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#### China and Russia are pursuing military usage of AI now

Parrikar 2022 - Institute for Defence Studies and Analyses

By Manohar Parrikar May 30, 2022 “China and Russia are pursuing military usage of AI now” https://www.eurasiareview.com/30052022-natos-ai-push-and-military-implications-analysis/

The technological advancements in Artificial Intelligence (AI), machine learning, big data analytics, robotics, quantum computing and virtual reality have led to the rise in use of autonomous systems in military applications. This is changing the face of the battlefield by enabling new forms of military functions, over and above the conventional systems, thus enabling the execution of higher coercive actions. The North Atlantic Treaty Organization (NATO) countries are also adopting such emerging technologies to maintain their strategic advantage and to mitigate transnational threats.

Russia’s offensive cyber hostilities and China’s military adoption of AI for augmenting its high-tech warfare mechanisms have emerged as the contributing factors for NATO to upscale its technological efforts in Emerging and Disruptive Technologies (EDTs). NATO is making ambitious investments in EDTs to ensure interoperability and standardisation among member states.

This Issue Brief takes stock of the current strategic surge by NATO in AI adoption and its ongoing efforts to exploit EDTs for defence innovation and adoption. It discusses the role of AI in contemporary conflicts, specifically NATO’s response to the Russia–Ukraine conflict, and explores the vulnerabilities in the AI systems as well as the challenges and limitations in AI adoption by NATO.

NATO’s Technological Push

The US National Security Commission Report of 2021 states that China is leapfrogging to new technologies by investing in intelligentised warfare like swarm drones and using AI for reconnaissance, electromagnetic countermeasures and coordinated firepower strikes.1 The US is jointly working with its allies on the policy implications of such new technology. It is also partnering with countries like Canada, Denmark, Estonia, the UK, France and Norway, to work on military standards on AI.2

In October 2021, NATO formally adopted the first AI strategy on the responsible military use of AI with three core tasks: collective defence, crisis management and cooperative security.3 NATO’s strategy aims to accelerate the uptake of AI for military systems.4 The six principles of the NATO’s AI strategy include: Lawfulness, Responsibility and Accountability, Explainability and Traceability, Reliability, Governability and Bias Mitigation.5 This strategy aims to protect, monitor and innovate AI and related disruptive technologies in a phased manner to establish political support for AI military projects.

The strategic surge in EDTs is driven by the accelerated investment towards the military adoption and innovation of EDTs and maintaining a sustainable innovation ecosystem that can be achieved through civil–military collaboration. In 2021, NATO endorsed the strategy on EDTs that included AI and machine learning among the seven identified key technologies (Data, AI, Autonomy, Quantum, Space, Biotechnology, and Hypersonic).6 The strategy plans to invest US$ 1 billion in building test centres across Europe and North America, focusing on emerging technologies like AI, Quantum and hypersonics.7

In the NATO Summit held at Brussels in 2021, as a part of the NATO 2030 Agenda, NATO’s new Defence Innovation Accelerator for the North Atlantic (DIANA) was launched. It aims to maintain NATO’s technological edge compared to nations like China and Russia, which are challenging the West with their accelerated investments to build technological capacity and use offensive subversive measures.

DIANA has been assigned to manage the NATO Innovation Fund, receiving a funding of US$ 82.6 million a year for 15 years.8 It will explore the future roadmap of implementation of advanced technologies and competition to foster transatlantic cooperation.9 At present, there are 10 accelerator sites with more than 50 test centres in technological hubs across the states.10 The NATO advisory group on EDTs is an external body that advises NATO on the optimisation of its innovation efforts. This group provides recommendations on improving collaboration and partnerships with the private sector, industry, and academia. In addition, there are other bodies like the NATO Advisory board, Allied Command Transformation (ACT), NATO’s Science and Technology Organisation (STO), and NATO Communication and Information Agency (NCIA) that support the alliance’s adoption of deep technologies and EDTs.

NATO’s AI Influence in Russia–Ukraine Confrontations

AI has been a contributing agent in weaponising cyberspace and augmenting cyberwarfare to the next level in modern battlefield scenarios. While some of its uses such as in scaling of data analytics, data fusion, deep fakes, cyber defence have matured, its use in autonomous weapon systems and other complex operational applications are at a nascent stage.

AI has been aggressively used to spread disinformation in the Russia–Ukraine War. Machine learning algorithms have been used to amplify misleading and fake content on social media platforms, like doctored videos of invading forces and fake live streams. On the other hand, it has also been used for anomaly detection, identification of disinformation and for cybersecurity. AI uses natural language processing algorithms, machine learning and deep learning to identify anomalies in the text data, images and videos.

