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### Analysing the US-China “AI Cold War” Narrative

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# Analysing the US-China “AI Cold War” Narrative

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## Abstract

Discussions about artificial Intelligence (AI) are gaining prominence in the recent revival of “cold war” narratives comparing US-China relations today to the historical rivalry between the US and the Soviet Union. Drawing on a review of existing academic and other relevant literature, this paper examines how the “AI cold war” narrative is justified, and numerous ways that it can be challenged. It argues that the framing is largely driven by the securitisation of AI: the discursive process in which state actors and policy pundits view AI innovations’ dual-use capabilities as key to national security and ideological competition in the rivalry between a hegemon and a rising power.

However, critics posit that the narrative exaggerates China’s AI capabilities, promotes commercial interests of tech firms and defence contractors, creates self-reinforced militarisation, and undermines the potential for international research and regulatory cooperation. While the outcome for the cold war/arms race narrative – China’s AI capability vis-à-vis the US currently or in future – is much debatable, the framing prompts scholarly interests about the implications for national AI policy and firm innovation strategies, third-party state strategies in AI development, and AI governance. This paper concludes by inviting scholars to rethink the affective power of narratives and contribute research and narrative analysis that allow for the articulation of perspectives from third countries.

## A. Introduction

There has been a recent revival in “cold war” narratives – including “new cold war” (Schindler et al. 2022) and “Second Cold War” (Schindler et al. 2024) – that are generally but not exclusively applied to relations between the US and China. At a general level, resonant patterns from the First Cold War between US and USSR can be seen: “an ideological divide ... emerging coalitions ... growing competition for influence in the Global South” (Buzan 2024). But there are also perceived to be differences, including the centrality of competition in the technological – especially digital technology – sphere; leading to references to a “tech Cold War” (Capri 2024) and “digital Cold War” (Heeks et al. 2024). Among the range of digital technologies, artificial intelligence (AI) is sometimes picked out as the chief “battleground” between the two superpowers (Bargaoanu & Cheregi 2021).

In this paper, we wish to examine particularly the narrative around an “AI cold war”, based on a review of academic and other literature that uses this term or near equivalents. What evidence is provided for the existence of an AI cold war? What critiques are offered? What are the implications of use of the term?

The term “AI cold war” can be originated to a Wired article in October 2018 entitled, “The AI Cold War That Threatens Us All” (Thompson & Bremmer 2018), with a growth in occurrences since then<sup>1</sup>. This source in turn traces use of the term back to a Henry Kissinger piece on the dangers of AI in *The Atlantic* (Kissinger 2018) that led to a White House-organised AI Summit, meaning, “By midsummer, talk of a “new cold war arms race” over artificial intelligence was pervasive in the US media” (Thompson & Bremmer 2018). As this quote suggests, there is significant overlap with the terminology of “AI arms race” and both can be distinguished from terms such as “AI race” or “AI competition” (Zeng 2022).

The distinction is that the former terms introduce a securitisation of narrative – framing relations as an issue of national security and seeing the other state as an external threat of sufficient magnitude to require adoption of exceptional measures (Brown et al. 2018). They introduce a militarisation of narrative that frames relations in terms of “military ideas, values and imagery” (PPU 2023). And they introduce a resonance with, and invite parallels with the First Cold War (Buzan 2024).

Given the First Cold War was between two superpowers, most of the literature reviewed here – whatever its perspective – regards the AI cold war as describing a relation between the US and China. Some sources (e.g. Garcia 2021, Morandín-Ahuerma 2023, Takach 2024) add Russia as an American adversary. Some broaden the definition to include other major players like the European Union (EU) or Western powers generally (e.g. Dare 2021). In this paper, we will target the majority view that sees the US and China as the focus, and will identify two major themes in the literature – affirmatory, which in some way accepts the idea of an AI cold war; and critical, which questions the term and/or its implications. We will then discuss possible areas of future inquiry that the narrative points to, and offer some thoughts for scholars with an interest in the topic.

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<sup>1</sup> E.g. 12 Google Scholar sources containing the term in 2019 and 24 in 2023.

