



## The Geopolitics of Artificial Intelligence: Power, Leadership, and the US-China Rivalry

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### Abstract

Artificial intelligence (AI) is no longer on the fringe of a more commercial and technical environment but on the frontline of a strategic sphere where power, security, and leadership between nations are now being negotiated. It is argued in this paper that how AI can transform world power relations in the context of the US-China rivalry is critically analysed as the current discourse on an unavoidable AI arms race is analytically veneer and politically misguided. The paper approaches AI as a politically constituted resource and embedded within infrastructures (in particular semiconductors), data regimes and dual-use military-civil innovation systems, each of which creates new chokepoints, dependencies and leverage. The analysis combines neorealism, techno-nationalism, and international leadership theory so as to demonstrate that AI both amplifies the security dilemma (by imposing opacities, speed, and dual-use ambiguity) and limits institutional cooperation by transforming interdependence into vulnerability. It also shows that the competition of AI is not a competition of technological primacy, but it is also a rivalry of forms of governance and normative authority, as the US market-led innovation and rights-based discourse clash with a China-driven state-directed approach and sovereignty-first vision. This is not a coherent hegemonic order but an atomised government space in which middle powers increasingly find themselves in dilemmas as they selectively make rules, and compete in standards and export measures. This paper comes to the conclusion that technological determinism is not the most significant aspect of modern AI geopolitics, but a lack of leadership: as strategies outpace the creation of credible, representative, and stabilising forms of governance, this exacerbates instability, fuels the creation of blocs and cements technological inequality.

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### 1. Introduction

Artificial intelligence (AI) has become the most popular constituent of the geopolitical contest that radically overrules the concept of power, security, and leadership of the states that comprise the international system. Once viewed as a technological or even economic invention, AI has since become a fairly popular strategic resource with significant military, political, and social implications. Governments of the present are increasingly worried about advances in machine learning, data analytics, and self-driving designs, not merely as means to enhance their productivity, but as a potent technology that can change the power distribution between states (Horowitz, 2018) <sup>[13]</sup>. Consequently, AI has become part of the national security policies, defence strategies, and foreign policies, thus creating a new dimension of international competition. To Adebayo (2024) <sup>[1]</sup>, the strategic importance of artificial intelligence in defence is not just based on technological complexity, but on the ability of its leaders, the institutional preparedness, and governance structures that define the deployment of AI, its regulation, and the manner in which humans in the system use it.

Under this changing environment, the US-China rivalry takes centre stage. The two states are the leaders of global AI development in terms of research capacity, access to data, investment, and technological ecosystems, which makes their competition in this case particularly decisive concerning the further international order (Rauf and Iqbal, 2023) [22]. The United States has been fortunate to enjoy the tradition of a decentralised model of innovation catalysed by private companies, elite universities, and open-network research. In comparison, China has followed a state-oriented strategy that incorporates AI creation with national strategic goals, clearly as a means of bringing about overall national power and technological independence (Allen, 2019) [2]. This difference in political structures, economic systems, and norms of governance increases the geopolitical importance of AI because leadership in this field can form not only material authority but also the regulations, norms, and values under which new technologies operate. The concentration of AI capabilities among major powers in terms of structure is empirically attested. Table 1 illustrates that in the past ten years, almost three times the number of AI publications have been published across the globe, and the activity about patenting has been consolidated, with China contributing about 61 per cent of all AI patent applications worldwide in 2022 and the United States contributing about 21 per cent (Parteka and Kordalska, 2023) [21]. At the frontier level, the US-based institutions in 2023 generated 61 distinguished foundation models as opposed to 15 in China and 21 European Union. These quantifiable differences highlight the fact that AI leadership cannot be diffuse, but it is very stratified among technological ecosystems.

The rivalry between the US and China in the field of AI is

significant because this rivalry is more than an arms race. Despite the criticality of military uses, such as autonomous weapons, intelligence systems, and command-and-control systems, AI competition also impacts the economic competitiveness, surveillance, and world control of digital infrastructure (CNAS, 2020) [5]. Moreover, there is also the question of the atomisation of the global technological ecosystem, whereby various standards and supply chains might divide states into opposing technological blocs, posed by the competition. Popular discourses lean towards either deterministic or alarmist descriptions of this rivalry, as an inevitable AI arms race in which there is an obviously winning and losing side (Maria, 2023) [18]. However, such stories are harmful because they reduce the complexity of the interactions between technology, institutions, and political leaders.

This paper is a critical analysis of the role of AI in transforming world power relations in the light of the US-China rivalry. It asks two key questions of research: how AI changes the conventional conceptions of power and competition in international politics, and what new or not new types of leadership are now appearing or failing to appear because of this change? The study will explore the alternative to technological determinism by applying the two types of literature, scholarly and policy-focused literature, to examine AI as a controversial field of social and technical relations framed by the strategic decisions, the modes of governance, and the international regulations. By so doing, it will be part of the bigger discussions of great-power competition and the future of the international system in the era of artificial intelligence.

