

# Securitization of Artificial Intelligence in China

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## Abstract

This article studies security politics of Artificial Intelligence (AI) in China. Using securitization as an analytical framework, it examines Chinese official AI discourse and how AI becomes a security matter. This article argues that AI is being securitized by the Chinese central government to mobilize local states, market actors, intellectuals and the general public. China's historical anxieties about technology and regime security needs are contributing to the rise of security discourse in China's AI politics, and this securitization trend is further accelerated by the growing tension caused by great power competition. Despite its help in convincing domestic actors, this securitization trend may undermine Chinese key AI objectives by pushing it in an inward-looking, techno-nationalistic direction that brings about a series of severe consequences for China's AI industry and leadership ambition.

## 1. Introduction

The development of Artificial Intelligence (AI) and its promising future have made it increasingly important to geopolitics.<sup>1</sup> National states are paying close attention to its potential and implications for national security. The military application of AI technology, for example, has led to a discussion about a global AI race.<sup>2</sup> As a key global AI player, China has made an ambitious three-step plan to become a leading AI power by 2030.<sup>3</sup> Many international analysts characterize this Chinese AI approach as a “unified/integrated” and “national-concerted” effort.<sup>4</sup> This “whole-of-nation/government/society” Chinese approach is argued to have a

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<sup>1</sup> This article adopts a broad definition for AI, referring to a set of digital technology with the ability “to perform tasks that would usually require human intelligence”. Oxford, “artificial intelligence,” in *The Oxford Dictionary of Phrase and Fable*, (Oxford University Press, 2005), <https://www.oxfordreference.com/view/10.1093/oi/authority.20110803095426960>

<sup>2</sup> Fabien Merz, “Europe and the Global AI Race,” *CSS Analyses in Security Policy* 247 (2019); Frederick Kempe, *The US is falling behind China in crucial race for AI dominance*, CNBC, 2019 <https://www.cnbc.com/2019/01/25/chinas-upper-hand-in-ai-race-could-be-a-devastating-blow-to-the-west.html>; Daniel Castro, Michael McLaughlin, and Eline Chivot, *Who Is Winning the AI Race: China, the EU or the United States?*, Center for Data Innovation, 2019, <https://www.datainnovation.org/2019/08/who-is-winning-the-ai-race-china-the-eu-or-the-united-states/>

<sup>3</sup> China, *Guowuyuan guanyu yinfa xinyidai rengong zhineng guihua de tongzhi (New Generation Artificial Intelligence Development Plan)*, The State Council of China, 2017, [http://www.gov.cn/zhengce/content/2017-07/20/content\\_5211996.htm](http://www.gov.cn/zhengce/content/2017-07/20/content_5211996.htm)

<sup>4</sup> Yiling Liu, “China’s AI Dreams Aren’t for Everyone,” *Foreign Policy*, 2019, <https://foreignpolicy.com/2019/08/13/china-artificial-intelligence-dreams-arent-for-everyone-data-privacy-economic-inequality>; Shriram Ramanathan, *China's Booming AI industry: what you need to know* Lux Research, 2019, <https://www.luxresearchinc.com/blog/chinas-booming-ai-industry-what-you-need-to-know>; Jaqueline Ives and Anna Holzmann, *Local governments power up to advance China's national AI agenda*, Mercator Institute for China Studies, 26 April 2018, <https://www.merics.org/en/blog/local-governments-power-advance-chinas-national-ai-agenda>; Meng Jing, *Is Xi Jinping's iron grip better than Adam Smith's invisible hand for technology innovation?* 2018, <https://www.scmp.com/tech/article/2173128/xi-jinpings-iron-grip-better-adam-smiths-invisible-hand-technology-innovation>; Yifan Yu, “Why China's AI players are struggling to evolve beyond surveillance,” *Nikkei Asian Review*, 2019, <https://asia.nikkei.com/Spotlight/Cover-Story/Why-China-s-AI-players-are-struggling-to-evolve-beyond-surveillance>; Jaron Lanier and E. Glen Weyl, “How Civic Technology

“distinct advantage” over the US’s.<sup>5</sup> The relevant arguments explicitly and implicitly indicate a geopolitically driven Chinese AI plan, threatening American AI supremacy and national security.

A similar trend towards AI has taken place in China. In 2016/2017, the Chinese government announced AI as a strategic industry and officially adopted a national approach to boost the AI industry.<sup>6</sup> This article argues that the Chinese central government is securitizing AI in order to advance its AI agenda. Its AI policy discourse describes security as one of the most important policy goals. As the State Council of China’s “New Generation Artificial Intelligence Development Plan” states,

“The world’s major developed countries are taking the development of AI as a major strategy to enhance national competitiveness and *protect national security*... At present, China’s situation in *national security* and international competition is more complex, and [China] must ... firmly seize the strategic initiative in the new stage of international competition in AI development, to ... effectively *protecting national security*.”<sup>7</sup>

By using securitization as an analytical framework, this article examines Chinese AI discourse. As part of the national AI campaign to mobilize Chinese society, to label AI as a security matter is one of the political tactics to gain domestic support. As this article will show, national security is underlying China’s overall strategic thinking of AI with specific reference to its military application and practical use to protect regime security.

This article also explores how the Chinese AI approach and its security logic is embedded in China’s historical, geopolitical and domestic contexts. China’s desire for AI sits in the wider context of its pursuit of modern technologies, and it is driven by China’s strong anxiety of technology competition generated from its historical discourse, which blames China’s “century of humiliation” on its failure in previous global technology competitions. In this regard, historical experience of “humiliation” including not only being militarily invaded but also falling behind in tech development justifies the need for contemporary mobilization to avoid repeating history. Geopolitically speaking, China’s national approach towards AI and the move to make it a security matter is accelerated by increasingly competitive US-China relations. Both sides label the other’s AI advancement as a threat and thus accelerate the securitization process. In the domestic arena, with regime security of the Chinese Communist Party (CCP) as the primary concern, the practical use of AI and its relevant discourses are geared towards the goal of securing the authoritarian rule. In this regard, China’s bold AI experiments are practising a unique digital technocracy, making China’s AI approach distinct from that in Western societies.

Currently, this securitization is an ongoing process. Although it remains unclear to what extent the targeted audience - including local governments, market actors, intellectuals and the general public - are impacted by securitization, they have enthusiastically echoed the central government’s AI campaign. In this regard, this securitization certainly helps to convince domestic actors. However, it also brings about unintended consequences including: (a) to make China less attractive to global AI labour and capital by producing a nationalistic environment,

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Can Help Stop a Pandemic," *Foreign Affairs*, 2020, <https://www.foreignaffairs.com/articles/asia/2020-03-20/how-civic-technology-can-help-stop-pandemic>; Kaifu Lee, *AI Superpowers: China, Silicon Valley, and the New World Order* (Houghton Mifflin Harcourt, 2018).

<sup>5</sup> Daniel Hoadley and Kelley Saylor, *Artificial Intelligence and National Security*, Congressional Research Service Report, 2020, p.24, <https://fas.org/sgp/crs/natsec/R45178.pdf>

<sup>6</sup> China, Guowuyuan guanyu yinfa xinyidai rengongzhineng guihua fazhan de tongzhi (*New Generation Artificial Intelligence Development Plan*).

<sup>7</sup> Emphasis added, Graham Webster et al., "Full Translation: China's 'New Generation Artificial Intelligence Development Plan' (2017)," *New America*, 2017, <https://www.newamerica.org/cybersecurity-initiative/digichina/blog/full-translation-chinas-new-generation-artificial-intelligence-development-plan-2017>

(b) to hinder industrial efficiency by focusing on self-reliance, (c) to make it harder for China to lead global AI governance, (d) to further reinforce technological rivalry by neglecting the potential of global AI cooperation, and (e) to constrain Chinese AI companies' global access. All of these could undermine China's key objectives of fostering a booming AI economy and becoming a global AI leader.

Theoretically, this article echoes the call to develop a *global* Copenhagen School of security studies by expanding its non-Western politics agenda. Despite difficulties, it shows that securitization has considerable explanatory power in the Chinese context. Empirically, this article not only develops a more accurate understanding of China's AI politics but also indicates an emerging research agenda for studying the relationship between AI and security. With AI's potential to transform our society, it has profound implications for security politics. As this article will discuss, securitization of AI is not a unique Chinese practice but a global trend. Nowadays, AI has been increasingly framed as a national and international security matter in both the US and Europe. In this regard, securitization of AI including but not limited to China's practices deserves more attention from the Copenhagen School and the wider security community.

## **2. Analytical Framework: Securitization**

The concept of securitization in critical security studies is primarily associated with the "Copenhagen School". It is developed from the works of the School's leading scholars including Barry Buzan and Ole Wæver that consider security as a "speech act"<sup>8</sup> – "by saying, something is done".<sup>9</sup> Securitization refers to the discursive process in which actors – usually elites and state actors – transform a particular issue into a security matter. During this process, actors will label a particular issue as a security threat and list it as part of a security agenda to justify extraordinary countermeasures. Securitization is considered successful if the relevant audience accepts that the issue in question is a security threat, enabling emergency measures.

This securitization process involves a series of key terms including "securitizing actor", "securitizing move", "referent object" and "audience".<sup>10</sup> Securitizing actor refers to the person or actor who labels a matter as a security issue, and this attempt is a securitizing move. Referent object refers to what is labelled as an object that needs to be protected from the claimed security threat during the securitizing move. Audience is the group for whom this securitizing move performs and who needs to be convinced so that extraordinary measures to deal with the security threat can be accepted.

Originated from the Western-centric Copenhagen School, most studies on securitization are based in a Western – or perhaps more accurately European – democratic context. After all, securitization is a process where an actor moves a particular matter out of the "normal" state of affairs into an emergency national security agenda.<sup>11</sup> This usually requires a liberal democratic society to represent a regular democratic politics that emergency national security politics can emerge from. It, however, inevitably makes securitization theory less useful to understanding security in a non-liberal-democratic political order and thus not only limits the

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<sup>8</sup> Barry Buzan, Ole Wæver, and Jaap Wilde, *Security: A New Framework for Analysis* (Lynne Rienner, 1998); Barry Buzan, *People, States, and Fear: The National Security Problem in International Relations* (ECPR Press, 1983).

<sup>9</sup> Jonna Nyman, "Securitization," in *Security Studies: An Introduction* ed. Paul Williams and Matt McDonald (London: Routledge, 2018).

<sup>10</sup> Nyman, "Securitization."

<sup>11</sup> Buzan, Wæver, and Wilde, *Security: A New Framework for Analysis*.

scope of the securitization agenda but also fails to realize *international* relations. In the context of global power transition in which Western dominance is in decline, many including Buzan are calling for a more global understanding of international relations and securitization.<sup>12</sup> This requires considerable attention on security politics in non-Western societies.