Russia is said to have used AI-enabled systems not only on the battlefield but also in cyberspace, targeting the critical infrastructures of Ukraine.11 Russian troll farms have been alleged to have used AI-enabled systems to generate human faces for fake propagandist personas on social media platforms like Twitter, Instagram and Facebook.12 NATO countries have also used AI to help Ukraine counter such AI-based attacks. Private companies are also playing a role in the unfolding AI battlespace. US-based companies like Snorkel AI, a data science platform, has made its services accessible to federal authorities for the detection of anomalous signals and adversary communications in order to access high-value information for better decision-making.13

Similarly, Ukraine has been given free access to Clearview AI facial recognition software, which has a database of 2 billion photos crawled from Russian social media platforms. This software is being used for the detection of Russian forces and to identify the dead and gauge the spread of disinformation in cyberspace.14 AI’s analytical potential has been tapped by companies even before the Russia–Ukraine war started. In December 2021, a geospatial data firm, SpaceKnow, claimed to have detected a military presence in Yelna, a Russian town.

The Russia–Ukraine conflict has become a test case for AI adoption in modern warfare. The US is using the conflict as a test-bed for many of its AI projects with the Pentagon’s ‘Maven’ project having contributed to the detection and classification of objects of interest from various drone footage through AI and Machine Learning (ML) algorithms. It has been reported that the Pentagon has been using AI and ML tools to collect a vast amount of data on the Russia–Ukraine war and analyse it to learn and generate battlefield intelligence about the Russian command and control strategies.15

The advanced AI-enabled systems with the US Department of Defense (DoD) are said to have been used for overseeing the battlefield and collecting and archiving signals intelligence. It was stated at the Defense One’s Genius AI Summit in April 2022 that all this information will be fed into systems for training of machine learning algorithms to support future decision-making processes.16 It is believed that the US and NATO allies have already built such AI-enabled cyber weapons and defences, information about which is said to be highly classified.17

#### NATO is key to countering this new front of modern warfare – absent adoption multiple theaters of conflict make escalation likely

Lucarelli et al 2021 - Professor at the University of Bologna, member of the Board of Directors of the Forum on the Problems of Peace and War and of the Institute of International Affairs

Sonia Lucarelli Alessandro Marrone Francesco N. Moro “Technological Changes And A Transformed International Security Environment” Nato Decision-Making In The Age Of Big Data And Artificial Intelligence, Nato Allied Command Transformation Università Di Bologna Istituto Affari Internazionali

Digital revolution has substantially transformed the world we live in, providing great opportunities but also making societies more vulnerable and transforming the meaning of state borders. Technology makes external interferences cheaper, faster and all-encompassing: citizens can potentially become direct targets of information warfare, all members of a society can be part of conflicts one way or another. From advanced weaponry to command and control, most security-related domains are undergoing deep transformations as data availability and transmission increase exponentially. This is especially true as the emergence of so-called hybrid tactics contributes to universalize the battlefield. Also, attackers may lose control of their offensive cyber weapons, and ‘collateral damages’ across the private sector and the public worldwide might be more and more difficult to contain. Less visible, yet important challenges connected with Information Communication Technologies (ICTs) also exist. For instance, data overload can create problems for decisionmakers that are unable to detect important signals. Losing sight of how machines make their calculations – a somewhat inherent feature of Artificial Intelligence (AI) – can hinder deeper understanding of phenomena as well as learning, besides having dense ethical implications.

A crucial question for Western societies and governments is how to deal with technological changes by exploiting their many benefits while managing to limit their risks. Broadly speaking, observers have long noticed the potentialities of technologies in the security domain: better situational awareness, early warning against threats and risks, the ability to prevent and/or stop attacks to happen, the use of technology against the adversaries’ own technologies, and eventually deterrence of high-end hybrid warfare or, at least, the increase of resilience against it. In particular, in order to harness the potential of new technologies, higher levels of security are needed. While internet is unfortunately not secure by design, it has to be somehow retrofit to guarantee a certain level of protection – for instance by avoiding a single point of failure, developing better firewalls, etc. Ultimately, the digital revolution poses challenges to decision makers both as potential users of new technologies and as leaders of targeted societies. Learning to achieve political aims through the support of technological innovations and at the same time acquiring the ability to prevent and manage interferences, if not attacks, have become paramount.

However, achieving such results is not only about engineering. Technologies need ad hoc governance, organizations and skilled users to properly function. Actually, history is full of examples of good technologies that were improperly used and/or unable to provide the expected gains. Therefore, a joint, multi-disciplinary efforts is needed to think and manage technologies in a more comprehensive and secure way across various domains. For instance, the very same design of AI needs exchanges with social scientists in order to limit analytical biases and increase the quality of data that will then be processed through Machine Learning (ML). Moreover, many public policies involve technologies with a strong security dimension. This is one of the main reasons security standards should be harmonized across individual government’s policies as well as among Allies: this is what has been leading NATO’s renewed efforts on standardization beyond the strictly military perimeter, for instance towards the 5G domain.

While digital technologies continue to dramatically increase in scope and relevance, they are deeply embedded into the broader geopolitical framework, with the re-emergence of multipolarism and looming great power confrontation. This connection has to be discussed and understood as it affects not only security but also economic and technological domains. The globalized supply chain of technology building block entails vulnerabilities and dependencies on unreliable suppliers. Foreign Direct Investments (FDIs) in hightech companies, Small and Medium Enterprises (SMEs) and critical infrastructures are guided not only by an economic rationale but also by a politico-military one, and have to be monitored accordingly. Cyber space and, partly, outer space are de facto unregulated global commons where the ability to set regulations and standards could be a matter of competition and/or cooperation among major countries worldwide. The notions of ‘whole-of-government’ and ‘whole-of-society’ approaches confirm that these problems should be dealt with comprehensive strategies.