**Table 1:** AI Power Indicators (US-China-EU Comparison, 2013–2024)

Indicator	United States	China	European Union
AI Publications Share (2022)	18%	27%	17%
AI Patent Share (2022)	21%	61%	11%
Private AI Investment (2023)	\$67B	\$7.8B	\$8-10B
Frontier AI Model (2023)	61	15	24 (combined EU/others)
Advanced Chip Design Control	High	Limited	Moderate

Sources: OECD AI Observatory (2024); Stanford Human-Centred Artificial Intelligence (2024)

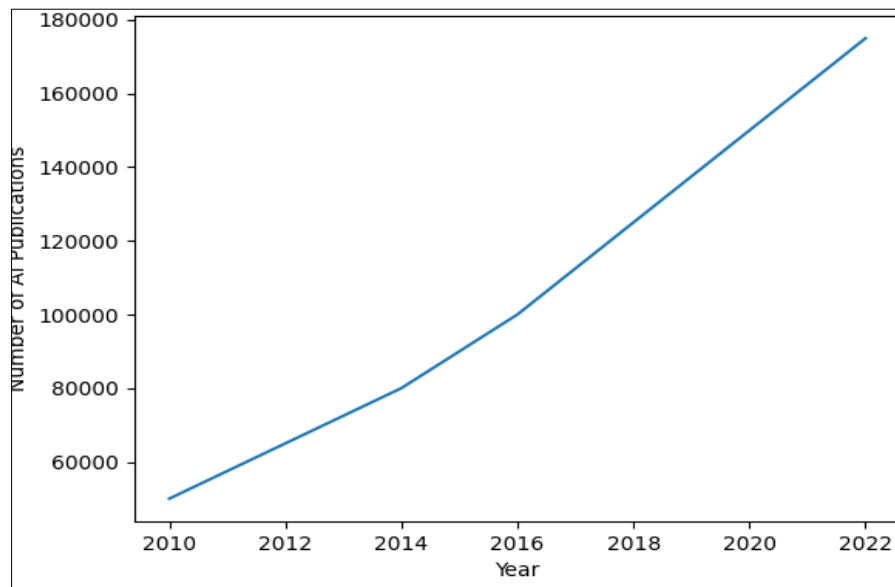
## 2. Theoretical Framework

This paper explains why artificial intelligence (AI) has become one of the main areas of disagreement between the US and China by creating an analytical prism synthesising the neorealism, techno-nationalism, and modern international leadership theories. Rather than describing AI as an exogenous technological shock, the framework includes it in the centuries-old international-relations debate on the security dilemma, the offence-defence balance, the polarity of the region, and the conditions leading to institutional cooperation.

Neorealism gives the structural foundation. Anarchic states are concerned about relative maximisation of power so as to survive, and hence there would be a state of protracted rivalry and periodic security dilemmas (Mearsheimer, 2001) [19]. In this regard, AI is not important because of its technical complexity but because of its ability to change the allocation of capabilities within the international system. Critical analysis, in its turn, poses the question to the audience on whether AI is a modification of the systemic architecture or a simple reinforcement of the existing hierarchies. Horowitz (2018) [13] argues that the advantages nascent technologies are

more likely to cause are those that accrue to the states that have some economic and organisational potential, form and do not destroy the current power structures. By following this trend, assuming AI follows this trend, the technology will serve as a multiplier of the strength of the key actors instead of a balancer.

The focus of these structural arguments is empirically manifested in patterns of concentration. Table 1 reveals that the number of frontier model outputs and private AI investment continues to be overrepresented by the United States despite the fact that China has the highest number of patents. This dispersion means that AI is not making the polarity flatter, but it strengthens the hierarchies and creates spheres of competition. With this fact, therefore, confirming the argument by Horowitz (2018) [13] that new technologies are more likely to make the already privileged states stronger rather than redistribute the power evenly. Figure 1 illustrates the rapid expansion of AI research output and the growing concentration of patent origin shares, highlighting asymmetric innovation patterns between the United States and China.



Source: OECD AI Observatory (2024).

Fig 1: Global AI Publications Growth (2010-2022)

Meanwhile, AI makes the security dilemma worse by raising the doubt on both ability and intent. Its two-fold purpose and the secrecy of its algorithm are such that it is hard to tell the difference between defensive and offensive applications. This ambiguity renders it impossible to make adequate estimates of the offence-defence ratio: AI-based systems can enhance intelligence and surveillance, logistics, and cyber operations, yet they can also enhance the speed and extent of offensive operations. In that case, where the states cannot reliably determine the degree to which adoption of AI can augment defence or offence, the precautionary investment tastes become uncontrollable. The power of AI fortifies, instead of resolving, structural insecurity, and, in this regard, reinforces realist expectations of competitive behaviour. Nevertheless, structural realism would be insufficient to describe the process of the integration of technological competition as a constituent of national identity and national industrial strategy. Techno-nationalism is a further development of neorealism, which can expect the politicisation of the innovation process, which places technological leadership as an alternative to sovereignty and strategic independence (Sun, 2020) [28]. The case of AI in China belongs to the greater undertaking of limiting the external dependence and empowering the national presence with the assistance of the interdependence of states. The US, despite its special institutional format, considers AI leadership a tool for preserving its superiority in the world as well. Consequently, the narratives of techno-nationalism also determine the limited scope of the cooperation of AI regulation: technological interdependence is redefined in terms of weaknesses and comparative advantages.

