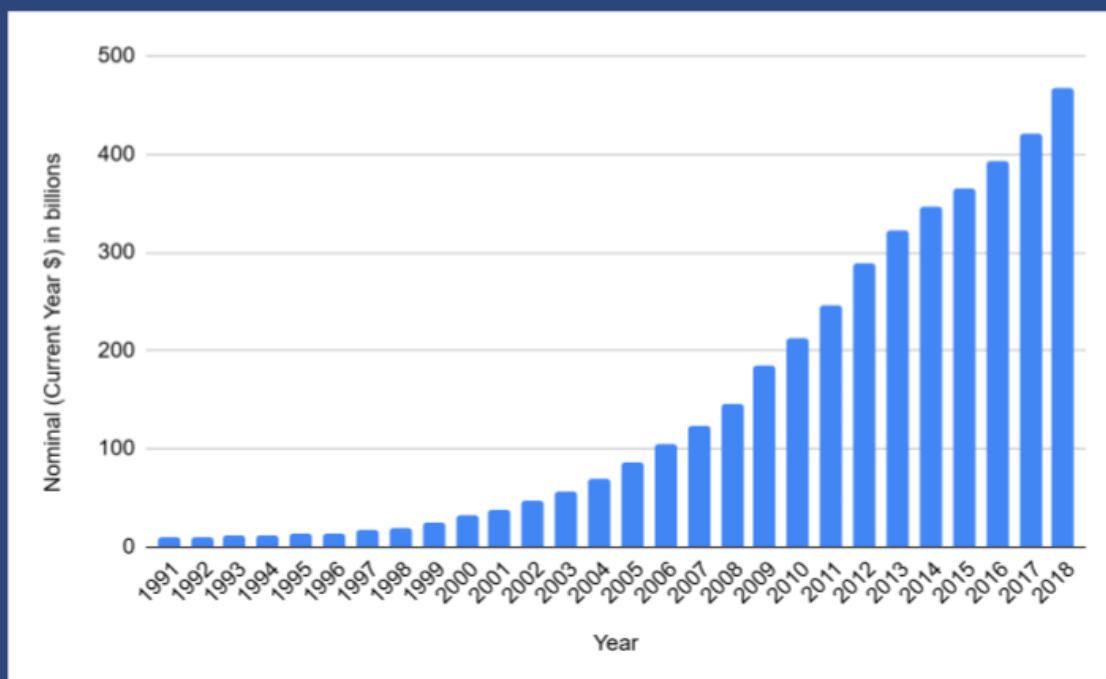
reliable computer chips to empower AI advancement has been equally substantial, especially considering U.S. efforts to limit China's access to that technology. One example is Huawei's Ascend AI processor chip, which has proven to be a workable replacement for the U.S.-made chips that China no longer has access to. These advancements further fuel the CCP's desire to become a leader in AI because they showcase the impact that AI can have if implemented successfully.

### LEADERSHIP IN AI RESEARCH, DEVELOPMENT, AND IMPLEMENTATION

China's desire to lead globally in AI development and international governance is one of the primary drivers for China's AI ambitions. The CCP's showcasing of its technological advancements and capabilities is essential for its goal of shaping AI governance and competing with the U.S., as is regularly emphasized by CCP officials.

In a 2018 Politburo study session, Xi Jinping emphasized the importance of accelerating the development of a new generation of AI for China to "gain the initiative in global science and technology competition" and drive

Figure 2. China's R&D Spending



Source: CSIS China Power Project, OECD

the country's "leapfrog development" across various domains.<sup>10</sup> China aims to "march in the front ranks" in AI theoretical research and "occupy the high ground" in critical and core AI technologies by strengthening innovation capabilities and achieving key breakthroughs.<sup>11</sup>

This rhetoric was reinforced and restated in Xi's June 2024 speech at the Chinese S&T conference. Although Xi's speech was not focused on AI, he emphasized themes that are prominent in China's overall AI strategy. He stressed the need for "high-level S&T self-reliance," urging China to "firmly grasp the lifeline of S&T and the initiative for development in our own hands."<sup>12</sup> Xi's emphasis on self-reliance highlights the CCP's desire to reduce Chinese dependence on foreign technologies and thus lessen the influence countries like the U.S. could have over China's AI advancement. China's commitment to AI research and development (R&D) can be seen in the country's rapidly growing R&D spending (Figure 2). According to the Center for Strategic and International Studies China Power Project, China's R&D spending as a percentage of GDP increased from 0.725 percent in 1991 to 2.14 percent in 2018, with Chinese government figures showing it reached 2.23 percent in 2019.<sup>13</sup> China's R&D spending increased by more than 35 times from \$13.1 billion in 1991 to \$462.6 billion in 2018. By 2018, China was spending more on R&D than Japan, Germany, South Korea, and France combined. That was almost one-quarter of the world's R&D spending.<sup>14</sup>

China's R&D financing has also evolved significantly in the past few years. In 2018, Chinese businesses financed 76.6 percent of China's gross expenditure on R&D, more than double the amount in 1994. However, state-owned enterprises play a significant role in this "business-led" R&D funding. These companies blur the lines between private and government funding, making it difficult to ascertain the origin of the financing.<sup>15</sup> Xi called for China to "aim at the commanding heights of the S&T of the future and of industrial development," indicating a push to position China at the lead of AI research and application, even if not naming AI directly.<sup>16</sup>

China not only seeks to compete with the U.S. and other countries for AI leadership but also endeavors to influence and dictate the global norms and regulation surrounding the use and development of all things AI. The CCP has taken steps toward implementing its own AI regulation, in hopes that it may play a larger role in shaping global AI governance. In both 2021 and 2022, China

*China perceives success in commercial AI and semiconductor markets as directly linked to its geopolitical power, military strength, and espionage capabilities.*

introduced some of the world's first regarding common AI applications, focusing specifically on recommendation algorithms and "deep synthesis" (AI-generated content such as images and video).<sup>17</sup>

China's Ministry of Foreign Affairs published a communique in 2023 titled "Global AI Governance Initiative," in which the PRC emphasized the need for a shared global approach to AI regulation. In this communique, China placed heavy emphasis on ethics in AI development, as well as insisting on broad participation of many nations in making decisions about AI governance.<sup>18</sup> The communique also called for the representation of developing countries in creating this regulation. China claims that it wishes to promote equal rights and opportunities for all nations even if they may not be considered leaders in AI technology.<sup>19</sup>

China's approach to global AI governance is rooted in the concept of "cyber sovereignty." An idea the CCP has been spearheading since the late 2000s, cyber sovereignty is built on the idea that any nation should have the right to govern technology within its own borders as it sees fit.<sup>20</sup> This concept highlights China's broader goal of maintaining its own control over the digital space within its own country while simultaneously influencing global regulation and exporting technology, and technology policy, to other countries.<sup>21</sup>

China seeks to justify its regulatory approach to AI and other emerging technologies by emphasizing national autonomy in tech governance. The CCP's emphasis on self-governance and digital autonomy is likely to preserve the AI systems and policies that it has developed to align with China's political and social objectives. These objectives could potentially diverge from Western beliefs about AI ethics and governance, causing a fundamental disagreement over the way AI should or shouldn't be regulated at a global level. At the same time, China seeks to ensure that its perspective is represented in global discussions and that no single nation can unilaterally shape AI norms and regulations.