Great and middle powers increasingly rely on stand-off weapons, both physical and cyber ones, able to create damages rapidly, worldwide and on a large scale. This trend is going to be accelerated by AI. Some countries are adopting principles on responsible use of AI, including in terms of control and accountability. However, a vacuum remains in international law. And such vacuum is more difficult to fill because of the aforementioned interaction between geopolitics and technologies. Different powers conceive technology – and what it can bring them in terms of benefits – in different ways, and they are unwilling to regulate internationally this field of competition and warfare.

In such a rapidly changing security environment, NATO and allied activities directly or indirectly defend citizens’ daily life. In the age of Big Data, AI and the pervasive use of internet, the challenge is to defend the ever-expanding information environment while maintaining all its functionalities.

Against this backdrop, in the post-Cold War period NATO somehow missed the opportunity to involve Allies and partners in a debate on how defense technologies and norms have been changing with the ICT revolution. The result is that the web is not secure by design, and both private and public actors struggle to mitigate risks and threats in an unregulated environment where attackers are structurally advantaged over defenders. Today, the Alliance should not miss the opportunity twice vis-à-vis Big Data, AI and, broadly speaking, the current and future (r)evolution of ICT. The aim of the 2020 Academic Conference was precisely to explore some fundamental aspects of the challenges and opportunities posed by technological change to the security environment in which NATO works. Below follows a brief introduction to NATO, cyber defense and three sets of issues investigated in closer detail: Big Data and decision-making; hybrid threats to allied decision-making; AI adoption by allied armed forces.

NATO, Cyber Defense and Emerging Disruptive Technologies NATO begun to focus on cyber defense already in 2008, and over time it built up institutions and frameworks to deal with it from a well-limited military perspective. Allies recognized a cyber attack could lead to the activation of Article 5 of the Washington Treaty on collective defense. In that case, there is a clear procedure where NATO authorities take the military lead. Article 5 does not prescribe a clear procedure factoring in new technologies. On a regular basis, headquarters and the Secretary General cabinet carry on exercises on situational awareness, whereby they receive intelligence and military advice and are immersed in an information space with blue and red teams. Moreover, every two years, there is a large-scale exercise involving national governments. These efforts aim to build familiarity with the technology-related security challenges. However, further evolution of AI-based cyber attacks can constitute an increasing threat for datareliant organizations such as NATO.

Beyond cyber defense, the Alliance started to work on the broader issue of Emerging Disruptive Technologies (EDTs) only in 2019, by setting up an innovation board co-chaired by the Deputy Secretary General and the Supreme Allied Commander Transformation. Moreover, a dedicated unit was created in the Emerging Security Challenge Division. Two White Papers were produced, respectively on AI and on autonomous weapons, to provide inputs for Allies’ decisions in this regard. The current NATO approach is based on the motto “adopting and adapting”, entailing five complimentary goals: (1) better understand emerging disruptive technologies; (2) properly look at their implications for defense; (3) decide about their use; (4) mitigate their risks; and (5) exploit their advantages.

Noticeably, the traditional defense industrial ecosystem entails long planning, oligopolistic supply and monopsonic demand. Over time, it was characterized by substantial technology transfers from the military to the civilian domain (the so-called ‘spin offs’), including the very same embryonic Internet. In recent years, several new technologies with relevant implications for security and defense have been emerging from a different ecosystem, marked by bottom-up innovation, a rapid development-to-market cycle, and a technology transfer from the civilian to the military domain. As a result, with the relevant exception of certain space assets and hypersonic technologies, the civilian sector is increasingly developing into the innovation driver, and defense one has become quite dependent. Such a shift implies that priority setting for current and future technology development is not substantially driven by states anymore. In the US, the Pentagon’s Defense Advanced Research Projects Agency (DARPA) struggles to develop a dialogue with the private sector gravitating around the Silicon Valley to embrace certain research lines. The NATO Industry Partnership on the cyber domain serves as platform for Alliance’s officials and industrial representatives to exchange notes, yet major ICT players do not seem very interested in having such a structured dialogue. Moreover, investments in these technologies require venture capitals and the acceptance of the risks to fail – something which usually states, and particularly Ministries of Defense, cannot afford. The US, the UK, France, Germany, the Netherlands and other Allies made certain steps to adapt their defense innovation models in these domains, but this is only the beginning of a long transformation process.

As a matter of fact, adapting to emerging and disruptive technologies is harder for some Allies than others. The related risk is moving towards a multi-layer Alliance, with some member states holding new technologies, and others not having such advantage. Ideally, the solution would be to collectively adopt certain new technologies, but this represents a challenge for the NATO Defence Planning Process, military procurement, common funding, etc. A technology group of experts has been appointed to reflect upon issues including but not limited to these, and the Secretary General will probably present a report to the next summit of Heads of state and governments.