## B. Affirmation of an “AI Cold War”

The affirmative use of the AI cold war narrative is largely driven by the understanding that AI innovations are key to national security and political/ideological influence in the strategic rivalry among major powers. There is an argument that securitisation, even militarisation, of the AI debate could be justified given the unique national security issues raised by the dual-use capabilities (civilian plus military) of most AI innovations; given the unique and substantial nature of the security vulnerabilities posed by AI; and given the levels of investment by states and defence contractors in AI (Hynek & Solovyeva 2020, Ciuriak 2023). Thus a number of literature sources largely affirm the notion of an AI cold war by reference to the strategic and sometimes adversarial competition between the US and China (Lee 2023), and to growing investments by both countries in military applications of AI as “a race to militarize artificial intelligence is gearing up” (Garcia 2021).

On the US side, the successive National Security Strategies of the Trump and Biden Administrations show that there is bipartisan consensus viewing China as the greatest challenge to US national security (Morris 2023). The US Federal Bureau of Investigation (FBI) has warned that the biggest security threat in the “new cold war” of AI usage comes from China and its AI-enabled capabilities in cyber-attacks and spying (Budman 2023). The US Department of Defense released its AI Adoption Strategy in 2023, seeking to accelerate advanced AI capabilities adoption to ensure “decisive superiority on the battlefield for years to come” (US DOD 2023). The “shift towards AI and ‘data driven’ warfare” has led the Pentagon to award “large multi-billion dollar contracts to Microsoft, Amazon, Google, and Oracle” (Gonzalez 2024). The notion of an AI arms race against China “has evolved from a sporadic talking point to an increasingly institutionalized position, represented by collaborative initiatives between government, military, and tech-industry actors and reinforced by legislation and regulatory debates” (AI Now 2023a).

On the Chinese side, under President Xi's call to enhance strategic capabilities in emerging areas, the People's Liberation Army (PLA) has been shifting toward “intelligentized warfare” (Kania 2019). Military lawmakers and experts recognise such capabilities as “a focal point in major power competition, a vantage point in high-end warfare”, stressing the importance of enhancing AI-enabled combat capabilities (Liu 2024). Observers note that “Clearly, China under Xi seeks to use AI for more military purposes” (Pathak & Jindal 2023) and so “China's race to exploit and integrate Artificial Intelligence (AI) into their military is rising exponentially” (Lewis 2019).

In addition, despite the different contexts of today's US-China competition from the First Cold War US-Soviet superpower rivalry, there is the shared notion that innovations are crucial to political influence and ideological prestige; thus AI is seen to have paramount influence in the current competition between a hegemon and a rising power. Scholars have shown that US federal innovation policy during the First Cold War followed a mission-oriented approach partly motivated by “national prestige and ideological competition” (Schot & Steinmueller 2018). Because of AI's perceived significant role in surveillance and domestic governance, views that AI capabilities may shape the competition between democracies and authoritarian regimes and the future of the world order have also sprung up, drawing comparisons to the historical Cold War (Wright 2018, Taneja & Zakaria 2023).

Pundits argue that the US likewise needs to maintain technological leadership in AI for ideological supremacy, in the coming “Cold War 2.0 against autocracies” (Takach 2024).

Concerning AI applications, the increasing use of economic policies, such as export controls, investment screening, and industrial policies to serve the state’s geopolitical interests has added weight to the securitisation in narratives. Besides major investments in domestic AI capabilities, Washington has deployed coercive policy instruments, such as export controls on advanced AI chips and manufacturing equipment to China, to counter the perceived threats from Chinese offensive cyber operations and military capabilities (Rikap & Lundvall 2021, RAND 2024, Yang 2024). This has generated rising interest in how to navigate the “tech cold war” among the business community and among international business scholarship (Tung et al. 2024). Meanwhile, Beijing has used the term “cold war mentality” to criticise US policies aiming to curb Chinese firms’ access to technology, supply chains and investments, and vowed to retaliate and counter US “containment” efforts (Global Times 2023), which likely contributes to the narrative’s popularity.

