DIGITAL WORLD-SYSTEM HIERARCHIES AND AI-DRIVEN SECURITY COMPETITION

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Declaration[*]

Artificial intelligence is no longer just a new technology; it has become a structural force multiplier that changes everyday life, the ability of the state to do things, security, and even the nature of war. This broad sphere of influence is creating a new concentration of power in the global system, covering everything from healthcare and education to finance, public administration, defense industries, and knowledge production. The main question, though, is how this change affects the system itself. We are now connected to algorithms in almost every area of our lives. Our choices, likes and dislikes, and even the things we do every day go through algorithmic filters. But the most important part is not at the individual level; it is at the global system level, where a new ecological structure is forming.

So the AI and algorithms are no longer just a technical infrastructure; they have created a new system with its own rules, hierarchies, and ways of excluding people. At this point this is not entirely unprecedented in historical terms. I belive that the in global system analyses, particularly in Wallerstein's work, we have previously identified analogous configurations where power becomes centralized, and the periphery is perpetually reproduced. But right now is a very important time that calls for a different way of thinking. Algorithms now directly affect how we define "great power" and "superpower," moving the system into a new historical phase. In this new phase, power is no longer determined solely by possessing capacity or by the ability to absorb costs.

Thus equally decisive is the capacity to govern algorithms in order to control the system itself. In other words, rather than asking who produces more, the key questions have become who calculates, who directs, and who codes decision-making processes. In short, this

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transformation strains the explanatory frameworks of classical international relations theories. It reveals the need for a hybrid reading situated between Wallerstein's world-systems theory and Mearsheimer's offensive realism. In the age of artificial intelligence, the global system cannot be explained solely by structural inequalities, nor reduced to pure military power competition. Instead, this new phase, shaped by algorithms, is fundamentally rewriting the definition of power, its modes of use, and its conditions of persistence.

A New Centre in the World-System: The Algorithmic Core

Wallerstein's world-systems theory approaches the global order not as an anarchic structure composed of equal state actors, but as a historically constructed and enduring hierarchical system of production. This structure is essentially read through the historical cycles of capitalism. The center–periphery relationship is shaped not only by political power balances, but also by the temporal and spatial expansion of the capitalist mode of production. When we look at this system, the centre is defined not merely by military or political power, but by its capacity to control capital accumulation, technological production, and flows of knowledge (Wallerstein, 1974 and 2004). According to Wallerstein, the global system is not an arena of anarchy in which states act as equal units; rather, it is a hierarchical order in which structural inequalities are continuously reproduced. In its most basic form, this structure consists of three main zones:

1. The Core, which controls capital accumulation, technological production, and information flows.

2. The Periphery, which is confined to labour, raw materials, and low-value-added production.

3. The Semi-Periphery occupies a balancing and transitional position between these two zones.

But today, the centre within the system is no longer only a geography where factories, financial centres, or military bases are located. The centrecentre has transformed into a cognitive space where algorithms operate, data is interpreted, and decisions are made through artificial intelligence. Therefore, the twenty-first-century world-system should now be read in the following way: Digital Core: actors that control artificial intelligence, big data, cyber security, and digital platforms Digital Semi-Periphery: actors that have partial access to digital capacity but are unable to overcome algorithmic dependency Digital Periphery: spaces

that provide data but are unable to establish sovereignty over that data In this context, the algorithmic core produces not only economic superiority, but also epistemic superiority. In other words, within the world-system, it is no longer only the question of who produces that matters; instead, the decisive questions have become who knows, who calculates, and who decides. So, this approach provides a strong theoretical foundation for discussions of artificial intelligence, as it defines power not solely through military capacity but through production relations and information flows. However, by the second quarter of the twenty-first century, it has become clear that the classical core–periphery–semi-periphery distinction has entered a phase of deepening through an additional layer.

How should this system be read today?

