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PRC Lessons from Russia's Invasion of Ukraine



By Sunny Cheung and Joe McReynolds

An engagement management system for an anti-UAV system on display at the Zhuhai Air Show in November, 2024. (Source: <u>SASTIND</u>)

Executive Summary:

- Chinese military experts are incorporating lessons from Russia's full-scale invasion of Ukraine on the use and importance of drones and autonomous systems, which is reshaping the People's Liberation Army's (PLA) strategic planning and operational doctrine.
- In simulated Taiwan Strait scenarios, the PLA has demonstrated heavy reliance on drones to carry out phased operations culminating in precision-guided airdrops to support an amphibious invasion. These exercises suggest the PLA intends to mobilize multi-theater, domain-specialized operations in the event of a future Taiwan contingency.
- Tactical innovations, notably the use of cost-effective first-person view drones capable of precise anti-armor
 operations, drone swarm tactics, and multi-domain integration, are highlighted by Chinese analysts, as is
 the integration of artificial intelligence-driven systems.
- Chinese strategists emphasize the need to develop stealthier drones, robust anti-jamming capabilities (such as fiber-optic guidance), and autonomous ground logistics systems, aimed at enhancing battlefield sustainability and reducing vulnerabilities in future combat scenarios.

Russia's full-scale invasion of Ukraine has vividly demonstrated the pivotal role autonomous and drone-based systems play in modern warfare. Chinese military experts have gained invaluable insights as the conflict has evolved over the last three years, reshaping their understanding of the capabilities and vulnerabilities of autonomous systems that likely will play an important role in a potential conflict over Taiwan.

In late March, state media in the People's Republic of China (PRC) reported the rapid evolution of anti-drone technologies, with aerospace expert Wang Ya'nan (王亚男) emphasizing the urgent need for more cost-effective and efficient countermeasures (CNR, March 23). Traditional methods, he noted, are prohibitively expensive—often hundreds of times the cost of the drones that they are meant to defeat—and still fall short in detection accuracy and coverage. Meanwhile, reports have surfaced of some PRC factories openly displaying Ukrainian flags, signaling acknowledgement for and partnerships with Ukraine's drone manufacturers instead of Russia's (X/@wartranslated, March 16). This speaks to the complex ways in which policymakers and key observers within the PRC perceive and are interpreting the Russian invasion of Ukraine.

This research draws from a curated collection of sources that reflect a diverse cross-section of Chinese military thought. It includes publications and analyses from direct PLA-affiliated research units, technical writings by analysts embedded in the PRC's broader defense apparatus and academic institutions, and influential commentary from recognized voices on Chinese online platforms. Together, these materials provide a rich matrix for assessing how different layers within the PRC's military and strategic community have interpreted Russia's war against Ukraine, particularly the operational role of drones and autonomous systems.

Chinese Perspectives on Tactical Innovations in Drone Warfare from Ukraine

Chinese experts view Russia's war against Ukraine as marking an evolution in the use of drones and autonomous systems. At the start of the conflict in 2022, Chinese experts from the Army Engineering University of the PLA observed that Russian forces had relied on small and medium unmanned aerial vehicles (UAVs) for reconnaissance, battlefield intelligence, and limited precision strikes, as well as traditional anti-drone measures emphasizing radar detection and electronic jamming. **[1]** This approach shifted after the introduction of Iranian-made Shahed-136 suicide drones and first-person view (FPV) drones, and the expansion of UAV production within Russia. Russia has frequently been deploying suicide drones ever since, as experts from the People's Liberation Army's Air Force Early Warning Academy (中国人民解放军空军预警学院) noted in 2024. **[2]** This enhanced Russian offensive and surveillance capabilities, especially those targeting armored vehicles and infrastructure (Global Times, January 4). **[3]** On the Ukrainian side, NATO-supplied drones, such as the Turkish Bayraktar TB-2, were deployed extensively in the early phase of the conflict to execute precision strikes. Although initially having limited domestic manufacturing capacity, Kyiv, too, has since scaled production through initiality having limited domestic manufacturing capacity, Kyiv, too, has since scaled production through initiality sike the "Army of Drones" project, which has provided drones for reconnaissance and precise tactical strikes against Russian forces (<u>Ukrainian World Congress</u>, accessed March 25). **[4]**

One of the most significant tactical developments identified by Chinese analysts is the use of FPV drones for precision anti-tank and anti-personnel operations. FPV drones' speed and agility allow them to bypass conventional defense systems, while their ability to deliver small yet potent payloads makes them highly effective for precision attacks. Their successes on the battlefield have led to a shift toward agile and low-cost weaponry capable of disrupting armored warfare strategies that rely on heavy conventional munitions. [5]

Analysts have also highlighted drones' impact on kill chains, shortening the time from target identification to engagement, enabling real-time target acquisition, intelligence relay, and immediate precision strikes at unprecedented speeds. [6]

The versatility of drones has allowed for their integration into broader tactical frameworks across multiple operational domains. For example, one researcher discusses Ukraine's deployment of Magura V5 maritime drones armed with air-defense missile systems to engage Russian helicopters in 2024 (<u>Global Times</u>, January 4). Experts from PLA Unit 68398 argued that Ukraine's success in this direction, particularly through NATO-supported information networks, has illustrated how real-time data from drones can improve the precision and lethality of conventional forces. **[7]**

These successes have led to a need to develop robust anti-drone and counter-swarm defense systems. Russian and Ukrainian experiences suggest that layered defense strategies should be used, combining both electronic warfare techniques and direct interception methods. Experts from the Engineering University of the People's Armed Police Force have further contended that such a strategy could include radar detection, electronic jamming, high-energy laser, and high-power microwave technologies. Artificial intelligence (AI)driven countermeasures might also be used against drone swarms to quickly identify, prioritize, and neutralize multiple simultaneous threats. **[8]**

The tactical sophistication of Russian UAV operators has evolved over the course of the conflict, a detail that has not been lost on observers in the PLA. Recent combat footage illustrates a high degree of coordination, notably in scenarios where UAV teams sequentially penetrate defensive countermeasures such as cage armor installed on Ukrainian tanks. PRC state media recently noted an incident in Zaporizhzhia where Russian drone operators successfully employed two quadcopter drones. One breached the tank's protective mesh with an initial grenade strike, before a second drone delivered a follow-up attack directly into the exposed area, effectively neutralizing the vehicle (Xinhua, January 6). Analysts have also followed Russia's increasing use of fiber-optic guided FPV drones, exemplified by the destruction of a U.S.-made M1A1 Abrams tank in Kursk oblast (PLA Daily, November 15, 2024; Xinhua, January 6). These drones showcase superior resistance to electronic warfare, circumventing traditional radio-frequency jamming methods commonly employed by Ukrainian forces. These advances in UAV tactics and technologies, including coordinated multi-drone operations and improved anti-jamming capabilities, are likely reshaping battlefield doctrines for the PLA.

Lessons and Expectations Focus on AI and Integration

In their published research, Chinese military experts foresee several specific trends emerging as drone warfare evolves and have made recommendations for the PLA on that basis.

The main doctrinal development appears to be an emphasis on integrating drones—especially Al-driven drones—and autonomous systems into joint operational frameworks. Integrated autonomous systems will coordinate between sea, air, and ground platforms, allowing for countering threats across various operational environments (<u>Global Times</u>, January 4). Al-driven systems are also capable of countering sophisticated drone swarms and cross-domain autonomous threats, while offensive drones have dramatically shortened decision-making timelines and precision targeting capabilities. Some experts believe that this integration will center Al systems as core capabilities rather than as supplementary tools. **[9]** However, other experts' views differ on

these conclusions, arguing instead that AI should serve primarily as a supplementary tool—assisting coordination and drone identification in anti-drone warfare (<u>CNR</u>, March 23). These debates apparently are ongoing, and it is not clear what ultimate direction PLA strategy will take.

Time Period	Initial Observations (2022–2023)	Recent Observations & Updates (2024–2025)	Key Shifts or Consistencies
Drone Tactics	Early emphasis on traditional UAV roles such as reconnaissance, limited strike missions, and single-platform operations. Limited but notable use of suicide drones noted.	Expanded use of FPV drones and suicide UAVs (Shahed-136, Lancet, Switchblade) becoming prominent as precise anti- armor and infrastructure attack tools.	Clear evolution toward greater tactical reliance on suicide drones.
Counter- Drone Measures	Conventional anti-drone strategies, mainly radar detection, jammers, and anti-air missiles.	Recognition of limitations in traditional measures against swarms; advocacy for integrated defense networks combining AI, directed-energy weapons, and adaptive electronic countermeasures.	Shift from single-layered defenses toward multi- layered, AI-enhanced solutions.
Drone Swarm Operation	Initial recognition of swarm potential, primarily theoretical with minimal battlefield validation.	Validation of swarm drone tactics in real combat (Shahed-136). Increased urgency for swarm technology research.	Transition from theoretical interest to practical urgency in swarm capabilities.
Cross- Domain Integration	Focused predominantly on UAV roles within aerial domains, minimal cross-domain integration early in the war.	Significant expansion of cross-domain applications, UAV-maritime platform cooperation, maritime drones engaging aerial threats.	Shift emphasizing cross- domain autonomous operations as essential.
AI Integration and Autonomy	Potential noted, limited practical application of AI in drone decision- making.	Al significantly shortening kill-chains and enhancing drone responsiveness, now central to future warfare strategy.	Consistent early recognition evolving into strategic priority due to battlefield efficacy.

