

# **GEOPOLITICS AND AI: POWER, INFLUENCE, AND FOREIGN POLICY**

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**Attribution:** Doğrul, M., & Çetin O. A. (2026). Geopolitics and AI: Power, influence, and foreign policy. In H. Arslan, A. Taşdelen, E. Kuzucu Hıdır, & O. A. Çetin (Eds.), *Artificial intelligence and national technology reflections* (pp. 83–105). Turkish Academy of Sciences. <https://doi.org/10.53478/TUBA.978-625-6110-86-1.ch04>

## **GEOPOLITICS AND AI: POWER, INFLUENCE, AND FOREIGN POLICY**

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### **Abstract**

This chapter examines how artificial intelligence (AI) is reshaping geopolitical rivalry, national security, and the international order. It argues that AI has become a central site of strategic competition because states increasingly treat computational capacity, data control, and algorithmic advantage as core elements of national power. The chapter shows that AI complicates conflict dynamics by compressing decision-making timelines, increasing uncertainty, and challenging established assumptions about deterrence, escalation control, and crisis stability. At the systemic level, it argues that AI contributes to a more fragmented and technopolar order marked by techno-nationalism, weaponized interdependence, data sovereignty, and competing technological blocks. The chapter then turns to Türkiye as a case study of how a middle power navigates these pressures through defense-oriented demand, targeted capacity building, and flexible alignment. Türkiye's experience shows that middle powers may seek strategic autonomy without pursuing full technological sovereignty, although its distinctive security environment and multi-vector foreign policy limit broader generalization.

### **Keywords**

*Artificial Intelligence, Geopolitics, International Order, Middle Powers, Türkiye*

## Introduction

Technological and scientific advances have long played a pivotal role in international relations, from industrial competition in the late nineteenth century to nuclear rivalry during the Cold War (Skolnikoff, 1993; Weiss, 2005; Szkarłat & Mojska, 2016). They have served as a source of material power and a signifier of strategic dominance and sovereignty. In the post-Cold War era, digital technologies initially seemed to reinforce globalization and economic interdependence (Mayer & Lu, 2025). However, recent developments show that advanced technologies, especially AI, are no longer considered neutral tools for improving efficiency or innovation. Instead, AI has emerged as a site of competition<sup>i</sup> through which states seek to gain an advantage, influence global hierarchies, and redefine the boundaries of national power (NATO, 2025; Robinson & Doherty, 2025).

The contemporary international system is becoming increasingly characterized by technological rivalry, fragmentation and multipolarity (Christensen & Snyder, 1990; Acharya, 2017; Burrows et al., 2021; European Union, 2024). Major powers are seeking to reduce strategic dependencies by reconfiguring critical supply chains, restricting access to advanced computing capabilities and semiconductors, and embedding AI within national security planning and industrial policy. This technological decoupling goes beyond economic competition and has become a key part of geopolitical conflict, affecting military capabilities, intelligence practices and control over information environments. Meanwhile, middle powers are seeking to position themselves within this evolving order and navigate between competing technological blocks to preserve some level of strategic autonomy (Aydin, 2021; Burton, 2021; Cooper, 2011; Tiang Boon & Teo, 2022; Armstrong, 2025; Aran et al., 2026). As AI reshapes conflict dynamics, accelerates decision-making processes and blurs the distinction between civilian and military domains, it confirms technology's role as a defining structural force in international politics (Blackwill & Harris, 2016; Germann et al., 2024; Miller, 2025; Vaynman & Volpe, 2023).

This analytical and synthetic chapter examines the impact of AI on geopolitical rivalry and systemic change. It advances the argument in five steps. First, AI is conceptualized as an arena of strategic competition within national security. Second, the chapter shows how AI intensifies geopolitical rivalry by accelerating competition over speed, information advantage, and technological dominance. Third, it examines how these dynamics reshape patterns of conflict, particularly through automation, decision-

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<sup>i</sup> The term “site of competition” is used here to signal that AI does not possess a single, stable geopolitical status. Its strategic meaning varies according to the institutional and policy context in which it is situated. In some settings, AI appears as a discrete technological capability; in others, as an enabling infrastructure, a source of economic and military advantage, a terrain of regulatory contestation, or a quasi-domain of strategic rivalry.

support systems, and algorithmic uncertainty. Fourth, it analyses the implications of AI for international order, arguing that AI contributes to fragmentation, technonationalism, and new forms of strategic interdependence. Finally, the chapter turns to Türkiye as a case study of how a middle power navigates converging geopolitical and technological pressures.