Finally, the leadership theory holds the converse expectations to those of the institutionalist expectations. Constitutionalism would also predict that such collective transnational threats, e.g., an independent weapon or machine bias, must be the motivation to make rules and cooperate. Nonetheless, in AI, material competition restricts institutional leadership. Leadership requires agenda-setting, norm-building, and provision of a public good, and the United States and China have not succeeded in coming to a consensus on rules to be applied by all in the management of milk AI or data

regulation. As Bode and Huelss (2018) [3] observe, autonomous systems upset the long-standing concept of agency and responsibility and complicate institutionalisation further.

Based on this, structural realism and techno-nationalism, combined with the theory of leadership, this approach cannot be described as technological rivalry. It presupposes that AI not only reinforces the hierarchies already in place but also intensifies the security dilemma, thereby developing a competitive situation where the cooperation between institutions is structurally constrained. According to this, AI geopolitics is not a matter of technological innovation but of the problem of structural power, national identity, and controversial leadership, which are directed to establish the future international order.

### 3. AI as a Strategic Resource

The concept of artificial intelligence is also being theorised as a facilitating technology, but as a strategic resource, the distribution and control of which forms the current trends of power. Compared to the pre-existing general-purpose technologies, AI is highly interconnected with material infrastructures, including semiconductors, data ecosystems, and military entities, which are the items of geopolitical struggle as well. The US-China conflict over AI, thus, is based on the control over the key inputs and chokepoints rather than control over the algorithms.

The key component of the AI strategic value is the semiconductor supply chain. Artificial intelligence systems of the high-end category need high-performance chips, in particular, graphics processing units and specialised accelerators, the manufacture of which is geographically concentrated and technologically advanced. This concentration provides asymmetric vulnerabilities which could be utilised by the states. Such an instrument of weaponised interdependence by Farrell and Newman (2019) [10] is one of the most informative, with the state at the centre of the global network; it can transform economic interdependence into the power of coercion. This structural stand has been utilised by the United States to curb the future progress of AI in China by dominating the design of software

and the semiconductor, and chip-manufacturing high-end equipment and large corporations. In 2022, the Bureau of Industry and Security of the US Department of Commerce announced export controls directly focused on advanced computing and semiconductor manufacturing market capacity, which is a shift towards free-market competition instead of a deliberate technological limitation (US Department of Commerce, BIS, 2022; Covington and Burling LLP, 2022) <sup>[31, 7]</sup>. The heavy investment has not enabled China to bridge the advanced semiconductor gap. As Gilli and Gilli (2018) <sup>[11]</sup> explain, the perceived challenges of China are not proximity to the resources but the very dynamics of innovation in sophisticated military-related technologies, that is, the absence of tacit knowledge, organisational integration, and access to the global stream of innovation. This makes a mockery of the uninformed view that state-led investment can break the cycle in a few years. Meanwhile, the semiconductor dilemma shows that AI competition is increasingly moving upstream, i.e., to the infrastructure and supply chain levels, and not to the application level (Forbes, 2021). Hence, AI leadership cannot be viewed beyond the framework of the bigger challenges of industrial policy and economic security.

The secondary advantage of AI as a strategic resource is data. Such large, high-quality datasets are now necessary to the training of complex machine-learning systems, generating data-dominance discourses as a form of power. Structural advantages often cited are the huge size of the Chinese population, online platforms and a relatively laissez-faire data-governance environment. Nevertheless, the importance of data strategy is usually overestimated. Despite the importance of scale, it is essential to maintain, interoperate, and integrate data into robust innovation systems to transform it into AI leadership. Moreover, the normative and governance considerations of data mining in politics, namely, mass surveillance, are likely to result in the restriction of international cooperation and trust. Thus, it might not be that big data can produce a sustainable geopolitical advantage, especially in a hopeless digital society.

The military and dual-use characteristics of AI also indicate the strategic nature of AI. Application of AI to the intelligence and surveillance systems, logistics and decision support systems would enable fostering military effectiveness without the need to be equipped with full autonomous weapons. Kania (2017) <sup>[14]</sup> contends that the military impacts of AI are unlikely to be revolutionary and systemic and incremental, and dispels the popular image of the so-called flash of a battlefield singularity. The conceptualisation of war in the future, however, is being applied by the US and China using AI. The US Department of Defence AI Strategy regards AI as essential to military supremacy, and puts the emphasis on human-machine teaming, data integration, and adaptation of organisational processes, yet not on autonomy as an autonomous procedure (DoD, 2018) <sup>[32]</sup>.