China's approach of promoting cyber sovereignty



while also seeking to shape international regulation efforts is a strategic balancing act, one that may prove difficult to maintain. By pursuing this dual approach, China hopes to protect its domestic interests and values while simultaneously positioning itself as a global leader in AI governance to protect those values and prevent other countries from standing in the way of China's interests. Perhaps most important, China likely seeks to prevent the U.S. from shaping global AI regulation on its own or without China's involvement. The Chinese strategy could appeal to other nations, particularly those with little in the way of AI technology, that may feel shut out or powerless to influence AI governance on their own. By behaving as a "champion" of the countries that may feel marginalized or oppressed by Western tech governance, China is positioning itself to play a large role in the future of global AI governance.<sup>22</sup>

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In his 2024 speech, Xi also addressed the importance of integrating civilian and military technology innovation. This notion suggests that the CCP will leverage both the military and the private sector to achieve economic and military breakthroughs in AI technology. Xi also highlighted an effort to further develop China's AI talent by stating a focus on cultivating "strategic scientists and first-class S&T leaders and innovation teams."<sup>23</sup> However, challenges remain for China's R&D landscape. The country has traditionally focused more on experimental development (about 80 percent of R&D spending from 2000 to 2019) rather than basic and applied research, which are critical for groundbreaking innovations. In 2018, China spent only 5 percent of its R&D budget on basic research, compared to 17.3 percent in the United States. The CCP, after recognizing this imbalance, has sought to increasingly promote the importance of basic and applied research.<sup>24</sup> To address these challenges and balance central control with local innovation, China has implemented "central-local joint action" strategies in its national S&T programs that aim to align local S&T plans with national goals.<sup>25</sup>

The CCP's efforts in AI research, development,

implementation, and governance highlight China's determination to become a global leader in AI. By influencing international regulation and positioning itself as a champion of inclusive global AI governance, China is enabling itself to secure a central role in the future of global AI norms. China's promotion of a consensus-based, multi-stakeholder approach challenges the ability of any single nation to unilaterally shape AI norms and regulations, potentially helping China build alliances, promote its own AI development model, and gain access to data and markets in participating countries.<sup>26</sup>

#### *ECONOMIC DEVELOPMENT AND TRANSFORMATION*

The impact of AI on the global economy is one of the most significant driving factors of China's AI ambitions. China faces a slowing economy after decades of growth, in large part due to an aging population, but the lingering effects of the COVID-19 pandemic have worsened the situation. AI offers a potential solution to these problems for the CCP. Some reports estimate the use of AI could add as much as \$600 billion annually to the Chinese economy through revenue and cost savings.<sup>27</sup> China

likely views AI as a transformative technology, one that could revitalize the country's industries. To achieve this solution, China has already begun to integrate AI into the country's economy and create policies to further ease the transition in the future.<sup>28</sup>

AI is expected to impact the Chinese job market and workforce in two primary ways. First, the Chinese government's ongoing push toward AI R&D will create more job opportunities in this field. A study conducted by Georgetown's Center for Security and Emerging Technology (CSET) in partnership with AMPLYFI, a U.K.-based tech company, analyzed 6.8 million unique job postings in China and found that over 30 percent were related to the AI field.<sup>29</sup>

Second, AI-driven automation will likely replace jobs, particularly in labor-intensive sectors (Figure 3). As China's population grows older and the working-age demographic shrinks, China will likely face numerous challenges that will threaten the country's economic stability. After peaking at over 1.42 billion people in 2021, China's population is projected to shrink by over 100 million people by 2050. Even more dramatically, by

the end of the century, China's population may dwindle to less than 800 million, with more dire scenarios putting the figure at less than 500 million.<sup>30</sup> China's declining population is also accompanied by a rapidly aging society. Beijing is likely aware of these impending issues and has identified AI, especially automation, as a promising solution to its looming demographic crisis. Should China be able to boost the productivity of its economy and fill the gaps in its waning labor force, its current workforce would be able to pursue higher-value jobs such as research and engineering. Additionally, advancements in AI-empowered health care could allow members of the working-age population to reenter the workforce rather than having to care for older family members. China's belief in AI as a solution to these demographic issues is evident in the nation's policies and investments.<sup>31</sup>

The CCP has continued to invest heavily in AI start-ups and large tech companies such as Baidu, Tencent, and Alibaba. China's central bank recently announced plans to set up a \$70 billion re-lending program to support "small-to-mid-sized" companies in the S&T field.<sup>32</sup> The Chinese government regularly seeks to invest in the AI industry with funding to drive advancement and achieve technological breakthroughs while also steering

Figure 3. Chinese AI Automated Factory



Photo: Qilai Shen/Bloomberg News

the direction of the research to better produce advancements that benefit the government.

#### NATIONAL SECURITY THROUGH MILITARY MODERNIZATION

The military and national security aspects of AI advancement have been at the forefront of Chinese AI ambitions since the inception of the New Generation Artificial Intelligence Development Plan. The AIDP emphasizes a strategy of military-civilian integration to promote multi-application technology. It states that AI technology will support military command, decision-making, deduction, and defense equipment applications, while military-oriented AI technology will also be guided toward civilian applications. The plan promotes the rapid integration of various AI technologies into national defense innovation and emphasizes the need to strengthen the construction of military and civilian AI technology standard systems, as well as promote the overall layout and open sharing of science and technology innovation platforms.