Table 1: Evolution of PLA Experts' Observations on Drone Warfare During the Russia-Ukraine Conflict

(Source: Authors' compilation based on Chinese research papers referenced below)

The vulnerability of drones in the current conflict has been an issue for both sides (see EDM, <u>November 11</u>, <u>2022</u>, <u>September 10</u>, October <u>8</u>, <u>16</u>, 2024). If such systems could operate undetected or at least mitigate enemy countermeasures, they would be more effective and sustainable, reducing the costs associated with their replacement. As a result, top military engineers from the Shanghai Electro-Mechanical Engineering Institute have argued that future Chinese drone systems should incorporate advanced stealth capabilities and electronic countermeasures to evade sophisticated air defenses. **[10]** Autonomous ground logistics systems provide another means of reducing vulnerabilities and improving battlefield logistics. This is because they can operate continuously under harsh or contested conditions without fatigue, using data-driven systems to optimize resupply scheduling and route planning. Strategists likely will focus on developing these to better sustain operations in complex environments and managing contested supply lines. **[11]**

Beijing's progress in developing unmanned aerial systems were on full display at the 15th China International Aviation & Aerospace Exhibition in November 2024 (otherwise known as the Zhuhai Airshow). The Aviation Industry Corporation of China (AVIC; 航空工业/中航工业), one of the PRC's top defense manufacturers, unveiled its latest large reconnaissance and strike drone, the "*Jiutian*" (九天) (PLA Daily, November 15, 2024; China Brief, December 20, 2024). Its modular design is unusual, and in particular its "heterogeneous hive mission bay" (异构蜂巢任务箱) mounted beneath the fuselage, which allows for rapid payload changes. Publicly available information shows that the drone features eight external hardpoints and a heavy-duty mission compartment that can be reconfigured quickly to fulfill a wide range of tasks, including air transport and airdrop, electronic warfare and information support, and precision strike operations. Reports claim that the *Jiutian* drone incorporates an innovative swarm algorithm, which allowed it to launch a formation of 200 micro-drones that successfully maintained 95 percent formation integrity under heavy electromagnetic interference during live battlefield tests in Syria. This level of battlefield resilience could render traditional missile defense systems like the Patriot effectively obsolete. The *Jutian* is scheduled for operational deployment in June 2025 (Baijiahao, March 26).

Simulations for a cross-Strait conflict have deployed the *Jiutian* drone. These allegedly showed the *Jiutian* deploying drone swarms that first neutralized enemy radar before firing off a wave of anti-ship missile saturation strikes and finally dispatching precision-guided munitions airdropped in support of amphibious landings. Other simulations have demonstrated the PLA's growing emphasis on unmanned warfare, too. A recent CCTV broadcast featured rare footage of PLA troops conducting manual wargaming exercises simulating urban combat in Taoyuan, Taiwan. In the simulation, the military campaign, led by the PLA Central Theater Command, included integrated teams of drones and unmanned ground systems. The signs are clear: the PLA has been investing and will continue to invest in drones and may deploy them for multi-theater operations in a potential Taiwan conflict (<u>Tencent News</u>, September 15, 2024).

Conclusion

Russia's full-scale invasion of Ukraine has served as a real-world proving ground for drone, anti-drone, and autonomous warfare. For this reason, it has been studied closely by Chinese military experts. Insights from FPV drones, suicide UAVs, and swarm tactics have shaped PLA thinking, emphasizing the need for agile, low-cost, and intelligent systems capable of operating in contested environments. These lessons are already influencing PLA doctrine and procurement, with a growing push to integrate AI into decision-making processes

and precision targeting. At the same time, layered anti-drone defenses and autonomous logistics are being prioritized to support sustained operations.

New PLA capabilities and initiatives, such as the *Jiutian* drone, exemplify the PLA's shift toward flexible, Aldriven combat platforms. These indicate that the Chinese military is actively translating lessons from Europe into its own next-generation warfare capabilities.

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Notes

[1] 凌海峰 [Ling Haifeng], 李锐 [Li Rui], 白林远 [Bai Linyuan], and 郭文娟 [Guo Wenjuan], 俄罗斯反无 人机装备的现状及启示 [Current Developments and Implications of Russian Anti-UAV Equipment], *国防 科技* [National Defense Technology] 44, no. 3 (June 2023): 81–87; 马攀伟 [Ma Panwei], 潘奎 [Pan Kui], 潘 景峰 [Pan Jingfeng], 高洪波 [Gao Hongbo], 沈晓兵 [Shen Xiaobing], and 卞文坤 [Bian Wenkun], 从俄乌 冲突看自杀式无人机的作战运用与发展 [Combat Operation and Development of Suicide Drone from the Russian-Ukrainian Conflict], *舰船电子对抗* [Shipboard Electronic Countermeasure] 47, no. 2 (April 2024): 1–3, 9.

[2] Ma et al., 2024.

[3] 张耀为 [Zhang Yaoyi] and 李宁 [Li Ning], 俄乌无人机攻防对抗对反无人机装备发展的启示 [The Enlightenment for the Development of Anti-UAV Equipment from the Offensive and Defensive Operations of UAVs Between Russia and Ukraine], *空天防务* [Air & Space Defense] 7, no. 3 (2024): 34–39; 王越 [Wang Yue], FPV 自杀式竞速无人机作为反坦克武器 [FPV Suicide Racing Drones as Anti-Tank Weapons], 坦 克装甲车辆 [Tank and Armored Vehicle], no. 5 (2024).

[4] Zhang and Li, 2024.

[5] Wang, 2024.

[6] 李兴华 [Li Xinghua], 于永生 [Yu Yongsheng], 孟真 [Meng Zhen], 郑文鹏 [Zheng Wenpeng], 夏祥童 [Xia Xiangtong], 郝成硕 [Hao Chengshuo], and 韩嘉睿 [Han Jiarui]. 从杀伤链看无人智能装备在俄乌 冲突中的运用 [Analysis of the Application of Unmanned Intelligent Equipment in the Russian-Ukrainian Conflict from the Perspective of the Kill Chain], 指挥控制与仿真 [Command Control & Simulation] 46, no. 5 (2024): 6–12. <u>https://www.zhkzyfz.cn/CN/10.3969/j.issn.1673-3819.2024.05.002</u>.

[7] 冯志方 [Feng Zhifang], 李东涛 [Li Dongtao], 朱鹏博 [Zhu Pengbo], and 杨宏荣 [Yang Hongrong]. 俄 乌冲突中无人机作战运用研究 [Research on UAV Combat Operation in Russia-Ukraine Conflict], 第四 届自主无人系统国际会议论文集 [Proceedings of 4th 2024 International Conference on Autonomous Unmanned Systems (4th ICAUS 2024)], 2024.

[8] 吴润泽 [Wu Runze], 王侃 [Wang Kan], and 史亮 [Shi Liang], 国外反无人机蜂群装备建设现状与 作战趋势展望 [Current Situation and Operation Trend Prospect of Anti-UAV Swarm Equipment Construction Abroad], 舰载电子对抗 [Shipboard Electronic Countermeasure] 47, no. 6 (December 2024); 张文昌 [Zhang, Wenchang], 无人机运用与思考 [Thoughts on the Use of UAVs in the Russia-Ukraine Conflict], 国防科技 工业 [Defence Science and Technology Industry], 2023.

[9] Li et al., 2024; Feng et al., 2024; 王凯旋 [Wang Kaixuan], 袁媛 [Yuan Yuan], 郝振凯 [Hao Zhenkai], and 赵廷棣 [Zhao Tingdi], 海空跨域无人装备体系结构建模与作战任务风险分析 [Modeling of Sea-air Trans-area Unmanned Equipment Architecture and Operational Mission Risk Analysis], 北京航空大学 [Beihang University], Beijing, 2024; Wu et al., 2024; Li et al., 2024.

[10] Zhang and Li, 2024.

[11] 方钢 [Fang Gang], 雍歧卫 [Yong Qiwei], 赵彦涛 [Zhao Yantao], 段纪淼 [Duan Jimiao], 曾国栋 [Zeng Guodong], and 郭杨 [Guo Yang]. "地面无人装备在后勤保障中的应用模式研究" [Research on the Application Mode of Ground Unmanned Equipment in Logistics Support], 舰船电子工程 [Ship Electronic Engineering] 43, no. 3 (2023): 7–10.