Needless to say, this admirable non-Western politics agenda faces critical challenges as security politics operates in a very different way within a non-democratic – and often authoritarian and illiberal – setting. Despite so, early attempts have been made to apply securitization theory to explain security dynamics from the Middle East including Egypt<sup>13</sup>, Saudi Arabia and Bahrain<sup>14</sup>, Africa<sup>15</sup>, Latin America including Brazil and Mexico<sup>16</sup>, North America including Cuba<sup>17</sup>, South Asia including India<sup>18</sup> to Central Asia including Kyrgyzstan.<sup>19</sup> In the case of China, securitization has been proven useful to understanding climate and energy politics.<sup>20</sup> Vuori's research, for example, shows its explanatory power in studying political crises in the eras of Mao Zedong, Deng Xiaoping and Jiang Zemin, suggesting that in the Chinese context the principal audience of the securitizing move is not the general public but elites who have the power to shape the security agenda.<sup>21</sup>

This article further advances this non-Western security politics agenda by studying AI in China. Previous security studies have explored the relations between securitization and

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<sup>12</sup> Saloni Kapur and Simon Mabon, "The Copenhagen School goes global: securitisation in the Non-West," *Global Discourse: An Interdisciplinary Journal of Current Affairs and Applied Contemporary Thought*, Vol. 8, No. 1 (2018); Amitav Acharya and Barry Buzan, "Why is there no non-Western international relations theory? An introduction," *International Relations of the Asia-Pacific*, Vol. 7, No. 3 (2007); Juha Vuori, "Illocutionary Logic and Strands of Securitization: Applying the Theory of Securitization to the Study of Non-Democratic Political Orders," *European Journal of International Relations*, Vol.14, No. 1 (2008).

<sup>13</sup> Maja Greenwood and Ole Wæver, "Copenhagen–Cairo on a roundtrip: A security theory meets the revolution," *Security Dialogue*, Vol. 44, No. 5-6 (2013).

<sup>14</sup> Simon Mabon, "Existential Threats and Regulating Life: Securitization in the Contemporary Middle East," *Global Discourse: An Interdisciplinary Journal of Current Affairs and Applied Contemporary Thought*, Vol. 8, No. 1 (2018).

<sup>15</sup> Edwin Ezeokafor and Christian Kaunert, "Securitization outside of the West: conceptualizing the securitization–neo-patrimonialism nexus in Africa," *Global Discourse: An interdisciplinary journal of current affairs* Vol. 8, No. 1 (2018).

<sup>16</sup> John Gledhill, "Securitization, mafias and violence in Brazil and Mexico," *Global Discourse: An Interdisciplinary Journal of Current Affairs and Applied Contemporary Thought*, Vol. 8, No. 1 (2018).

<sup>17</sup> Martin Holbraad and Morten Pedersen, "Revolutionary Securitization: An Anthropological Extension of Securitization Theory," *International Theory*, Vol. 4, No. 2 (2012).

<sup>18</sup> Saloni Kapur, "From Copenhagen to Uri and across the Line of Control: India's 'surgical strikes' as a case of securitisation in two acts," *Global Discourse: An Interdisciplinary Journal of Current Affairs and Applied Contemporary Thought*, Vol.8, No. 1 (2018).

<sup>19</sup> Claire Wilkinson, "The Copenhagen School on Tour in Kyrgyzstan: Is Securitization Theory Useable Outside Europe?," *Security Dialogue*, Vol. 38, No. 1 (2007).

<sup>20</sup> Jonna Nyman and Jinghan Zeng, "Securitization in Chinese climate and energy politics," *Wiley Interdisciplinary Reviews: Climate Change*, Vol. 7, No. 2 (2016); Yan Bo, "Securitization and Chinese Climate Change Policy," *Chinese Political Science Review*, Vol. 1 (2016); Maria Trombetta, "Securitization of Climate Change in China: Implications for Global Climate Governance," *China Quarterly of International Strategic Studies*, Vol. 5, No. 1 (2019).

<sup>21</sup> Vuori, "Illocutionary Logic and Strands of Securitization: Applying the Theory of Securitization to the Study of Non-Democratic Political Orders."; Juha Vuori, *How to do security with words: a grammar of securitisation in the People's Republic of China* (University of Turku, 2011).. Other notable works on securitization and China include Juha Vuori, *Critical security and Chinese politics: the anti-Falungong campaign* (London and New York: Routledge, 2014); Tianyang Liu and Zhenjie Yuan, "Making a safer space? Rethinking space and securitization in the old town redevelopment project of Kashgar, China," *Political Geography*, Vol. 69 (2019); Shunji Cui and Jia Li, "(De)securitizing frontier security in China: Beyond the positive and negative debate," *Cooperation and Conflict*, Vol. 46, No. 2 (2011).

technology.<sup>22</sup> The work of Hansen and Nissenbaum, for example, uses securitization theory to analyse the concept of cyber security.<sup>23</sup> Using Estonian digital structures in 2007 as a case study, it develops a framework to theorize cyber-security as a distinct sector in the research agenda of security studies. This article draws the attention of the security studies community to how a top emerging technology, i.e. AI, has been securitized in the Chinese context.

Indeed, securitization of AI has increasingly become a global movement. In the US and Europe, for example, the AI advancement of their geopolitical competitors - especially Russia and China - is often labelled as a potential threat to national and international security. The relevant speech act is framing AI not as a normal technology but a national security matter that justifies the need to enable extraordinary actions from the state and society. By doing so, it indicates the urgent need for deploying more resources and support to, for example, in the US case, not only the American AI-enabled military sector but also AI commercial industry.

Indeed, China is often labelled as the US's "most serious strategic competitor"<sup>24</sup> or "closest competitor"<sup>25</sup> in American AI policy discourses and thus becomes an inevitable topic and useful reference point for American AI strategy. As a US Congress report on AI and National Security points out, "most analysts view China's unified, whole-of-government effort to develop AI as having a distinct advantage over the United States' AI efforts".<sup>26</sup> Thus, many are calling for a similar "national-concerted" and "whole-of-government" approach towards AI in the US. Here, China's ambitious AI plans are often labelled as a serious threat to the US. To Webb, for example, "Beijing's AI push is part of a coordinated attempt by President Xi Jinping to turn China into the world's unchallenged AI hegemon",<sup>27</sup> "while market forces and consumerism are the primary drivers in America".<sup>28</sup> Thus, according to Webb,<sup>29</sup> "the US — working with its democratic partners — urgently needs to play catch up and develop the strong, solid muscles it will need to win the AI race". These analyses implicitly and explicitly frame China's AI strategy as coherent, top-down and geopolitically driven, which inevitably neglect the nuanced development of China's domestic AI politics and thus exaggerate the geopolitical threat of China's AI advancement and plans, as the article will discuss later. Nonetheless, regardless of whether those analyses reflect the reality, they have contributed to the anxieties of China's near competitors.

For American tech giants, an exaggerated China threat is also helpful to fend off criticism towards their monopoly by appealing to American national interests. Thus, market actors in the US have been taking advantage of this China threat for their cause. For example, when facing pressure to break up Facebook, China is referenced to justify Facebook's monopoly. Facebook CEO Mark Zuckerberg once warned that Chinese tech companies would dominate if Facebook was unravelled. According to Zuckerberg,

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<sup>22</sup> Myriam Cavelty, *Cyber-Security and Threat Politics: US Efforts to Secure the Information Age* (Routledge, 2008); Lene Hansen and Helen Nissenbaum, "Digital Disaster, Cyber Security, and the Copenhagen School," *International Studies Quarterly*, Vol. 53, No. 4 (2009).

<sup>23</sup> Hansen and Nissenbaum, "Digital Disaster, Cyber Security, and the Copenhagen School."

<sup>24</sup> NSCAI, *The Interim Report of National Security Commission on Artificial Intelligence*, National Security Commission on Artificial Intelligence, 2019, p.6, <https://drive.google.com/a/nscai.org/file/d/153OrxnuGEjsUvIxWsFYauslwNeCEkvUb/view?usp=sharing>

<sup>25</sup> Hoadley and Saylor, *Artificial Intelligence and National Security*. p.21

<sup>26</sup> Hoadley and Saylor, *Artificial Intelligence and National Security*. p.24

<sup>27</sup> Amy Webb, "Build democracy into AI: Human-centered policy is needed to wrest control from China, tech giants.," *Politico*, 2019, <https://www.politico.eu/article/build-democracy-into-ai-combat-china/>

<sup>28</sup> Amy Webb, *The Big Nine: How the Tech Titans and Their Thinking Machines Could Warp Humanity* (PublicAffairs, 2019).. For similar arguments see Yu, "Why China's AI players are struggling to evolve beyond surveillance."

<sup>29</sup> Webb, "Build democracy into AI: Human-centered policy is needed to wrest control from China, tech giants.."

“if the (US) government here is worried about — whether it’s election interference or terrorism — I don’t think Chinese companies are going to want to cooperate as much and aid the national interest there”.<sup>30</sup>

Here, Zuckerberg labelled Chinese tech companies as uncooperative foreign entities that would undermine key American national interests, using election interference and terrorism as reference examples. All of these discussions about China have facilitated the securitization process in the US to enable extraordinary actions regarding the American AI industry, which deserve further observation.

This article focuses on how AI is securitized within China. Needless to say, the securitization process works differently in the Chinese context given its unique state-society relations. Despite a non-liberal democratic setting, there is still a need to convince the domestic audience and thus win more support for China’s national AI plan. Table 1 categorizes the arguments into the securitization framework. It argues that the Chinese central government as the *securitizing actor* is performing a *securitizing move* by labelling China’s AI advancement as a matter of security. In the relevant discourses, the national interests and survival of the Chinese nation are the *referent object* that needs to be protected. As part of the central government’s AI campaign to mobilize domestic actors, this performative act aims to convince the domestic *audience* including local, subnational, academic actors, market actors and the mass, as the rest of the article will explore.

**Table 1: Using Securitization as an Analytical Framework to Study AI in China**

<i>Securitizing actor</i>	The central government of China
<i>Securitizing move</i>	Labelling AI advancement as a security matter to mobilize domestic actors
<i>Referent object</i>	The Chinese nation <i>The Chinese nation and its national interests need to be protected</i>
<i>Audience</i>	Chinese local governments + market actors + intellectual + the general public
<i>Facilitating conditions</i>	Historical anxiety about falling behind during global technology competition + geopolitical competition + non-traditional security needs

### 3. Labelling AI as a Security Matter

In China, AI is not only a buzzword but also a popular policy slogan. In order to boost its AI industry, the Chinese central government has announced a series of AI policies. For example, in May 2016, the National Development and Reform Commission, the Ministry of Science and Technology, the Ministry of Industry and Information Technology and the then Central Leading Group for Cyberspace Affairs jointly released the “Internet +’ AI three years

<sup>30</sup> Kurt Wagner, "Mark Zuckerberg says breaking up Facebook would pave the way for China’s tech companies to dominate," *Vox Media*, 2018, <https://www.vox.com/2018/7/18/17584482/mark-zuckerberg-china-antitrust-breakup-artificial-intelligence>

implementation plan”.<sup>31</sup> By then, this document mentioned “security” 16 times including 5 references to cyber security with none about national security.