The proliferation of unmanned aircraft systems (drones) in conflicts such as the war in Ukraine demonstrates how militaries are forced to adapt and integrate emerging technologies to remain competitive in modern warfare.<sup>33</sup> A report by CSET analyzed 119 AI-related contracts awarded by the Chinese Army, Navy, and Air Force between April and November 2020 (Figure 4). Intelligent and autonomous vehicles comprised about

Figure 4. Chinese Distribution of Awarded AI Contracts, April-November 2020

	38%	Intelligent and Autonomous Vehicles
	17%	Intelligence, Surveillance, and Reconnaissance
	16%	Predictive Maintenance and Logistics
	7%	Information and Electronic Warfare
	4%	Simulation and Training
	4%	Automatic Target Recognition
	4%	Command and Control
?	10%	Other

Source: Bloomberg Government and CSET corpus of PLA procurement activity

Table 1. United States Government Steps Taken to Address Challenges Posed by AI

U.S. Government Entity	Passed/Produced Items	Actions and Response
Office of Science and Technology Policy	<ul style="list-style-type: none"> <li>• Blueprint for an AI Bill of Rights</li> <li>• Executive Order on Safe, Secure, and Trustworthy Development and Use of AI</li> <li>• Interagency council for AI coordination</li> </ul>	Focused on the importance of ethics in AI development, international cooperation, and the potential of using AI to address societal challenges in the U.S. and globally.
Department of Defense	<ul style="list-style-type: none"> <li>• Data, Analytics, and Artificial Intelligence Adoption Strategy</li> <li>• Chief Digital and Artificial Intelligence Office</li> </ul>	Emphasized improving foundational data management, investing in AI-related infrastructure, and expanding digital talent in the armed forces. Aims to accelerate AI adoption from boardroom to battlefield, indirectly countering China's military AI ambitions.
Department of Commerce	<ul style="list-style-type: none"> <li>• National Institute of Standards and Technology publications on AI safety and trustworthiness</li> <li>• U.S. Artificial Intelligence Safety Institute (AISII)</li> <li>• Strategic export controls on advanced computing</li> </ul>	Implemented measures and strategies to improve AI safety, security, and trustworthiness in the U.S. Established AISII to advance AI safety science. Produced export controls to restrict China's access to advanced tech. Plans for a global network of AI Safety Institutes to promote international cooperation on AI safety and risk mitigation.
Department of Energy	<ul style="list-style-type: none"> <li>• VoltAIc Initiative</li> <li>• Working Group on Powering AI and Data Center Infrastructure</li> <li>• Frontiers in AI for Science, Security, and Technology initiative</li> <li>• AI for Nuclear Deterrence Strategy</li> </ul>	Focused on leveraging AI for clean energy, scientific discovery, and national security. Promoted energy-efficient AI algorithms and hardware. Aims to maintain U.S. technological leadership in critical areas such as energy and nuclear security, indirectly addressing the challenge posed by China's AI ambitions.
Congress	<ul style="list-style-type: none"> <li>• Advancing American AI Act</li> <li>• Proposal for Five AIs Strategic Artificial Intelligence Working Group</li> <li>• Bipartisan Task Force on Artificial Intelligence</li> <li>• ENFORCE Act</li> </ul>	Introduced legislation to promote AI adoption in the federal government, enhance international cooperation on AI (particularly with Five Eyes allies), and implement export controls on AI technologies. Established bipartisan efforts to maintain U.S. AI leadership and address potential threats from adversaries like China.



38 percent of those Chinese military AI contracts, while AI applications for intelligence, surveillance, and reconnaissance (ISR) accounted for about 17 percent, suggesting these were priority investment areas for China.<sup>34</sup> Like other countries with leading militaries, China views AI as crucial for future military and economic power competition, particularly with the United States. The country is making significant investments to integrate AI technologies into its national defense innovation, aiming to support military command, decision-making, and defense equipment applications.<sup>35</sup>

#### *NATIONAL PRIDE AND REGIME LEGITIMACY*

Regime legitimacy is extremely important for the CCP and Xi Jinping. Should China be able to surpass or draw even with the U.S. in AI technology and demonstrate success in the categories of global AI governance, economic growth, military modernization, and promoting national security, the CCP and Xi's regime legitimacy and national pride will be strengthened on both the domestic and global stages. Success in AI development will enhance the effectiveness and ideological legitimacy of the CCP by portraying the party as uniquely qualified to guide China's continued rise as a powerful and technologically advanced nation. However, to solidify AI as a point of regime legitimacy, the CCP will need to be able to mitigate and effectively address the disruptive risks that accompany AI advancements. Issues such as job loss, privacy concerns, the spread of misinformation, and a potential arms race with the U.S. all threaten to undermine the CCP's regime legitimacy should it fail to adequately address and solve these issues.

#### **UNITED STATES RESPONSES**

The U.S. has developed its own multifaceted approach to maintaining leadership in AI technology as both a preemptive strategy and in response to China's own ambitious goals. Through the Trump and Biden administrations, the U.S. strategy and approach has evolved significantly, in large part due to the constantly changing landscape of AI development and the technology's growing importance to U.S. national security and economic competitiveness.

In 2019, the Trump administration made one of the first major efforts by the U.S. government to protect the U.S. advantage in AI. Executive Order 13859 launched the American AI Initiative and aimed to increase

investment in AI R&D and expand the AI workforce in the United States.<sup>36</sup> The Trump administration also implemented targeted export controls on China's tech sector to slow China's AI advancement.<sup>37</sup> Although the first Trump administration took place prior to the boom in AI advancement caused by the release of ChatGPT in 2022, these policies still reflected the U.S.'s belief in AI as a strategically important technology.

Building on this foundation, the Biden administration increased efforts in AI development and competition with China, particularly in response to the extremely important AI breakthrough of ChatGPT, which acted as a wake-up call to the U.S. and the world about just how far along AI was, catching many by surprise. The Biden administration's approach, headlined by the 2023 National AI Research and Development Strategic Plan (NAIRDSP), represented a more comprehensive and nuanced strategy as was necessitated by the rapid AI advancement.

In the years since ChatGPT's introduction, the U.S. government and its numerous agencies have sought to address, adapt, and incorporate AI throughout their organizations. The U.S. government is massive; thus, this paper addresses only the entities and actions identified as having the greatest impact and influence on the United States's AI policy and the competition with China (Table 1). These agencies have each addressed the various challenges and opportunities that AI presents, and by examining the current U.S. government's efforts, we can better understand their shortcomings and identify the existing problems.