In the contemporary global system, the newly emerging domain is shaped less by physical production and more by data, algorithms, and AI-based decision-making mechanisms. In this sense, the world-system is no longer only an economic or geopolitical hierarchy; it has also become a digital and algorithmic field of domination. It is precisely at this point that algorithms—and the new ecology they generate within themselves—must be incorporated into the equation. We are no longer dealing with a system that works in the traditional way; instead, we are dealing with a new systemic configuration. In this new structure, the algorithmic core gets its power not from military strength but from its ability to control large amounts of data, train AI models, manage cybersecurity systems, and direct global information flows through digital platforms and cloud systems (Özel Özcan, 2025). Thus, the algorithmic core arises not only as a domain that regulates production and capital relations but also as a novel gravitational center that influences decision-making processes, the dissemination of knowledge, and the overall operation of the system. This issue does not imply that Wallerstein's world-systems approach has become obsolete; rather, it suggests that the theory necessitates a reconsideration within a new historical contex. Now is a good time to look at the people who work in the system. Today, algorithms are used more and more to explain how great powers interact with each other and how they can change the system. The meanings of how power is made, kept, and shown are changing. They are shifting from conventional military or economic dominance to algorithmic preeminence. In this context, Mearsheimer's offensive realism offers a practical analytical framework. Mearsheimer asserts that great powers operate within uncertainty, prioritize survival as their primary objective, and view power accumulation as a rational strategy (Mearsheimer, 2001)—competition in the field of artificial intelligence strictly follows this logic. Algorithmic superiority speeds up

decision-making in the military, makes it possible to have autonomous weapons systems, and turns war into a quiet but ongoing field of conflict. The Department of War's Artificial Intelligence Strategy makes it clear that AI is not just a side technology; it is a key part of how the military will be powerful in the future. This plan makes it clear that the US wants to be the AI-first warfighting force.

It wants to make its military more deadly, faster, and more efficient by using advanced AI to help with planning missions, making decisions, and carrying them out. The plan is to quickly use AI in all areas of the mission, with the clear goal of keeping the U.S. ahead of the rest of the world. Russia, on the other hand, is a player who tests this change not only in strategic documents but also on the battlefield. This trend is not limited to Russia; similar AI-enhanced systems are simultaneously being deployed on the Ukrainian side (Özel Özcan, 2025). Actually Russian forces have reportedly begun producing more than 5,000 modernised Geran-2 unmanned aerial vehicles per month at the Alabuga facility in Tatarstan illustrates both the scale and speed of this shift. More significantly, Russia is reported to have upgraded the Geran-2 UAV, based on the Iranian Shahed-136 design, with advanced onboard artificial intelligence (Autonomy Global, 2025). On the other hand, in August 2025, the State Council of China released the "AI Plus" strategy, which saw AI as more than just a technological tool. It was seen as a key tool for boosting the economy, improving social welfare, increasing productivity, and making the government stronger. By 2030, one of the main goals of the strategy is to have a lot of smart terminals and AI agents that are next-generation. This will make the new economy the main force behind national growth. It's also clear that China's "AI Plus" plan isn't just about making money at home. Instead, it wants to be involved in how power works between countries and how systems are shaped. This demonstrates that China's AI policy operates concurrently at both internal and external governance levels (State Council of China, 2025; Ministry of Foreign Affairs of the People's Republic of China, 2025).

At the end, Taken together, these developments compel us to reflect not only on the present but also on a highly consequential future. Competition among great powers is no longer shaped solely by the number of tanks, missiles, or soldiers, but increasingly by the speed of algorithms, decision-making capacity, and the operational effectiveness of autonomous systems on the battlefield.

This dynamic indicates that power distribution is not static; instead, it is continuously reproduced. However, this transformation is not limited to its visible dimensions. The

transition from a classically functioning world-system to a digital and algorithmic world-system now generates intense competition and dense interaction across almost all domains. This transition represents not merely a technical shift but a structural rupture that redefines how power is conceptualised, exercised, and constrained. Accordingly, the emerging picture points to a period in which states are evaluated not solely based on capacity expansion, but increasingly on their ability to adapt, govern, and integrate into new systemic domains.

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