#### Incorporating AI into military logistics and sustainment reinvigorates the defense industrial base – that ensures supply chains capable of rapid response

Low 2022 - junior fellow at NDIA

By Thomas Low 3/25/2022 “U.S. Must Ready Defense Industrial Base to Aid NATO” https://www.nationaldefensemagazine.org/articles/2022/3/25/us-must-ready-defense-industrial-base-to-aid-nato

People across the globe have witnessed first-hand Russia’s renewed aggression towards Ukraine, a conflict resulting in the largest land war in Europe since World War II. If the United States and its NATO allies cannot deter such action, it could be possible for similar scenes to occur in other countries bordering Russia. A prime example are the Baltic states: Estonia, Latvia and Lithuania. Though now tied to the West through economic cooperation, as well as military alliances such as NATO, these nations previously existed as part of the Russian sphere of influence. They have sizable Russian minorities who speak Russian and consume Russian news. Recent events have put paired action to what has up to now been mere verbal antagonism toward NATO’s eastern expansion. While a conflict with NATO members would result in a wholly different set of ramifications, member countries should not fail to take the steps required to deter wider regional conflict. In order to adequately remain vigilant against any possible scenario, the United States in its own right needs to take the steps necessary to prepare its defense industrial base. Yet an important question remains: What is the current state of this vital economic sector? To answer this, one should examine the National Defense Industrial Association’s annual report, “Vital Signs 2022: The Health and Readiness of the Defense Industrial Base.” While the report does not assess individual defense companies, it does analyze the environment in which they are asked to operate. This year’s report assigned the industrial base an overall “unsatisfactory, failing” grade of 69. While this score is obviously disappointing, for the purposes of this analysis, two particular sections are particularly relevant. First, “Production Capacity and Surge Readiness” capabilities dropped a significant 15 points compared to the previous year. This can partly be attributed to the evolving effects of the COVID-19 pandemic but is nonetheless a cause for serious concern. When coupled with the current status of NATO’s Eastern European members, the problems are only compounded. In the Baltic region, for example, NATO lacks a significant military presence. In January of this year alone, there were only 4,000 NATO troops stationed in the Baltic states, without any accompanying tanks or warplanes. It would be difficult and time-consuming to try and surge much-needed personnel into the Baltic region should it prove necessary. The lack of current personnel and infrastructure, coupled with existing capacity challenges in the United States, would place NATO in an unenviable position if an industrial and deployment surge became necessary. A massive effort would be required as the industrial base maneuvers to produce countless weapon systems and munitions. There is also another factor that must be considered when addressing the build-up of deterrence forces in NATO member territories. This is the development of new and evolving technologies. In the “Emerging Technologies” section, the report details several modernization priorities that can deliver technical capabilities needed to cope with an evolving security environment. Of those areas, hypersonics stand out as one technology particularly crucial to keeping pace with other emerging great powers. By definition, hypersonic weapons are those which can travel more than five times the speed of sound, or Mach 5. For numerous nations, including the United States, they represent the next frontier in missile technology. However, for far too long, research and development necessary to cultivate this technology have been lacking. In “Vital Signs 2022,” Congressional interest in these capabilities expressed in committee hearings decreased six percent. This is a troubling trend, especially when considering the significant resources near-peer adversaries are devoting to developing this technology. Hypersonic systems, which could be utilized for a variety of deterrence purposes, remain a crucial element within NATO’s security apparatus. Yet as previously mentioned, efforts have been neglected for far too long. Development has accelerated and then been halted while developmental testing has happened at a painfully slow rate if at all, resulting in years of slow progress allowing other nations to leap ahead. Russia recognizes this, as their Defense Minister Sergei Shoigu recently confirmed hypersonic missiles will make up the core of his nation’s non-nuclear deterrence. Russia’s key strategic partner, China, is also cognizant of these developments, having accelerated its own hypersonic program through extensive investments and testing—over 10 times the rate of U.S. testing. Since the Soviet Union’s collapse, there has been a relative peace in Europe. Gone were thought to be the days of vast European land wars that displaced populaces and reduced cities to rubble. This collective idea has been shattered by the recent actions of Russia in the Ukraine. At the same time, competition continues to heat up in the Western Pacific as China notes the Western response to aggression. When NATO was established in 1949, its purpose was to provide a collective security measure in the event of future conflict with the Soviet Union and later its Warsaw Pact allies. It sought not to conquer or provoke additional tension. The same principles exist today, as NATO members seek to secure their future and establish a peaceful existence. To achieve this goal, especially in more geographically sensitive regions, the U.S. and its NATO allies should closely examine current capabilities in order to deter future costly confrontations. A renewed priority must be placed on industrial capacity and capabilities, investments in emerging technologies, and force posture.