A year later, in July 2017, an overall national security approach became evident when the “New Generation AI Development Plan” was put forward by the Chinese State Council. In this authoritative document,<sup>32</sup> the word “security” appears 48 times including 8 references to “national security”. As the quote at the beginning of the article shows, this document explicitly claims AI as a matter of China’s national security. It also clearly points out that

“[China] must take the initiative to ... lead the world in new trends in the development of AI, serve *economic and social development*, and support *national security*”.<sup>33</sup>

This indicates that boosting economic growth and protecting national security are the two most important overall goals, as will be discussed later. This highlights the critical role of national security in China’s strategic thinking of AI.

Notably, before the central government released its AI plan around 2016/2017, some provincial and municipal governments had already developed their own regional AI policies to boost the AI economy. Many regional AI policies were announced even before the central government introduced the Internet of Things policy in 2012, some of which could be traced back to as early as 2009.<sup>34</sup> At the time, AI was far from a security matter.<sup>35</sup> Scroll forwards a few years to 2016, however, a U turn of securitizing AI became evident as indicated in the State Council’s AI plan.

The relevant securitizing move belongs to a type of securitization referring to a directive elementary speech that is performed to raise an item on the agenda.<sup>36</sup> It consists of “three sequential, elementary speech acts” including claim, warn and request.<sup>37</sup> In this case, the State Council of China aims to raise the awareness of its audience about AI’s importance and requests the relevant actions. As the quote at the beginning of the article *claims* and *warns*, other countries (i.e. China’s competitors) are elevating AI as a significant national strategy for the sake of national security.

The document also *claims* that China’s overall AI development is already behind other great powers as China lacks significant original AI innovations.<sup>38</sup> As such, it *requests* the nation to prioritize AI advancement to protect national security. This request is followed by setting not only a broad goal of making China a leading AI power but also a three-step plan and a targeted timeline: (1) to catch up with the AI technological progress of world-leading countries such as the US by 2020, (2) to make major breakthroughs in some AI technologies by 2025, and (3) to become a global leading AI power by 2030.<sup>39</sup> In short, the Chinese central

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<sup>31</sup> China, “Hulianwang+ Rengongzhineng sannian shishi fangan (*'Internet +'* AI three years implementation plan), 2016, [http://www.gov.cn/xinwen/2016-05/23/content\\_5075944.htm](http://www.gov.cn/xinwen/2016-05/23/content_5075944.htm)

<sup>32</sup> China, Guowuyuan guanyu yinfa xinyidai rengong zhineng guihua de tongzhi (*New Generation Artificial Intelligence Development Plan*).

<sup>33</sup> Webster et al., “Full Translation: China’s ‘New Generation Artificial Intelligence Development Plan’ (2017).”: emphasis added

<sup>34</sup> CISTP, 中国人工智能发展报告 2018 (*2018 report on China’s AI development*) (Beijing: China Institute for Science and Technology Policy at Tsinghua University (CISTP), 2018).

<sup>35</sup> Most of those regional policies were made for boosting local AI economy, while overall national security was not the focus.

<sup>36</sup> Vuori, “Illocutionary Logic and Strands of Securitization: Applying the Theory of Securitization to the Study of Non-Democratic Political Orders.”

<sup>37</sup> Vuori, “Illocutionary Logic and Strands of Securitization: Applying the Theory of Securitization to the Study of Non-Democratic Political Orders.”: 80

<sup>38</sup> China, Guowuyuan guanyu yinfa xinyidai rengong zhineng guihua de tongzhi (*New Generation Artificial Intelligence Development Plan*).

<sup>39</sup> China, Guowuyuan guanyu yinfa xinyidai rengong zhineng guihua de tongzhi (*New Generation Artificial Intelligence Development Plan*).

government is labelling AI as a national security matter and highlighting the threat of falling behind in order to convince domestic actors to support its planned actions.

Within this overall strategic thinking, a more explicit security position can be found in the official discourse about AI's military application. The State Council's AI plan mentions "national defense" 11 times and states that AI will be able to "elevate national defense strength and assure and protect national security".<sup>40</sup> This plan considers strengthening military-civilian integration as one of six tasks, and states that

"[China shall] deepen implementation of military-civilian integration development strategy, to promote the formation of an all-element, multi-field, high efficiency AI military-civilian integration pattern... strengthen a new generation of AI technology as a strong support to command and decision-making, military deduction, defense equipment, and other applications...promote all kinds of AI technology to become quickly embedded in the field of national defense innovation".<sup>41</sup>

This fits in China's broader military-civilian integration efforts that have become a national strategy since 2015. To put this national strategy into practice, a Central Commission for the Development of Military-Civilian Integration was created in 2017 and headed by the Chinese President Xi Jinping. Given its importance, it is hardly surprising that military-civilian integration applies the use of AI. Indeed, early signs of this approach can be found in the 2015 Chinese Defense White Paper on Strategy. The paper noted the critical importance of development of intelligent weapons and implications for China's military security.<sup>42</sup>

### **3.1 Historical Context: AI Supremacy for National Survival?**

National security and economic growth are considered by the State Council as two overall goals of China's ambitious AI plan, as previously mentioned. Given that economic growth represents the most important source of political legitimacy in China,<sup>43</sup> it is quite understandable that China's AI plan is pursuing a booming AI economy. However, why is national security listed as an equally important goal? Why does security occupy such a supreme place in China's overall strategic thinking of AI? This should be understood in the wider historical context of China's pursuit of cutting-edge technology.

Although China's AI plans gradually came to public attention on the global stage during the period 2016/2017, they have long historical roots and their development is clearly path-dependent. All those plans were broadly consistent with China's 13<sup>th</sup> Five-Year Plan and the state-driven industrial plan "Made in China 2025" released in 2015. For example, the concept of AI appeared in the State Council's 13<sup>th</sup> Five-Year Plan of China in March 2016 along with 5G, big data and cloud computing, which were also considered national priorities.<sup>44</sup> As such,

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<sup>40</sup> Webster et al., "Full Translation: China's 'New Generation Artificial Intelligence Development Plan' (2017)."

<sup>41</sup> Webster et al., "Full Translation: China's 'New Generation Artificial Intelligence Development Plan' (2017)."

<sup>42</sup> China, China's Military Strategy, 2015,

[http://english.www.gov.cn/archive/white\\_paper/2015/05/27/content\\_281475115610833.htm](http://english.www.gov.cn/archive/white_paper/2015/05/27/content_281475115610833.htm)

<sup>43</sup> Dingxin Zhao, "The Mandate of Heaven and Performance Legitimation in Historical and Contemporary China," *American Behavioral Scientist*, Vol. 53, No. 3 (2009); Zhengxu Wang, "Political trust in China : Forms and Causes," in *Legitimacy: Ambiguities of Political Success or Failure in East and Southeast Asia*, ed. Lynn White (World Scientific Pub Co Inc, 2005); André Laliberté and Marc Lanteigne, "The Issue of Challenges to the Legitimacy of CCP rule," in *The Chinese party-state in the 21st century : adaptation and the reinvention of legitimacy*, ed. André Laliberté and Marc Lanteigne (London: Routledge, 2008); David Shambaugh, "The Dynamics of elite politics during the Jiang era," *The China Journal*, No. 45 (2001); Elizabeth Perry, "Chinese Conceptions of "Rights": From Mencius to Mao—and Now," *Perspectives on Politics*, Vol.6, No.1 (2008); Paul Krugman, "China's Ponzi Bicycle Is Running Into A Brick Wall," (2013); Zhengxu Wang, "Before the Emergence of Critical Citizens: Economic Development and Political Trust in China," *International Review of Sociology*, Vol. 15, No. 1 (2005).

<sup>44</sup> China, Guowuyuan guanyu yinfa shisanwu guojia zhanlvxing xinxing chanye fazhan guihua de tongzhi (*Notice of the State Council on printing and distributing the plan for the development of strategic emerging*



the advancement of AI is part of the tech package to develop China as a leading technological power.

China's ambitious AI strategy and more broadly its technological aspiration is heavily shaped by Chinese discourse of its modern history. China has always had a high level of anxiety about lagging behind *again* in the game of global technology competition. This Chinese obsession with technology is relevant to its discourse about the relations between China and previous industrial revolutions.<sup>45</sup> While it is a common practice to discuss AI in the discourses of industrial revolutions in many international analyses, the Chinese angle of industrial revolutions is critical to understanding its technological aspiration.

In the Chinese official discourse, China as the Middle Kingdom had been the leading superpower until the 19<sup>th</sup> century when it was first defeated by a Western power, Britain. To many in China, it was the first industrial revolution that – beginning in Britain in the 18<sup>th</sup> century represented by the creation of the steam engine – made Britain a leading power.<sup>46</sup> It gave Britain the military might to defeat the Qing Dynasty – the then Asian if not global ruler.<sup>47</sup> It is argued that the Qing Dynasty failed to catch up with the technological innovation, and this failure marked the starting point of China's decline and the so-called “century of humiliation”.<sup>48</sup>

This defeat further put China in an unfavourable position during the second industrial revolution.<sup>49</sup> When the revolution took place in the early 20<sup>th</sup> century, China was still in the transition from the last feudal dynasty (i.e. Qing Dynasty) to a republic (i.e. Republic of China). The high level of political and social turbulence let China miss the great opportunity to develop itself.<sup>50</sup> When it came to the third industrial revolution launched by the development of the internet and computers starting around the 1940s/1950s, the People's Republic of China was just founded with serious domestic and international turmoil. In the end, China missed its chance again – although some argue that it caught the second half.<sup>51</sup> As summarized by Jin Canrong, a leading Chinese public intellectual and policy advisor,

“Obviously, all those three industrial revolutions have one common feature – all are made in the West and its consequence is to let the West stay ahead of productivity. On the contrary, China failed to grasp any of those three industrial revolutions and thus stays

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*industries of the state in 13th Five-Year* ) , 2016, [http://www.gov.cn/zhengce/content/2016-12/19/content\\_5150090.htm](http://www.gov.cn/zhengce/content/2016-12/19/content_5150090.htm)

<sup>45</sup> Tiwei Zhang, "Zhongguo buneng cuoguo disanci gongye geming (China can not miss "the third industrial revolution")," *Zhongguo Qingnian Bao (China Youth Daily)*, 2012, [http://zqb.cyol.com/html/2012-08/13/nw.D110000zgqnb\\_20120813\\_4-02.htm](http://zqb.cyol.com/html/2012-08/13/nw.D110000zgqnb_20120813_4-02.htm); Daokui Li, "Zhongguo hui cuoguo disici gongye geming ma (Will China miss the fourth industrial revolution?)," *Xin Caifu (New Fortune)*, 2016; Canrong Jin, "Disici gongye geming shi zhongguo judade lishi jiyu (The fourth industrial revolution is a huge historical opportunity for China)," *Beijing Ribao (Beijing Daily)*, 2019, [http://bjrb.bjd.com.cn/html/2019-08/19/content\\_12138618.htm](http://bjrb.bjd.com.cn/html/2019-08/19/content_12138618.htm). This industrial revolution discourse is also evident in the official policy documents. As the Chinese State Council's 2017 "New Generation AI Development Plan" points out, "AI has become the core driving force for a new round of industrial transformation, [which] will advance the release of the huge energy stored from the previous scientific and technological revolution and industrial transformation" Webster et al., "Full Translation: China's 'New Generation Artificial Intelligence Development Plan' (2017)".