## **1. AI as an Arena of Geopolitical Rivalry**

AI's emergence as an arena of geopolitical rivalry has developed through a gradual reconfiguration of how major powers understood its strategic implications. What began as a field associated with laboratory research and commercial experimentation gradually acquired the attributes of a strategic technology relevant to the global distribution of power. By the late 2010s and especially the early 2020s, AI moved into the center of national security planning, industrial policy, and international competition.

The first stage of this shift emerged in the mid-to-late 2010s, when breakthroughs in machine learning triggered a widespread recognition that AI progress was advancing faster than many had anticipated. The victory of DeepMind's AlphaGo over Lee Sedol in 2016 became a symbolic moment (House, 2016). In the US, it was celebrated as a scientific milestone. In China, it produced a more profound reassessment. The performance gap implied by AlphaGo forced Chinese officials to confront the possibility that Western research systems were developing capabilities with applications far beyond games (Kania, 2017). Beijing responded with an explicit national strategy, the New Generation AI Development Plan of 2017, which positioned AI at the center of China's long-term economic and military modernization (Webster et al., 2017). Other states reached similar conclusions. When Putin declared in the same year that leadership in AI would determine global power, he articulated an understanding already spreading among policymakers (Horowitz, 2018). The race for advanced intelligence systems could shape the future distribution of influence as much as nuclear capability had shaped the Cold War.

By the late 2010s, this recognition produced concrete policy responses. The most dramatic theater of this is seen in the US-China strategic competition. The US had already started to use export controls to restrict Chinese access to advanced computing components, a practice that expanded significantly after 2018 (Sutter, 2025). The resulting tension prompted universities, laboratories, and firms in the US and Europe to reduce or restructure their relationships with Chinese counterparts. These developments were accompanied by a growing sense within Washington that the US risked losing its long-held technological edge. The National Security Commission on AI warned in 2021 that the country lacked the industrial base, institutional focus, and strategic coordination required for competition in the coming decade (Schmidt & Work, 2021).

The acceleration of rivalry became unmistakable after 2022. Breakthroughs in generative systems revealed the scale of US advantage, especially in training compute. The release of ChatGPT later in 2022 symbolized the widening gap. Its capabilities prompted other states to pursue what soon came to be known as sovereign AI. As the language of “sovereign AI” gained prominence, governments began funding operationally independent, large-scale models to reduce reliance on foreign firms for advanced computational tools (Alduhishy, 2024; Pohle et al., 2025). This trend was most visible in Europe, the Middle East, and parts of Asia, where leaders sought both technological autonomy and bargaining power in a world where advanced models could shape everything from economic forecasting to defense planning.

At the same time, the Biden administration issued export controls that prevented China from acquiring the most advanced AI processors and the fabrication equipment required to produce them (Moore, 2022; Armstrong et al., 2025). These rules targeted not only the flow of chips but also the capacity to train large-scale models, thereby aiming to restrain China at an earlier point in the technological pipeline. The controls extended to US persons working in the Chinese semiconductor sector to limit the transfer of expertise that had long flowed through global networks of researchers and engineers (Department of Commerce, 2022). The effect was to treat advanced AI capability as a resource to be guarded and allocated according to strategic priorities, rather than as a globally traded commodity.

By 2023 and beyond, access to AI hardware became a core dimension of foreign policy. The US began restricting not only Chinese access to high end processors but also the flow of these chips to third countries whose resale or indirect transfer might circumvent controls. Thus, by the mid-2020s, AI had moved firmly into the realm of strategic competition. The race is no longer centered solely on algorithms or models but on the complete system required to develop and deploy them, including fabrication capacity, research talent, data access, regulatory authority, and high-level computing. The convergence of these elements created a contest in which states viewed AI as an essential determinant of their position in the international system.

