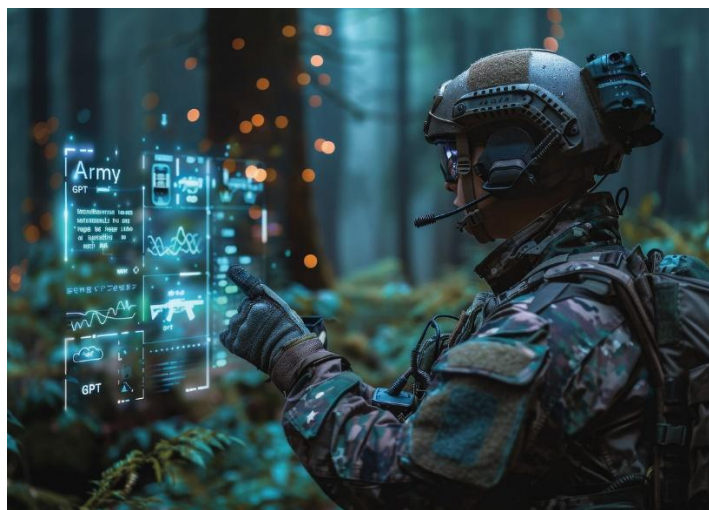


Acceleration Without Control: When Military Technology Outpaces Strategy

Nabib Bin Zahid¹



Source: The Defense Post²

Introduction

Technology and military might have always changed together, but the rate of change now seems fundamentally different. Artificial intelligence that can select and prioritize targets in a matter of seconds, hypersonic missiles that reduce warning times, and autonomous systems that require little human intervention are not incremental improvements. They act as accelerators. Not only are they changing the way conflicts could be fought, but they are also changing the speed at which decisions need to be made before wars start.

However, strategy is not as quick as coding. It is constructed by legal interpretation, alliance coordination, political discussion, and ideology. It takes time to evaluate signals, make intent clear, consider the repercussions, and control escalation. For many years, the silent cornerstone of strategic stability has been that temporal cushion. Leaders had at least some time to reflect before taking action when problems arose.

The increasing gap between technological capabilities and strategic control is a threat today. Human judgment is less important as military systems become more sophisticated. There is a

¹ Nabib Bin Zahid is a Research Assistant at the Bangladesh Institute of Peace and Security Studies (BIPSS). He has completed his B.S.S in International Relations from the University of Rajshahi.

² <https://thedefensepost.com/2026/01/14/pentagon-ai-first-strategy/>

chance that decisions will be automated, pre-delegated, or impacted by algorithmic assessments that go beyond political review. The issue is not innovation per se. Whether institutions can adapt quickly enough to manage it is the question. Vulnerability in the security domain rarely stays contained, and control becomes vulnerable when military speed outpaces strategic thinking.

The Speed Trap of Modern War

Technology and war have always developed together, but they have rarely done so at such a rapid pace. Over the course of a single generation, the military has transitioned from network-enabled operations to algorithmically assisted warfare, from precision weapons to hypersonic glide vehicles capable of moving faster than Mach 5. This time is unique not just because of innovation but also because of speed. The amount of time available for human judgment is being compressed by the speed of emerging systems, and unlike software, strategy does not update instantly.

Strategic stability has historically depended on temporal buffers. During the Cold War, even under the shadow of nuclear annihilation, leaders operated within decision windows measured in minutes – terrifying, but not instantaneous. Early warning systems, verification process, and hotline diplomacy were built precisely to buy time, to slow signaling, communication and credible restraint – all of which require interpretive space³. Deterrence was psychological as much as material. It assumed actors could assess risk before acting.



Source: Economist⁴

Today, that assumption is under strain. Hypersonic weapons reduce detection-to-impact timelines and complicate attribution and interception, undermining the predictability that deterrence

³ Schelling, Thomas C. *Arms and influence by Thomas C. Schelling*. New Haven, Conn: Yale Univ. Pr, 1967.

⁴ https://www.economist.com/cdn-cgi/image/width=834,quality=80,format=auto/media-assets/image/20220409_BLP507.jpg

depends upon⁵. Meanwhile, artificial intelligence is being integrated into surveillance, target recognition, and command-and-control systems, accelerating how threats are identified and how response options are generated⁶. These systems promise efficiency and tactical superiority. Yet they also narrow the window in which political leaders can deliberate, consult allies, and evaluate unintended consequences.

The issue is not that machines are replacing humans; it is that the speed of decision-making is shifting toward machine speed. As scholars have warned, increasing autonomy in military systems risks creating “flash wars” – crises that escalate faster than political leadership can process events⁷. In such environments, the pressure to pre-delegate or rely heavily on algorithmic recommendations grows. Speed becomes a structural constraint, not a strategic choice.

The Core Problem: Technology Moves Exponentially, Strategy Moves Institutionally

The primary conflict in modern military affairs is not just about technological development but also about the imbalance between the rate of innovation and the rate of strategic adaptation. Computational scaling, private sector investment, and iterative experimentation drive exponential dynamics in the evolution of military technologies, especially in the areas of artificial intelligence, hypersonic, cyber capabilities, and autonomous systems. In contrast, strategy is developed institutionally through political consensus, bureaucratic learning, alliance negotiation, and doctrine. These are inherently incremental processes. A structural divide between capability and control is the end result.