Lastly, AI is bivalent, which obscures the difference between civilian and military competitions. The commercial innovations of AI will be applied to security in the near future, which can be easily diverted, making it hard to manage arms and transparency. The vagueness promotes high expenditure among states in the process of avoiding international limits which are binding. Therefore, AI as a strategic instrument only intensifies the security dilemmas, which had previously existed, not to mention increasing the

dilemmas in the economic and technological realm. The AI competition is thus not one of a breakthrough that will provide an answer to all matters, but one of long-lasting control of the infrastructures, standards, and institutions that will provide long-term power.

#### 4. Competing Leadership Models

The geopolitical conflict between artificial intelligence is not merely a technological arms race, but also a conflict of various ideologies of leadership as the manifestation of a broader political and normative distinction between the United States and China. The paradigms impact the expression, control and internationalisation of AI and subsequent implications on world norms and international alignments.

The AI leadership model in the United States is quite market-centred and corporatist and is founded on the liberal political economy, with the encouragement of innovation in the market, open research, and international collaboration. Other American technology giants such as Google, Microsoft, and NVIDIA are also in the list, playing key roles in the creation of AI capabilities and frequently at the forefront of the research of interest to the commercial and defence spheres. This model has been conventionally employed to facilitate rapid innovation and diffusion throughout the globe and consolidate the US structural power in the global technology networks. The United States considers AI governance through transparency, accountability, and the rights of people and forms AI development according to the broader liberal democratic values. However, this leadership model is already getting more strained; the focus on individual companies complicates aligning the actions with the state level, in particular military AI and export restrictions, and the polarisation of US politics weakens the authority of the US to promote its norms internationally (CNAS, 2023) <sup>[6]</sup>. On the contrary, the leadership paradigm adhered to in China is strictly state-directed, and on a strategic level. The creation of AI is somehow bound up in the systems of national planning, with the most important one being the so-called New Generation Artificial Intelligence Development Plan, where AI is the object of national rejuvenation and combined strength. Ding (2018) <sup>[9]</sup> claims that the Chinese AI ambitions are not technological per se, but rather mostly political, which is to ensure that the innovation can be aligned with the stability of the regime and the long-term strategic goals. It will enable the rapid mobilisation of resources and close coordination of civilian and military development of AI that adheres to the overall approach of civil-military fusion, which is being pursued by China. Nevertheless, this form of paradigm is fraught with inefficiencies and risks like bureaucratic rigidity and overinvestment through political considerations rather than market signals.

The management of norms and sovereignty is one of the main points of critical difference between the two leadership paradigms. Although America is progressing toward relatively universalist ethical frameworks, China foreshadows cyber sovereignty and a nation-state in AI regulation. According to Roberts *et al.* (2021) <sup>[23]</sup>, the assumptions of ethical universality as liberal values are doubted because Chinese AI ethics is based on the aspects of social stability, the position of the state, and the good of many rather than the rights of individuals. Still on the same note, according to Segal (2018) <sup>[26]</sup>, the Chinese vision of the global internet governance envisions the process of normalising the

state-dominating of the digital space, which naturally spreads to the discussion of AI governance. It is the sense of this sovereignty-first mindset that is appealing to certain states, particularly those that are threatened by Western norm conditionality, such that the power of Chinese norms can be yet again projected even in the absence of technological advantage. However, the two leadership paradigms cannot be argued and neither of them is consistent. The US paradigm has to deal with the waning legitimacy posed by the uncertainties of the allies to the credibility of the American leadership in confronting the uneven regulation and selective decoupling. Although the Chinese model is attractive to some individuals, it arouses suspicion as far as the surveillance is concerned, control and export of authoritarian internet practices. This leads to the disintegration of the leadership in AI around the world, though not hegemonic. The last point is, of course, the US and Chinese paradigm of leadership competition reminds us that the problem of AI geopolitics is not only about the ability to rule people and values but also about innovation. This competition, instead of producing a visible hegemon, is bifurcating an order of technologies in which states are not only allied to divergent technologies but also allied to divergent visions of the AI-world of political and ethical leadership.

### 5. Global Governance and Norm Contestation

Due to the ever-growing phenomenon in the economy and in the military, where artificial intelligence determines the competition, the number of governance attempts at the global level has increased. Nevertheless, the governance of AI cannot be characterised by consistent leadership and consists of a more fragmented and normative struggle. Competition between the US and China does not merely affect the technological development directions, but it characterises the institutional space, in which the rules, standards, and principles are to be argued and negotiated. Global regulation of AI also has largely been enacted in a piecemeal of multilateral organisations, e.g., the United Nations, OECD, or other international standard-setting organisations, e.g., the ISO. These forums are not restrictive, legal and normatively ambitious. The author notes that the fundamental issue of AI regulation is that, despite such risks as autonomous weapons, surveillance and algorithmic bias being transnational, it is quite probable that states will also have great incentives to prioritise national interest (Dafoe, 2018) [8]. This pressure has limited the actualisation of binding arrangements because governance has been sought as non-binding principles and technical norms rather than binding regulations.