The Party's One-Way Approach to People-to-People Exchanges



A Columbia SIPA delegation visiting Schwarzman College at Tsinghua University. (Source: <u>China-US</u> <u>Exchange Foundation</u>, January 21)

Executive Summary:

- The People's Republic of China (PRC) frames people-to-people exchange programs as benign cultural and educational efforts, but in reality, they serve to advance the Chinese Communist Party's agendas—such as the "community of common destiny for mankind"—and bolster the PRC's geopolitical aims.
- While the United States typically encourages open, pluralistic participation in exchange programs, its PRC counterparts are vetted, trained, and guided by state-controlled narratives, creating an asymmetry that places U.S. institutions at a disadvantage.
- Programs like "100,000 Strong" and entities such as the China-United States Exchange Foundation (CUSEF) illustrate how PRC-linked individuals and organizations embed themselves in U.S.-PRC exchanges, promoting the Party's message while maintaining a veneer of independence.
- The Party's whole-society approach—integrating government, academia, business, and non-governmental organizations—underscores the political nature of these exchanges. Recognizing the coordinated, strategic intent behind them is crucial for a more balanced and transparent framework of engagement.

In a recent interview with the *People's Daily*, the flagship newspaper of the Chinese Communist Party (CCP), the Mayor of Steilacoom in Washington State, Dick Muri, said students from the town benefited from the "inviting 50,000 American youth to China for exchange and study over the next five years" initiative ('未来 5 年邀请 5 万名美国青少年来华交流学习'倡议). He said that the United States and the People's Republic of China (PRC) should maintain cooperation and friendly relations because "we can have candid exchanges and discussions and learn from each other, and this will make us better and better" (我们可以进行坦诚的交流 与讨论,相互学习,这会让我们变得越来越好) (People's Daily, January 11). His comments reflect the PRC's effective use of people-to-people exchanges to advance its agenda.

The PRC uses people-to-people exchanges to influence American perceptions to its benefit. The CCP manages all such exchanges via the united front system in ways that intentionally create asymmetries of understanding between the two countries. This does little to promote the interests of the United States or the Chinese people, but allows the Party to control how it is perceived overseas and, ultimately, to enhance its power globally.

Exchanges Aim to Reinforce CCP Power

The PRC uses people-to-people exchange programs to support its ambition of becoming a dominant force in international governance. These ambitions are articulated in concepts such as the "community for common destiny for mankind" (人类命运共同体) and are operationalized via engagements in areas such as culture, education, youth, technology, and sports. As outlined by then-Vice Minister of Education Tian Xuejun (田学军) in 2017, "We must encourage people from all countries to work together in building a community of common destiny for mankind through solid and effective people-to-people exchanges" (我们要通过扎实有效的人文交流,推动世界各国人民携手构建人类命运共同体) (<u>China Education Daily</u>, December 7, 2017). Similarly, Chinese People's Political Consultative Conference (CPPCC) standing committee member and director of Institute for Global Cooperation and Understanding at Peking University (PKU) Jia Qingguo (贾庆国) argued in early 2024 that these exchanges are "the foundational work of promoting intergovernmental cooperation, improving global governance, and building a community of common destiny for mankind" (推动国家间合作、完善全球治理、实现人类命运共同体的基础工程) (<u>PKU</u>, January 9, 2024).

For the Party, people-to-people exchanges are a crucial means of shaping global perceptions in its favor. In October 2013, PRC President Xi Jinping equated these exchanges with propaganda work that aims to "let the idea of a community of common destiny take root" (让命运共同体意识... 落地生根) (Xinhua, October 25, 2013). On multiple occasions, Xi has asserted that, through continuous and intensified people-to-people exchanges, "prejudice and misunderstanding [against the PRC] would disappear" (偏见和误解就会消于无形) (Ministry of Foreign Affairs, March 29, 2014; Guangming Daily, February 26, 2020). Jia also has described such exchanges as "one of the most effective ways to eliminate barriers between nations and peoples" (消除国家间、人民间隔阂最有效的途径之一) (PKU, January 16, 2024). The Party endorses these specific forms of exchange because it controls them. They are not venues for genuine dialogue but rather tools to carefully manage international perceptions.

People-to-people exchanges are also a means for safeguarding the PRC's legitimate rights and interests overseas, as described in the Report to the 18th Party Congress in 2012 (<u>CCP Members Net</u>, November 8, 2012). These interests, according to, Associate Professor at the School of Marxism at the Dalian University of Technology Chen Wei (陈维), encompass recognition of the PRC's sovereignty, territorial integrity, national unity, and governance system (<u>Aalborg Universitet</u>, 2014; <u>Dalian University of Technology</u>, accessed March 6). Consequently, people-to-people exchanges function not only as cultural and diplomatic tools but also as mechanisms to reinforce and promote the adoption of the PRC's stances on core issues.

The Party's Cross-Sectoral Approach to Exchanges

The Party takes a whole-of-society approach to building people-to-people exchanges, obviating the need for direction from the center. A December 2017 document, "Several Opinions on Strengthening and Improving Sino-Foreign People-to-People Exchanges" (关于加强和改进中外人文交流工作的若干意见), calls for establishing "a system and mechanism for broad social participation, fully mobilizing the enthusiasm of both central and local governments as well as that of the government and society" (全社会广泛参与的体制机制,充分调动中央与地方、政府与社会的积极性) (Xinhua, December 21, 2017). It instructs the Party's concept of people-to-people exchange to be taught to Chinese students studying overseas, volunteers, and Chinese enterprises, and to "integrate these exchanges into the daily interactions between Chinese and foreign citizens" (将人文交流寓于中外民众日常交往中) (Xinhua, December 21, 2017).

Exchanges span multiple channels across various sectors, all aimed at embedding the Party's agenda. In 2018, then-State Councilor Liu Yandong (刘延东) delivered a speech to the People-to-People Exchange Work Discussion Forum (中外人文交流工作座谈会) in which he argued for advancing the concept of people-to-people exchange in academia, culture, business, media, and think tanks (Xinhua, February 8, 2018). This argument has been reiterated elsewhere. For instance, a researcher at the National Academy of Development and Strategy at Renmin University and editor of the university's journal has stated that think tanks should "give full play to the role of ideological guidance and value orientation" (发挥思想引领与价值导向作用) in people-to-people exchanges (Chongyang Institute For Financial Studies of Renmin University, December 28, 2020). Similarly, the National 13th Five-Year Plan Outline for Cultural Development and Reform (国家"十三五"时期文化发展改革规划纲要) stated that exchanges should help "shape a dynamic and prominent image of contemporary China on the global stage" (使当代中国形象在世界上不断树立和闪亮起来) (Xinhua, May 7, 2017). Meanwhile, Tian Xuejun has said that educational exchanges will "actively lead [foreign students] to understand and befriend China" (积极引导他们知华、友华) (China Education Daily, December 7, 2017).

The Party also encourages integrating people-to-people exchanges with government-led efforts. In October 2011, the Central Party Committee published a "Decision" (决定) on "Several Major Issues Concerning Deepening Cultural System Reform and Promoting the Great Development and Prosperity of Socialist Culture" (关于深化文化体制改革推动社会主义文化大发展大繁荣若干重大问题). This called for establishing an exchange mechanism that "integrates government-led and civil exchanges, leveraging the role of non-public cultural enterprises and cultural non-profit organizations in international cultural exchanges, and

supporting overseas Chinese in actively promoting Sino-foreign cultural and people-to-people exchanges" (把 政府交流和民间交流结合起来,发挥非公有制文化企业、文化非营利机构在对外文化交流 中 的 作 用,支持 海 外 侨 胞 积 极 开 展 中 外 人 文 交 流) (Xinhua, October 25, 2011). A set of recommendations building on the December 2017 "Opinions" referenced above encouraged "specialized and internationalized social organizations and civil forces to participate in the operation of specific people-to-people exchange projects" (专业化、国际化的社会组织和民间力量参与人文交流具体项目运作) (Xinhua, December 21, 2017).

United Front Workers Manage Exchanges

Two case studies provide useful examples of how the Party manipulates exchanges and initiatives so that they conform to CCP preferences, often without the knowledge or acceptance of their foreign interlocutors and participants. One is a former high-level dialogue mechanism, while the other focuses on academic exchanges.

Case Study 1: The High-Level Consultation on People-to-People Exchange

Because the Party effectively manages all people-to-people exchanges, these exchanges produce an intentional asymmetry in understanding between the United States and the PRC. This is evident in the U.S.-China High-Level Consultation on People-to-People Exchange (CPE; 中美人文交流高层磋商机制), which was officially established in May 2010 and laid the foundation for U.S.-PRC people-to-people exchanges for nearly a decade until such exchanges halted in 2018. Starting as an agreement between Liu Yandong and then-U.S. Secretary of State Hillary Clinton to explore new areas in U.S.-PRC relations and deepen cultural and people-to-people exchanges between the two countries, it was rebranded in April 2017 as the "U.S. China Strategic Cultural and Social Dialogue" (中美社会和人文对话). [1] In this new guise, it was co-chaired on the U.S. side by Secretary of State Rex Tillerson, but Liu Yandong remained in command for the PRC (Center for Sino-Foreign People-to-People Exchange, December 3, 2018; U.S. Department of Transportation, September 28, 2017). Liu is a politburo member with a strong united front portfolio. He was the former head of the Central United Front Work Department and CPPCC Vice Chair, which signals the Party's intent to use the platform for political influence (Xinhua, March 16, 2013).