The most recent action by the Biden administration was the release of the Memorandum on Advancing the United States' Leadership in Artificial Intelligence; Harnessing Artificial Intelligence to Fulfill National Security Objectives; and Fostering the Safety, Security, and Trustworthiness of Artificial Intelligence.<sup>38</sup> This memo represents the United States's most comprehensive steps to address the challenges associated with AI regulation, safety, international governance, and more. That being said, this memo fails to mention China directly and remains insufficient in the areas needed to adequately address the threat of China's AI ambitions.

#### *THE PROBLEMS*

To maintain an advantage over China, the U.S. must address gaps in its current strategies. It is crucial for



policymakers, industry leaders, and researchers to understand these issues as they work to alter and improve the United States' AI development and deployment approach. Through a detailed examination of these problems, we can better understand the complexities of maintaining technological superiority in an era of rapid AI advancement and intense global competition. This section explores the areas the current U.S. approach fails to address or in which it falls short. To remain at the forefront of AI advancement and lead the discussion on global AI governance, the U.S. must address the following issues.

### AI REGULATION AND GOVERNANCE

Many obstacles remain when addressing global AI regulation and governance. It is difficult to find a balance between appropriate regulation while encouraging innovation, especially in the face of competition with China. China and the CCP likely do not share the same regulatory and ethical concerns that the U.S. This lack of concern would allow Chinese companies to operate with fewer regulatory hurdles and red tape than U.S. companies. China's more centralized approach to AI regulation allows for faster implementation of policies but raises ethical concerns. The U.S. may struggle with the balancing act, but China is not likely to be as concerned with that issue, which may put the U.S. at a disadvantage when it comes to the implementation and effectiveness of AI regulations.

Establishing shared global AI regulation and governance will be crucial for promoting the responsible deployment of AI across the world. As the two leading countries in AI development, the U.S. and China are faced with spearheading the approach to global AI regulation. Both China and the U.S. have drastically different national interests and values that often clash with each other, which will inevitably make the process of establishing these norms more complicated, despite both countries having a shared interest in forming global AI norms. The U.S. faces significant hurdles in building international coalitions for AI governance, particularly when engaging with countries that may be more attracted to China's model of cyber sovereignty. Countries that harbor different beliefs and approaches to data privacy, transparency, and other factors will likely have difficulty finding common ground on which to

*People's Liberation Army strategists anticipate future conflicts to be dominated by autonomous systems with minimal human intervention, highlighting the crucial role of AI in achieving battlefield and intelligence supremacy.*

begin establishing common international standards. Additionally, should a country fear falling behind in the AI sector, it will likely be more reluctant to adopt any form of regulation that may slow or harm its AI sector's growth and, thus, less likely to be willing to sign on to any global regulation.

The challenge of establishing joint regulation between the U.S. and China is even more complicated by the risk of a potential AI arms race. If either China or the U.S. views AI regulation as a threat to its national security or technological advantage, it will likely be hesitant to engage in meaningful regulatory cooperation. This creates an issue where the fear of falling behind could drive both countries to resist the regulations needed to prevent a dangerous escalation in AI development. This fragmentation would make it even more challenging to establish the shared standards and oversight needed to ensure AI's safe and ethical development.

### ECONOMIC AND TECHNOLOGICAL COMPETITION

The rapid advancement of AI has further intensified the global economic competition with China. Chinese companies have become, and will continue to be, increasingly competitive with U.S. companies in fields that are related to AI, such as semiconductors, biotechnology, and electric vehicles. According to the 2024 Annual Threat Assessment of the U.S. Intelligence Community, China rivals the U.S. in DNA-sequencing equipment, research, and genetic data. China is also likely going to outpace the U.S. in critical areas of biotechnology.<sup>39</sup>

U.S. efforts to slow China's AI innovation through export controls and investment restrictions has had only mixed success. China has largely been able to develop domestic alternatives and find workarounds to U.S. restrictions and continue its progress.<sup>40</sup> Furthermore, China's state-driven model and its military-civil fusion strategy have enabled more efficient and coordinated investment in key AI sectors. By contrast, the U.S. model of innovation has

relied primarily on the private sector for funding and development.

The integration of AI into manufacturing processes will likely also pose a threat to the general U.S. population. Should China sufficiently bolster its domestic production by using AI, it may lead to job loss in the U.S. as Chinese products and services undercut U.S. alternatives on the global market.<sup>41</sup> The U.S. will face its own internal issues with job security as companies seek to increase their revenue through the use of AI. The threat that AI poses to certain sectors cannot be avoided. While China may benefit from the added workforce, the U.S. may have a harder time adopting the technology on a widespread level. This challenge adds another layer of complexity to the AI and economic competition between the U.S. and China. As AI technology inevitably advances, these existing challenges will be magnified while new challenges also emerge. Should the two countries be so blinded by the competition with one another that they forgo safeguards and regulation, the consequences would be devastating.

China's success in developing domestic alternatives to restricted technologies shows the need for a more robust approach to the economic aspect of AI competition beyond just the export controls used in the past few years. This situation is complicated further by the fact that global AI supply chains are incredibly interconnected. China and the U.S. rely on shared networks of suppliers and resources to power and produce their AI endeavors. This interdependence creates vulnerabilities that could be exploited during periods of high tension should one side seek to disrupt the other's access to essential materials. The U.S. must find ways to protect its economic interests while maintaining the benefits of international trade and avoiding economic escalation with China.

#### *EVOLVING NATIONAL SECURITY THREATS*

China's rapid advancement in AI technologies for military applications poses a significant risk to U.S. national security despite ongoing efforts by the U.S. to match or outpace China's capabilities. The ambiguous nature of AI as a dual-use technology makes it difficult to implement effective export controls and determine the military capabilities of China's AI. The CCP aims to achieve "intelligence supremacy" by 2030, pursuing a "multidomain precision warfare" strategy that uses AI to exploit vulnerabilities in the U.S. military.<sup>42</sup> China's

development of AI-enabled autonomous weapon systems, intelligence analysis tools, and cyber warfare capabilities could erode U.S. military advantages and shift the balance of power between the two countries.<sup>43</sup>

China's People's Liberation Army is actively integrating AI into its systems, including autonomous vehicles, ISR capabilities, electronic warfare, and command and control systems.<sup>44</sup> Perhaps the two most concerning applications of AI in China's military are drone swarms and AI-supported manned aircraft systems. These two systems represent a serious threat to the U.S. military and U.S. national security, and they demonstrate the People's Liberation Army's progress in integrating AI into its military combat capabilities.<sup>45</sup> China's more permissive approach may offer an advantage in implementing and deploying military AI technology. Furthermore, China's intended use of AI in the decision-making process may increase the pressure on decision-making timelines in rapidly evolving conflict scenarios.<sup>46</sup>

Unlike the U.S., China is not likely to face this issue as the CCP can mobilize the private-sector workforce for military application with ease. Like the economic challenges, the national security challenges pose a great risk of leading to an arms race. Should China or the U.S. believe its national security is threatened by the other's advancements in military AI, it could lead to an even greater arms race to see who can invent, implement, and deploy the fastest. The future of conflict, deterrence, and military power will rely heavily on AI technology. The U.S. will need to balance the advancement of AI technology with its strategic and military implications.