One of the most effective attempts to establish some common standards can be regarded as the OECD Principles on AI. They were enacted in 2019 and are based on human-centred values, transparency, accountability, and inclusive growth (Canton, 2021) [4]. Although this is a high degree of support for the principles by the advanced industrial economies, it is the liberal-democratic assumptions which are not universal. Such a selective participation in OECD-related discussions, along with the domestic implementation of AI regulation, which is radically disparate from the tradition of individual-rights-based construct on which the OECD model is grounded, is a subset of a bigger trend: international AI regulations are often set by the institutions dominated by Western countries, and the validity and representativeness of such a framework is questioned.

Standards setters such as ISO are in a more technocratic

position, which is nonetheless not less political. Harmonisation of the technical definitions and risk-management practices is the aim of the ISO frameworks on AI trustworthiness in the purportedly depoliticised governance (Manziuk *et al.*, 2021) [17]. Nonetheless, structural power can be acquired on a long-term basis through the ability to establish standards, which is capable of affecting access to the market and technological diffusion. The competition between the US-oriented and China-oriented firms in being the members of these bodies forms a less observable, yet still quite important area of the geopolitical rivalry where power is disseminated by means of experience rather than violence. An even more global space of AI governance is also offered by the United Nations, particularly when it talks about digital cooperation and responsible innovation. The UN Roadmap of Digital Cooperation predicts inclusivity when it comes to capacity building and compatibility with the Sustainable Development Goals (United Nations, 2021) [33]. Nevertheless, its suggestions can only be described as being a dream. According to Thiel and Dafoe (2023) [29], the particular competition is geopolitical, which creates major barriers to major advancement; states fail to adhere to restrictions that are likely to restrain their strategic decisions. This can be most clearly observed in debates concerning AI in the military and bans on exporting military tools, as concerns regarding security are becoming more important than cooperative instincts.

Export controls as a form of governance have become the reality, particularly through unilateral or plurilateral measures spearheaded by the United States and its allied nations. They are presented as the remedies to the security risks, but on the contrary, these controls enhance division of governance through the formation of technological blocks. It is a conflict with respect to human rights. The position of Latonero (2018) [15] is that good AI governance should be anchored on the international human-rights law, and current operations are inclined to prioritise the protection of rights in the context of strategic competition. The trend in the overall AI governance practice worldwide is a lack of leadership, rather than a concentration of power. The presence of competing norms, selective cooperation and strategic decoupling is a threat to the possibility of having a unified governance regime. In this context, another geopolitical conflict sphere is AI governance, where the absence of shared leadership may result in the further institutionalisation of fragmentation and the reinforcement of the technological disparities within the world.

### 6. Implications for the Global Order

The artificial intelligence competition between the US and China is transforming the world order to a point where the traditional arguments concerning institutional governance can be used. The competition of AI activities produces systemic effects, which are reflected in the form of strategic instability, normative disintegration, and the growth in the tension of third states instead of a gradual order of technology. The geopolitical significance of AI, however, is not only in the potential to optimise the performance of the economy or the military action, but also in the reorganisation of the relationships within the system of power and the motivation which underlies the cooperation of the countries. Such disequilibria of structure exist in frontier AI production and investment patterns. The major concentration of the

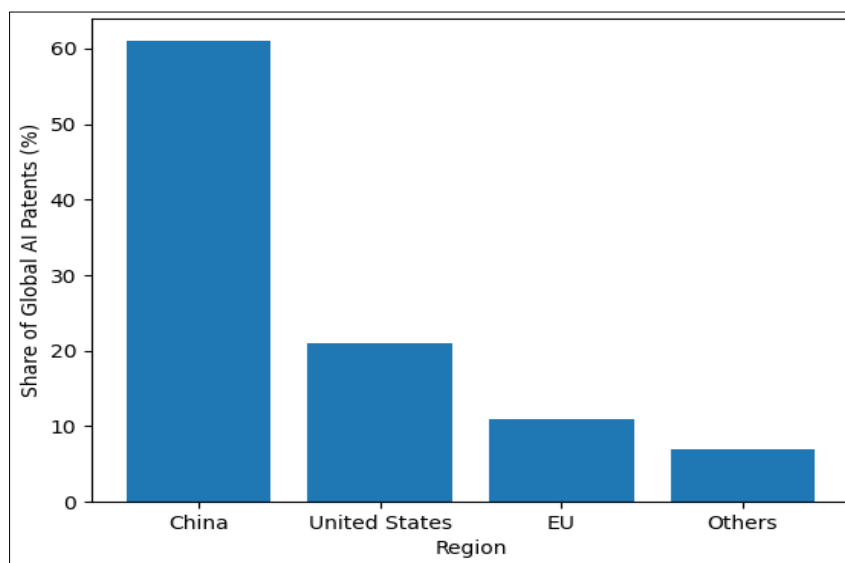
famous foundation models in the United States in 2023 also strengthens its technological pre-eminence (see Figure 2). In the meantime, the fact that the share of the origin of patents in China (Figure 1) and the real industrial policy demonstrate that the competition is not of the kind unidimensional, but of the type multidimensional. This is not a black and white and linear order of hegemony but a stratified and contested technology.