#### It's the only way to maintain power projection

Futcher et al 2022 - Senior Manager, Business Consulting, Ernst & Young LLP, Executive Director, Ernst & Young LLP, EY-Parthenon Americas Government and Public Sector Leader

John Polowczyk, Robert Lytle, Frank Futcher March 25 2022 “Four actions to modernize military logistics and supply chain security” https://www.ey.com/en\_us/strategy/four-actions-to-modernize-military-logistics-and-supply-chain-security

For the US to remain in stride with warfighting demands across vast distances, now is the time to rethink US military logistics and integrate commercial supply chain practices and capabilities. Defense operations can catch up with two decades of rapid advances in technology that have enabled commercial supply chains globally. These Industry 4.0 technologies, including artificial intelligence and machine learning used in predictive analytics, supply chain intelligence and more autonomous functionality, can quickly bridge gaps and increase speed in contested defense scenarios. The result can be greater cargo visibility, smarter warehousing and better transportation utilization. Challenges during the COVID-19 pandemic highlight the need for greater resiliency, responsiveness and military supply chain visibility. The U.S. Navy can get ahead of economic, cyber and other contested scenarios that could disrupt logistics. The Department of Defense (DoD) can make the investment to re-architect a defense supply chain and logistics infrastructure that fosters resilience, velocity and agility at enterprise scale before the next major challenge. History can inform new military supply chain partners Throughout 20th century conflicts, the cornerstones of US military dominance were an agile warfighting force; a defense industrial base that excelled at research-driven manufacturing; and a global logistics capability that set the bar for planning, stockpiling and large-scale transportation. That logistics dominance, however, is eroding as readily available technological tools enable potential adversary abilities to deny access and impede sustainment operations. In addition, new disruptive and asymmetric capabilities in the cyber and space domains have global reach. At the same time, hypersonic weapons put logistics at risk from a great distance. Recent enemy cyber threats to a US low-orbit satellite and to US energy pipeline infrastructure show that attacks can be extremely focused and result in acute domestic risk. The US military can work more closely with commercial partners and allies to identify vulnerabilities and build agility into critical supply chains. In this military supply chain transformation, private partnerships can foster greater diligence by tapping commercial supply chain lessons and big data to ferret out solutions to major issues, such as a lack of supply availability, limited to no end-to-end visibility and a lack of resiliency. 1. Design a more modern and agile IT infrastructure Design a more modern and agile IT infrastructure to operate logistics when communications are compromised. Systems can have multiple nodes and support deep, predictive analytics that function afloat, ashore or at enterprise scale without connectivity. Many companies and federal agencies have created such networks, which can be phased and adaptive when an IT system is degraded. 2. Embrace better end-to-end (E2E) visibility tools Gaining better E2E visibility can start with a supply chain risk management assessment that can expose risks at critical supply points, including energy infrastructure, as well as deep relationships at resupply locations, at ports, and with allied and commercial partners. A vulnerability assessment can expose and remediate weaknesses among DoD partners, especially commercial and foreign partners, and build agility across all supply classes. Another E2E tool is the creation of a supply chain digital twin, a model to generate predictive analysis and visualizations on potential supply chain disruptions across the world. Built on real-time data, simulation, machine learning and reasoning, a digital twin can improve the decision-making process. 3. Predict real-time supply needs and create surge capacity. By knowing what is needed when and where, AI can advance predictive logistics and execute preplanned push logistics. Commercial industrial supply chain resiliency was lacking at the height of the COVID-19 pandemic, which resulted in lessons in U.S. Navy supply chain readiness. During supply surges in conflict, when cybersecurity breaches could disrupt the supply chain, the Navy of the future needs the ability to mobilize supply production at any location, especially in the context of great power competition. The use of Industry 4.0 technology enablers at scale can deliver data-driven insights to commanders and wrench turners alike. In addition to forecasting with AI and machine learning, this can include predictive maintenance and other applications: Predictive logistics: Using machine learning, internet of things data, natural language processing and advanced analytics to help drive and operate the system in a more autonomous mode Process optimization: Business process reengineering and modernization, which can drive fundamental change, rather than applying incremental improvement with new systems There are also lessons to learn from the US government and private industry coordination of medical supply chains and logistics at the height of the COVID-19 pandemic. The problem: critical medical supplies were largely produced outside the United States. After initial medical supply inventories were exhausted, there was no ability to quickly expand production to meet the need. The critical lesson was that you can’t immediately surge what you don’t have, even with the Defense Production Act (DPA). The nation had limited visibility on medical supply production, lacked surge contracts and lacked data infrastructure to augment visibility on everything from raw materials to alternative sources. However, with private commercial supply data combined with government COVID infection statistics, shipments eventually could be distributed quickly and equitably. The lessons showcase that military supply chain leaders can get ahead of the next challenge and collaborate with the private sector, and illustrate the need for greater DoD agility. A contested logistics situation would be even more difficult than the COVID-19 pressures on labor, materials sourcing, production and delivery.

#### Great power conflict is inevitable absent leadership in the application of artificial intelligence

Matthew Kroenig 18, Deputy Director for Strategy, Scowcroft Center for Strategy and Security Associate Professor of Government and Foreign Service, Georgetown University, 11/12/18, “Will disruptive technology cause nuclear war?” https://thebulletin.org/2018/11/will-disruptive-technology-cause-nuclear-war/

Recently, analysts have argued that emerging technologies with military applications may undermine nuclear stability (see here, here, and here), but the logic of these arguments is debatable and overlooks a more straightforward reason why new technology might cause nuclear conflict: by upending the existing balance of power among nuclear-armed states. This latter concern is more probable and dangerous and demands an immediate policy response.