A smaller fraction of literature – what might be called critical-affirmatory – accepts not just the existence of an “AI cold war” as rhetoric but also, mostly from a US perspective, some legitimacy in the securitisation of narrative: “some of the claims of this narrative are based at least in part on genuine security concerns and important unknowns” (Bryson & Malikova 2021; see also Dare 2021 and Xue & Guo 2024). However, the conclusions drawn are critical of the narrative in some way, as discussed next.

## C. Critique of an “AI Cold War”

Three main threads of critique can be identified. The first – perhaps fitting to the notion of AI arms race rather more than AI cold war – argues that the inequality in AI power between the US and China means that the threat from China has been exaggerated<sup>2</sup>. In making this argument, Zeng (2022) is specific about security: “existing analyses vastly exaggerate ... the extent of China’s AI advancement and its geopolitical threat”, but other papers step outside the security/military arena and look generally at AI capabilities.

Some talk about this in general terms, for example about the “large education and innovation gaps” (Xue & Guo 2024) that exist in AI between the US and China, but others bring concrete data. Bryson & Malikova (2021) use data on market capitalisation (MC) of firms and intellectual property (IP) patents that encompass AI to demonstrate that China is “still dwarfed again by the United States, in terms of both MC and IP”: for example capitalisation of US\$1.5bn in China vs. US\$9.8bn in the US in 2020. Olson (2024) focuses on more specific outputs: “When it comes to producing machine learning models of note, the US is still far ahead with 61 ... while China ranks second with just 15”. Such claims are supported by the latest AI Readiness Index which ranked the US first and China 16<sup>th</sup>; scoring

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<sup>2</sup> Unver & Ertan (2022) make the mirror-image argument: “This somewhat refutes arguments of a ‘new A.I. Cold War’ between the US and China ... as in terms of global market dominance, China is the leading supplier of A.I. technologies to a broader and more numerous range of countries”. However, the AI Global Surveillance Index dataset on which their work is based covers exports of camera and recognition surveillance technologies in the 2010s within which the AI component is unclear and certainly not a central or major part.

lower than the US on all three foundations for AI: government, technology sector, and data and infrastructure (Oxford Insights 2024).

Exaggeration of the capabilities of one's adversary (or conversely of one's own country's vulnerabilities) of course brings echoes from the past:

"Americans, however, have a history of overestimating the technological prowess of their competitors. During the Cold War, bloated estimates of Soviet capabilities led U.S. officials to make policy on the basis of a hypothesized "bomber gap" and then "missile gap," both of which were later proved to be fictional." (Toner et al. 2023).

And this goes even further back: "The exaggeration of American vulnerability ... has been a recurring feature of debates over American foreign and defence policy for at least a hundred years (Thompson 1992).

The second thread of critique picks up this issue and seeks to explain why actors adopt the AI cold war rhetoric (even though some authors in this thread see that rhetoric as based in a genuine belief rather than being a deliberate exaggeration: see, for example, the Bryson & Malikova (2021) quote above). The main benefit said to be sought by those promoting the notion of an AI cold war is a minimisation of regulatory constraints on AI innovation: "could at least some of the proposing or amplifying of claims postulating an AI cold war be intended to disrupt new regulation?" (Bryson & Malikova 2021); "They argue ... that ethical inquiry is a distraction from this political reality" (Xue & Guo 2024).

The "they" in question is seen to be US big tech firms: "when US tech companies argue for more lax regulation lest China race ahead, they are likely exaggerating the threat for their own purposes" (Olson 2024). For example, AI Now Institute's 2023 report presented a detailed timeline of how the AI arms race rhetoric has been institutionalised in US policy discourse and "leveraged by stakeholders to pushback against regulatory intervention targeting Big Tech companies, such as on antitrust, data privacy, and algorithmic accountability" (AI Now 2023b). The position of US big tech is often instantiated in the 2021 National Security Commission on Artificial Intelligence report (NSCAI 2021) authored by a commission chaired by Eric Schmidt, the former CEO of Google<sup>3</sup>. Alongside constraints on AI regulation, these firms – alongside stakeholders within the defence and security arms of the US government – are also said to be using securitised, militarised rhetoric around AI in order to obtain greater state investment: "to deploy more resources and support to not only the American AI-enabled military sector but also the AI commercial industry" (Zeng 2022; see also Gonzalez 2024 and Xue & Guo 2024). The irony, according to some observers, is that players like Mr. Schmidt pursue a two-track approach: employing the cold war narrative to warn US policymakers about the threat from China and obtain US government funding, while using government resources to pursue personal connections and investment opportunities with the Chinese AI industry (Tech Transparency Project 2024).