<sup>46</sup> Jin, "Disici gongye geming shi zhongguo judade lishi jiyu (The fourth industrial revolution is a huge historical opportunity for China)."; Yuanfeng Wang, "Wang Yuanfeng: disici gongye geming zhende laile? (Wang Yuanfeng: is the fourth industrial revolution coming?)," *Global Times*, 2016, available at <https://opinion.huanqiu.com/article/9CaKrnJT5U0>

<sup>47</sup> Jin, "Disici gongye geming shi zhongguo judade lishi jiyu (The fourth industrial revolution is a huge historical opportunity for China)."

<sup>48</sup> Zhang, "Zhongguo buneng cuoguo disanci gongye geming (China can not miss "the third industrial revolution")."

<sup>49</sup> Li, "Zhongguo hui cuoguo disici gongye geming ma (Will China miss the fourth industrial revolution?)."

<sup>50</sup> Li, "Zhongguo hui cuoguo disici gongye geming ma (Will China miss the fourth industrial revolution?)."

<sup>51</sup> Li, "Zhongguo hui cuoguo disici gongye geming ma (Will China miss the fourth industrial revolution?)."

behind of productivity. As a result, despite years of efforts, China remains a developing country”<sup>52</sup>

The relevant historical discourses about technological revolutions are explicitly indicated in Chinese official documents and top leaders’ remarks. As Xi Jinping points out during a national conference on science and technology,

“historical experience shows that scientific and technological revolutions can always profoundly change the world’s development landscapes... some countries have seized the rare opportunity of scientific and technological revolutions to achieve a rapid growth in economic strength, scientific and technological strength, and national defence strength, and a rapid increase in overall national strength... during over 5,000 years of civilization development, the Chinese nation has achieved world-renowned scientific and technological achievements... (however), since modern times, due to various reasons at home and abroad, our country has repeatedly missed the opportunity of scientific and technological revolutions and fallen from a world power to a semi-colonial and semi-feudal country that was bullied by others. Our nation has experienced more than a century of aggression by foreign powers, endless wars, social turmoil, and people’s displacement.”<sup>53</sup>

To many in China including Xi Jinping, the rise of new technologies including AI, Internet of Things, cloud computing, big data, new energy, and 3D marked the beginning of the fourth industrial revolution.<sup>54</sup> Unlike previous industrial revolutions in which China was not economically resourced and lacked a favourable socio-political environment, China is now eager to not only jump into but also lead this fourth revolution.<sup>55</sup> As Jin Canrong elaborates,

“the fourth industrial revolution is the biggest historical opportunity for China. Logically, if China grasps this opportunity, in the future, the best technology and industry of humanity will be in China. So, we must grasp this opportunity”.<sup>56</sup>

In short, the lesson that China learnt from its modern history is that China must master the leading technology for the sake of its national survival, and that this wave of technological development is the “train” that China cannot afford to miss.<sup>57</sup> Although it is debatable whether those discourses are an accurate reflection of the history, it heavily influences the Chinese quest for technological leadership.

Needless to say, that behind these historical discourses and Chinese technological aspiration is China’s quest for national rejuvenation. It is the desire that China can take advantage of this wave of technological revolution led by digital technology including AI to return to its “rightful” place i.e. the superpower status before being defeated by Britain in the 19<sup>th</sup> century. In this regard, this technological ambition will inevitably clash with American supremacy and sit firmly in the arena of great power politics, as the following section will explore.

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<sup>52</sup> Jin, "Disici gongye geming shi zhongguo judade lishi jiyu (The fourth industrial revolution is a huge historical opportunity for China)."

<sup>53</sup> Jinping Xi, "Xi Jinping: wei jianshe shijie keji qiangguo er fengdou (Xi Jinping: strive to build a world technological power)," *People's Daily*, 2016, <http://cpc.people.com.cn/n1/2016/0601/c64094-28400179.html>

<sup>54</sup> Li, "Zhongguo hui cuoguo disici gongye geming ma (Will China miss the fourth industrial revolution?)."; Wang, "Wang Yuanfeng: disici gongye geming zhende laile? (Wang Yuanfeng: is the fourth industrial revolution coming?)."; Xi, "Xi Jinping: wei jianshe shijie keji qiangguo er fengdou (Xi Jinping: strive to build a world technological power)."

<sup>55</sup> Li, "Zhongguo hui cuoguo disici gongye geming ma (Will China miss the fourth industrial revolution?)."

<sup>56</sup> Jin, "Disici gongye geming shi zhongguo judade lishi jiyu (The fourth industrial revolution is a huge historical opportunity for China)."

<sup>57</sup> Zhang, "Zhongguo buneng cuoguo disanci gongye geming (China can not miss "the third industrial revolution")."; Jin, "Disici gongye geming shi zhongguo judade lishi jiyu (The fourth industrial revolution is a huge historical opportunity for China)."

### 3.2 Geopolitical Context: Competing for AI Supremacy?

Because of the above historical context, China feels a high level of necessity to master key technology; and reliance on foreign technology is considered a “security risk”.<sup>58</sup> This Chinese risk awareness has been further strengthened by its recent conflicts with the Trump administration. China’s technological aspirations such as the aforementioned “Made in China 2025” package including AI are all considered by many in the US as a security threat, leading to considerable tension between these two countries. By cutting China’s tech companies such as Huawei and ZTE off from global semiconductor suppliers,<sup>59</sup> the Trump administration has caused existential crises to those Chinese companies. The US’s sanctions also targeted Chinese AI start-ups and restricted the export of American AI software to China, hoping to slow down their development.<sup>60</sup> In the meanwhile, the US has made unilateral efforts to pressure its European partners to prevent the flow of advanced technology to China. For example, by appealing on the grounds of security interests, the Trump administration launched a lobby campaign to block the sale of Dutch manufactured computer chip-making machines to China.<sup>61</sup>

Severe damage caused by American sanctions on Chinese tech companies not only reminds China about its technological weakness but also strengthen its feeling of insecurity about any global reliance. Understandably, China wants to master leading AI technology by itself. As Xi Jinping elaborates,

“accelerating the development of a new generation of AI is an important strategic handhold for China to gain the initiative in global science and technology competition...We need to ensure that the core AI technologies are firmly in our own hands”.<sup>62</sup>

China’s AI aspiration is also about global leadership. With its rise, China is not fully satisfied with the US-led global order as it feels that it does not have enough say in global norms and rules.<sup>63</sup> Instead of a norm-taker, China now aspires to be a norm-shaper or even a norm-maker. Many Chinese scholars argue that the current established norms are primarily serving the interests of others not China.<sup>64</sup> In order to maximize Chinese interests, future norms should be defined by/for China and on Chinese terms.

In reality, such changes can hardly take place in traditional fields where rules are established and changes are likely to lead to resistance. However, AI, as an emerging field, is relatively blank where rules and norms are waiting to be written. China is now prepared to fill the gap. According to the State Council’s AI plan, China would initially establish technical standards on AI by 2020 and will promote the establishment of international AI organizations.<sup>65</sup> In January 2018, during the AI Standardization Forum, a Chinese white paper on AI

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<sup>58</sup> Graham Webster et al., “China’s Plan to ‘Lead’ in AI: Purpose, Prospects, and Problems,” *New America*, 2017, <https://www.newamerica.org/cybersecurity-initiative/blog/chinas-plan-lead-ai-purpose-prospects-and-problems/>

<sup>59</sup> Raymond Zhong, “Trump’s Latest Move Takes Straight Shot at Huawei’s Business,” *The New York Times* 2020.

<sup>60</sup> Xu and Naomi, “The Trump Administration Blacklisted Chinese A.I. Startups. But That Might Not Slow Them Down,” *Fortune*, 2019, <https://fortune.com/2019/10/10/trump-china-entity-list-ai-blacklist/>

<sup>61</sup> Alexandra Alper, Toby Sterling, and Stephen Nellis, “Trump administration pressed Dutch hard to cancel China chip-equipment sale: sources,” *Reuters*, 2020, <https://www.reuters.com/article/us-asml-holding-usa-china-insight-idUSKBN1Z50HN>

<sup>62</sup> China, Rengong zhineng juyou henqiang de “touyan” xiaoying (*Artificial intelligence has a strong “head goose” effect*), 26 July 2019, [http://paper.people.com.cn/rmrbhwb/html/2019-07/26/content\\_1938122.htm](http://paper.people.com.cn/rmrbhwb/html/2019-07/26/content_1938122.htm)

<sup>63</sup> Jinghan Zeng and Shaun Breslin, “China’s ‘new type of Great Power relations’: a G2 with Chinese characteristics?,” *International Affairs*, Vol. 92, No. 4 (2016).

<sup>64</sup> Zeng and Breslin, “China’s ‘new type of Great Power relations’: a G2 with Chinese characteristics?.”

<sup>65</sup> China, Guowuyuan guanyu yinfa xinyidai rengong zhineng guihua de tongzhi (*New Generation Artificial Intelligence Development Plan*).

Standardization was published to advance a framework of AI standards.<sup>66</sup> In April of the same year, Beijing hosted the inaugural plenary meeting - ISO/IEC JTC 1/SC 42 – of the international standards committee responsible for setting up international standards on AI. Fu Ying, a leading Chinese diplomat, also expressed China's interest in taking the lead to define norms to mitigate the risk of AI's military use.<sup>67</sup> In the meanwhile, Chinese scholars have also widely discussed future AI governance and how China can play a leadership role.<sup>68</sup> All of these indicate a Chinese will to lead global AI governance.