Similarly, hypersonic weapons compress detection-to-impact timelines and complicate traditional missile defense architectures, thereby reducing leaders’ decision windows in crisis scenarios.⁸ These systems do not merely enhance existing capabilities; they transform the temporal structure of conflict.

However, the logic behind institutional adaptation is different. Internal discussion, field experience, and testing all contribute to the evolution of military doctrine. Diplomatic negotiations and the slow development of consensus lead to the establishment of international norms. Before logical doctrines like mutually assured destruction became clear, even nuclear strategy, which is frequently used as an example of deterrence stability, needed years of intellectual development. Thomas Schelling’s work underscores that deterrence depends on

⁵ Amy F. Woolf, *Conventional Prompt Global Strike and Long-Range Ballistic Missiles: Background and Issues*, Congressional Research Service Report R41464 (Washington, DC: CRS, 2022)

⁶ Horowitz, Michael C. “Artificial Intelligence, International Competition, and the Balance of Power (May 2018).” Home Page, May 1, 2018. <https://doi.org/10.15781/T2639KP49>.

⁷ Paul Scharre, *Army of None: Autonomous Weapons and the Future of War* (New York: W. W. Norton, 2018).

⁸ Amy F. Woolf, *Conventional Prompt Global Strike and Long-Range Ballistic Missiles: Background and Issues*, Congressional Research Service Report R41464 (Washington, DC: Congressional Research Service, 2022).

signaling, communication, and shared expectations.⁹ Such strategic clarity relies on mutual understanding and political interpretation, and it cannot be created at the speed of technology.

The mismatch becomes especially acute in domains where ambiguity prevails. Cyber operations and AI-enabled systems blur the line between offensive and defensive actions, and between human and machine agency. As scholars of autonomous weapons note, increasing levels of autonomy raise complex questions about accountability, escalation control, and unintended consequences.¹⁰ Yet international governance mechanisms addressing these issues remain fragmented and slow-moving. Debates within the United Nations framework on lethal autonomous weapons systems illustrate how norm formation lags behind technical deployment.¹¹

Escalation Risks in an Accelerated Battlespace

Escalation has never been purely about capability; it has always been about perception, timing, and interpretation. What makes the contemporary battlespace distinct is not simply the lethality of emerging systems, but the compression of time within which actors must interpret signals and respond. Acceleration alters the psychology of crisis management. When warning windows narrow and decision cycles contract, the margin for strategic patience erodes.

Classical deterrence theory posited that escalation could be controlled via signaling and measured response. Thomas Schelling stressed that deterrence depends on communication, or the ability to send, receive, and understand signals when things are unclear.¹² Time was important for controlling escalation: time to make intentions clear, check actions, and rethink proportionality. That time buffer is being put to the test in a faster-paced battlefield. Hypersonic weapons, for instance, shorten the time between detection and impact and make early warning systems more difficult, which could force leaders to make decisions under a lot of time pressure.¹³ The risk is not only technical vulnerability, but cognitive overload.

⁹ Schelling, Thomas C. *Arms and influence by Thomas C. Schelling*. New Haven, Conn: Yale Univ. Pr, 1967.

¹⁰ Paul Scharre, *Army of None: Autonomous Weapons and the Future of War* (New York: W. W. Norton, 2018).

¹¹ United Nations Office for Disarmament Affairs, "Lethal Autonomous Weapons Systems," UNODA background materials, 2023 <https://disarmament.unoda.org/en/our-work/emerging-challenges/lethal-autonomous-weapon-systems>

¹² Schelling, Thomas C. *Arms and influence by Thomas C. Schelling*. New Haven, Conn: Yale Univ. Pr, 1967.

¹³ Amy F. Woolf, *Conventional Prompt Global Strike and Long-Range Ballistic Missiles: Background and Issues*, Congressional Research Service Report R41464 (Washington, DC: Congressional Research Service, 2022).



Source: Support4Partnership¹⁴

Artificial intelligence makes escalation dynamics even more complicated. AI-powered decision-support systems can quickly analyze huge amounts of data and find threats or suggest actions faster than human analysts can. These kinds of systems may make things more efficient, but they also run the risk of limiting discussion. The tendency of people to put too much faith in algorithmic outputs is called "automation bias." This is especially dangerous in times of crisis when people see hesitation as a sign of weakness¹⁵. If machine-generated assessments lead to quick countermeasures, things could get worse before political leaders have fully understood what's going on.

The danger intensifies when states pre-delegate authority to autonomous or semi-autonomous systems in order to cope with compressed timelines. Scholars have warned that increased autonomy could produce inadvertent escalation through interaction effects: systems reacting to each other's signals at machine speed without adequate human oversight. In such scenarios, misinterpretation may cascade rapidly. A defensive cyber intrusion mistaken for offensive preparation, or an AI-flagged anomaly interpreted as an imminent strike, could generate responses that exceed the original intent.