Firstly, AI destabilises the strategies by reducing the time of decision-making and making the situation even more unpredictable when the military and crises are involved. Horowitz (2018) [13] describes the fact that, at the moment, AI-driven systems do not alter the character of war, but they alter the perception of power, speed, and vulnerability. When states are terrified of being surpassed by their competitors in the AI-based intelligence, targeting, or command-and-control arena, states become tempted to hasten the deployment even when the technology remains obscure to them. This is exacerbating the problem of the security dilemma: an investment potentially targeted at a defensive breakthrough could be perceived as an offensive breakthrough. Bode and Huelss (2018) [3] also demonstrate that the decentralisation of functions to autonomous or semi-autonomous systems makes it more problematic to rely on the established norms of control and responsibility to make decisions and more likely to make a mistake. Thus, AI intensifies the confusion of great-power rivalry without compensating for similar assurances or control practices.

Second, the rivalry chills normative disintegration all over the international system. The rival leadership model in the United

States, such as the liberal one that regulates the market and the state-synchronised governance by the sovereignty, leads to different standards on data protection, surveillance, and AI in military capabilities (Allen, 2019; Roberts *et al.*, 2021) [2, 23]. The concept of export controls and technology restrictions is becoming more of an economic statecraft tool, rather than a tool of cooperative regulation, as it continues to become a target of strategic competition. Weaponised interdependence by Farrell and Newman (2019) [10] is an indication that the capacity to control network chokepoints can become coercive leverage, although parallel supply chains and technological ecosystems are also promoted through similar practices. The more likely outcome is, then, not world understanding of shared AI standards but the establishment of partially closed technology blocks.

Third, there is an increasingly constrained strategic autonomy of middle powers. States in the European, Southeast Asian and Global South need to trade off competing AI platforms, which are different in standards, infrastructure and philosophy of governance. The market access, semiconductor supply chains, and digital infrastructure are all of particular economic and political cost when it comes to the alignment decisions. Even though there are also middle powers that are seeking to utilise their power to become norm entrepreneurs through regulation and coalition-building (Weiss and Yang, 2021) [34], they will still be predetermined by the superiority of the US-China confrontation. In turn, one of the reasons for a more polarised and multiplex international order is that AI geopolitics causes systemic competition to replace the cooperative leadership style.



Source: Rojo and Visintin (2024)

Fig 2: AI Patent Origin Share (2022)

To this end, AI does not serve only to reinforce the existing hierarchies but also to speed up the structural tensions of the global order. In the absence of plausible confidence-building institutions or representative systems of governance, AI competition will further divide and entrench technological inequality and increase instability throughout the international system.

## 7. Conclusion

This paper will argue that artificial intelligence (AI) is a central issue in international relations that brings about paradigmatic shifts in the balance of power, leadership patterns in the international system, and the global anatomy. Instead of being a mere neutral or a rather technical breakthrough, AI is used as a strategic tool that is entangled

in geopolitical competition, where competition between the United States and China stands out as the most evident example. In the course of the research, AI is not depicted as a dubious tool of hegemony, but as a process that changes the ways of accumulating, exercising, and challenging power.

First, competition based on AI is rooted in material and institutional core, which includes most prominently semiconductor supply chains, data infrastructures, and military institutions. The ability of the state to control these foundations allows for the creation of a technological advantage and translating it into a geopolitical advantage. At the same time, the two-sided nature of AI and its obfuscated functionality only adds to security dilemmas, promoting strategic instability instead of creating a clear deterrence situation. As a result, AI increases the pace of competition without providing any credible means of control or guarantee. The second part shows that the rivalry of AI reflects rival leadership paradigms. The US claims a market-oriented, corporatist model in accordance with liberal principles of transparency and human rights, and China supports the state-oriented, sovereignty-first model that is closely coupled with national strategy. Neither of the two has achieved international legitimacy and coherence. The US style of leadership is weak because it is disjointed and selective in enforcing norms. In contrast, the Chinese style brings mistrust among the global community as it focuses on control, surveillance and securing the regime. The result is not the hegemonic leadership but disintegration.

The third dimension emphasises the fact that AI governance on the global level has become a normative contestation and not convergence. Multilateral institutions have developed principles and norms, which are mostly not binding and unevenly implemented. Export restraints and technological decoupling are becoming dominant forms of governance, and they strengthen boundaries and place the middle powers in strategic autonomy dilemmas. Therefore, the issue of AI leadership turns out to be one of the major concerns in the framework of international relations, as this area of activity can impact the military, economic, and normative aspects and establish its arrangements in the rule-making power, normative role, and the chances of global collaboration. It is the tendency to consider AI competition as deterministic or binary, which is the critical gap that the article addresses. Rather, the paper assumes that the most significant consequence of AI competition is a leadership shortage that increases instability and disunity. Instead of the hegemony of technology, AI alters the world order by undermining common values and proper governance.