When it comes to global AI competition, many in China consider it as “a race of two giants” between China and the US.<sup>69</sup> According to the Director of AI and the Big Data Index Institute at East China University of Political Science and Law Gao Qiqi for example, the global order has been shifting from US-led unipolarity towards multipolarity; however, AI development may reverse this trend given American “superpower status” in the AI field.<sup>70</sup> Gao argues that the gap between the US and others has been widening in the AI field, while the gap between the US and China is shrinking.<sup>71</sup> In this sense, AI competition is between China and the US, and its outcome will have significant implications on global order.<sup>72</sup>

Geopolitical competition of AI is fiercer when it comes to AI's military use where it is directly linked with national security. As previously discussed, the State Council's AI plan has clearly indicated a strong Chinese will to enable its army through AI. China's defence sector has heavily invested in leading AI technology, such as swarming, robotics and machine learning in the hope of making its weapons systems “intelligentized” and thus develop a “world class” and “modernized” army.<sup>73</sup> This trend has been closely followed by many international analyses that examine (1) to what extent AI-enabled technology will advance China's military capacity, (2) to what extent this AI-empowered Chinese army will export its technologies to other countries, especially US adversaries, and (3) what the US should do as a counter-measure in light of the security threat. Chinese analysts are also closely observing the global trend of AI's military practices and thus advise how the Chinese army can not only learn from others' practices but also cope with this external security threat.<sup>74</sup> For example, the Chinese defence community closely followed the development of US's “Third Offset” strategy in 2014 and reacted by reflecting its own military modernization approach with reference to AI

<sup>66</sup> NISSTC, *Rengong zhineng anquan biao zhunhua baipishu 2019 ban (2019 White paper on AI Standardization)*, National Information Security Standardization Technical Committee, 2019, <https://www.tc260.org.cn/front/postDetail.html?id=20191031151659>

<sup>67</sup> Gregory Allen, *Understanding China's AI Strategy*, Center for a New American Security, 2019, <https://www.cnas.org/publications/reports/understanding-chinas-ai-strategy>

<sup>68</sup> Qiqi Gao, “Zhongguo zai rengong zhineng shidai de teshu shiming (China's special mission in the age of AI),” *Tansuo yu zhengming (Exploration and Contention)*, Vol. 10 (2017); Shuai Feng, “Rengong zhineng shidai de guojiguanxi: zouxian biao ge qie bu ping deng de shijie (International relations in the age of AI: moving towards shifting and unequal world),” *Waijiao pinglun (Foreign Affairs Review)*, Vol. 1 (2018).

<sup>69</sup> Allen, *Understanding China's AI Strategy*.

<sup>70</sup> Gao, “Zhongguo zai rengong zhineng shidai de teshu shiming (China's special mission in the age of AI).”

<sup>71</sup> Gao, “Zhongguo zai rengong zhineng shidai de teshu shiming (China's special mission in the age of AI).”

<sup>72</sup> Gao, “Zhongguo zai rengong zhineng shidai de teshu shiming (China's special mission in the age of AI).” Similarly, Zhu Min, a professor at Tsinghua University and the former Deputy Managing Director of the International Monetary Fund, argues that, given the overwhelming number of AI companies and patents in the US and China, “the AI world is dominated by China and the US.” See Min Zhu, “Zhu Min: rengong zhineng shijie you zhongmei liangguo zhudao xu jiaqiang rencai chubei (Zhu Min: The AI world is dominated by China and the United States, and the talent pool needs to be strengthened),” *Sina*, 2017, <http://tech.sina.com.cn/it/2017-12-01/doc-ifypikwt2056300.shtml>

<sup>73</sup> Elsa Kania, “AI weapons” in *China's military innovation*, The Brookings Institution, 2020 <https://www.brookings.edu/research/ai-weapons-in-chinas-military-innovation/>

<sup>74</sup> Hongzu Lei, Zhimin Zeng, and Shuai Xiong, “Rengong zhineng wuqi de quanqiu fazhan, zhilifengxian jiqi dui zhongguo de qishi (Implications of AI weapons for global development, governance risk and China),” *Dianzizhengwu (E-government)*, Vol. 203, No. 11 (2019).

technologies.<sup>75</sup> In these regards, AI's military use does carry considerable strategic risks of enforcing securitization and thus the likelihood of conflicts.

As such, both China and the US are using each other as a mirror to reflect what they should and could do. In other words, both sides have been labelling the other as a security threat to justify their preferred AI agenda. In addition to the aforementioned example of US's "Third Offset" strategy, the victory of Google DeepMind's AlphaGo over top-ranked human players in the ancient Chinese board game Go in 2016 shocked China as much as elsewhere. It was a "Sputnik moment" for China that led to some critical Chinese reflection of AI.<sup>76</sup> After the Obama administration released three AI reports in late 2016, China put forward its "New Generation Artificial Intelligence Development Plan" in July 2017. Not surprisingly, there are striking similarities between American and Chinese AI strategies<sup>77</sup> from top-level strategic objectives to specifics regarding policy details and recommendations.<sup>78</sup> As such, to Allen and Kania, "China is embracing and implementing America's (AI) strategy."<sup>79</sup> Arguably, the success of American AI has led to considerable anxieties among Chinese strategic analysts and thus pushed China to adopt a national strategic approach towards AI.

### **3.3 Domestic Context: AI for Non-Traditional Security**

In addition to history and geopolitics, there is also a domestic context for China's securitizing move. AI's impact on China's national security is divided by some Chinese scholars into two aspects: traditional and non-traditional.<sup>80</sup> The former refers to the military threat such as the aforementioned use of AI in warfare, while the latter includes non-military sources, such as political security, economic security, environmental security, cyber security and energy security.<sup>81</sup> Above all, the most important one is the so-called political security (政治安全) or institutional security (制度安全), i.e., regime security.

As far as regime security is concerned, China's controversial and bold AI practices in state governance is an inevitable topic. As part of the CCP's adaptation strategy in the digital age, China has heavily invested in AI technologies to move towards digital governance. This AI investment expects returns not only in improving public services (by enhancing efficiency) but also in maintaining the authoritarian rule.<sup>82</sup> One of the most widely discussed aspects among international analysts is how AI empowers digital surveillance. AI has been used to

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<sup>75</sup> Peter Wood, "Chinese Perceptions of the "Third Offset Strategy"," *China Brief*, Vol. 16, No. 15 (2016).

<sup>76</sup> Paul Mozur, "Beijing Wants A.I. to Be Made in China by 2030," *The New York Times*, 2017, <https://www.nytimes.com/2017/07/20/business/china-artificial-intelligence.html>

<sup>77</sup> Jeffrey Ding, *Deciphering China's AI Dream*, Future of Humanity Institute, (University of Oxford, 2018), <https://www.fhi.ox.ac.uk/deciphering-chinas-ai-dream/>

<sup>78</sup> Gregory Allen and Elsa Kania, "China Is Using America's Own Plan to Dominate the Future of Artificial Intelligence," *Foreign Policy*, 2017, <https://foreignpolicy.com/2017/09/08/china-is-using-americas-own-plan-to-dominate-the-future-of-artificial-intelligence/>

<sup>79</sup> Allen and Kania, "China Is Using America's Own Plan to Dominate the Future of Artificial Intelligence."

<sup>80</sup> Tianshu Que and Jiteng Zhang, "Rengong zhineng shidai beijingxia de guojia anquanzhili: yingyong fanshi, fengxianshibie yu lujinxuanze (National Security Governance in the Era of Artificial Intelligence: Application Paradigm, Risk Identification and Path Selection)," *Guojia anquanyanjiu (Journal of International Security Studies)*, No. 1 (2020); Zheng Li, "Zongti guojia anquanguan shijiao xia de rengongzhineng yu guojia anquan (Artificial Intelligence and National Security from the Perspective of Overall National Security Concept)," *Dangdai shijie (Contemporary World)*, No. 10 (2018).

<sup>81</sup> Que and Zhang, "Rengong zhineng shidai beijingxia de guojia anquan zhili: yingyong fanshi, fengxian shibie yu lujinxuanze (National Security Governance in the Era of Artificial Intelligence: Application Paradigm, Risk Identification and Path Selection)."

<sup>82</sup> Jinghan Zeng, "Artificial intelligence and China's authoritarian governance," *International Affairs*, Vol. 96, No. 6 (2020).

upgrade China's sophisticated state surveillance program with the potential to reshape state-society relations.<sup>83</sup> While similar – though less intensive and extensive – AI surveillance programs have been implemented worldwide, considerable social resistance has taken place in Western societies to balance states' use of AI due to privacy concerns.<sup>84</sup> In China, however, there is little legal constraint in the relevant AI practices. For example, China has been pioneering AI facial recognition technology, which has been restricted or even banned in many Western societies. In the meanwhile, in order to reduce social resistance, the Chinese government has been actively guiding public opinion towards AI by framing it as positive and modern social progress with enormous benefits of securing public safety, as will be discussed later.

Some Chinese scholars also link AI with economic security. According to Li Zheng from the China Institutes of Contemporary International Relations, for example, the core of China's economic security is to uphold the current socialist market economy with Chinese characteristics.<sup>85</sup> In essence, this economic security is also after regime security – i.e., to secure the CCP's rule. Despite its quasi-capitalist market reforms, the CCP's economic policies have always been constrained by its ideological commitment to being a communist party.<sup>86</sup> Thus, the CCP has to upload some sort of socialist responsibilities for its political legitimacy. Li argues that AI will be able to not only improve socioeconomic governance including market supervision and fight economic crime but also strengthen the CCP's capability to manage the macro and microeconomy.<sup>87</sup>

This view echoes the discussion over AI's implications for state-market relations. A key problem of the Soviet-style planned economy is that human central planners are not able to efficiently process and react to market information and thus the system is always inefficient. With the blessing of AI, a super intelligent computing system could be developed to accurately predict the trend of market forces, making advanced planning possible. If realized, AI may not only significantly upgrade China's Soviet style central planning system and thus enhance its economic – and ideological – security, but also produce a powerful digital technocracy.<sup>88</sup>

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<sup>83</sup> Zeng, "Artificial intelligence and China's authoritarian governance."

<sup>84</sup> In the US, for example, leading tech giants such as Amazon and Microsoft has limited American police's use of their facial recognition technology. See BBC, "George Floyd: Microsoft bars facial recognition sales to police," *BBC News*, 2020, <https://www.bbc.co.uk/news/business-53015468#:~:text=Microsoft%20has%20become%20the%20latest,facial%20recognition%20technology%20by%20police.&text=It%20called%20on%20US%20lawmakers,enforcement%20use%20of%20the%20technology>. The social pressure has also led a growing number of American cities such as San Francisco and Boston to ban the use of facial recognition technology by police and cities agencies. In Europe, driven by concern about privacy, the European Union put forward a new data privacy law – General Data Protection Regulation – to regulate the transfer of personal data in 2016. Some argue that this strict law would lead to a serious negative consequences on AI's use and development in Europe. See Nick Wallace and Daniel Castro, *The Impact of the EU's New Data Protection Regulation on AI*, Center for Data Innovation, 2018, <https://www2.datainnovation.org/2018-impact-gdpr-ai.pdf>

<sup>85</sup> Li, "Zongti guojia anquanguan shijiaoxia de rengongzhineng yu guojiaanquan (Artificial Intelligence and National Security from the Perspective of Overall National Security Concept)."