PRC exchange participants at this dialogue often were affiliated with party-controlled organs or were screened for "political literacy" (政治素养) and selected if they had "correct" political thoughts (<u>Hubei University</u>, March 21, 2024; <u>East China Normal University</u>, March 2). Before traveling overseas, participants received briefings and warnings. For example, in the summer of 2017, the School of Statistics at Beijing Normal University held a pre-departure training for those visiting George Washington University. During the training, the school's party branch secretary framed the program from a state perspective, covering foreign policy, discipline, and strict ideological guidelines, and emphasizing national security awareness (<u>School of Statistics at Beijing Normal University</u>, June 5, 2017). In contrast, American participants typically represented diverse viewpoints, including those critical of U.S. policies, and came from universities and nongovernmental organizations that operate independently of the government.

The Party also embedded united front-linked individuals within U.S.-based initiatives to shape their direction and influence their outcomes. One example is the "100,000 Strong" (十万强) initiative, which sent 100,000

Americans to the PRC and was an important education program under the CPE framework. Hillary Clinton announced the "100,000 Strong Foundation" in 2013, transitioning the initiative into a nonprofit and nongovernmental effort. Its co-founder Florence Fang (方李邦琴), however, was connected to the PRC's united front system (People's Daily, January 26, 2013). In 2008, she served as an honorary advisor and director of the All-China Federation of Taiwan Compatriots (中华全国台湾同胞联谊会), and in 2009, she was named an executive director of the China Overseas Exchange Association (中国海外交流协会) and an overseas advisor to the All-China Federation of Returned Overseas Chinese (中华全国归国华侨联合会). These federations and associations are important national-level united front organizations (Florence Fang Family Foundation, accessed March 6). Although high-level exchanges were interrupted in late 2018, similar exchanges have continued to operate at lower levels of engagement.

Case Study 2: The China-United States Exchange Foundation

The China-United States Exchange Foundation (CUSEF) is an example of an organization that markets itself as an independent nonprofit but that in practice supports the Party's agenda. Established in 2008 by CPPCC vice chair Tung Chee-Hwa (董建华), CUSEF claims to be an "independent platform" that is committed to promoting bilateral relations between the PRC and the United States (<u>CUSEF</u>, July 2024). Its operations in the PRC are overseen by the Chinese People's Association for Friendship with Foreign Countries (CPAFFC; 中国人民对外友好协会), a united front organization (<u>China Brief</u>, June 21, 2024; <u>CUSEF</u>, accessed September 30, 2024). The so-called "private donors" listed in its most recent annual report include at least 17 individuals who have been CPPCC members and are connected to the PRC's united front system (<u>CUSEF</u>, July 2024).

CUSEF remains active in fostering PRC-U.S. connections, despite a number of reports highlighting the organization's ties to the Party's united front system. Its education program specifically targets top U.S. universities in international relations and public policy, such as Columbia SIPA, Johns Hopkins SAIS, The University of Chicago Harris School of Public Policy, and the Harvard Kennedy School (<u>CUSEF</u>, accessed March 6). Through events with officials from the united front system such as the International Department of the CPC Central Committee, CPAFFC, and other party-state agencies, CUSEF facilitates dialogues that align with Beijing's messaging, providing curated narratives with the aim of shaping the views of future U.S. policymakers and scholars while obscuring the Party's influence behind a facade of independent academic and cultural exchange (<u>CUSEF</u>, January 21).

Conclusion

The PRC's people-to-people exchange initiatives are not merely cultural or educational engagements but are deeply embedded in the Party's strategy to achieve its broader goals. They function to shape global perceptions, reinforce Party narratives, and advance the PRC's geopolitical ambitions under the guise of mutual understanding. The asymmetry in these exchanges places other countries' institutions and individuals, who often approach such interactions with genuine openness, at a disadvantage to their PRC counterparts, who operate within a state-controlled framework. By leveraging governmental, academic, and civil society channels, the PRC ensures that its messaging is carefully curated and aligned with its long-term objectives. Recognizing the political nature of these exchanges is essential for developing a more balanced and informed approach to

engagement, one that prioritizes transparency and mitigates the risk of influence operations masked as cultural diplomacy.

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Notes

[1] This dialogue has multiple translations: At the U.S. State Department event, it was called the "U.S.-China Social and Cultural Dialogue." However, PRC state media translated it as both the "China-US Social and People-to-People Dialogue" and the "China-US Social and Cultural Dialogue" (<u>Youtube/CGTN America</u>, September 28, 2017; <u>Xinhua</u>, September 29, 2017; <u>CGTN</u>, September 2017).

PRC Deploys DeepSeek Across Local Governments



By Lea Thome

Officials in Shenzhen take a course on using DeepSeek. (Source: Nanfang Daily)

Executive Summary:

- Beijing has moved to codify its development and deployment of artificial intelligence (AI) in domestic and international settings, including at the Two Sessions and the United Nations.
- At least 72 local governments across the People's Republic of China have already deployed homegrown AI model DeepSeek, according to a domestic think tank.
- Officials expect AI deployment in government to expand rapidly with the development of new models, even though such technologies have remained limited to customer and business services in the short term.
- A lack of compute infrastructure and energy resources in many parts of the country constitute a bottleneck for rapid adoption of AI products to power government services.

Governments across the world have announced plans to improve the efficacy of their services by integrating artificial intelligence (AI) models into their systems. In the People's Republic of China (PRC), officials increasingly see DeepSeek, the homegrown company behind the impressive R1 reasoning model that launched in January, as a vehicle to promote widespread AI integration across the country (China Brief, <u>February 11</u>, <u>March 19</u>).

Within two months of its unveiling, both the private and public sectors have embraced generative AI solutions, including the country's ports as well as governments in first-tier cities such as Beijing and Shenzhen. The central government has not announced whether it will adopt DeepSeek. Local government agencies, however, are pioneering AI integration efforts, experimenting with the technology in ways that may be emulated and promoted by Beijing in the future.

PRC Seeks AI Leadership at Home and Abroad

Beijing has been at the forefront of global regulatory approaches to Al. In July 2017, the State Council started to codify and publish national AI strategies with the release of a *New Generation Artificial Intelligence Development Plan* (新一代人工智能发展规划). This document, which argued that data was emerging as "the number one element of economic growth" (经济增长的第一要素), outlined three milestones to be achieved by 2020, 2025, and 2030. By 2020, it envisioned that "the AI industry will have become a new important economic growth point" (人工智能产业成为新的重要经济增长点); by 2025, it aimed for "major breakthroughs in AI theory and implementation" (基础理论实现重大突破); and by 2030, it called for the PRC to "become the world's main center for AI innovation" (成为世界主要人工智能创新中心) (State Council, July 20, 2017; China Brief, December 22, 2017). DeepSeek's models, whose successes are based on innovations in model architecture, suggest that the plan is currently on track.

At the "Two Sessions" this year—the annual plenary meetings of the national legislative and consultative bodies—AI took center stage. The 2025 *Government Work Report* (政府工作报告) was the first to address "large-scale [AI] models" (大模型) and "embodied AI" (具身智能), although AI has been referenced in all such government work reports since 2018 (Xinhua, March 10). It declared that under the "AI+ initiative" ('人工 智能+' 行动), the country will work to "better combine digital technologies with the country's manufacturing and market strengths" (将数字技术与制造优势、市场优势更好结合起来). Plans include supporting the "extensive application of large-scale AI models and vigorously develop new-generation intelligent terminals and smart manufacturing equipment, including intelligent connected new-energy vehicles, AI-enabled phones and computers, and intelligent robots" (大模型广泛应用, 大力发展智能网联新能源汽车、人工智 能手机和电脑、智能机器人等新一代智能终端以及智能制造装备) (Xinhua, March 12). Coupled with its broader focus on innovation and emerging technologies (the word "innovation" (创新) appears 40 times in the report, slightly more than in previous years), the PRC government is firmly committed to promoting—and managing—AI advancement.

Overseas, Beijing also positions itself to lead AI governance on the global stage. In late September 2023, Foreign Minister Wang Yi (王毅) laid out a five-point action plan at the High-Level Meeting on International

Cooperation on Capacity-Building of Artificial Intelligence at the United Nations. The five points encompassed promoting the AI+ Initiative, improving infrastructure connectivity and AI-related training, and ensuring data security and AI safety (United Nations, September 25, 2024; MFA, September 30, 2024).

Beijing's focus-both domestically and overseas-on DeepSeek and AI more broadly is indicative of the importance it places on realizing its ambition of global leadership and emerging technologies. Its signal at the country's highest annual political forum to deploy DeepSeek across the country indicates that it seeks to have "first-mover advantage" (先发优势), as it had set out as a basic principle in the 2017 AI plan.