## 8. Recommendations

This paper has demonstrated that artificial intelligence is transforming power distributions in the world in both theoretical and empirical aspects. The quantitative measures of research output, the concentration of patents, the production of frontier models, and even the presence of AI capabilities substantiate that the latter is very much concentrated among leading global powers, mostly the United States and China (Parteka and Kordalska, 2023) <sup>[22]</sup>. Instead of making the international system flat, AI strengthens the structural asymmetries, as well as enhancing the competition in the economic, military, and governance spheres.

Initially, global control procedures should be established over AI military and security systems, and they should be on guardrails. Horowitz (2018) <sup>[13]</sup> demonstrates that AI implementation in military decision-making reduces the decision-making process, hides the process, and runs the risk of escalation, particularly in the case of a crisis. The sweeps of arms-control accords are in this instance politically impossible and unsustainable. Instead, more plausible pathways to stability are found in confidence-building interventions that are focused narrowly, such as promises of meaningful human control, the common sense of what is acceptable in automation in command-and-control systems, and crisis-communication procedures. The strength of this solution lies in the fact that it is not unrealistic: the competition is not ignored, but the most disruptive AI applications are aimed at. The limitation with this is that guardrails cannot eliminate competitive forces or address broader ethical issues. However, because they specifically reduce the risk of escalation, they can serve as an essential foundation for a future governance structure rather than replacing it entirely.

Second, middle powers as norm entrepreneurs need to be strengthened and facilitated either through regulation, coalition-building, or standard setting. The ongoing obsession with the US and Chinese leadership conceals the power of non-superpowers to shape the process of AI governance. As Weiss and Yang (2021) <sup>[34]</sup> show, it is unlikely that the US and China will simply construct competing digital orders; instead, actors such as the European Union have managed to exercise disproportionate influence not through technological dominance but through regulatory capacity. Through initiatives in data protection and AI ethics, EU policies demonstrate that market access, legislation, and standards can become sources of normative power. This dynamic is also explained by Roberts *et al.* (2021) <sup>[23]</sup>, who compare the sovereignty-based framework of ethics in China with the rights-based framework in the EU and show how the latter diffuses globally through regulatory diffusion. The limitation of this policy is that individual middle powers may lack sufficient influence alone; however, coordinated coalitions and regulatory partnerships can significantly enhance their collective impact.

Thirdly, AI governance should be both conceptually and institutionally separated from maximalist techno-nationalist approaches to containment. Export controls and chokepoint leverage can provide short-term strategic advantages, but overreliance on these tools may produce fragmentation and undermine trust in global governance regimes. The concept of weaponised interdependence presented by Farrell and Newman (2019) <sup>[10]</sup> demonstrates that economic networks can be strategically exploited but may also generate long-term systemic instability. A governance model based primarily on restriction risks reducing transparency, limiting norm diffusion, and encouraging the creation of parallel technological ecosystems. A more sustainable approach would maintain targeted controls over clearly defined security-sensitive technologies while preserving openness in areas such as international standard-setting, ethical coordination, and civilian scientific collaboration. Although political resistance to this strategy remains significant, evidence suggests that governance based on engagement

rather than exclusion is more compatible with long-term international stability.

Together, these recommendations point toward a leadership model that is not defined by dominance but by restraint, coordination, and institutional innovation in managing the geopolitical consequences of artificial intelligence.