Acceleration also amplifies the security dilemma. As Robert Jervis argued, when defensive and offensive capabilities are difficult to distinguish, states may assume the worst about their adversaries' intentions. Emerging technologies often blur this distinction. Cyber tools can serve espionage or sabotage; AI systems designed for surveillance can facilitate targeting; hypersonic systems may carry conventional or nuclear payloads. In a high-speed environment, ambiguity leaves little room for cautious interpretation. Defensive modernization can appear offensive, prompting reciprocal escalation.

¹⁴https://support4partnership.org/img/s/1300x800/upload/images/article/11790/5cdadcf134812f01b86002a1cfe_d824b.jpg

¹⁵ Raja Parasuraman and Victor Riley, "Humans and Automation: Use, Misuse, Disuse, Abuse," *Human Factors* 39, no. 2 (1997): 230–53.

Ultimately, escalation risks in an accelerated battlespace stem from temporal asymmetry: the speed of operational systems exceeds the speed of political judgment. Stability requires not only deterrent capability but interpretive space — the ability to pause, assess, and recalibrate. When that space shrinks, escalation becomes less a deliberate choice and more a structural hazard of system interaction. The concern is not inevitable war, but thinner control. In a battlespace governed by machine tempo, the risk is that escalation unfolds faster than strategy can contain it.

The Real Crisis Is Not Technology - It's Strategic Governance

It is easy to describe the current era as a technological crisis, one in which autonomous systems, hypersonic weapons, and artificial intelligence have destabilized the world. However, instability is not a result of technology alone. Transformative capabilities have changed the nature of war throughout history without necessarily doing away with strategic order. Today's bigger issue is not the speed of machines, but rather the weakness of the systems of governance designed to control them.



Source: TNCR¹⁶

In contrast, the governance framework pertaining to cyber operations, AI, and autonomous weapons is still inadequate and dispersed. The urgency of the problem and the challenge of reaching a consensus are demonstrated by the UN framework's efforts to address lethal autonomous weapons systems. At the same time, private sector players are becoming more and more important in creating dual-use technologies that spread quickly internationally. Digital innovation spreads more quickly than international diplomacy's negotiation cycles. Algorithmic systems that change via software updates are difficult for governance mechanisms built for weapons from the industrial era to control.

Thus, the instability that results is institutional. Before political systems have thoroughly discussed the strategic implications of emerging technologies, military organizations incorporate

¹⁶ <https://nationalcioreview.com/articles-insights/the-real-crisis-isnt-ai-its-us/>

them into operational planning. Practice is ahead of international law. The deployment of technology is followed by normative clarity. By blurring thresholds and making attribution more difficult, this desynchronization reduces deterrence. Misperception increases if adversaries are unable to accurately assess one another's capabilities or red lines.

Crucially, the problem is not only global; it is also organizational and domestic. Civil-military cooperation, policymakers' technical literacy, and flexible doctrinal procedures are all necessary for effective governance. As academics have observed, new technologies change institutional decision-making processes in addition to capabilities. States run the risk of giving crucial authority to systems without adequate supervision or accountability if governance does not change in tandem with operational integration.

Thus, strategic governance in an accelerating environment is the underlying dilemma. Technology compresses time, but governance requires careful attention. Clearer escalation doctrines for AI-enabled systems, transparency measures to reduce uncertainty in developing domains, and adaptive regulatory frameworks that may be updated iteratively are all required to bridge that gap. In the twenty-first century, stability will be preserved by strengthening systems that balance political judgment with technological competence, rather than by stopping innovation, which is an impractical concept.

As a result, whether machines will become quicker is not the primary concern. They will. The question is whether governing systems can evolve quickly enough to keep pace with control. Institutions that are unable to make this kind of modification will cause instability.

Conclusion

The most important strategic question of our time is not whether military technology will keep getting better. Yes, it will. AI will get better, hypersonic systems will get better, and autonomous platforms will work together better. Innovation is not likely to slow down. What is still unclear is whether political and strategic institutions can change quickly enough to keep control over the speed that these technologies require.

The pattern has been clear throughout this talk. The time to make a decision is getting shorter. Doctrinal adaptation is behind deployment. Risks of escalation increase when speed and uncertainty come together. But none of these results are set in stone by technology. Instability does not stem from innovation itself, but rather from desynchronization, which occurs when operational capability progresses more rapidly than strategic governance adapts to oversee it.

History shows that strategic order isn't something that happens on its own; it has to be built. The nuclear age eventually led to the creation of doctrines, arms control agreements, and ways to communicate that made disasters less likely. That stability wasn't perfect, but it was the result of a lot of hard work by both individuals and institutions. New technologies that are coming out today need a similar adjustment. States risk operating powerful systems based on old strategic

assumptions if they don't have updated doctrines, clearer escalation thresholds, and flexible governance frameworks.

Uncontrolled acceleration is a political problem as well as a technical one. Time, discernment, and self-control are necessary for strategy. Crises become more volatile and control is weakened if machine tempo erodes those components. Strategic stability in the future will be determined more by who creates the most robust governance around systems than by who creates the fastest systems. The capacity to maintain intentional control in the face of unrelenting acceleration may be the true test of power in a time when speed is everything.