Whereas it is largely seen as commercial actors in the US who contribute to securitising AI discourse for commercial benefits, along with a constellation of national security and intelligence actors, in China it is said to be the Chinese state that does this for the purposes

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<sup>3</sup> The report does not specifically use the term "AI cold war" but does emphasise the threat, including military threat, posed by China's AI capabilities.

of stimulating other actors to focus on AI. For example, Zeng (2022) argues that: “AI is being securitized by the Chinese central government to mobilize local states, market actors, intellectuals and the general public”. The derivation of the Chinese state’s securitisation of AI and AI discourse is seen in part to derive from and be fed by AI securitisation and militarisation in the US: a mutual reinforcement that is potentially “setting both countries on a dangerous path” (Zeng 2022).

This, then, represents the third thread of critique: the dangers of AI cold war rhetoric. That the militarised element becomes a self-fulfilling prophecy, leading ultimately to a hot war is obviously the greatest danger (Gonzalez 2024, Marichal 2024). Beyond this is the concern that a focus on militarisation of AI “diverts resources and attention from nearer existential threats, such as extreme weather events” (Garcia 2021; see also Marichal 2024). Observers also note that the “arms race” rhetoric has led to relatively less policy support for non-military applications of AI in US federal policy (Sherman 2019).

Scholars also point to the danger of the cold war/arms race rhetoric in contributing to a difficult environment for international collaboration in AI research and development (R&D) and AI governance. On the one hand, China’s Civil-Military Fusion strategy for developing military-technological innovation, including AI innovations, has intensified US concerns of security threats from international R&D collaboration with Chinese players, on top of existing concerns about industrial espionage. A 2019 Congressional hearing led by the US-China Economic and Security Review Commission concluded that “civilian academic collaboration and business partnerships between the United States and China could aid China’s military development.” (USCC 2019). Yet on the other hand, the cold war rhetoric is seen to create an increasingly hostile environment for researchers, who face already stringent regulations on research security in both the US and China (Nature 2022). The controversial “China Initiative” led by the US FBI was accused of racial profiling in its investigations targeting Chinese-American scientists, including AI researchers, creating “general feelings of fear and anxiety that lead them to consider leaving the United States and/or stop applying for federal grants” (Xie et al. 2023). The fracturing of cross-border R&D collaboration between the US and China is seen to slow the international flow of knowledge and talent, and thus decrease the research output for both countries and slow the pace of innovation on a global scale (Alshebli et al. 2023).

Furthermore, the rhetoric is seen to risk undermining the potential for international cooperation on AI governance: cooperation that is, for example, much-needed in relation to ethical regulation of AI (Garcia 2021). This includes regulation of military applications with risk, from a US perspective, of “a permanent cleavage [*that*] ... will only give techno-authoritarianism more room to grow” (Thompson & Bremmer 2018).

The final danger is seen to be for third countries which “will be forced to “choose sides”” (Bargaoanu & Cheregi 2021), with the potential that aligning with one will harm relations with the other power. Thompson & Bremmer (2018) note that “it will all seem uncomfortably close to the arms and security pacts that defined the Cold War”. Relatedly, a critique of the AI cold war narrative is that it mischaracterises “an increasingly complex and multipolar world into a binary one”, ignoring the influence of other important players such



as the EU (Kaltheuner 2023) and their policy choices which do not neatly follow the logic of alignment.