<sup>86</sup> Jinghan Zeng, *The Chinese Communist Party's Capacity to Rule: Ideology, Legitimacy and Party Cohesion* (London: Palgrave Macmillan 2015).

<sup>87</sup> Li, "Zongti guojia anquanguan shijiaoxia de rengongzhineng yu guojiaanquan (Artificial Intelligence and National Security from the Perspective of Overall National Security Concept)."

<sup>88</sup> Daniel Araya, *Artificial Intelligence And The End Of Government*, *Forbes*, 2019, <https://www.forbes.com/sites/danielaraya/2019/01/04/artificial-intelligence-and-the-end-of-government/#678b0efc719b>

Needless to say, this discussion inevitably touches upon AI's ideological implication. China's authoritarian values are clearly embedded into its AI practices,<sup>89</sup> but China is not alone. Many other countries have been building ideological values into their AI development as well.<sup>90</sup> Trump's national AI strategy – “the American AI Initiative” –, for example, was keen to develop “AI with American values” with reference to “freedom, guarantees of human rights, the rule of law, stability in our institutions, rights to privacy, respect for intellectual property, and opportunities to all to pursue their dream”.<sup>91</sup> Some analysts consider “build democracy into AI” necessary to “wrest control from China”.<sup>92</sup> Thus, it is argued that ideological competition underpins the global AI race that the US cannot afford to lose.<sup>93</sup> In this regard, AI is about ideological (in)security in China as much as elsewhere.

Lastly, cyber security is worthy of mention here. In contrast to the aforementioned political, economic and ideological securities, technical expertise plays a critical role in cyber security discourse. Professional knowledge and skills that are not available to the general public and even security studies scholars grant computer scientists legitimacy and authority within the relevant discourse.<sup>94</sup> As such, technocratic interpretation is crucial in politics of insecurity.<sup>95</sup> This is relevant to what Hansen and Nissenbaum introduced as a technification process.<sup>96</sup> It not only heavily relies on technical expertise for its resolution but also simultaneously read “a politically and normatively neutral agenda that technology serves” and thus de-politicizes the securitized issue.<sup>97</sup>

Indeed, with or without political discussions on security, the problem of insecurity exists in certain forms “within professional routines and institutional technology and evolve over time according to professional and bureaucratic or institutional requirements”.<sup>98</sup> As far as AI is concerned, the occurrence of a Chinese AI company's large-scale data breach in 2019 is a reminder of security risks. This incident leaked confidential personal information involving up to 2.56 million users.<sup>99</sup> When mentioning cyber security, the Chinese State Council's AI plan points to two aspects. The first one is to strengthen AI-empowered solutions to improve cyber security. Indeed, AI has demonstrated its use in detecting and mitigating cyber threats and thus its value in civilian cyber defence. According to Capgemini's Reinventing Cybersecurity with AI Report, without AI-related technologies, 61% of enterprises cannot detect breach

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<sup>89</sup> Zeng, "Artificial intelligence and China's authoritarian governance."

<sup>90</sup> In Europe, for example, some are calling to build values into AI Wojciech Wiewiórowski, *Artificial Intelligence, data and our values – on the path to the EU's digital future*, European Union, 2020, [https://edps.europa.eu/press-publications/press-news/blog/artificial-intelligence-data-and-our-values-path-eus-digital\\_en](https://edps.europa.eu/press-publications/press-news/blog/artificial-intelligence-data-and-our-values-path-eus-digital_en)

<sup>91</sup> US, *Artificial Intelligence for the American People*, The White House, 2019, <https://www.whitehouse.gov/ai/>

<sup>92</sup> Webb, "Build democracy into AI: Human-centered policy is needed to wrest control from China, tech giants.."

<sup>93</sup> Webb, "Build democracy into AI: Human-centered policy is needed to wrest control from China, tech giants.."

<sup>94</sup> Hansen and Nissenbaum, "Digital Disaster, Cyber Security, and the Copenhagen School."

<sup>95</sup> Jef Huysmans, *The Politics of Insecurity: Fear, Migration and Asylum in the EU* (Routledge, 2006), p.9

<sup>96</sup> Hansen and Nissenbaum, "Digital Disaster, Cyber Security, and the Copenhagen School."

<sup>97</sup> Hansen and Nissenbaum, "Digital Disaster, Cyber Security, and the Copenhagen School.", p.1167

<sup>98</sup> Huysmans, *The Politics of Insecurity: Fear, Migration and Asylum in the EU*, p.8

<sup>99</sup> CCTV.com, "Rengong zhineng qiye beibao fasheng daguimo shuju xielou shijian chaoguo 250 wanren de shuju ke bei huoqu (AI companies are exposed to large-scale data breaches, data of more than 2.5 million people are obtained)," *CCTV.com*, 2019, <http://www.ciotimes.com/Information/169764.html>

attempts.<sup>100</sup> AI-related technologies to protect cyber-security are expected to further grow in the commercial sectors.<sup>101</sup>

The second is to strengthen the protection of AI products and system networks. The widely used AI has brought about not only opportunities but also risks. Ironically, even AI-based security protection can become an insecurity problem. Indeed, the aforementioned example of a data breach that happened in a Chinese AI company whose principal business is to provide AI-based security protection.<sup>102</sup> The large-scale data leak indicates the unintended security risk brought about by AI's growing application in commercial sectors.

#### 4. Audience

The previous sections establish that the central government is performing a securitizing move. This section argues that the audience of this move includes Chinese domestic political actors, market actors, academic intellectuals and the general public. China's political actors, especially local governments, are the principal audience. It is important to differentiate the Chinese government into the central state and local states here. The former is the *securitizing actor*, while the latter is a key audience of the central state's *securitizing move*. This differentiation is critical to conducting nuanced analyses of China's AI development.

The analyses of international relations often operate on a misguided assumption that considers the Chinese state a unitary actor as they assume the authoritarian regime as highly unified and capable of mobilizing Chinese society to achieve the central government's objectives.<sup>103</sup> The same mistake has often been made when it comes to analyses of China's AI. As mentioned, many existing AI analyses misguidedly assume that China follows a coherent "national-concerted" "top-down" command approach to advance AI in order to achieve geopolitical dominance.<sup>104</sup> The relevant analyses are often followed by a call for a similar national approach to AI in order to address this imminent China threat.

Indeed, the relevant interpretations have exaggerated China's AI advancement and led to unnecessary anxieties among China's near competitors.<sup>105</sup> Thirty years of China Studies scholarship have shown that the authoritarian system in China is fragmented, decentralized<sup>106</sup>

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<sup>100</sup> Louis Columbus, "Why AI Is The Future Of Cybersecurity," *Forbes*, 2019 <https://www.forbes.com/sites/louis columbus/2019/07/14/why-ai-is-the-future-of-cybersecurity/?sh=1eee8938117e>

<sup>101</sup> Columbus, "Why AI Is The Future Of Cybersecurity."

<sup>102</sup> CCTV.com, "Rengong zhineng qiye beibao fasheng daguimo shuju xielou shijian chaoguo 250 wanren de shuju ke bei huoqu (AI companies are exposed to large-scale data breaches, data of more than 2.5 million people are obtained)."

<sup>103</sup> Christopher Hill, *Foreign Policy in the Twenty-First Century* (Basingstoke: Palgrave Macmillan, 2016).

<sup>104</sup> Liu, "China's AI Dreams Aren't for Everyone."; Ramanathan, *China's Booming AI industry: what you need to know*; Ives and Holzmann, *Local governments power up to advance China's national AI agenda*; Jing, *Is Xi Jinping's iron grip better than Adam Smith's invisible hand for technology innovation*; Yu, "Why China's AI players are struggling to evolve beyond surveillance."; Lanier and Weyl, "How Civic Technology Can Help Stop a Pandemic."; Lee, *AI Superpowers: China, Silicon Valley, and the New World Order*.

<sup>105</sup> Jinghan Zeng, "China's Artificial Intelligence Innovation: A Top-Down National Command Approach?," *Global Policy* Published online first (2021).

<sup>106</sup> Kenneth Lieberthal and Michel Oksenberg, *Policy making in China* (Princeton University Press, 1988); Kenneth Lieberthal, "Introduction: the 'Fragmented Authoritarianism' Model and its Limitations," in *Bureaucracy, Politics and Decision Making in Post-Mao China*, ed. Kenneth Lieberthal and David Lampton (Berkeley; London: University of California Press, 1992); Kenneth Lieberthal and David Lampton, *Bureaucracy, Politics, and Decision Making in Post-Mao China* (University of California Press, 1992); Franz Schurmann, *Ideology and Organization in Communist China* (Berkeley and Los Angeles: University of California Press, 1966).



and more recently internationalized.<sup>107</sup> Since the early 1980s, China's market reforms programmes have developed a Chinese style of federalism in which local states retain a high level of autonomy within their respective jurisdictions while the central state's power is restricted.<sup>108</sup> This means that (a) their interests do not always overlap and (b) the power relations are not simply a top-down command approach but involve multi-level bargaining and political struggle within the system.

For (a), as far as AI is concerned, while the central government has the big picture in mind such as AI as a strategic industry, local states are primarily driven by regional interests such as a booming regional AI economy - the larger strategic picture is often irrelevant in local economic plans. For example, while the State Council's AI plan frequently links AI with national security as previously discussed, the local states' AI policies primarily focus on economic aspects with little reference to national security.<sup>109</sup> After all, it is the central state's primary responsibility to protect national security.

In addition, instead of a "national-concerted" effort, there is a high level of regional competition over factors of production as local states are not driven by the bigger strategic picture but by regional interests.<sup>110</sup> This requires considerable coordination efforts from the central state. For (b) as the power relations are not a simple command but a bargaining approach, the central state has to find ways to motivate domestic actors. In this context, an AI campaign has been launched for domestic mobilization with securitization as part of the efforts. By labelling AI as a security matter, this securitizing move helps to justify the special treatment of the AI industry and win more support from local actors. So, the point to emphasize is that local states are a key audience that the central state has to convince in order to advance its AI agenda.