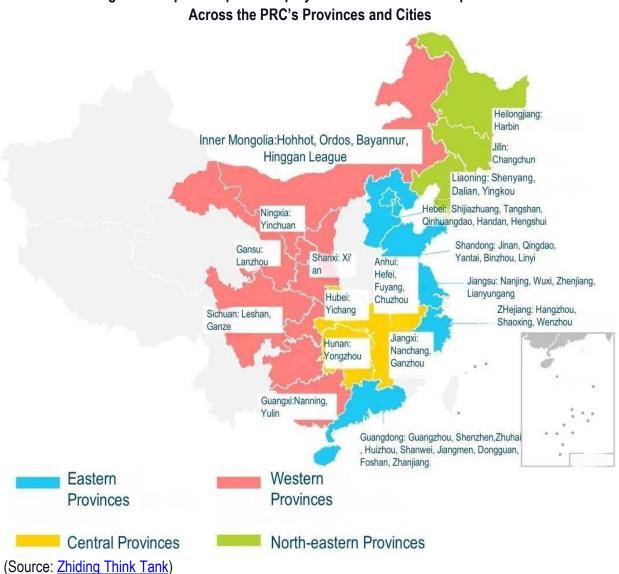


Figure 1: Map of DeepSeek Deployment in Government Departments

DeepSeek Integration Begins Across Local Governments and Businesses

Public and private stakeholders have moved quickly to deploy DeepSeek's R1 model into their services and operations. In the private sector, many companies have begun to use DeepSeek for customer service, operational streamlining, and tracking purposes. For example, Ningbo Zhoushan Port (宁波舟山港) reported using DeepSeek for its Smart Gate (智能闸口) system only three weeks after the R1 release. It claimed to be using the model to recognize and track cargo, vehicles, and customs seals (Jingzhou News, February 17). Similarly, large companies, such as leading electric vehicle manufacturer BYD (比亚迪), have started integrating DeepSeek into their products. By mid-February, BYD had announced plans and rolled out a DeepSeek-supported driver-assistance system (天神之眼) to some of its cars (BYD, February 10). Around the same time, Zhuhai Wangxin Software Development (珠海市网欣软件开发), a computer software company in the real estate sector headquartered in Guangdong's Zhuhai city, employed DeepSeek to accelerate contract approvals and other management processes for new real estate developments (Baijiahao, February 18).

In the public domain, municipal and provincial governments have also started to deploy DeepSeek in their daily operations. According to technology-focused think tank Zhiding (至顶), 72 provincial and city governments had fully deployed DeepSeek as of early March (Zhiding, March 10; see Figure 1). These include tier one cities such as Beijing, Guangzhou, and Shenzhen, as well as others such as Nanchang, which has branded its approach "Deepseek+Government affairs" (Deepseek+政务) (Nanchang Daily, February 21; Zhiding, March 10).

Adoption varies across the country. In Guiyang, the capital of Guizhou Province, initial deployment has focused on an intelligent chatbot, a smart 12345 hotline, and an intelligent emergency dispatch system. **[1]** The chatbot can help with regular queries about municipal administration, while the smart 12345 hotline is designed for nonemergency phone calls, and the emergency dispatch system uses AI to deploy emergency services. At a March press conference, Liu Ning (刘宁), the Deputy General Secretary of the Guiyang Municipal Government and Deputy Director of the Guiyang Urban Operation Management Center claimed that DeepSeek can help save lives, noting that its emergency dispatch function can recommend initial first aid measures (<u>Baijiahao</u>, March 10).

Officials have begun to receive training on how to use DeepSeek's technology, with staff at Shenzhen's municipal government getting an introduction in February. The city government made sure to inform people that they had put the model through rigorous testing before deploying it in its systems and provided reassurance that a professional team would still be available around the clock alongside the AI—an indication that suspicion around AI tools remains prevalent. Various sub-agencies in Shenzhen have also taken steps to integrate DeepSeek into their daily operations. The city's Municipal Meteorological Bureau is collaborating with Huawei to release the first "regional AI forecasting model" (区域级人工智能预报大模型), which allows for capturing more accurate data and minute meteorological details otherwise missed (Shenzhen Special Zone Daily, February 17).

Beijing's municipal government began implementing DeepSeek in its operations on March 4, according to an official statement (<u>Beijing Daily</u>, March 5). This takes the form of an application that provides 24-hour consultation services for businesses, allowing people to consult an AI tool when registering enterprises and filing forms. This tool is being framed as an "AI civil servant" (AI 公务员).

The speed with which officials have deployed DeepSeek, especially in tier-1 cities such as Beijing, suggests the central government may follow suit in the near future, although no formal announcements have been made at this point.

A Roadmap for the Future Deployment of AI

Western media have reported that DeepSeek is preparing to release a new R-2 model before May 2025, though the company is yet to comment on the reports (<u>Reuters</u>, February 25). This rapid timeline likely is due to both growing demand for and growing competition with DeepSeek's product—in early March, AI assistant tool Monica released its beta model of Manus and Tencent launched an upgrade to its Hunyuan (混元) reasoning model series, "Hunyuan-T1" (<u>YouTube/Manus AI</u>, March 5; <u>Tencent</u>, accessed March 26). However, while advances take place at the software level and models' inference capabilities are finetuned, fully integrating these technologies into government and other services will take time.



Figure 2: Framework for Countermeasures and Solutions

DeepSeek and other AI tools currently face an infrastructure problem. They rely on vast amounts of computing power, which entails the availability of abundant energy resources, the construction of data centers and cloud services, as well as the training of a skilled workforce to maintain them. The PRC has made moves in this direction, adopting the "Eastern Data Western Computing" (东数西算) plan, a multiagency national initiative to coordinate energy and cloud investment, in February 2022 (China Brief, February 28). Over 500 new data centers were announced in the subsequent two years, at least 150 of which were finished at the end of 2024. Not all the projects, however, have been led by technology companies. Instead, they include a firm that makes MSG and another that manufactures textiles. Many of these data centers are currently unused (<u>MIT Tech</u> <u>Review</u>, March 26). As models continue to improve, officials will continue to promote their alignment with government priorities and integration with government systems.

An additional problem is the risks inherent in rapid technological advances. For researchers at the Chinese Academy of Sciences, AI poses challenges to efficiency, accuracy, data security, and system vulnerabilities (People AI, February 24). To mitigate these issues, they argue that governments must carefully gauge the demand for AI services, weigh the economic feasibility of deploying them, reinforce data protection, and establish rigorous oversight and maintenance protocols. PRC citizens have their own concerns about AI models, though currently these are mostly related to personal use of DeepSeek. On the FAQ-style website Zhihu, some users have shared tips on dealing with common DeepSeek issues. Many report seeing the "Server busy, please try again later" (服务器繁忙, 请稍后再试) error message, often caused by heavy traffic, cyber attacks, and bandwidth constraints. One also noted that DeepSeek surpassed other AI models in terms of error rates (Zhihu, February 3). In addition to personal errors in using DeepSeek, it has also experienced a variety of Distributed Denial-of-Service (DDOS) attacks, limiting its availability to users in targeted cyber attacks (S&T Daily, January 29; DeepSeek, accessed March 26). As municipal governments move to deploy DeepSeek within their administrative services, there have been no widespread reports of outages or failures caused by AI integration in these governmental services yet. Such vulnerabilities, however, may also impact government services moving forward.

Other issues are more troubling, particularly for those outside the PRC who might wish to use DeepSeek. Beijing has a history of using emerging technologies to enhance its system of surveillance and repression, as well as in military applications. There is currently no evidence to support this where DeepSeek is concerned, but President Xi Jinping's focus at the Two Sessions on advancing military-civil integration makes this prospect highly likely (China Brief, March 15). In this way, AI adoption within the PRC's government operations is just part of a wider story of how these technologies have the capacity to transform how the Party imposes its will on the Chinese people.

Conclusion

Despite DeepSeek's R1 model emerging only in January 2025, within weeks, it has already been deployed in over 70 local governments and countless businesses across the PRC. State backing for "DeepSeek+Government Affairs" suggests that this is only the beginning of DeepSeek's products being used by official systems, with their eventual endorsement at the political center a likely prospect.

In the meantime, caveats remain that will temper the speed of AI tools' integration. The lack of sufficient infrastructure and energy resources is one bottleneck, as is the need for updated national standards for these

services. Finally, successes or failures in DeepSeek's deployment now could have an impact on uptake further down the line.

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Notes

[1] The 12345 hotline is the mayor's hotline in the PRC, providing a channel for citizens to submit complaints and offer feedback on public affairs.

Battling Nihilism: The PRC's Quest for Autonomy



By Jean Christopher Mittelstaedt

Image from an article titled "Historical Nihilism: A kind of ideological opium." (Source: China Daily)

Executive Summary:

- The Chinese Communist Party (CCP) frames historical nihilism an existential threat, as it could lead to ideological alienation, public distrust, and ultimately, institutional collapse resembling the experience of the Soviet Union.
- Since 2022, the CCP has shifted its focus to cultural nihilism, perceived as an even greater threat capable of severing the spiritual identity of the People's Republic of China and leading to wholesale Westernization.
- Methods to counter cultural nihilism include deliberate intellectual separation through the promotion of "Chinese-style modernization" and the formation of "independent knowledge systems."

On January 10, the *Study Times* (学习时报), the Central Party School's theoretical paper, warned that "historical nihilism" (历史虚无主义) had become more "subtle and covert" (迂回隐性) in the era of artificial intelligence. AI models, trained on what the Party-state considers unreliable information, repackage and disseminate nihilistic narratives through deepfakes, falsified historical texts, fabricated imagery, bot armies, and recommendation algorithms tailored to individual preferences. The threat, the article notes, is that audiences might gradually reinterpret history and reach false conclusions (<u>Study Times</u>, January 10).