## **2. The National Security Aspect**

Much of the concern within military establishments stems from the belief that AI alters the tempo of warfare (Allen & Husain, 2017). Traditional strategy rests on the assumption that humans, even when supported by machines, determine the pace of decision-making. Once AI systems are introduced into the chain of command, this assumption collapses. Military planners have long used the concept of the OODA loop to describe how adversaries seek advantage. AI systems process sensor data, satellite images, and battlefield signals on timescales far shorter than human cognition. This allows forces equipped with such systems to anticipate, target, and organize in ways

that compress the decision cycle (Horowitz & Scharre, 2021, p. 6). The result is a form of conflict in which the side that integrates AI more effectively can shape the battle before the opponent has fully registered what is happening.

The implications for autonomous systems are equally consequential. Swarms of inexpensive drones, coordinated through machine learning algorithms, challenge the defensive systems that defined earlier eras. Traditional missile and air defense networks were designed to intercept a limited number of high-value targets. AI-enabled swarms invert this logic by attacking in large numbers with semi-independent coordination. This implies a landscape where the cost of offense is low, and the cost of defense is high (Glaser & Kaufmann, 1998). Beyond the battlefield itself, AI influences logistics, predicting equipment failures, forecasting supply needs, and managing transportation networks with a precision that can determine whether an army maintains momentum or grinds to a halt.

AI has become a gamechanger in the intelligence domain as well (Fidan, 2024). Intelligence agencies face a torrent of information that exceeds human analytic capacity, whether drawn from intercepted communications, satellite streams, or open sources. These agencies have already begun processing these vast datasets, identifying patterns that were previously unseen. Yet this advantage extends to adversaries as well. Automated systems search for vulnerabilities in software, uncovering weaknesses that human hackers might never detect. The prospect of integrating AI with emerging quantum computing technology raises further concerns (Buchanan & Woodward, 2017). Encryption schemes that secure state communications may become vulnerable, and governments confront the possibility that the confidentiality of their most sensitive information could be compromised.

A third arena of concern lies within the information environment. Political stability depends on the ability of citizens to distinguish between authentic communication and manipulation. AI-generated media challenges this boundary (Rubin & Vujica, 2025). Foreign actors can produce vast quantities of persuasive content, tailored to specific audiences, and distribute it across digital platforms so quickly that verification becomes nearly impossible. This marks a shift from propaganda campaigns of the past. Instead of producing a small number of carefully crafted messages, adversaries can generate millions of variations, saturating the public sphere and eroding trust in any authoritative source. Deepfake technology intensifies this pressure (Smith & Mansted, 2020). Video or audio fabrications of national leaders or public figures can trigger public panic, move markets, or undermine military readiness before corrective information can reach the population.

These developments do not create a single, discrete threat. They form a system in which AI affects the speed, scale, and credibility of national power (Reynolds, 2024). States that fall behind risk losing control over the pace of conflict, the security of their communications, and the coherence of their public sphere. For this reason, the

national security dimensions of AI have become inseparable from broader geopolitical rivalry (Flournoy, 2023). The contest is about which states can adapt their institutions, doctrines, and societies to a world where intelligence is produced, interpreted, and acted upon at computational speed.

### **3. AI and Conflict Dynamics**

The section considers conflict itself, building on the preceding discussion of AI as an issue of geopolitical rivalry and national security competition. It demonstrates how the incorporation of AI into military and strategic decision-making processes alters the nature, pace, and stability of conflict. The theories that governed conflict dynamics, including nuclear stability, crisis management, escalation control, coercive bargaining, and the offense-defense balance, were developed in a world where human cognition set the tempo of events and where uncertainty helped maintain restraint. AI undermines these foundations by altering how states perceive threats, how quickly they can act, and how vulnerable they believe their systems have become. As militaries integrate advanced algorithms into sensing, targeting, command, and information operations, conflict becomes faster, opaquer, and more psychologically unstable. What emerges is an environment in which deterrence may erode, coercion becomes more intimate and persistent, escalation accelerates, and the boundaries between peace and war blur even further.