## References

1. Adebayo KS. Getting the best value from AI in defense. *Forbes*. 2024 Dec 31. Available from: <https://www.forbes.com/sites/kolawolesamueldabayo/2024/12/31/getting-the-best-value-from-ai-in-defense/>
2. Allen GC. Understanding China's AI strategy: clues to Chinese strategic thinking on artificial intelligence and national security. 2019.
3. Bode I, Huelss H. Autonomous weapons systems and changing norms in international relations. *Rev Int Stud*. 2018;44(3):393-413.
4. Canton H. Organisation for economic co-operation and development—OECD. In: *The Europa Directory of international organisations 2021*. London: Routledge; 2021. p. 677-687.
5. Center for a New American Security (CNAS). US—China competition in artificial intelligence and quantum computing. Washington, DC: CNAS; 2020. Available from: <https://www.cnas.org/research/technology-and-national-security/artificial-intelligence-ssp>
6. Center for a New American Security (CNAS). US—China competition and military AI. Washington, DC: CNAS; 2023. Available from: <https://www.cnas.org/publications/reports/u-s-china-competition-and-military-ai>
7. Covington and Burling LLP. U.S. imposes additional export controls restrictions on advanced computing and semiconductor manufacturing items. 2022 Oct 10. Available from: <https://www.cov.com/en/news-and-insights/insights/2022/10/us-imposes-additional-export-controls-restrictions-on-advanced-computing-and-semiconductor-manufacturing-items>
8. Dafoe A. AI governance: a research agenda. Oxford (UK): Governance of AI Program, Future of Humanity Institute, University of Oxford; 2018. p. 1442-1443.
9. Ding J. Deciphering China's AI dream. Oxford (UK): Future of Humanity Institute Technical Report; 2018. p. 1-44.
10. Farrell H, Newman AL. Weaponised interdependence: how global economic networks shape state coercion. *Int Secur*. 2019;44(1):42-79.
11. Gilli A, Gilli M. Why China has not caught up yet: military-technological superiority and the limits of imitation, reverse engineering, and cyber espionage. *Int Secur*. 2018;43(3):141-189.
12. Horowitz MC. The ethics & morality of robotic warfare: assessing the debate over autonomous weapons. *Daedalus*. 2016;145(4):25-36.
13. Horowitz MC. Artificial intelligence, international competition, and the balance of power. 2018 May.
14. Kania EB. Battlefield singularity: artificial intelligence, military revolution, and China's future military power. 2017.
15. Latonero M. Governing artificial intelligence: upholding human rights & dignity. New York: Data & Society; 2018. p. 38, 25.
16. Liu F. Artificial intelligence and the future of US—China great power competition. *China Int Strategy Rev*. 2020;2:56-72. Available from: <https://link.springer.com/article/10.1007/s42533-020-00049-9>
17. Manziuk E, Barmak O, Krak I, Mazurets O, Skrypnik T. Formal model of trustworthy artificial intelligence based on standardisation. In: *IntelITSIS*; 2021. p. 190-197.
18. Maria BEGA. The new arms race between China and the US: a comparative analysis of AI-powered military and economic pursuits. *Europolicy-Continuity Change Eur Gov*. 2023;17(2):75-109.
19. Mearsheimer JJ. *The tragedy of great power politics*. New York: W.W. Norton; 2001. Available from: <https://bxscience.edu/ourpages/auto/2015/12/17/46553148/Mearsheimer%20-%20Tragedy%20of%20Great%20Power%20Politics.pdf>
20. OECD. The OECD Artificial Intelligence Policy Observatory. 2024. Available from: <https://oecd.ai/en/>
21. Parteka A, Kordalska A. Artificial intelligence and productivity: global evidence from AI patent and bibliometric data. *Technovation*. 2023;125:102764. doi:10.1016/j.technovation.2023.102764
22. Rauf A, Iqbal S. Impact of artificial intelligence in arms race, diplomacy, and economy: a case study of great power competition between the US and China. *Glob Foreign Policies Rev*. 2023;VIII(8):44-63.
23. Roberts H, Cowls J, Morley J, Taddeo M, Wang V, Floridi L. The Chinese approach to artificial intelligence: an analysis of policy, ethics, and regulation. In: *Ethics, governance, and policies in artificial intelligence*. Cham: Springer International Publishing; 2021. p. 47-79.
24. Roberts H, Hine E, Taddeo M, Floridi L. Global AI governance: barriers and pathways forward. *Int Aff*. 2024;100(3):1275-1286.
25. Rojo JV, Visintin S. The US-China race for technological centrality: a network perspective. *Struct Change Econ Dyn*. 2024;71:68-83. doi:10.1016/j.strueco.2024.06.008
26. Segal A. When China rules the web: technology in service of the state. *Foreign Aff*. 2018;97:10.
27. Stanford Human-Centered Artificial Intelligence. Research and development. 2024. Available from: <https://hai.stanford.edu/ai-index/2025-ai-index-report/research-and-development>
28. Sun L. *Techno-nationalism: constructing nationalist imaginaries through digital activism in China*. Iowa City (IA): The University of Iowa; 2020.
29. Thiel T, Dafoe A. Global AI governance: barriers and pathways forward. *Int Aff*. 2023;99(5):1927-1947.
30. Toews R. The geopolitics of AI chips will define the future of AI. *Forbes*. 2023 May 7. Available from: <https://www.forbes.com/sites/robtoews/2023/05/07/the-geopolitics-of-ai-chips-will-define-the-future-of-ai/>
31. US Department of Commerce, Bureau of Industry and Security (BIS). Export controls on advanced computing and semiconductor manufacturing to China. Washington, DC: US Department of Commerce; 2022. Available from: <https://www.bis.doc.gov/index.php/documents/about-bis/newsroom/press-releases/3154-2022-advanced-computing-chips-rule>
32. US Department of Defense (DoD). Summary of the 2018 Department of Defense Artificial Intelligence Strategy.

- Washington, DC: DoD; 2018. Available from: <https://media.defense.gov/2019/Feb/12/2002088963/-1/-1/1/summary-of-dod-ai-strategy.pdf>
33. United Nations. Roadmap for digital cooperation: implementation update – AI and global governance. New York: United Nations; 2021. Available from: <https://www.un.org/en/content/digital-cooperation-roadmap>
34. Weiss JC, Yang M. Technology and the US–China rivalry: AI, 5G, and the race for digital dominance. *Survival*. 2021;63(1):27-54. doi:10.1080/00396338.2021.1881257

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