The Chinese Communist Party's (CCP) stance against historical nihilism is well-documented. Shortly after taking office, Xi Jinping declared that the "comprehensive negation" (全面否定) of Soviet history and the "denial of Lenin and Stalin" (否定列宁, 否定斯大林) amounted to historical nihilism, which "paralyzed minds" (思想搞乱) and "rendered Party organizations at all levels ineffective" (各级党组织几乎没任何作用了) (Qiushi, March 31, 2019). As recently as February 2022, a documentary linked historical nihilism directly to the dissolution of the Soviet Union (Youku, February 22, 2022). For Xi, the correct view of history is not primarily an academic issue, but a political issue (Qiushi, March 31, 2019). This perspective informed Document No. 9—officially titled *Communiqué on the Current State of the Ideological Sphere* (关于当前意识形态领域情况的通报)—which, alongside critiques of universal values, Western governance styles, and neoliberalism, identified historical nihilism as a threat aimed at undermining the CCP's historical legitimacy and long-term rule (ChinaFile, November 8, 2013). Taken together, Xi's speech and the Central Committee's document underscore the long-term importance of combatting historical nihilism as part of a system of Western values. More importantly, they frame it as an existential threat that could precipitate the CCP's collapse if left unchecked.

Stages of Collapse

The Party believes that historical nihilism could induce systemic collapse in three stages. First, individual cases of historical nihilism would emerge. Second, historical nihilism would proliferate in mainstream society. Finally, it would spread until a critical mass of people rejects the system completely, leading to its downfall. As a result of these fears, the Party is hypervigilant, keen to preemptively halt the advance of this ideological rot.

Perhaps the most prominent incident of historical nihilism in the Xi era has been a controversy surrounding the wartime story of the "Five Heroes of Langya Mountain" (狼牙山五壮士). CCP lore valorizes these men as having heroically resisted Japanese forces until they exhausted their ammunition and jumped from the mountain to avoid surrender. In 2013, however, some people—including the executive editor and editor of the liberal journal *Yanhuang Chunqiu* (炎黄春秋)—began to cast doubt on the story, arguing that the so-called "heroes" were betrayed to the Japanese by villagers whom they had repeatedly bullied (<u>Control</u>, 2017). The controversy resulted in defamation lawsuits against both men and against relatives of the soldiers and two other scholars who had spoken out. After losing these lawsuits, the journalists lost their editorial positions. More recently, in mid-2024, the artist Gao Zhen (高兟) was detained for "slandering the reputation of [China's] heroes and martyrs" (侵害英雄烈士名誉), with authorities confiscating several of his artworks (<u>New York Times</u>, September 2, 2024).

These high-profile cases signal the limits of the CCP's tolerance for alternative viewpoints that could undermine its legitimacy. There are more subtle vectors for historical nihilism, however, that the Party sees as much more dangerous. These include online personalities and public intellectuals who often unintentionally promote historical nihilism, sometimes using humor or mockery (Red Flag, April 29, 2016). One instance discussed in party literature concerns a Beijing history teacher with over 13 million Weibo followers who mocked the Great Leap Forward—a policy-induced famine that led to the deaths of tens of millions—as making an "outstanding contribution to birth control" (为计划生育作出了突出贡献) (Red Flag, January 9, 2017). Another redoubt for historical nihilism is in people's desire for novelty and emotional engagement. Its message is packaged as memes, online fiction, jokes, homophones, nicknames, abbreviations, online slang, and "fictionalized history" (虚构历史) (Red Flag, September 20, 2016; People's Tribune, October 20, 2023; People's Tribune, February 26, 2024). Here, historical nihilism thrives by maintaining an "underdog" (弱者) image and succeeds through "marginal resistance to mainstream" (边缘反抗主流) narratives—in other words, by embedding in everyday online interactions and popular entertainment (Qiushi, January 4, 2013). For the party-state, this is the real threat historical nihilism poses.

As historical nihilism proliferates across mainstream society, it creates confusion. The process begins with small discussions that gradually expand and gain wider acceptance (Red Flag, January 22, 2017). Young people and young Party members are particularly vulnerable because their perspectives have not yet fully solidified (Study Times, October 26, 2015). A June 2015 survey among university students revealed that only 38 percent accurately understood historical nihilism as "using the negation of history to achieve the negation of reality" (通过对历史的否定达到对现实的否定), while 34 percent saw it merely as "another historical perspective" (是对历史的另一种认识). [1] For the CCP, these findings demonstrate an increasing lack of historical understanding. The dangers this entails are exacerbated by an additional external dimension. The PRC faces a "relentless encroachment of Western influences" (西风美雨的不断侵蚀), which it cannot fully control (Study Times, March 17, 2023). [2] Domestic and foreign narratives thus converge into ideological forces capable of negatively influencing social development (Red Flag, January 22, 2017).

In the Party's view, if these forces are not dealt with, systemic collapse is the probable outcome. This view is not speculative. A 2015 article argued that the spread of historical nihilism in the PRC was "eerily similar to what happened in the Soviet Union" (和当年的苏联简直是如出一辙), rendering the threat of collapse palpable (Red Flag, June 8, 2015). Over time, historical nihilism could trigger "a degradation of public opinion, ideological alienation, and political catastrophe" (舆论变质、思想异化和政治灾难) (Red Flag, September 20, 2016) leading the PRC "toward the peril of a history-less and faithless collapse" (到一个没有历史和信仰崩塌的危险境地) (Qiushi, January 4, 2013). One article abstractly characterizes this as the "Tacitus trap" (塔西佗陷阱), a situation in which the government or the Party loses credibility and becomes distrusted regardless of its actions (Red Flag, April 7, 2017). Nihilism's logic dictates that slight deviations in thought lead to significant errors in action, distort perceptions, mislead the public, and weaken the Party's creativity, cohesion, and effectiveness, and "even jeopardize the revolutionary cause" (甚至断送革命前途) (Study Times, August 27, 2021). What begins as isolated criticism of the Party's leadership or an ideological concept gradually expands into wholesale rejection of the socialist system (Red Flag, January 9, 2017). Thus,

the "debate over history" (历史之争) is ultimately framed as a "life and death struggle" (生死之战) for the CCP (Red Flag, October 24, 2016).

Resolving Nihilism via Crackdowns and the History Resolution

During Xi's first term, the Party's existential angst was exacerbated by the prevalence of other forms of nihilism it identified and sought to combat. One such form was the recurring threat of "legal nihilism" (法律虚无主义). Initially epitomized by the Mao era's anti-rightist campaign and Cultural Revolution, legal nihilism later referred to the replacement of law by slogans and Party directives during the period of reform and opening. Under President Xi Jinping, this term resurfaced through external critiques. Notably, Russia was described as suffering from legal nihilism, thereby reinforcing the PRC's domestic arguments for legal reforms and a strengthened legislative system (EDM, January 30, 2008; Study Times, February 24, 2014). "Value nihilism" (价值虚无主义) also gained prominence amid perceived moral decline characterized by the loss of ideals and beliefs and broad skepticism or mockery of higher values. [3]

An even more significant variant was "political nihilism" (政治虚无主义), introduced in late 2016 by thensecretary of the Central Commission for Discipline Inspection Wang Qishan (王岐山), Xi's anti-corruption czar. It described a condition of "depoliticization" (去政治化) and "de-ideologization" (去意识形态化) whereby individuals become overly transactional, lacking political discernment and the ability to distinguish right from wrong (People's Daily, November 8, 2016; Red Flag, April 7, 2017). Political nihilism broadly applied to Party members and cadres who prioritized *fengshui* (风水) or made arbitrary decisions without research or public consultation. It was also identified as the root cause behind the downfall of prominent Party leaders Zhou Yongkang (周永康), Bo Xilai (薄熙来), Guo Boxiong (郭伯雄), Xu Caihou (徐才厚), Sun Zhengcai (孙政 才), and Ling Jihua (令计划) (Red Flag, April 20, 2018). The importance of these different types of nihilism, however, paled in comparison to historical nihilism.

The insidious nature of historical nihilism's spread demanded constant vigilance and structural solutions. The Party adopted a dual strategy for countering it. Coercive measures such as censorship and crackdowns were paired with proactive legislative and educational initiatives. As articulated in a 2013 article in the Party's theory journal *Qiushi*, addressing historical nihilism required "not only deconstruction but also construction" (不仅要 破, 而且还要立) (Qiushi, January 4, 2013; <u>China Brief</u>, February 7, 2014). As a result, by 2019, historical nihilism no longer appeared among the PRC's most influential "social thoughts" (社会思潮), despite ranking second in 2018 and regularly appearing in the top ten during Xi's first term. **[4]** This decline resulted largely from intense Party crackdowns. In 2021, the Party established a historical nihilism hotline, enabling internet users to report violations of historical orthodoxy. It also launched a campaign against numerous accounts spreading nihilist content, including prominent platforms such as "History Forum" (历史论坛) and "History Link" (历史连连看) (Cybersecurity Administration of China, April 9, 2021). Online platforms removed over two million pieces of content deemed illegal or non-compliant (State Council Information Office, May 8, 2021). Legal measures complemented these crackdowns. Slander against heroes and martyrs became punishable in 2018 and was criminalized in 2021. Extensive party history education campaigns supplemented these actions (Asian Survey, June 28, 2023).