For more than 70 years, the world has avoided major power conflict, and many attribute this era of peace to nuclear weapons. In situations of mutually assured destruction (MAD), neither side has an incentive to start a conflict because doing so will only result in its own annihilation. The key to this model of deterrence is the maintenance of secure second-strike capabilities—the ability to absorb an enemy nuclear attack and respond with a devastating counterattack.

Recently analysts have begun to worry, however, that new strategic military technologies may make it possible for a state to conduct a successful first strike on an enemy. For example, Chinese colleagues have complained to me in Track II dialogues that the United States may decide to launch a sophisticated cyberattack against Chinese nuclear command and control, essentially turning off China’s nuclear forces. Then, Washington will follow up with a massive strike with conventional cruise and hypersonic missiles to destroy China’s nuclear weapons. Finally, if any Chinese forces happen to survive, the United States can simply mop up China’s ragged retaliatory strike with advanced missile defenses. China will be disarmed and US nuclear weapons will still be sitting on the shelf, untouched.

If the United States, or any other state acquires such a first-strike capability, then the logic of MAD would be undermined. Washington may be tempted to launch a nuclear first strike. Or China may choose instead to use its nuclear weapons early in a conflict before they can be wiped out—the so-called “use ‘em or lose ‘em” problem.

According to this logic, therefore, the appropriate policy response would be to ban outright or control any new weapon systems that might threaten second-strike capabilities.

This way of thinking about new technology and stability, however, is open to question. Would any US president truly decide to launch a massive, bolt-out-of-the-blue nuclear attack because he or she thought s/he could get away with it? And why does it make sense for the country in the inferior position, in this case China, to intentionally start a nuclear war that it will almost certainly lose? More important, this conceptualization of how new technology affects stability is too narrow, focused exclusively on how new military technologies might be used against nuclear forces directly.

Rather, we should think more broadly about how new technology might affect global politics, and, for this, it is helpful to turn to scholarly international relations theory. The dominant theory of the causes of war in the academy is the “bargaining model of war.” This theory identifies rapid shifts in the balance of power as a primary cause of conflict.

International politics often presents states with conflicts that they can settle through peaceful bargaining, but when bargaining breaks down, war results. Shifts in the balance of power are problematic because they undermine effective bargaining. After all, why agree to a deal today if your bargaining position will be stronger tomorrow? And, a clear understanding of the military balance of power can contribute to peace. (Why start a war you are likely to lose?) But shifts in the balance of power muddy understandings of which states have the advantage.

You may see where this is going. New technologies threaten to create potentially destabilizing shifts in the balance of power.

For decades, stability in Europe and Asia has been supported by US military power. In recent years, however, the balance of power in Asia has begun to shift, as China has increased its military capabilities. Already, Beijing has become more assertive in the region, claiming contested territory in the South China Sea. And the results of Russia’s military modernization have been on full display in its ongoing intervention in Ukraine.

Moreover, China may have the lead over the United States in emerging technologies that could be decisive for the future of military acquisitions and warfare, including 3D printing, hypersonic missiles, quantum computing, 5G wireless connectivity, and artificial intelligence (AI). And Russian President Vladimir Putin is building new unmanned vehicles while ominously declaring, “Whoever leads in AI will rule the world.”

If China or Russia are able to incorporate new technologies into their militaries before the United States, then this could lead to the kind of rapid shift in the balance of power that often causes war.

If Beijing believes emerging technologies provide it with a newfound, local military advantage over the United States, for example, it may be more willing than previously to initiate conflict over Taiwan. And if Putin thinks new tech has strengthened his hand, he may be more tempted to launch a Ukraine-style invasion of a NATO member.

Either scenario could bring these nuclear powers into direct conflict with the United States, and once nuclear armed states are at war, there is an inherent risk of nuclear conflict through limited nuclear war strategies, nuclear brinkmanship, or simple accident or inadvertent escalation.

This framing of the problem leads to a different set of policy implications. The concern is not simply technologies that threaten to undermine nuclear second-strike capabilities directly, but, rather, any technologies that can result in a meaningful shift in the broader balance of power. And the solution is not to preserve second-strike capabilities, but to preserve prevailing power balances more broadly.

When it comes to new technology, this means that the United States should seek to maintain an innovation edge. Washington should also work with other states, including its nuclear-armed rivals, to develop a new set of arms control and nonproliferation agreements and export controls to deny these newer and potentially destabilizing technologies to potentially hostile states.

These are no easy tasks, but the consequences of Washington losing the race for technological superiority to its autocratic challengers just might mean nuclear Armageddon.