The risk of miscalculation and misunderstanding between the U.S. and China is made far worse by introducing AI into both militaries. The lack of direct communication channels or shared AI protocols significantly increases these risks. Without established methods for dialogue and crisis prevention, misunderstandings about each country's AI military capabilities or intentions could lead to rapid escalation, an arms race, or outright conflict. The emergence of AI technology adds an entirely new level of complexity to traditional military deterrence. Both countries must now operate with incomplete information regarding each other's

AI military capabilities and the destruction they are capable of. This uncertainty and the rapid pace of AI advancement have led to an environment in which either country might feel pressured to preemptively strike based on a perceived threat, whether real or not. The U.S. and China must establish communication and shared protocols specifically for military AI-related issues to avoid unintended escalation.

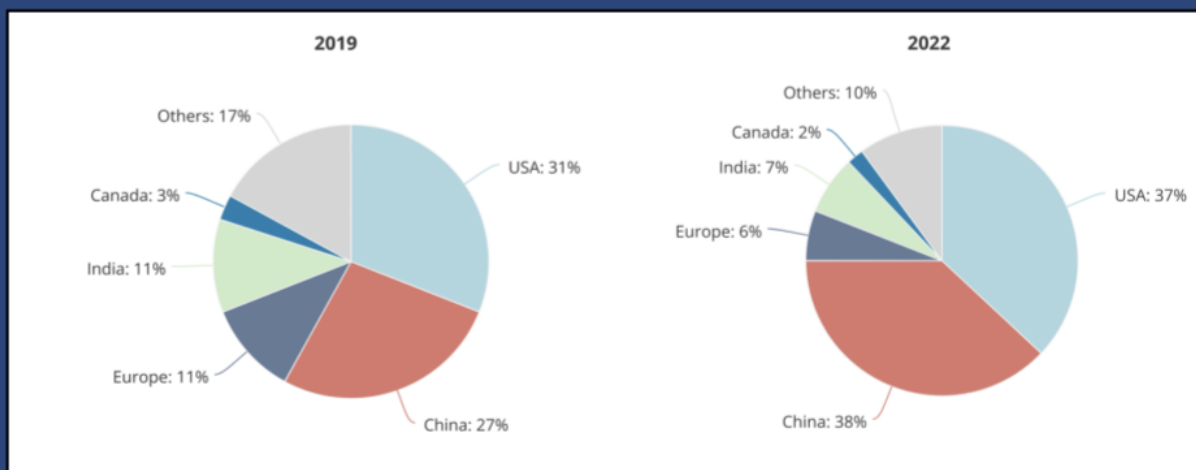
#### INNOVATION, ETHICS, AND VALUES

While the U.S. seeks to promote a safe and ethical approach to AI development, China's differing approach will likely prove to be a challenge for the U.S. and its allies. China's extensive use of AI for surveillance purposes, particularly in regions with ethnic minorities, is a direct contrast to the U.S. approach, which emphasizes privacy and civil liberties.<sup>47</sup> Chinese police have used AI-powered facial recognition technology to create "blacklists" of dissidents, protesters, and criminals, tracking their movements and effectively suppressing protests and dissent.<sup>48</sup> This same technology has also been used to track the location of and suppress ethnic minorities in China, such as the Uighurs. This use case is a good example of how AI technology could be used to increase ongoing human rights violations.<sup>49</sup> Despite U.S. efforts to promote ethical AI use internationally, Chinese companies like Huawei and Dahua have regularly exported these surveillance systems worldwide and enabled similar oppressive practices in other countries.<sup>50</sup>

Should China become a leader in global AI governance or obtain enough sway to influence the norms and regulations being created, it would conflict with the U.S. desire to establish an international AI framework aligned with democratic values. China's unethical and authoritarian use of AI technology clashes with the United States's emphasis on safe and ethical AI development and deployment. For example, China threatens the U.S. values of free speech and open information exchange through its use of AI for information control, censorship, and AI-generated misinformation campaigns.<sup>51</sup>

The spread of authoritarian AI applications by Chinese companies and promoted by the CCP clashes with U.S. democratic values. This threat underscores the need for the U.S. to sufficiently develop and share its own approach to AI technology and regulation that can pose an alternative to the Chinese model. To make matters more complicated, the U.S. must also acknowledge that some countries face economic situations in which the affordability and accessibility of Chinese AI systems may outweigh any ethical concerns. Some countries may pursue "good-enough" AI solutions if they are obtained at a lower price from China, especially if these countries wish to prioritize their immediate developmental needs. This trade-off will likely hamper U.S. efforts to prioritize ethics and safety in AI development and spread. While Western systems may come with strings attached and at a higher price, Chinese

Figure 5. Leading countries of origin of top-tier AI researchers (top~20%) working in US institutions



Source: Macro Polo

companies are less likely to make those same demands, as is reinforced by China's concept of cyber sovereignty. These issues will persist as more countries seek to acquire or develop their own AI systems.

Despite the fundamental differences in values and ethics when approaching AI advancement, the global nature of AI development requires finding some common ground with China. The U.S. needs to balance a healthy and safe engagement with China while maintaining its commitment to the safe and ethical use of AI. This balancing act will be far from easy, but the U.S. must find a way to address shared concerns about AI safety and AI uses in the military. As AI technology grows in capabilities and spreads throughout the world, it is essential that the U.S. address and prepare for this balancing act.