The apotheosis of this activity was the 2021 History Resolution, which the CCP Central Committee presented as an explicit antidote to historical nihilism (<u>Xinhua</u>, November 16, 2021; <u>Study Times</u>, January 21, 2022). This allowed the Party in early 2022 to declare confidently that historical nihilism had been "discredited and effectively curbed" (声名狼藉, 得到坚决遏制), emphasizing that the phenomenon had experienced an overall decline in influence and largely subsided (<u>Red Flag</u>, May 10, 2022; <u>People's Tribune</u>, October 20, 2023).

Cultural Nihilism: An Existential Threat to Chinese Modernization

No sooner had victory been declared than a new form of nihilism, "cultural nihilism" (文化虚无主义), emerged to take its place as the primary ideological concern. Initially framed as a "hallucinogenic potion" (迷魂汤) and "toxic fumes" (毒气弹) intended to destabilize the country's cultural foundations and promote wholesale Westernization, after 2021, cultural nihilism was increasingly viewed as even more threatening than historical nihilism had been (Red Flag, May 7, 2018). This shift was facilitated theoretically by the 2021 History Resolution, which redefined Xi Jinping Thought as encompassing the "best of the Chinese culture and ethos in our times," describing it as the "Marxism of contemporary China and of the 21st century" (Xinhua, November 16, 2021).

The Party's fusion of its socialist ideologies with traditional Chinese culture elevated the stakes significantly. Cultural nihilism posed an existential threat surpassing even Party collapse. As one article argued, it involved endorsing Western narratives that attributed Chinese civilization's origins to the West, thereby denying its originality (People's Tribune, January 30, 2024). This, in turn, could cause spiritual disorientation, erode people's sense of belonging, and sever China's "spiritual lifeline" (割断精神命脉) (Study Times, March 17, 2023). Ultimately, the spread of cultural nihilism threatened the CCP's political survival—not directly, but by destroying the very fabric of Chinese civilization.

The CCP's strategy to avert cultural collapse focuses not merely on resistance but more fundamentally on establishing, preserving, and promoting the PRC's agency against external influences. This involves cultivating "cultural subjectivity" (文化主体性理论), defined as developing an independent cultural system characterized by autonomy and self-reliance. Cultural subjectivity is central to forming self-identity and maintaining a clear distinction between Chinese values and those of external actors (Research on the Discipline of Marxist Theory, June 19, 2024). Practically, countering cultural nihilism means "not becoming a spiritual, cultural, or ideological colony of the West" (不能在思想、文化、精神上成为西方的殖民地) and firmly establishing the "spiritual identity of the modern civilization of the Chinese nation" (树立中华民族现代文明的精神标识) (Study Times, September 4, 2023). Central to this strategy is fostering cultural confidence, described as the "most foundational, widespread, and profound form of confidence" (更基础、更广泛、更深厚的自信). Such confidence is seen as a necessary condition for achieving national rejuvenation (Red Flag, November 26, 2021).

This perspective motivated the formulation of Xi Jinping Cultural Thought in the fall of 2023. Reflecting what commentator Deng Luwen (邓聿文) calls an expression of "cultural authoritarianism" (文化专制主义) (Voice of America, October 23, 2023), it was meant to reinforce the PRC's distinctiveness from Western nations and serve as an antidote not only to cultural nihilism but also to other forms of nihilism. The Party reframed historical nihilism as originating from a cultural rupture experienced by non-Western countries in which traditions are

viewed as obstacles to modernization, leading to a denial of their historical value and interest in their continuity (<u>Study Times</u>, June 3, 2024). The CCP's response to the threats of nihilism, therefore, has been an assertion of China's cultural identity as an existential foundation, positioning it as the ultimate safeguard against both domestic and foreign threats of nihilism.

Conclusion

Since coming to power, Xi Jinping has led a broad-based campaign for preserving the CCP's agency amid competing discourses and values both internally and externally. The heart of this has been the struggle against nihilism in its various forms. One practical consequence is the rise of "Chinese-style modernization" (中国式 现代化), which is explicitly differentiated from Western models (China Brief, May 10, 2024). Equally significant are efforts to develop "independent knowledge systems" (自主知识体系) and "independent theoretical systems" (独立理论体系) tailored specifically to the condition of Chinese-style modernization (Study Times, September 4, 2023; Red Flag, September 23, 2023).

These initiatives reflect a deliberate effort to distinguish Chinese theoretical concepts and categories from their Western counterparts across academic fields such as international relations, political science, history, and archaeology, effectively resulting in intellectual decoupling and derisking. Evident in DeepSeek's regurgitating of Beijing talking points, this effort reflects, from the CCP's perspective, a long-term solution to the problem of nihilism conveyed through what it sees as implicit biases in knowledge production (Politico, February 4). The goal of training AI on culturally, historically, and politically aligned content is not merely to mitigate perceived risks but to actively consolidate a politically acceptable epistemic order. This fundamentally strengthens the PRC's autonomy, but risks complicating future academic exchanges and, eventually, political dialogue by eroding shared frameworks of understanding, potentially fostering misunderstanding and mistrust.

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Notes

[1] 程馨莹 [Cheng Xinying], 历史虚无主义对当代大学生的影响研究 [A Study on the Impact of Historical Nihilism on Contemporary University Students], 中国社会科学出版社 [Beijing: China Social Sciences Press), 2016, p. 118.

[2] The specific Chinese phrase translates literally to "Western winds and American rains."

[3] 丁辉 [Ding Hui] and 陈奕锟 [Chen Yigun], eds., 历史虚无主义研究与批判 [Research and Critique of Historical Nihilism], 格致出版社 [Shanghai: Gezhi Publishing House & Shanghai People's Publishing House, 2019], p. 7.

[4] For a complete table, see People's Tribune, "2020 国内社会思潮" [Domestic Social Thoughts in 2020], 2021/01.2.

Brain-Computer Interface Systems, Qiyuan Lab, and the PRC's AI Push



By Matthew Gabriel Cazel Brazil

A patient uses a chip implanted in his brain to communicate to doctors that he is hungry. (Source: Xinhua)

Executive Summary:

- Beijing views brain-computer interfaces (BCIs) as "key and core" technologies, leading to substantial state investment for both civilian and military purposes.
- Qiyuan Lab, an artificial intelligence (AI) laboratory in Beijing led by a People's Liberation Army Major General and machine learning expert, has ramped up hiring for BCI research-related roles since 2023. Current Qiyuan employees mostly do not appear to indicate their employment status on recruitment sites, suggesting that some of their work may be sensitive.
- Laboratories such as Zhejiang, Purple Mountain, and Pengcheng share similar objectives—recruiting toptier talent for AI and BCI endeavors under programs such as the "Overseas Outstanding Youth Fund Project" and guided by the 2017 New Generation Artificial Intelligence Development Plan.

State media in the People's Republic of China (PRC) frequently report on breakthroughs in brain-computer interfaces (BCIs, 脑机接口), a set of technologies that link the human nervous system with computers, allowing direct communication between the two. On March 20, a number of reports covered the successful implant of a "Beinao-1" (北脑一号) chip that can help patients with aphasia communicate (Xinhua, March 20; <u>S&T Daily</u>). The same day, the Beijing Municipal Science & Technology Commission, which has supported the chip's development, declared that it will accelerate clinical trials for the chip, as well as its production, as part of its main priority this year of "unswervingly support research on key and core technology" (关键核心技术) (Beijing Government Releases, March 21). This phrasing is identical to that found in the central government's *Outline of the 14th Five-Year Plan and Long-Range Objectives through the Year 2035* ('十四五'规划和 2035 年远景目标纲要). A table in the document placed brain science and brain-inspired research fourth in a list of seven areas of cutting-edge science and technology to tackle (Xinhua, March 13, 2021).

The "Beinao-1" chip was developed by the Chinese Institute for Brain Research, Beijing (北京脑科学与类脑研究所) in collaboration with Beijing Xinzhida Neurotechnology (北京芯智达神经技术; aka NeuCyber NeuroTech). The latter, set up by the Beijing municipal government, has been propagandized as the firm creating "China's version of Neuralink," in reference to the company owned by tech entrepreneur Elon Musk, which is seen as a world leader on BCI technology (Global Times, May 22, 2024; Qichacha, accessed March 26). This is just one example among many of the developments emerging from work that takes place in a network of large, government-funded laboratories dedicated to strategic research. Zhejiang Lab (之江实验室), which may be connected to the artificial intelligence (AI) large language model (LLM) startup DeepSeek, embodies this advanced, state-funded research model (China Brief, February 14; China Policy Leads, February 25). Another example, Qiyuan Lab (启元实验室), appears to be the PRC laboratory most focused on BCI. It is based in Zhongguancun, an area of Beijing often dubbed the PRC's "Silicon Valley" (中国硅谷), which also hosts the creators of the "Beinao-1" chip (People's Daily Online, February 25; Qiyuan, accessed March 4).