#### Unrestrained great power competition causes extinction

Litwak 2021 - Senior Vice President and Director of International Security Studies, Wilson Center

Robert S. Litwak "Geostrategic Competition and Climate Change: Avoiding the Unmanageable" September 15. https://www.wilsoncenter.org/article/geostrategic-competition-and-climate-change-avoiding-unmanageable

Humanity faces two catastrophic, indeed existential, threats—climate change and nuclear war. These risks play out before us as if on split screen. On one side are the here-and-now impacts of climate change: wildfires from Siberia to California to southern Europe, scorching “heat domes” over the Pacific Northwest, and “once in a thousand years” flooding in China. On the other, heightened geostrategic competition carrying the greatest risk of war between nuclear powers since the depths of the Cold War: in the month of April 2021 alone, a Russian troop surge on the Ukraine border triggered an “imminent crisis” alert in NATO while Chinese naval vessels and bombers conducted a largescale war-game encircling Taiwan. Though ostensibly discrete, the events playing out on the split screen are linked. This new nexus between geostrategic competition and climate change must be understood and integrated in policy if the twin threats are to be averted.¶ In his landmark book, Hot, Flat, and Crowded, New York Times columnist Thomas L. Friedman stated that the central challenge of climate change to humanity is now “to manage what is already unavoidable and avoid what will truly be unmanageable.” To that compelling formulation can be added a corollary reflecting the new nexus: avoiding unconstrained geostrategic competition is a prerequisite for managing the climate threat.¶ The window for humanity to avoid unmanageable climate change is narrowing. The United Nations’ Intergovernmental Panel on Climate Change (IPCC) reports that global temperatures will inexorably rise 1.5 degrees Celsius above pre-industrial levels by mid-century because of the projected level of atmospheric carbon. The IPCC starkly warns that the dire consequences arising from a temperature increase beyond that point can only be averted through prompt concerted global action to bend the curve and sharply reduce atmospheric carbon. UN Secretary-General António Guterres called the report a “code red for humanity.” China, the United States, and Russia are, respectively, the first, second, and fourth largest carbon emitters.¶ Yet at the precise historical juncture when unprecedented global cooperation is necessary to forestall catastrophe, the world is on the brink of unconstrained geostrategic competition. Indeed, U.S. relations with Russia and China are the worst they have been since the end of the Cold War, with a recent Department of Defense policy document warning of an “increased potential for regional conflicts involving nuclear-armed adversaries … and the potential for adversarial nuclear escalation in crisis or conflict."¶ One could logically argue against a linkage—that if the great powers have a mutual interest in averting a climate catastrophe then cooperation in that area could be compartmentalized from geostrategic tensions. But the onset of unconstrained geostrategic competition negates the possibility of compartmentalization. Contrasting positions on the nexus—the linkage between geopolitical competition and climate change—were evident in an exchange between Chinese Foreign Minister, Wang Yi and former Secretary of State John Kerry, now the Biden administration’s Special Presidential Envoy for Climate during his visit to China in August 2021. Wang warned that cooperation on climate change “cannot possibly be divorced” from other geopolitical tensions, while Kerry countered that climate change is neither “a geostrategic weapon” nor “ideological”….but “a global, not bilateral, challenge.”¶ These contending perspectives divide along political theorist Arnold Wolfers’s classic dichotomy between “possession goals” and “milieu goals.” Possession goals relate to the preservation or enhancement of a state’s narrow national interest—for example, in relation to territory or trade relations. In contrast, milieu goals pursued by a state aim to shape and improve the international political environment beyond parochial national interest—which in this context relate to the fostering of favorable conditions for concerted action on climate change.¶ Applying this framework, the Chinese Foreign Minister’s comment suggests that climate change is viewed within the context of furthering conventional Chinese possession goals—that cooperation on climate change can be leveraged to gain advantage on another issue (such as Taiwan). Kerry’s rejection frames climate change as a milieu goal whose existential stakes transcend any one state’s national interests. Through Kerry, the Biden administration has signaled its aspiration to eschew efforts by other states to relegate climate change to just another issue in transactional diplomacy.¶ Yet on a macro level—elevating climate change to a milieu goal—the linkage between geostrategic competition and climate change is unavoidable. Even if unconstrained geostrategic competition does not lead to conflict that might itself trigger catastrophic global destruction, virulent relations between the United States and its great-power adversaries create a political environment in which close cooperation on climate change becomes difficult, if not impossible. For that reason the avoidance of unconstrained geostrategic competition is a prerequisite for addressing climate change. To be sure, avoidance does not mean the elimination of geostrategic competition, but rather, bounding it to mitigate the risks of conflict through effective management.¶ Avoiding Unconstrained Competition¶ New risk factors have brought the great powers to the verge of unconstrained geostrategic competition. An understanding of those risks provides insight into how they can be mitigated and thereby managed.¶ A New Calculus of Risk¶ Contemporary geopolitics is driven not by Cold War ideology, but by nationalism and expansive assertions of state sovereignty. Nuclear powers are engaged in strategic competition with the United States over the territorial status quo in areas of vital interest—for China, Taiwan and the South China Sea; for Russia, Ukraine and the periphery of the former Soviet Union. This contrasts with the Cold War era in which the superpowers engaged in competition in the regions of what was then called the Third World, which were clearly of peripheral interest. This geostrategic competition runs the risk of war through inadvertent escalation driven by miscalculation and misperception.