Similarly, China's market actors are a targeted audience to support the central government's AI agenda. After all, the birth of China's booming internet economy is not a product of state actors but market forces. The central state's ambitious AI goals need to rely on the cooperation of Chinese tech companies. For example, the Chinese Ministry of Science and Technology created a so-called "national AI team of China" with the participation of over 15 Chinese tech giants and start-up companies.<sup>111</sup> Each company was assigned a distinct and strategic AI field to pioneer – for example, Baidu was tasked with autopilot, Alibaba with smart cities and iFlytek with intelligent voice.<sup>112</sup> With the market actors on board, the central state hopes to take advantage of their expertise for its own ends.

<sup>107</sup> Lee Jones and Jinghan Zeng, "Understanding China's 'Belt and Road Initiative': beyond 'grand strategy' to a state transformation analysis," *Third World Quarterly*, Vol. 40, No. 8 (2019); Shahar Hameiri and Jinghan Zeng, "State Transformation and China's Engagement in Global Governance: The Case of Nuclear Technologies," *The Pacific Review*, Vol. 33, No. 6 (2019); Shahar Hameiri and Lee Jones, "Rising Powers and State Transformation: The Case of China," *European Journal of International Relations*, Vol. 22, No. 1 (2016); Shahar Hameiri, Lee Jones, and John Heathershaw, "Reframing the Rising Powers Debate: State Transformation and Foreign Policy," *Third World Quarterly*, Vol. 40, No. 8 (2019); Lee Jones, "Theorizing Foreign and Security Policy in an Era of State Transformation: A New Framework and Case Study of China," *Journal of Global Security Studies*, Vol. 4, No. 4 (2019).

<sup>108</sup> Gabriella Montinola, Yingyi Qian, and Barry Weingast, "Federalism, Chinese Style: The Political Basis for Economic Success," *World Politics*, Vol. 48, No. 1 (1996).

<sup>109</sup> Exceptions include Guangdong. See Guangdong, *Guangdongsheng renmin zhengfu guanyu yinfa guangdongsheng xinyidai rengong zhineng fazhan guihua de tongzhi* (Guangdong's AI development plans), Guangdong provincial government, 23 July 2018, [http://www.gd.gov.cn/gkmlpt/content/0/147/post\\_147108.html#7](http://www.gd.gov.cn/gkmlpt/content/0/147/post_147108.html#7)

<sup>110</sup> Zeng, "China's Artificial Intelligence Innovation: A Top-Down National Command Approach?."

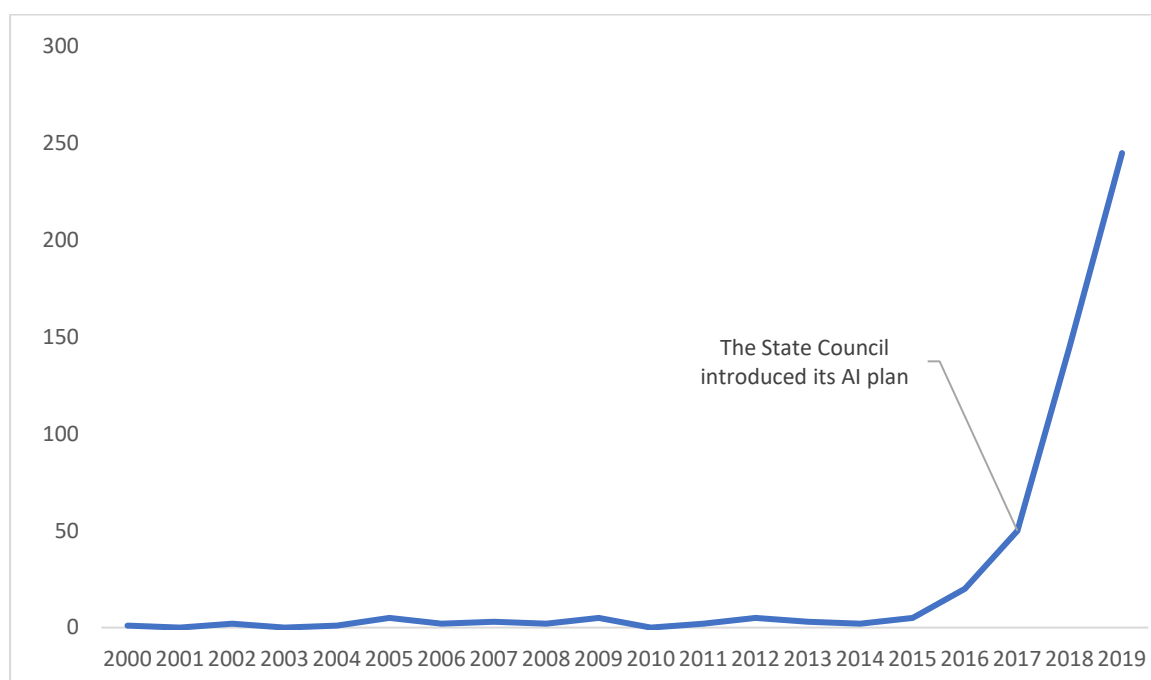
<sup>111</sup> Qingqing Yang, "Xinyipi rengongzhineng guojiadui liangxiang: jingdong, huawei, xiaomi deng 10 jia qiyeruxuan (A new batch of AI "national teams" debut: JD.com, Huawei, Xiaomi and other 10 companies selected)," *21jingji*, 2019, <https://m.21jingji.com/article/20190829/herald/7e6e80a529133a8def7465522d701283.html>

<sup>112</sup> Yang, "Xinyipi rengongzhineng guojiadui liangxiang: jingdong, huawei, xiaomi deng 10 jia qiyeruxuan (A new batch of AI "national teams" debut: JD.com, Huawei, Xiaomi and other 10 companies selected)."

The securitizing move also targets China's intellectual community. China's new policy concepts often serve as slogans to call for intellectual support.<sup>113</sup> This applies to AI slogan as well. The state expects the intellectual community not only to inform of its decision-making but also to contribute their research expertise. For example, the State Council's AI plan actively encourages China's scientists to transfer AI innovations for the use in national defence.<sup>114</sup>

The securitization process per se also requires considerable intellectual input from social scientists and policy analysts – it needs them to further develop the security discourse to make them more convincing and rigorous. Soon since the central government started the national AI campaign in 2016, for example, many Chinese scholars echoed the call for a security agenda. This leads to a rapid increase in Chinese academic literature studying security and AI. Figure 1 shows the number of Chinese academic journal articles with the words “AI” and “security” in the title. The rising trend from 2016 onwards fits with the overall rise in AI studies in China. Those studies are expected to help the central government develop a more rigorous security logic.

**Figure 1: The number of Chinese academic articles with the word “AI” and “security” in the title in China's CNKI database (2001-2020)<sup>115</sup>**



As China's AI campaign involves state propaganda, the general public is also the audience. Public support is very critical to the state's AI agenda, despite China's authoritarian system. At the micro level, for example, it will be helpful to address China's shortage of AI talent – estimated to be over 5 million<sup>116</sup> – by encouraging more Chinese students to learn AI. At the macro level, the technological breakthrough of AI has to rely on Chinese people's data.

<sup>113</sup> Jinghan Zeng, *Slogan Politics: Understanding Chinese Foreign Policy Concepts* (London: Palgrave Macmillan, 2020).

<sup>114</sup> China, Guowuyuan guanyu yinfa xinyidai rengong zhineng guihua de tongzhi (*New Generation Artificial Intelligence Development Plan*).

<sup>115</sup> The author's brief search from <https://www.cnki.net/>

<sup>116</sup> Liqiang Hou, Chenglong Jiang, and Fangjie Zhu, *Competition for talent intensifies as China's AI industry develops*, *China Daily*, 5 February 2018, <http://europe.chinadaily.com.cn/a/201802/05/WS5a77b4aca3106e7dcc13aba2.html>

As AI requires massive data to train and grow, data is the most important factor in successful AI algorithms.<sup>117</sup> China is privileged in this regard due to its huge domestic internet market with over 854 million internet users in 2019<sup>118</sup>, which is twice more than in the US.<sup>119</sup>

In order to secure China's data advantage, the government needs a cooperative general public to tolerate the way that their data is being used. In Western democratic societies, the digital use of data has already led to considerable concern about AI's invasion of privacy and thus resistance to its growth, as previously mentioned. The Chinese government hopes the public will buy into its security logic and thus show more tolerance to the negative impact of AI for the sake of national security and better digital service.<sup>120</sup>

Moreover, AI will bring about significant social transformation. During the transition towards the age of AI, millions of jobs are expected to be replaced by robotics. As McKinsey Global Institute's report shows, by 2030, up to 100 million Chinese workers will need to change their job occupations.<sup>121</sup> The massive unemployment and job transition problems brought about by the AI revolution will create potential troubles for China's social stability and thus its authoritarian rule. In this regard, public understanding of the state's AI agenda is critical. In short, despite lack of social resistance and a legal framework to balance the state use of AI, the central government still needs to convince its social actors in order to reduce policy costs.

## 5. A Successful or Failed Securitization?

If the central government is making a securitizing move, is it a successful securitization? Currently, securitization is still ongoing in China. The trend of labelling AI as a security matter will or – perhaps more accurately – is becoming more obvious with increasing US-China tensions in technological competition and the wider geopolitical fields. At this stage, it is difficult if not impossible to quantitatively measure the exact impact of the securitizing move because the causal relations are difficult to establish. There is no doubt that local states have got on board with the central government's AI plan and are enthusiastically supporting its AI campaign. Many local AI policies were released immediately after the central state's AI plan in 2016/2017. This is often used by many existing AI analyses as evidence to support their claims about China's national-concerted approach towards AI. However, local governments are primarily driven by estimated regional gain of a booming AI economy. Many of those provinces had already made their own AI plans before the central state's, as previously mentioned. It is unclear to what extent they are motivated by the securitization move per se rather than the economic benefits brought about by the AI industry.

Economic interests offered by AI play a more obvious role in driving market forces. AI hype is a global phenomenon, and there is no exception in China. The Chinese central state's ambitious AI plan has further contributed to this hype, leading to many concerns about an AI

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<sup>117</sup> Lee, *AI Superpowers: China, Silicon Valley, and the New World Order.*, p.14

<sup>118</sup> Xiaoxia, "China has 854 mln internet users: report," *Xinhua*, 2019, [http://www.xinhuanet.com/english/2019-08/30/c\\_138351278.htm](http://www.xinhuanet.com/english/2019-08/30/c_138351278.htm)

<sup>119</sup> J. Clement, "United States: number of internet users 2000-2019," 2020, <https://www.statista.com/statistics/276445/number-of-internet-users-in-the-united-states/>

<sup>120</sup> As will be discussed later, state efforts have been made to shape public perceptions regarding AI. The State Council's AI plan, for example, requests domestic governmental organizations to conduct better propaganda work to shape public opinion and social consensus regarding AI in order to prepare for social and ethical challenges brought by AI technologies. See China, *Guowuyuan guanyu yinfa xinyidai rengong zhineng guihua de tongzhi* (*New Generation Artificial Intelligence Development Plan*).