Qiyuan Lab's BCI Specialist Hiring Spree

AI, another "key and core technology," is increasingly integrated with BCIs. The *New Generation Artificial Intelligence Development Plan* (新一代人工智能发展规划) issued by the State Council in 2017 set the goal for the PRC to become the world-leading AI industry power with a "first-mover advantage" (先发优势) by 2030 (State Council, July 20, 2017; China Brief, December 22, 2017). Qiyuan Lab, an advanced AI research laboratory, has ramped up BCI hiring since 2023, posting numerous ads on Liepin (猎聘网), a recruitment site. Its recruitment page describes itself as a "laboratory focused on scientific research in the field of intelligent technology" (实验室聚焦智能科技领域科研攻关) and employing 1,000–2,000 people primarily engaged in AI and other advanced technological research (Liepin, accessed March 4). In a posting advertising joint training positions for doctoral students at the Harbin Institute of Technology (HIT)—a "Seven Sons of National Defense" university—Qiyuan describes its collaboration with multiple elite PRC universities as a relationship of "strategic cooperation" (战略合作), supported by a network of over 50 doctoral supervisors from Tsinghua and other "partner" institutions (China Brief, February 14; <u>HIT</u>, March 4).

As this indicates, the laboratory has a prominent role in the PRC's defense technology ecosystem, reflected in its mission statement, "reflecting the national will, serving the national strategy, undertaking the national mission, and representing the national level" (体现国家意志、服务国家战略、承担国家使命、代表国家水平). This connection is further highlighted by its leadership by People's Liberation Army (PLA) Major General (少将) Liao Xiangke (廖湘科), a machine learning expert who also oversees the Tianhe (天河) series of supercomputers at the National University of Defense Technology (国防科技大学; NUDT). In a keynote at the Beijing Digital Talent Development Conference (北京数字人才发展大会) in November 2024, Liao identified LLMs as Qiyuan's primary focus (People's Daily Online, November 20, 2024).

Qiyuan's focus on bio-hardware integration first became evident in early 2023 with the establishment of its bio-intelligence platform department (类生智能平合部) (WeChat Official Account of North China Electric Power University Career Center, January 12, 2023). As with its AI research, traceable through job listings for supercomputer hardware and software specialists, Qiyuan's involvement in bio-hardware research appears in numerous related job postings. Between June 2022 and February 2025, Qiyuan sought neuroimaging specialists, PhD graduates in biology and computer science with neuroscience backgrounds, and master's degree holders in biological experiment engineering and data processing. By early March 2025, it was recruiting interns in biological experimentation, BCI, and neuroimaging algorithms, as well as a supervisor for an animal testing facility. Research goals for Qiyuan in 2025 include bionic robotics, biomedical engineering, and mechanical engineering, among others (<u>HIT</u>, March 4).

Although these job postings are easily accessible via open-source research, Qiyuan's current employees maintain strict operational security. Only a few former, low-level, and non-technical staff (mostly interns and human resources (HR) professionals) publicly disclose their past or present employment at Qiyuan Lab on the Chinese-language professional networking site MaiMai (脉脉).

Network of Labs Recruit Strategically, Targeting the West

Zhejiang Lab and Qiyuan are just two research institutions among an extensive network dedicated to "promoting the core national interest" (推进核心国家利益). Alongside them, laboratories like Pengcheng Laboratory (鹏城实验室), Pazhou (Huangpu) Laboratory (琶洲实验室[黄埔]), and Purple Mountain Laboratory (紫金山实验室) appear designed to recruit, develop, and retain "high-level talent" (高层次人 才) in STEM fields critical to national strategic goals. Publicly available recruitment information suggests that Purple Mountain centers on hardware (satellites, autonomous vehicle navigation, and drones), Pazhou focuses on Al/LLMs hardware and software, and Pengcheng pursues a broader range of sensitive research. As of February 25, Pengcheng listed 129 open positions for specialists in software engineering, data mining, robotics, Al, information security, and other fields (Liepin, accessed March 4 [1], [2]; Liepin/Pengcheng Laboratory, accessed March 4).

On job-board sites, Qiyuan and other labs are often categorized as "government/public" employers (政府/公 共事业), with managerial and HR roles explicitly requiring or preferring Chinese Communist Party membership ("中共党员优先"), indicating government involvement. They are also linked to programs such

as the "Overseas Outstanding Youth Fund Project" (海外优秀青年基金项目) that aim to attract "highlevel talent"—often ethnic Chinese with advanced technical training from foreign universities. Some labs even host dedicated recruitment events for this purpose (<u>Purple Mountain Labs</u>, January 16, 2024; <u>Zhejiang Lab</u>, February 6, 2024; <u>Pengcheng Lab</u>, February 7, 2024). The similar wording and timing of these event announcements suggest coordination by a central organizing entity.

These overseas recruitment drives provide high salaries, recruitment bonuses, and other special perks for "high-level talents" and "outstanding young scientists" (优秀青年科学). A Zhejiang posting showcases the benefits offered to overseas recruits, including furnished housing, resettlement allowances over renminbi (RMB) 100,000 (\$14,000), and annual round trip flights for visiting overseas relatives (Zhejiang Lab, February 6, 2024). With relatively high salaries—RMB 1.5 million (\$207,000) advertised in 2024—these positions are highly appealing to graduates from prestigious Western institutions. Pengcheng offers even higher compensation for "High-End Class A Scholars" (高端学者[A 类]), providing RMB 3 million (\$410,000) in research funding and a one-time RMB 1 million (\$140,000) relocation bonus for those willing to return to live and work in the PRC.



Figure 1. Qiyuan Recruitment Advertisements

Details on Qiyuan's recruitment bonuses for foreign-educated elite scholars are less available than at similar institutions such as Zhejiang, Pengcheng, and Purple Mountain. Qiyuan did, however, collaborate with the Ministry of Human Resources and Social Security in December 2024 for an event aimed at "outstanding young talents from home and abroad" with the theme of "Struggle in the Present, Open Up the Future" (搏在

当下, 启智未来) (<u>Sohu</u>, November 11, 2024). This event sought to attract post-doctoral STEM students to "contribute to the country's high-level scientific and technological self-reliance" (为实现国家高水平科技自立自强贡献力量), mirroring the messaging of more public recruitment drives by other labs. Similar initiatives at Purple Mountain and Pengcheng list, as a first requirement, that applicants residing overseas must "abide by the Constitution of the People's Republic of China and relevant laws and regulations" (遵守中华人民共和国宪法及相关法律法规) (<u>Purple Mountain Labs</u>, January 16, 2024; <u>Wechat Official Account of Pengcheng</u>, February 7, 2024). These drives also often stipulate minimum residency commitments, such as a requirement to remain in the PRC for at least three years.

PRC entities have also actively recruited non-Chinese BCI experts from the West. A prominent example is Charles Lieber, a former Harvard professor renowned for his work in nanotechnology and nanobioelectronics, who was convicted in the United States on charges including the transfer of Department of Defense- and National institutes of Health-sponsored research to Wuhan University of Technology, as well as failing to disclose PRC payments while participating in the controversial "Thousand Talents" program (千人 计划) (China Brief, <u>August 5, 2010</u>, <u>April 12, 2023</u>; <u>U.S. Department of Justice</u>, April 26, 2023). In a surprising turn, a U.S. court permitted Lieber permission to return to the PRC several times in 2024 to attend conferences and discuss potential collaborations (<u>The Harvard Crimson</u>, October 30, 2024).

Conclusion

The PRC's extensive state-funded laboratory network is pivotal in developing cutting-edge technologies, including in AI research and BCIs. These fields have both civilian and military use, and ethical approaches to the applications of emerging technologies in the PRC have long diverged from Western standards (<u>CSET</u>, March 11, 2024). The recruitment of top-tier talent—domestically and internationally—is indicative of a concerted effort to achieve and maintain a technological lead. The rapid growth of these labs, which seem to share goals, recruiting drives, and possibly research, reinforces the visibility of this effort, as does their adherence to the 2017 New Generation Artificial Intelligence Development Plan.

The PRC's construction of an expanding network of labs likely has learned a lot from the United States's own system of national and university labs. Notably, Qiyuan Lab, Tsinghua University's High Technology Laboratory, and the Academy of Military Science Evaluation and Demonstration Research Center published a study in 2021 that compared U.S. research institutions such as the Massachusetts Institute of Technology, Carnegie Mellon, University of California, Berkeley, and others with PRC "National Laboratories." [1] By comparison, the West knows much less about the PRC's laboratory system. Against this backdrop, differences between the two systems warrant closer examination.

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Notes

[1] Ban Yanjun, Fang Chao, and You Hanlin "Inter-agency Resource Management Models of the National Laboratories: American Case Analysis and Enlightenment" [国家实验室的跨机构资源管理模式:美国 案例分析及启示], Science and Technology Management Research [科技管理研究], 2021(24): 1-8.