## **D. The Future of the “AI Cold War”: What to Make of the Narrative and the Contestations**

The narrative of a “Cold War” inevitably leads to questions about who the winner will be, and here conclusions seem premature. In looking ahead, one main point of discussion in the current AI cold war literature – again with more link to the notion of an AI arms race – is whether China will catch up with the US in terms of AI. Some see China having a set of advantages over the US which are likely to propel its catch-up and possibly even global leadership in AI. These include advantages derived from its larger population that could benefit AI implementation, such as the greater scale and scope of data that can be made available for AI model training, the larger Chinese domestic market, and a large domestic talent pool offering less expensive labour (Allison & Schmidt 2020). They also include characteristics related to its innovation system, such as centralised decision making and willingness to employ state-sponsored industrial policy and government support such as public procurement, the closer relations that exist between the state and Chinese big tech than is the case in the US, and the greater level of Chinese investment being made in AI (Thompson & Bremmer 2018, Allison & Schmidt 2020, Bargaoanu & Cheregi 2021).

Others are more circumspect in their analysis, expressing disagreement or scepticism about the possibility of China overtaking the US in both military AI or general AI capabilities. A review of Chinese-language articles written by military experts shows that most Chinese defence experts perceive various significant barriers to the development and deployment of AI in the PLA, and see the US maintaining leadership in military AI (Bresnick 2024). Some analysis cites a whole slew of constraints facing AI innovation in China: US AI-related export restrictions and China’s relative lack of compute power, a deficit in top AI talent, inefficiencies in state funding, a relatively closed innovation system characterised by strong government control including censorship and by lack of inward flow of talent, and global domination of the English language in the text sources that are used for model training (Ding 2019, Toner et al. 2023, Olson 2024). A central bone of contention in this literature is whether China’s authoritarian state, with its absence of pluralism and weak civil society and lack of rights-based guarantees, represents a strength for future US AI innovation (Xue & Guo 2021) or a strength for China’s future AI innovation (Zeng 2022). One may relate this to broader scholarly discussions about the link between democracy and science, and the role of state policy actions in science and technological advancement (Wagner 2024).

As the AI cold war rhetoric becomes more popular (also increasingly contested) in the lexicon of policymakers, industry players, pundits, and journalists, it has prompted rising scholarly interest about its implications, and possibilities of a future research agenda where scholars can contribute evidence-based insights. Some existing literature identifies a broad compass for more research on national or global governance of AI, the domestic and global politics that shapes that governance (Zeng 2022, Tallberg et al. 2023), and on business strategies of innovation for multinational enterprises and high-tech startups amidst rising “techno-nationalism” (Tung et al. 2024). The agenda can also be drawn more narrowly to

track and analyse the terminology and imagery within the narratives around Sino-US AI relations, including their sources, and their implications for not just relations between the two powers but also the strategies of third countries (Unver & Ertan 2022, Zeng 2022).

In terms of third-party states' current and future strategies, some analysis accepts the realities of the AI cold war, noting in general the difficulty of a "mix-and-match" alignment strategy that hedges between the two powers (Bargaoanu & Cheregi 2021). Some analysis specifically advises the alignment with one power against another: for example, Pathak & Jindal (2023) and Mohanty & Singh (2024) advise India to more closely collaborate with the US in AI, while also acknowledging divergences in the two countries' regulatory approaches. It should be noted however that security alliances or overlapping interests in national security concerns, may not be the only factor influencing country strategies. Even for traditional security allies of the US such as Japan and South Korea, there seems to be reluctance in fully supporting Washington's call for coercive sanctions such as export control against Chinese players (Ushigome 2024).

In this vein, the European Union is seen by some as the third major player with a quest for both strategic autonomy and global technological leadership (e.g. Franke 2021, Kaltheuner 2021, Gajewski 2023). Facing heightened geopolitical tensions from US-China competition, the Covid-19 pandemic, the Russia-Ukraine conflict, and the unilateral protectionist turn in US policy, the EU has also pivoted towards the securitisation of its economic policy and created various new trade, investment and innovation policy tools to advance its own security interests under the new doctrine of "open strategic autonomy" (Danzman & Meunier 2024). EU policy embraces "a global AI race logic" and emphasises the need for digital sovereignty and jurisdictional independence in AI (Mügge 2024). Meanwhile, some argue that AI sovereignty is a myth and that "given the absence of a leading AI industry and a coherent defence strategy, the EU has few tools to become a global leader in advancing standards of AI beyond its regulatory capacity" (Calderaro & Blumfelde 2022). Hence, further research is needed to understand the implications of the AI cold war narrative for the EU, and the EU's place within both the narrative and the actuality of Sino-US AI competition.