<sup>121</sup> McKinsey, *Jobs lost, jobs gained: workforce transitions in a time of automation*, (McKinsey Global Institute, 2017).

bubble.<sup>122</sup> China's market actors have been manipulating the fuzzy definition of AI to redefine AI products, technologies and companies in order to win or even cheat state funding.<sup>123</sup> In this regard, while market forces are supporting the central government's AI agenda, it is largely a result of potential business interests.

Similarly, it is difficult to quantify how securitization is impacting public opinion. Lack of social resistance to the state use of AI has put China in an advantageous position to grow its AI algorithms. However, this is mostly due to China's authoritarian system and the state capacity to shape public opinion and national debates. The State Council's AI plan explicitly declares "to guide public opinion" as part of its AI strategy. Under the call to promote more AI propaganda, positive reporting about AI – such as its contribution to enhance public security including anti-child trafficking<sup>124</sup> and crime prevention<sup>125</sup> – has been widely conducted by the Chinese media. In this regard, the outcome of public cooperation is shaped not only by securitization but also – more importantly – by China's political environment. It remains to be seen how the public will respond when the pain of social transformation brought about by AI, such as massive unemployment, becomes more obvious.

## 6. Concluding Remarks: Securitization, So What?

This article shows that the Chinese central government is performing a securitizing move by labelling AI as a security matter in order to convince local states, market actors, intellectuals and the general public. If AI is being securitized, so what? Although it is difficult to quantify the exact impact of this securitizing move, it does help the Chinese central government to mobilize domestic actors in order to advance its AI agenda. Despite so, this move also brings about unintended consequences for the securitizing actor's goal in the long run. According to the State Council's AI plans, its three-step AI plan carries specific goals of fostering a booming AI economy and a grand goal of becoming a global AI leader.<sup>126</sup> These key objectives may be undermined by securitization for several reasons.

First, a highly securitized AI sector will affect the flow of foreign AI labour and capital to China's AI industry. A booming AI industry requires an outward-looking, open-minded and international socio-politico-economic environment to make it attractive to global talent and capital. However, the securitization trend is pushing in the opposite direction by producing a rising nationalistic inward-looking security discourse of AI. This is counterproductive to

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<sup>122</sup> Celia Chen, *China's artificial intelligence sector in danger of becoming a 'bubble', experts warn*, South China Morning Post, 2017, <https://www.scmp.com/tech/innovation/article/2082217/chinas-artificial-intelligence-sector-danger-becoming-bubble-experts>; Stars, *The Chinese Bubble in Artificial Intelligence is Insane*, Stars Insights, 2019, [https://www.the-stars.ch/wp-content/uploads/2019/07/HUANG-Yuanpu\\_The-Chinese-Bubble-in-Artificial-Intelligence-is-Insane.pdf](https://www.the-stars.ch/wp-content/uploads/2019/07/HUANG-Yuanpu_The-Chinese-Bubble-in-Artificial-Intelligence-is-Insane.pdf)

<sup>123</sup> Deloitte, *Zhongguorenongzhineng chanye baipishu (White Paper on China's AI Industry)*, Deloitte (2018); Xinxi Wang, *Weigainianfanlan: renzhimohu, AI yingxiao huoxu yichang zaijiaoyu (Pseudo-concepts are proliferated and cognition is fuzzy, AI marketing may need a re-education)*, Iyiou, 2018, <https://www.iyiou.com/p/80682.html>

<sup>124</sup> Qing Ye, "Renlian shibie rang xunqin buzaishi dahai laozheng (Face recognition makes searching for relatives no longer a needle in a haystack)," *Technology Daily*, 2019, [http://www.xinhuanet.com/tech/2019-06/10/c\\_1124600300.htm](http://www.xinhuanet.com/tech/2019-06/10/c_1124600300.htm); Yan Zhang, "Gonganbu: jinyibu tuiguang rengong zhineng lianbu shibie jishu jinxing daguai (Ministry of Public Security: to further promote AI facial recognition technology for abduction)," *China Daily*, 2019, <https://cn.chinadaily.com.cn/a/201906/04/WS5cf5de8ea31011d294da9f01.html>

<sup>125</sup> Yuan Yang, Yingzhi Yang, and Fei Ju, "China seeks glimpse of citizens' future with crime-predicting AI," 2017, <https://www.ft.com/content/5ec7093c-6e06-11e7-b9c7-15af748b60d0>

<sup>126</sup> China, *Guowuyuan guanyu yinfa xinyidai rengong zhineng guihua de tongzhi (New Generation Artificial Intelligence Development Plan)*.

China's AI ambitions as it puts China in a disadvantageous position in the global market. More specifically, AI talent is in global shortage, and China is short of over 5 million qualified workers in the AI industry as previously mentioned. This has led to fierce global competition over qualified labour in the AI industry, and Chinese tech companies have offered very – or unreasonably – high salaries.<sup>127</sup> This kind of financial attraction, however, could be offset by an unfavourable nationalistic domestic environment.

Second, the securitization trend could hinder economic efficiency. As previously discussed, it contributes to the rise of a self-reliance discourse on technology, which is often made at the expense of economic efficiency. Precisely because China is lagging behind in AI development, it needs to make use of the global AI supply chain to catch up. However, the self-reliance discourse considers the risk of reliance on foreign technology high and thus focuses on “Made in China”. This self-reliance is not only difficult (if not impossible) to be realized in the short run but also hinders China's ability to benefit from the global AI market and thus maximize industrial efficiency. Similarly, the securitization of AI in the US also undermines American attraction to Chinese national AI talent, capital and technology. The increasing tension between China and the US has undermined the willingness of Chinese companies to invest in the US. In the long run, it is not desirable to the competitiveness of the American AI industry.

Third, related to the above, this domestic inward-looking nationalistic trend brought about by securitization makes it more difficult for China to realize global leadership. In order to lead AI in the global arena, China needs to provide public goods and win support from others through successful partnerships. It needs to play a key role in promoting global governance, and a global leader needs to act based on common interests not solely on national interests. However, a security-focused inward-looking nationalistic AI discourse is helpful to neither global governance nor common interests. For example, it can contribute to the rise of inward-looking national AI policies that prioritize national interests over the globalized world. This contrasts with global governance goals – i.e., to build a shared future for through global solidarity. Indeed, many problems brought about by AI such as ethics represent collective challenges to mankind and require a globally concerted response. The inward-looking national AI policies may contribute a fragmented global governance structure and thus make global collective actions to address AI problems more difficult to be taken.

Fourth, the securitization trend has been reinforcing technological rivalry at the expense of the potential for global cooperation in AI, and it will further accelerate the US-China confrontation. This is not to deny the existence of US-China cooperation in the field of AI. However, by speaking AI in the language of security and a global race, the relevant security discourse of AI emphasizes competition over cooperation and destruction over creation. This may produce a real security threat - and perhaps a real global AI race - and thus undermine the space for cooperation, which both the US and China can benefit from. In other words, the rivalry discourse adopts a zero-sum angle from geopolitics to understanding AI innovation, which inevitably harms the latter in both countries.<sup>128</sup>

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<sup>127</sup> Chen, *China's artificial intelligence sector in danger of becoming a 'bubble', experts warn*.

<sup>128</sup> The current US-China technology conflict – or the so-called tech cold war - has made both the US and China worse off. Under Trump administration's pressure, many Chinese telecommunications and semiconductor companies have lost access to not only American but also some European markets. As mentioned, this technology conflict has caused considerable damage to leading Chinese companies such as Huawei and ZTE. This zero-sum geopolitical thinking has already expanded to the AI industry, leading American transaction over a few Chinese AI companies. To American companies, losing sales to China mean less funding for research and innovation, which is essential to continue to secure American leadership in high-tech industries such as semiconductor and AI. It also makes the US less attractive to Chinese capital and AI talent, as previously mentioned.

More importantly, securitization may further push AI into the area of hard security such as its military application. In order to produce a successful securitization, the securitizing actor tends to exaggerate the security threat. This will enhance the strategic risks of AI's military practices and thus increase the likelihood of war and escalate ongoing conflicts. In this regard, a highly securitized AI politics may set China and the US on a dangerous path towards a catastrophic confrontation that is against everyone's interests and security. In the worst scenario, like all other arms races, blithe assertions about the inevitability of AI-enabled war are a self-fulfilling and self-defeating prophecy. In this regard, the aforementioned Fu Ying's call to regulate AI's military application deserves more attention.

Lastly, securitization may undermine the interests of Chinese AI companies by strengthening the state's involvement in China's AI industry. The boundary between the state and the market is already much blurred in China than that in other countries due to China's political environment. By making AI a national security matter, it justifies the necessity of heavier state involvement, if not control. While close ties with the state is a blessing in the Chinese domestic market, it is a burden on the global stage. Take the aforementioned civil-military integration as an example. While it helps China's AI companies and research institutes to win more state funding, it undermines their global access. Some Chinese AI companies including members of the "national AI team of China" have already been punished by the aforementioned American sanctions due to their close relations with the Chinese government. In this regard, securitization could hinder China's AI companies' access to the global market and thus future development. It also remains to be seen whether heavier state involvement in the AI industry will hinder market efficiency.

A key critic of Copenhagen School of security studies is its Europe-centric approach to security. For the community of international relations, China's rise is a topic that any true *international* relations theories cannot and should not avoid. This article contributes to the development of Copenhagen School's global agenda by studying the Chinese case. To find securitization's explanatory power in a Chinese context is a challenging but necessary step for the Copenhagen School of security studies. This article shows that securitization theory can be helpful in studying security politics of AI in China. Although legitimacy and authority operate very differently in China, the central government still requires rigorous security discourses to convince domestic actors in order to realize its AI agenda. Nonetheless, there are difficulties when applying securitization in China's authoritarian context. As this article shows, challenges lie in how to measure the exact impact of securitization in light of China's state-society relations as it is hard to differentiate this impact from state coercion and other economic-political incentives.

Moreover, given AI's growing importance, it deserves more attention from critical security analysts. This article mainly focuses on the Chinese domestic securitization of AI, i.e., how China labels AI as a Chinese security matter to itself. Securitizing China's AI also has an international dimension. As mentioned, on the global stage, China's ambitious AI plan has produced popular and policy discourses about its potential implications for others – for example, a forthcoming Chinese AI supremacy or a global AI race. In this regard, a security agenda of a China threat regarding AI is clearly emerging on the global stage. How are, for example, actors in the US and Europe labelling China's AI advancement as a security threat and thus requesting to strategically prioritize AI? With AI's rapid development – not least of its use in warfare – and increasingly competitive geopolitics, AI's securitization trend deserves more attention.