#### *AI TALENT COMPETITION*

The global AI talent competition will also likely remain a critical area of competition for the U.S. and China. Prior to implementing these strategies, the global AI talent base had shown some concerning trends. In 2019, the U.S. hosted 59 percent of the world's top AI talent, but that proportion fell to 42 percent in 2022. Conversely, China hosted only 11 percent of the world's top AI talent in 2019, but by 2022 that proportion had increased to 28 percent, demonstrating a shift in the countries' ability to attract and retain top members of the global AI workforce.<sup>52</sup> Additionally, China's progress toward educating and training its homegrown talent is substantial as the portion of the world's top AI talent that originated from China increased from 29 percent in 2019 to 47 percent in 2022.<sup>53</sup>

It is no secret that a large portion of AI experts in U.S. academia and the private sector were born in other countries (Figure 5). The NAIRDSP and the recent White House memorandum acknowledge this and emphasize the reliance on foreign-born talent to bolster the United States's technology workforce.<sup>54</sup> That being said, it remains uncertain whether these efforts will enable the U.S. to compete with the private sector for AI talent or with other countries that may seek to keep their AI talent in their own country. The challenge regarding the AI talent pool must be given serious consideration, as these experts and professionals are the driving force of U.S. AI innovation. Had the earlier trends continued, the U.S. likely would have found itself in a worse situation than it is in now.

The growing interconnection of AI research and development between the U.S. and China makes it impossible to completely separate the talent ecosystems without causing harm to both countries' ability to innovate. Despite security concerns, the historic exchange of professionals between the U.S. and China has enabled important knowledge sharing that benefits both countries; the same would likely remain true for AI. The U.S. must acknowledge this reality while still protecting its sensitive AI capabilities from potential exploitation. This challenge will likely become more complex as both countries seek to maintain their competitive advantage in AI development while trying to avoid an arms race.

#### **RECOMMENDATIONS**

The U.S. has made promising strides toward addressing the challenges posed by China's AI ambitions and the inherent challenges posed by the advancement of AI technologies. The various agency initiatives and the recent White House memorandum are evidence of that progress. In particular, the NAIRDSP outlines a comprehensive approach to maintaining U.S. leadership in AI innovation while emphasizing investments in fundamental research, ethical considerations, and public-private partnerships. However, this will not be enough on its own. The U.S. must address the challenges posed by China's AI ambitions in two ways: strategic competition and strategic cooperation.

#### *STRATEGIC COMPETITION*

To properly address the challenges posed by China's AI ambitions, the U.S. must directly acknowledge and address the threats created by Chinese AI advancement. By specifically working to counter China, the U.S. will be best positioned to maintain its economic and technological leadership while ensuring national security.

The U.S. must **establish a dedicated interagency task force for monitoring, assessing, and countering Chinese AI capabilities**. This task force should track military, commercial, and research developments to assess areas in AI technology in which China could gain an advantage over the U.S. In doing so, the U.S. can ensure that it is not caught off guard by any unexpected Chinese breakthroughs in AI technology.



The U.S. should also **accelerate investment in AI technology in sectors critical to national security and the economy**. This targeted investment should counter specific areas in which Chinese capabilities could undermine U.S. advantages and interests while also developing resilient and secure supply chains. The U.S. cannot risk falling behind in AI technologies essential to national security and economic leadership.

Additionally, **the U.S. must undermine and prevent the spread of China's authoritarian AI surveillance technologies**. The U.S. must **develop and promote ethical alternatives to these systems** while helping other countries understand the long-term risks of adopting Chinese AI technology. The U.S. must **demonstrate that AI can be both useful and ethical**. By offering an alternative to China's model of AI-powered authoritarianism, the U.S. can lead the world in a safer direction for the future of AI.

#### *STRATEGIC COOPERATION*

Countering China is incredibly important, but it is essential to understand that some of the threats posed by AI advancement surpass the competition between the two countries. In the event of an AI arms race or a military miscommunication, there will be no winners. Both China and the U.S. will be far worse off should these issues not be addressed, and communication is the primary way to address them.

The U.S. should **establish a regular bilateral dialogue to discuss the risks associated with AI technology**. As part of this dialogue, the U.S. and China would establish direct communication channels between AI research institutions to enable collaboration on AI safety research and frameworks.

The U.S. must seek to **establish joint crisis prevention protocols and direct lines of communication for AI-related incidents**. Due to the rapid nature of AI technology, it is essential to have a shared protocol and procedure for addressing AI-related issues to prevent unnecessary escalations or misunderstandings that could quickly spiral out of control. This direct line should have the same capabilities as the Moscow-Washington hotline during the Cold War.

Lastly, the U.S. should seek to **find common ground with China on global AI governance issues**. By working to establish basic shared standards and common principles for AI use, the two countries could lay the groundwork for cooperation as AI continues

to evolve and challenges continue to arise. For any long-term AI governance, global consensus must be achieved to be effective; this will require the U.S. and China to work together to some degree. Should the world fracture into a bipolar disagreement on AI governance, an AI arms race will likely follow, and no country would benefit.

#### *CONCLUSION*

It is essential for the future of AI advancement and U.S. interests to counter China's AI ambitions and acknowledge the areas in which cooperation will be necessary. Healthy competition between the U.S. and China is achievable and could likely benefit the advancement of AI technology, but we must ensure that healthy competition does not become a dangerous arms race.

If the U.S. fails to act, it risks ceding ground to China in the race for AI supremacy, and the consequences would be dire. AI will inevitably have far-reaching implications for the global economy, U.S. national security, and democratic principles. How other countries choose to adopt and develop their own AI will become increasingly important as the technology proliferates and becomes more incorporated with the broader world. We cannot afford to lose sight of these values in the heat of an AI arms race with China. Nor can we be so blinded by the competition with China that we become unwilling to cooperate in the necessary areas. To ensure that the U.S. upholds the values of freedom, ethics, and human rights, it must take action and counter China in a strategic and direct way while being careful not to instigate an AI arms race. In doing so successfully, the U.S. would secure a position as a global leader in the 21st century.

As the AI revolution continues to develop, the U.S. has an opportunity to lead its development in a direction that enhances human potential, strengthens democratic institutions, and addresses global challenges. By rising to this challenge, the U.S. can guarantee that the age of AI becomes an era of progress, innovation, and shared prosperity rather than one of conflict and strife.