A profound shift may take place in the realm of nuclear deterrence. Classical deterrence depends on the survival of retaliatory forces. This is the familiar logic of Mutually Assured Destruction (Sokolski, 2004). A secure second-strike capability creates stability by ensuring that no actor can escape devastating punishment. This stability requires uncertainty about an adversary's ability to find and destroy all retaliatory assets. The rise of AI threatens this structure (Johnson, 2021). Johnson (2023) argues that large-scale data processing and pattern recognition create a transparency revolution. A lack of transparency (the 'black box' problem) makes it difficult to verify AI-generated predictions in critical decision-making scenarios (Chernavskikh, 2024). Improvements in accuracy were already eroding the foundations of secure second-strike arsenals (Lieber & Press, 2020). The destructive potential of a first-strike becomes thinkable if states believe that their sensing and targeting systems are sufficiently advanced. AI accelerates this trajectory. Submarines, mobile missile units, and hardened launch facilities depend on concealment. If algorithms can fuse satellite imagery, acoustic data, thermal signatures, and electromagnetic traces with enough precision to reveal their locations, survivability collapses.

Coercion is also transformed. Traditional coercive strategies depended on visible signals such as troop movements, broad economic penalties, and limited kinetic force. AI produces a type of influence that is continuous and largely invisible. Payne's work on the psychological basis of strategy is instructive here. He argues that humans rely

on the theory of Mind to interpret intent, which AI lacks (Payne, 2018). Yet it compensates through superior pattern recognition. It can anticipate human behavior by analyzing enormous behavioral datasets. This predictive capacity alters coercion by allowing targeted manipulation of decision makers. Instead of threatening cities or infrastructure, a state may distribute personalized deepfakes, forged communications, or tailored propaganda aimed at sowing confusion within political and military institutions. The point is not deterrence by threat of punishment, but paralysis through cognitive overload.

Another potential change concerns escalation. Classical escalation theory imagines a ladder with clearly defined rungs (Kahn, 2017). Leaders choose when to escalate, pause, or retreat. AI compresses time and decision space, making deliberate choice difficult. In the age of AI, military systems will eventually require autonomy simply to survive, because human reaction times become too slow when facing AI-driven attacks (Scharre, 2019). If two opposing systems operate at high speed, they may interact in ways that neither side intends. A false radar return interpreted by one system as an attack could trigger an automated countermeasure that the adversary's system then interprets as hostile. Horowitz reinforces this concern. He argues that speed itself becomes a form of dominance (M. C. Horowitz, 2019, 2021). If a military can strike before its rival comprehends the situation, deterrence erodes, and crisis stability deteriorates. What was once a gradual process of escalation has become a sudden chain reaction, a phenomenon akin to the algorithmic nature of financial markets.

A final transformation concerns the offense-defense balance. Classical theory, especially the work of Robert Jervis, holds that war is more likely when offense seems easier than defense (Jervis, 1978). There are worries that AI pushes the balance sharply toward offense. Automated vulnerability discovery tools reveal weaknesses faster than defenders can repair them. Drone swarms complicate air defense through sheer numerical mass (Garfinkel & Dafoe, 2019). Low-cost offensive platforms overwhelm high-cost defensive systems, shifting the economic calculus in favor of attack. Taken together, these developments destabilize the entire architecture of strategic interaction. Deterrence becomes fragile because survivability is uncertain. Coercion becomes pervasive and individualized. Escalation becomes dangerously fast. Defense becomes prohibitively expensive. Moreover, the boundary between peace and war becomes indistinct. AI operates within civilian infrastructure, financial networks, communication ecosystems, and military systems simultaneously. States may not recognize when they are under attack or when their own systems have initiated actions that appear hostile.