A notable gap in the literature is the limited analysis about how the AI cold war narrative is perceived by Global South players, and more broadly, how geopolitical tensions influence their AI development strategies. For scholars of digital development, this may be an interesting area where new evidence-based research can fill the void. Historians of cold war studies have noted the importance of adding "the North-South dimension to the analysis of the Cold War by focusing on the agency of Third World actors" and the way in which Global South countries employed "a myriad of different diplomatic strategies, international networks, and political actions" with "overlapping identities" under the proclaimed neutrality, to "escape the binary logic" of cold war rivalry (Schaufelbuehl et al. 2015). For Global South countries facing present-day geopolitical tensions, some observers note that "Cold War 2.0 is ushering in Non Alignment 2.0" (Traub 2022). To what extent this renewed interest in neutrality may manifest in national AI development strategies of these states, or in their participation in global AI governance where substantive Global South engagement is urgently needed (Png 2022), remains to be explored.

Finally, given the contestations over the narrative outlined above, scholars may reflect on the affective power of the “AI cold war” narrative itself. On the historic Cold War and the current New Cold War narratives, Tan (2022) cautions that “the start of a New Cold War” is “likely to continue spawning Cold War-style narratives that will repolarize the world, with either/or ways of thinking to mobilize for “us” and against “them”, often through the demonization of “them” into an “enemy-other””. Concerning AI, some see the future and its narrative as something to be shaped. Thompson & Bremmer (2018) argue for dropping the cold war rhetoric and replacing it with concrete Sino-US cooperation on AI rules and standards. Bryson & Malikova (2021) look more at the AI policy-making process than its content, and advocate shifting from a rhetoric- and interests-led approach to an evidence-based approach:

“Given the urgent problems facing our planet as a whole, we invite all parties to reconsider the AI cold war rhetoric and to take a data-led approach to honing regulation to benefit resilient, diverse markets and societies globally”

Similarly, Su (2024) argues that the cold war rhetoric will lead to a future “further away from the globalised internet as it should be”. She proposes replacing it with a focus on “real solutions to underlying concerns” such as “a framework and global policy that oversees data transparency protecting it for all users regardless of what side of any potential digital cold war they come from”.

Marichal (2024) argues differently – that, rather than trying to move away from rhetoric and narratives, one should understand their power in politics and embrace them but ask “what other metaphors could we use?”. Drawing from Verity Harding’s book, *AI Needs You*, he suggests using the metaphor of “the space race rather than the nuclear arms race”, a domain in which “Even if there was a competition over scientific advancement, there was also a great deal of collaboration” such as with the International Space Station. Recent moves by Beijing and Washington suggest some possibility of moving in this direction even if only in a small, low-hanging fruit way: the adoption of two UN non-binding resolutions, one sponsored by the US with support of China on the need for global collaboration to ensure that AI is “safe, secure and trustworthy”, and the other sponsored by China with the support of the US urging richer nations to close the widening gap with lower-income countries to ensure they benefit from AI (AP 2024).

For development scholars, this may also present an opportunity to contribute analysis of AI narratives and imaginaries that reorient our focus toward the Global South. Bareis & Katzenbach (2022)’s analysis of AI policy in US, China, France and Germany, shows that “all establish AI as an inevitable and massively disrupting technological development by building on rhetorical devices such as a grand legacy and international competition”, meanwhile their “respective AI imaginaries are remarkably different, reflecting the vast cultural, political, and economic differences of the countries”. Global South countries are in a different position from these powerful states. How they construct the narratives for AI strategies, and how their local cultural, political and economic contexts influence their AI imaginaries remain to be explored. As we reflect on the power of the narratives, we may also find new, potentially powerful narratives emerging from the majority world that reflect different perspectives and demand world leaders to pay attention.

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