## ENDNOTES

- <sup>1</sup> Li Qiang, “Report on the Work of the Government,” speech presented at the Second Session of the 14th National People’s Congress of the People’s Republic of China, NPC Observer, March 5, 2024, [https://npcobserver.com/wp-content/uploads/2024/03/2024-Government-Work-Report\\_EN.pdf](https://npcobserver.com/wp-content/uploads/2024/03/2024-Government-Work-Report_EN.pdf).
- <sup>2</sup> Xi Jinping, “Speech at the Nationwide S&T Conference, National Science and Technology Awards Conference, and the Conference of Academicians of CAS and CAE (June 24, 2024) [习近平：在全国科技大会、国家科学技术奖励大会、两院院士大会上的讲话（2024年6月24日）],” Center for Security and Emerging Technology, July 3, 2024, <https://cset.georgetown.edu/publication/xi-jinping-cas-cae-conference-speech-2024/>.
- <sup>3</sup> Graham Webster et al., “Full Translation: China’s ‘New Generation Artificial Intelligence Development Plan’ (2017),” New America, August 1, 2017, <https://www.newamerica.org/cybersecurity-initiative/digichina/blog/full-translation-chinas-new-generation-artificial-intelligence-development-plan-2017/>.
- <sup>4</sup> “National Security Law,” Order of the President of the People’s Republic of China No. 69, June 28, 2017, [http://www.pkulaw.cn/fulltext\\_form.aspx?D-b=chl&Gid=fdedce4519a7c0c9bdfb&isFromV6=1](http://www.pkulaw.cn/fulltext_form.aspx?D-b=chl&Gid=fdedce4519a7c0c9bdfb&isFromV6=1).
- <sup>5</sup> Zi Yang, “How China Leverages Artificial Intelligence for Military Decision-Making,” in *China’s Military Decision-Making in Times of Crisis and Conflict*, ed. Roy D. Kamphausen, National Bureau of Asian Research, September 26, 2023, pp. 69–88, [https://www.nbr.org/wp-content/uploads/pdfs/publications/chinas-military-decision-making\\_sep2023.pdf](https://www.nbr.org/wp-content/uploads/pdfs/publications/chinas-military-decision-making_sep2023.pdf).
- <sup>6</sup> Yu Changhuan [于长洹], “Decoding China’s National Team in Artificial Intelligence [解码人工智能‘国家队’],” Sina Technology [新浪科技], July 10, 2021, <https://finance.sina.cn/tech/2021-07-10/detail-ikqcfnc-a5955042.d.html>.
- <sup>7</sup> Yang Jie [杨洁], “The Artificial Intelligence National Team Expands: China Ping An, Hikvision, 360, and Others Among Ten Companies Selected [人工智能‘国家队’扩容 中国平安、海康威视、360等十家公司入选],” China Securities Journal [中国证券报], August 30, 2019, [https://cs.com.cn/ssgs/gssd/201908/t20190830\\_5981212.html](https://cs.com.cn/ssgs/gssd/201908/t20190830_5981212.html).
- <sup>8</sup> Jeffery Ding, “China’s Uncharacteristic Approach to Artificial Intelligence (AI) Development,” IGCC, February 3, 2023, <https://ucigcc.org/blog/chinas-uncharacteristic-approach-to-artificial-intelligence-ai-development/>.
- <sup>9</sup> Paul Triolo and Kendra Schaefer, “China’s AI Pioneers Face A Critical Year,” The Wire China, April 14, 2024, <https://www.thewirechina.com/2024/04/14/chinas-ai-pioneers-face-a-critical-year-industry/>.
- <sup>10</sup> Elsa Kania and Rogier Creemers, “Xi Jinping Calls for ‘Healthy Development’ of AI (Translation),” New America, November 5, 2018, <https://www.newamerica.org/cybersecurity-initiative/digichina/blog/xi-jinping-calls-for-healthy-development-of-ai-translation/>.
- <sup>11</sup> China Power Team, “Is China a Global Leader in Research and Development?” Center for Strategic and International Studies, January 28, 2021, <https://chinapower.csis.org/china-research-and-development-rnd/>.
- <sup>12</sup> Xi, “Speech at the Nationwide S&T Conference.”
- <sup>13</sup> China Power Team, “Is China a Global Leader in Research and Development?”
- <sup>14</sup> Ibid.
- <sup>15</sup> Siwen Xiao and Yaosheng Xu, “(Re)Centralization: How China Is Balancing Central and Local Power in Science, Technology, and Innovation,” UC Institute on Global Conflict and Cooperation, September 5, 2023, <http://ucigcc.org/wp-content/uploads/2024/03/Xiao-Recentralization-03.19.24.pdf>.
- <sup>16</sup> Xi, “Speech at the Nationwide S&T Conference.”
- <sup>17</sup> Matt Sheehan, “Tracing the Roots of China’s AI Regulations,” Carnegie Endowment for International Peace, February 2024, <http://carnegieendowment.org/research/2024/02/tracing-the-roots-of-chinas-ai-regulations?lang=en>.
- <sup>18</sup> “Global AI Governance Initiative,” Ministry of Foreign Affairs of the People’s Republic of China, October 20, 2023, [https://www.mfa.gov.cn/eng/wjdt\\_665385/2649\\_665393/202310/t20231020\\_11164834.html](https://www.mfa.gov.cn/eng/wjdt_665385/2649_665393/202310/t20231020_11164834.html).
- <sup>19</sup> China Power Team, “Is China a Global Leader in Research and Development?”
- <sup>20</sup> Ibid.
- <sup>21</sup> Dakota Cary, “Community Watch: China’s Vision for the Future of the Internet,” Atlantic Council,

December 4, 2023, <http://www.atlanticcouncil.org/in-depth-research-reports/report/community-watch-chinas-vision-for-the-future-of-the-internet/>.

<sup>22</sup> Ibid.

<sup>23</sup> Xi, “Speech at the Nationwide S&T Conference.”

<sup>24</sup> Ibid.

<sup>25</sup> Xiao & Xu, “(Re)Centralization.”

<sup>26</sup> China Power Team, “Is China a Global Leader in Research and Development?”

<sup>27</sup> Kai Shen et al., “The Next Frontier for AI in China Could Add \$600 Billion to Its Economy,” McKinsey & Company, June 7, 2022, <http://www.mckinsey.com/capabilities/quantumblack/our-insights/the-next-frontier-for-ai-in-china-could-add-600-billion-to-its-economy>.

<sup>28</sup> Qiang, “Report on the Work of the Government.”

<sup>29</sup> Diana Gehlhaus et al., “China’s AI Workforce: Assessing Demand for AI Talent,” Center for Security and Emerging Technology, November 2022, <https://cset.georgetown.edu/wp-content/uploads/CSET-Chinas-AI-Workforce-1.pdf>.

<sup>30</sup> China Power Team, “How Severe Are China’s Demographic Challenges?” Center for Security and Emerging Technology, January 31, 2024, <https://chinapower.csis.org/china-demographics-challenges/>.