The overall effect is a strategic environment defined by rapid tempo, diminished transparency of intent, and heightened vulnerability. Yet these pressures should not be read as evidence that AI can master the complexity of war. War remains too uncertain, and context-dependent to be reduced to computational prediction or automated control (Reynolds & Cetin, 2023). Human institutions, designed for a

slower and more predictable world, therefore face the dual challenge of adapting to technologies that accelerate conflict while recognizing the limits of those technologies in conditions of friction, ambiguity, and political judgment.

#### **4. A Transforming International Order**

Having demonstrated the manner in which AI reconfigures conflict dynamics and strategic interaction, this section explores the reconfiguration of the structure, norms and institutions of the international order that is being caused by AI-driven technological rivalry. The geopolitical contest surrounding AI is reshaping the international order with a force and speed that few institutions were designed to absorb. Although technological rivalry is not the sole cause of the dismantling of the international order (Acharya, 2017; Ikenberry, 2018; Mearsheimer, 2019), it is certainly one of the primary fronts. The post-Cold War vision of a single integrated global system in which commerce, information, and technology flowed freely across borders has given way to a world fragmented by competing technological spheres. What is unfolding is a new architecture of global interaction where AI systems, data regimes, computing hardware, and digital infrastructures form the core dividing lines. As states recalibrate their strategies around technological control, the institutions and norms that governed the late twentieth century have begun to erode into a more contested and fragmented order.

The first manifestation of this shift is the emergence of distinct technological blocks. The image of a “Splinternet” captures only part of the story (Malcomson, 2016). What is emerging is a structural divide that spans the entire technological stack, from hardware to cloud platforms, and from data governance to algorithmic design. This divide reflects incompatible visions of how digital systems should be governed. Differences between the US and China on such issues risk producing incompatible infrastructures. A country that selects Huawei for its telecommunications backbone, for example, effectively sets its long-term technological alignment, as its networks, data architectures, and emerging AI systems become tied to Chinese standards. For states in the Global South, the choice of providers for cloud services, 5G networks, and national AI systems becomes a tacit geopolitical alignment, conferring benefits in one sphere while limiting access to others.

Second, the fragmentation of global order is driven by the strategic manipulation of supply chains, a practice sometimes described as weaponized interdependence (Farrell & Newman, 2019). The US's centrality in the design network enables it to weaponize chokepoints in the assembled chips trade network (Beaumier & Cartwright, 2024). Beaumier and Cartwright (2025) demonstrate how the centrality of states varies across four interconnected networks: design, raw materials, manufacturing equipment and assembled chips. The architecture of globalization created a world in which goods were designed in one region, fabricated in another,

and assembled in a third. This system was efficient but fragile, and it placed extraordinary leverage in the hands of states that controlled key nodes. The semiconductor sector is the most dramatic example. The US commands the software and design tools required to architect advanced chips. Taiwan manufactures the majority of cutting-edge processors. Japan and the Netherlands dominate the production of the specialized equipment needed to fabricate them. China controls critical minerals essential for chip manufacture. As AI intensified the strategic value of semiconductors, these interdependencies became instruments of coercion (Blackwill & Harris, 2016). Export controls issued by the US in 2022 sought to halt China's progression in advanced computing by denying it both the chips and the machinery needed for domestic fabrication. This was an unprecedented use of supply chain leverage, sidestepping the norms of the World Trade Organization and reshaping the logic of global trade. China responded with its own restrictions on minerals essential to Western chip manufacturing and signaled that global supply chains could no longer be treated as neutral spaces of commerce (Reuters, 2025).

Third, the notion that information should circulate freely across borders, which was a foundational assumption of the early internet, has been replaced by the principle that data is a strategic asset (The Department of Defense, 2020). Data sovereignty now competes with the idea of borderless digital commons. Governments are increasingly unwilling to allow information generated within their borders to be processed or stored abroad. Europe's regulatory regime places strict limits on data flows to protect privacy (Kuner et al., 2018, pp. 1–3), while China enforces sweeping localization laws to guarantee state control over information produced by individuals and corporations alike (Yun, 2025). The US has begun to frame data access as a national security concern, pursuing measures to limit foreign control over applications that gather large quantities of user information. As these trends converge, the internet begins to resemble a constellation of national intranets, connected by narrow corridors of regulated exchange. This fragmentation constrains both the training and deployment of global AI models, which rely on large, diverse datasets that no longer circulate freely. The US's pivotal role in intellectual property and software gives it downstream influence. This effectively transforms interdependence from a mutually beneficial condition into a mechanism for achieving unilateral advantage and strategic control (Woods, 2025).