<sup>31</sup> Ibid.

<sup>32</sup> Vishakha Saxena, “China Central Bank Announces \$70 Billion Loans for Tech Sector,” Asia Financial, April 7, 2024, <http://www.asiafinancial.com/china-central-bank-announces-70-billion-loans-for-tech-sector>.

<sup>33</sup> Kristen D. Thompson, “How the Drone War in Ukraine Is Transforming Conflict,” Council on Foreign Relations, January 16, 2024, <http://www.cfr.org/article/how-drone-war-ukraine-transforming-conflict>.

<sup>34</sup> Margarita Konaev et al., “U.S. and Chinese Military AI Purchases,” Center for Security and Emerging Technology, August 2023, <https://cset.georgetown.edu/publication/u-s-and-chinese-military-ai-purchases/>.

<sup>35</sup> Yang, “Ch. 4: How China Leverages Artificial Intelligence for Military Decision-making.”

<sup>36</sup> Executive Order 13859, White House, February 11, 2019, <https://www.govinfo.gov/content/pkg/FR-2019-02-14/pdf/2019-02544.pdf>.

<sup>37</sup> Adam Segal, “Year in Review 2019: The U.S.-China Tech Cold War Deepens and Expands,” Council on Foreign Relations, December 18, 2019, <http://www.cfr.org/blog/year-review-2019-us-china-tech-cold-war-deepens-and-expands>.

<sup>38</sup> “Memorandum on Advancing the United States’ Leadership in Artificial Intelligence; Harnessing Artificial Intelligence to Fulfill National Security Objectives; and Fostering the Safety, Security, and Trustworthiness of Artificial Intelligence,” White House, October 24, 2024, [https://www.whitehouse.gov/briefing-room/presidential-actions/2024/10/24/memorandum-on-advancing-the-united-states-leadership-in-artificial-intelligence-harnessing-artificial-intelligence-to-fulfill-national-security-objectives-and-fostering-the-safety-security/#:~:text=\(a\)%20First%2C%20the%20United,States%20that%20power%20AI%20development](https://www.whitehouse.gov/briefing-room/presidential-actions/2024/10/24/memorandum-on-advancing-the-united-states-leadership-in-artificial-intelligence-harnessing-artificial-intelligence-to-fulfill-national-security-objectives-and-fostering-the-safety-security/#:~:text=(a)%20First%2C%20the%20United,States%20that%20power%20AI%20development).

<sup>39</sup> “Annual Threat Assessment of the U.S. Intelligence Community,” Office of the Director of National Intelligence, February 5, 2024, <https://www.dni.gov/files/ODNI/documents/assessments/ATA-2024-Unclassified-Report.pdf>.

<sup>40</sup> Sujai Shivakumar et al., “Balancing the Ledger: Export Controls on U.S. Chip Technology to China,” Center for Strategic and International Studies, February 21, 2024, <http://www.csis.org/analysis/balancing-ledger-export-controls-us-chip-technology-china>.

<sup>41</sup> Kai-Fu Lee, “How China Is Using AI to Fuel the Next Industrial Revolution,” Time, August 11, 2021, <http://time.com/6084158/china-ai-factory-future/>.

<sup>42</sup> Jacob Stokes, “Military Artificial Intelligence, the People’s Liberation Army, and U.S.-China Strategic Competition,” U.S.-China Economic and Security Review Commission, February 1, 2024, [https://www.uscc.gov/sites/default/files/2024-02/Jacob\\_Stokes\\_Testimony.pdf](https://www.uscc.gov/sites/default/files/2024-02/Jacob_Stokes_Testimony.pdf).

<sup>43</sup> Roy D. Kamphausen et al., “China’s Military Decision-Making in Times of Crisis and Conflict,” National Bureau of Asian Research, September 26, 2023, [https://www.nbr.org/wp-content/uploads/pdfs/publications/chinas-military-decision-making\\_sep2023.pdf](https://www.nbr.org/wp-content/uploads/pdfs/publications/chinas-military-decision-making_sep2023.pdf).

<sup>44</sup> Stokes, “Military Artificial Intelligence, the People’s Liberation Army, and U.S.-China Strategic Competition.”

<sup>45</sup> Ibid.

<sup>46</sup> Ibid.

<sup>47</sup> Avi Asher-Schapiro, “China Found Using Surveillance Firms to Help Write Ethnic-Tracking Specs,” Reuters, March 30, 2021, <https://www.reuters.com/>

[article/idUSKBN2BM1ED/](#).

<sup>48</sup> “The AI-Surveillance Symbiosis in China: A Big Data China Event,” Center for Strategic and International Studies, August 18, 2023, <https://www.csis.org/analysis/ai-surveillance-symbiosis-china-big-data-china-event>.

<sup>49</sup> “Break Their Lineage, Break Their Roots,” Human Rights Watch, April 19, 2021, <https://www.hrw.org/report/2021/04/19/break-their-lineage-break-their-roots/chinas-crimes-against-humanity-targeting>.

<sup>50</sup> Steven Feldstein, “How Much Is China Driving the Spread of AI Surveillance?” in *The Global Expansion of AI Surveillance*, Carnegie Endowment for International Peace, 2019, pp. 13–15, <http://www.jstor.org/stable/resrep20995.7>; Martin Beraja et al., “How the Surveillance State Is Exported Through Trade in AI,” *VoxDev*, October 9, 2023, <http://voxdev.org/topic/trade/how-surveillance-state-exported-through-trade-ai>.

<sup>51</sup> Kristian Hammond, “China’s Use of AI to Create Propaganda in Elections,” Center for Advancing Safety of Machine Intelligence, April 8, 2024, <http://casmi.northwestern.edu/news/statement-on-microsofts-warning-about-chinas-use-of-ai-for-propaganda-in-elections.html>.

<sup>52</sup> Ruihan Huang et al., “The Global AI Talent Tracker 2.0,” *Macro Polo*, 2023, <https://macropolo.org/digital-projects/the-global-ai-talent-tracker/>.

<sup>53</sup> Ibid.

<sup>54</sup> “National Artificial Intelligence Research and Development Strategic Plan 2023 Update,” Select Committee on Artificial Intelligence of the National Science and Technology Council, White House, May 2023, <https://www.whitehouse.gov/wp-content/uploads/2023/05/National-Artificial-Intelligence-Research-and-Development-Strategic-Plan-2023-Update.pdf>; “Memorandum on Advancing the United States’ Leadership in Artificial Intelligence.”



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