Finally, the institutions that once structured international cooperation have struggled to adapt to the new landscape. Organizations such as the WTO, the IMF, and even the UN were designed to administer a world in which economic integration and shared rules were presumed to advance stability (Ikenberry, 2018). The strategic logic of AI competition undermines this assumption. In the absence of effective multilateral oversight, nations have turned to smaller, more focused coalitions. For instance, the Chip 4 alliance gathers the principal semiconductor manufacturing powers to coordinate against Chinese technological expansion (Hasan, 2022). The US-EU Trade

and Technology Council harmonizes regulatory and industrial strategies in areas ranging from supply chain resilience to AI standards (Mullaney, 2024). The Quadrilateral Security Dialogue (QUAD, Australia, India, Japan, and the US) integrates technological coordination into a broader Indo-Pacific strategy (The White House, 2021). These arrangements reflect a broader pattern that cooperation now occurs among clusters of trusted states rather than through universal institutions.

The cumulative effect of these developments is a reordering of the global system along technological lines (Blackwill & Harris, 2016). The dense networks that once linked economies are being pruned, rerouted, or duplicated. Efficiency declines as nations construct redundant supply chains to insulate themselves from coercion. Innovation slows as scientific collaboration becomes subject to suspicion and political risk. For corporations, the once straightforward calculus of global market integration has become an exercise in geopolitical mapping. For governments, economic policy and national security policy are now nearly indistinguishable.

The emerging order resembles a world of parallel systems rather than shared institutions. The technologies that connect societies, such as computing platforms, data networks, and digital services, have become markers of alliance and instruments of influence. A person's navigation system, online search engine, cloud storage provider, and digital identity infrastructure increasingly reflect the geopolitical alignment of their state. The imagined unity of the early internet era has been replaced by a technologically partitioned world, in which AI serves as both the catalyst and the organizing principle of global division.

## **5. Geopolitics of AI and Türkiye**

Türkiye's approach to AI in national security is shaped by both immediate security imperatives and longer-term ambitions for technological autonomy. In the short term, AI is linked to counter-terrorism, military effectiveness, and intelligence capabilities; in the longer term, it is framed as part of Türkiye's effort to strengthen strategic autonomy, reduce external dependencies, and build domestic technological capacity (Çetin & Keşvelioğlu, 2025). Türkiye's position in the global AI landscape is shaped by a complex configuration of strategic dependencies that mirror broader patterns of technological asymmetry in the international system (European Commission, 2024a, 2024b; MIIT, 2015; Tarhan, 2025; Üngör, 2025). As AI development increasingly relies on access to advanced semiconductors, high-performance computing (HPC) (Thompson et al., 2025), cloud infrastructure and energy-intensive data centers, states that lack control over these resources face structural constraints on their strategic autonomy (Aran et al., 2026; Aslan, 2024). For Türkiye, dependence on foreign-designed chips, externally governed cloud architectures and globally concentrated AI platforms introduces vulnerabilities that extend beyond economic competitiveness to national security and foreign policy decision-making.

These dependencies reflect the concept of digital asymmetry in the technopolar world, where a small number of states and corporations control the infrastructure that supports AI development (Akıllı, 2025, p. 25; Wrobel & Staff, 2025). The United States export controls on advanced semiconductors and AI accelerators demonstrate that access to computing power can be politicized and weaponized as an instrument of statecraft (Sutter, 2025). For middle powers such as Türkiye, this creates a strategic dilemma: participation in global AI ecosystems promises efficiency and innovation, yet reliance on external technological nodes risks long-term dependency, exposure to coercion and the erosion of decision-making sovereignty.

In response, Türkiye has increasingly framed AI and semiconductor capacity in terms of national resilience rather than purely industrial development. Policy documents and institutional initiatives emphasize reducing foreign dependency on critical technologies (Digital Transformation Office, 2024), particularly those with dual military and civilian applications (Doğrul & Yalçın, 2022). This approach aligns with the global trend of techno-nationalism and supply-chain securitization, whereby states seek to regain control over vital technologies amid intensifying geopolitics.

### ***5.1. Middle Power Leverage in a Fragmented AI Order***

Despite these constraints, Türkiye's status as a middle power creates opportunities for strategic leverage within a fragmented global AI order (Sula, 2023). Unlike great powers, which engage in zero-sum technological rivalry, middle powers have greater flexibility to pursue selective alignment, niche specialization and coalition-based strategies (Efsthopoulos, 2015; Holbraad, 1971; Jung & Tan, 2024; Tagliapietra & Casarões, 2025). The fragmentation of global technology markets, driven by decoupling, export controls and competing regulatory regimes, has created opportunities for non-core actors to generate value in specific segments of the AI and semiconductor value chains.

Recent trends demonstrate that competition in AI does not only favor early adopters or technological hegemony. Instead, states that can integrate industrial capacity, security-driven demand and geopolitical adaptability are increasingly benefiting (Ting-Fang, 2026). Defense-oriented AI applications, ranging from autonomous systems to intelligence analysis and secure communications, generate sustained domestic demand for AI and semiconductor solutions. This facilitates learning through practice and technological advancement.

Furthermore, Türkiye's location at the intersection of Europe, the Middle East and Asia enables it to act as a connective node between various technological blocks (Süsler, 2019; Tüysüzoğlu, 2025). Although choices regarding areas such as cloud services, data governance and semiconductor sourcing inevitably have geopolitical implications, Türkiye's tradition of multi-vector foreign policy enables calibrated engagement rather than rigid block affiliation.

### ***5.2. AI and Semiconductor Ecosystem Development in Türkiye***

Türkiye's efforts to develop an indigenous AI and semiconductor ecosystem demonstrate a pragmatic acknowledgement of its ambitions and limitations. Rather than pursuing full-spectrum technological autonomy, an objective that remains prohibitively costly, even for advanced economies, Türkiye has adopted a strategy of targeted capacity building in strategically relevant domains. This approach is similar to that adopted by other middle powers, such as Japan and South Korea, where selective specialization and state-industry coordination compensate for structural constraints (Erğürüm et al., 2024, pp. 212–214).

Institutional actors play a central role in this strategy. ASELSAN's work on semiconductor compound technologies highlights Türkiye's commitment to developing defense-related chip design and manufacturing capabilities, particularly for sensors, radar systems, and secure communications (ASELSAN, 2024). These efforts are supported by the state through initiatives such as the establishment of domestic chip production facilities coordinated by TÜBİTAK, which signals a long-term commitment to microelectronics capacity, even at limited technological nodes (TÜBİTAK, 2023).

The establishment of entities such as YİTAL (Microelectronics Industry and Trade Inc.) and the emergence of firms like Yongatek Microelectronics exemplify an ecosystem-oriented approach, in which public investment, defense demand, and private-sector innovation converge (YİTAL, n.d.). While these initiatives do not make Türkiye a leader in advanced semiconductor manufacturing, they contribute to what could be described as the ability to design, adapt and maintain vital systems without being completely dependent on external suppliers.

At the AI level, Türkiye's policy discourse is placing an increasing emphasis on data governance, ethical frameworks and the development of human capital. Given that AI models depend on large, high-quality datasets, control over data, its collection, storage and processing has become a strategic concern. In this context, debates over data sovereignty and platform dependency are integral components of national power and technological resilience, not merely abstract regulatory concerns.

### ***5.3. Policy Implications and International Positioning***

The geopolitics of AI position Türkiye at a strategic crossroads where industrial policy, security planning and foreign policy converge (Oirsouw, 2024). As AI accelerates the dynamics of an arms race, intensifies protectionism and reshapes global power hierarchies, the policy choices made by Türkiye will determine its long-term position within the international system. The key issue is not whether Türkiye

can become a global AI leader, but whether it can secure sufficient digital autonomy to maintain its strategic independence in an increasingly competitive technological landscape (Ergürüm et al., 2024).

From a policy perspective, sustained investment is required across three interdependent dimensions: algorithmic capacity, data governance and energy-compute infrastructure (Housley et al., 2023; Sun et al., 2025). These dimensions correspond closely with the three pillars of digital autonomy, presence, practice and resilience, identified in contemporary technopolarity scholarship. ‘Presence’ involves maintaining a sovereign footprint in digital and AI ecosystems, ‘practice’ refers to the capacity to innovate, regulate and deploy AI domestically, and ‘resilience’ denotes the ability to withstand external technological shocks and coercive pressures.

Internationally, Türkiye’s position will depend on its ability to convert technological capacity into diplomatic leverage. In a fragmented AI order, middle powers rarely shape outcomes through technological dominance alone; they do so through selective alignment, institutional participation, and contributions to emerging governance norms. For Türkiye, this requires using its defense-industrial experience, regional connectivity, and multi-vector foreign policy to engage competing technological blocks without becoming fully absorbed by any one of them. AI is therefore not simply another sector of technological policy, but a field through which Türkiye can negotiate autonomy, partnerships, and influence in a technopolar world.

What can we learn from Türkiye’s experience about middle powers, and what can we not learn from it? The experience of Türkiye demonstrates that middle powers are able to respond to AI-driven geopolitical fragmentation by means of selective technological sovereignty, defense-oriented demand, and flexible alignment, rather than full technological sovereignty. However, it is important to note that these findings should not be overgeneralized, as Türkiye’s unique security environment and multi-vector foreign policy distinguish it from middle powers that are more firmly embedded in alliance hierarchies. In contrast to South Korea and Japan’s extensive integration within US-led semiconductor networks and the capital-driven import strategies of Gulf states, Türkiye adopts a hybrid model that prioritizes functional autonomy over scale or technological leadership.

## **Conclusion**

The integration of AI into geopolitical competition is reshaping the structure of strategic interaction. This chapter’s analysis shows that AI shortens decision-making cycles, accelerates the pace of conflict, and introduces new forms of opacity that challenge established assumptions about deterrence, escalation control, and crisis management. By intensifying the so-called “transparency revolution” (Johnson,

2023), AI may undermine confidence in second-strike survivability and weaken the foundations of strategic stability. If states believe that adversaries can use AI-enabled sensing, targeting, and data fusion to locate previously survivable assets, they may face stronger incentives to act pre-emptively in a crisis. At the same time, compressed decision timelines and opaque algorithmic assessments make it harder for leaders to distinguish between genuine threats, system errors, and adversarial deception. These dynamics increase the likelihood of miscalculation and unintended escalation in an already fragile international system.

At a systemic level, the emergence of technopolarity and the intensification of digital asymmetry suggest that the era of relatively integrated global technological development is yielding to a more fragmented order, characterized by competing digital blocks and weaponized interdependence (Farrell & Newman, 2019). Control over data, computing infrastructure and critical supply chains has become a key aspect of geopolitical power, turning interdependence from a source of mutual benefit into a means of coercion. For middle powers such as Türkiye, this transformation creates a strategic dilemma: structural dependence on foreign-designed chips, platforms and cloud architectures restricts autonomy, yet systemic fragmentation simultaneously provides opportunities for selective alignment, niche specialization and strategic hedging.

Türkiye's emphasis on strategic autonomy reflects its position as an emerging middle power seeking to preserve agency under conditions of technological dependency. Its efforts to design, adapt, and maintain critical technological systems despite external pressures represent a pragmatic response to this dilemma. Rather than pursuing full technological sovereignty or passively accepting dependency, Türkiye's approach suggests that strategic autonomy can provide a means of preserving agency in a world of technopolar fragmentation. Future research should examine how technological rivalry and sovereign AI initiatives affect the bargaining leverage of middle powers over time. Further studies could also assess how AI-enabled systems reshape the offense-defense balance through empirical analyses of drone swarms and other autonomous capabilities in contemporary regional conflicts.

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