¶ The territorial dimension, which could be the occasion for great-power conflict, is compounded by key developments affecting the nuclear deterrent relationship between the United States and its great-power adversaries. All the nuclear-weapon states have embarked on ambitious force modernization programs, and they are developing capabilities, such as low-yield nuclear weapons, which critics warn make them more usable in a crisis. The Trump administration’s Nuclear Posture Review claimed that the Russians had adopted an “escalate to deescalate posture” involving the first use of tactical nuclear weapons. Moreover, military escalation has traditionally been conceived as progressing from conventional to nuclear forces. With the advent of new technologies, however, escalation during a crisis would most likely occur in a non-traditional domain—cyber or space. Conflict escalation could plausibly take the form of a cyberattack to interfere with an adversary’s communications with its nuclear systems or an attack on reconnaissance satellites to blind an adversary. These developments could have the destabilizing consequence of creating an incentive for one side or the other to take preemptive action during a crisis.¶ Managed Competition¶ The contemporary pursuit of strategic stability is conditioned by the recasting of the traditional tension between two Cold War dynamics. The first is the so-called “stability-instability paradox,” which captures the dynamic in which a nuclear stalemate between adversaries may embolden lower-level aggression on the regional level. The second is what Cold War strategist Albert Wohlstetter described as the “delicate balance of terror” which emphasized the maintenance of a stable and robust deterrence, thereby removing any incentive for one power or another to strike first in a crisis.¶ As during the Cold War, this tension can be managed, but it cannot be resolved. Key elements—some aspirational, others operational, many surrounded by uncertainty—will affect the prospects for successful management:¶ Resolve/Manage regional flashpoints—The best way to avoid conflict among nuclear-weapon states is to redouble diplomatic efforts to address the territorial disputes that could precipitate it. To be sure, if these territorial issues were easy to resolve, they would have been. In some instances, domestic politics in one or both parties may be an impediment to resolution; in others, the discrete territorial issue may be a proxy for a more deeply rooted source of enmity or grievance. If resolution is not possible, conflict management may be. For example, the Code for Unplanned Encounters at Sea (CUES), to which both China and the United States are signatories, may be a mechanism for managing maritime tensions between their navies.¶ Maintain the residual arms control architecture—The new START treaty has been extended until 2026 and provides certainty and time for Russia and the United States to agree on a successor arrangement and outstanding issues (such as non-strategic nuclear weapons and engaging or taking Chinese capabilities into account).¶ Do not blur conventional and nuclear operations to prevent inadvertent escalation—Placing conventional warheads on ballistic missiles, such as that envisioned through the “Conventional Prompt Global Strike,” has utility (the ability to reach any target on the globe in under one hour), but runs the risk that Russia may perceive (and respond to) the launch of a ballistic missile that it associates with U.S. nuclear capabilities as the initiation of such an attack. Another potential driver of inadvertent escalation, with implications for both Russia and China, is the targeting of an adversary’s conventional capabilities that are co-located with its nuclear capabilities.¶ Mitigate risks through strategic dialogue—In the absence of an arms control architecture, each nuclear power in the multipolar system will have strategic autonomy to structure its offensive and defensive systems. All of the nuclear-weapon states have long been uncomfortably ambivalent with vulnerability captured in the acronym MAD—mutual assured destruction. But since the Cuban missile crisis, assured retaliation—eliminating incentives for a surprise first strike—has been the sine qua non of strategic stability. The risk now is that an unconstrained arms race (unregulated numbers of offensive and defensive systems, in tandem with new weapons technologies and cross-domain threats to space and cyber assets) could revive those incentives and undermine the deterrent relationships. In the past, arms control negotiations provided a forum for strategic discourse. “On a bilateral or a multilateral basis,” scholars Christopher Chyba and Robert Legvold argue, “the United States, Russia, and China should pursue discussions intended to improve understanding of one another’s strategic concerns and views on which actions by an adversary would be especially concerning or dangerous.” The focus should be on negotiated restraints (e.g., a ban on the deployment of anti-satellite weapons) to enhance stability and reduce incentives for one side or the other to act preemptively during a crisis.¶ Managing the Geopolitics of Climate Change¶ When George Kennan, the diplomatic architect of U.S. containment policy, declared the end of the Cold War, he explained that the Soviet Union under Mikhail Gorbachev had evolved from a revolutionary state into an orthodox great power—the country “should now be regarded essentially as another great power, like other great powers.” Kennan was essentially arguing that Russia’s post-Soviet foreign policy, stripped of ideology, was a renationalized version of traditional Russian foreign policy with strategic priorities starting with the “near abroad” of the former Soviet republics abutting the West.¶ A “risen” China presents an analogous case of an orthodox great power making assertive claims of territorial sovereignty on its periphery. This new superpower is deeply integrated into the global economy and presents a variegated challenge in a way that Russia, a one-dimensional superpower, does not. War between the United States and China is not inevitable, but the world’s two dominant powers could mismanage their way into it.¶ That Russia and China are orthodox great powers, not revolutionary states seeking the overturn of the international order, creates political space for the United States to initiate strategic dialogues with them separately or together to lower tensions and reduce the risks of conflict—thereby fostering a favorable international milieu to address the exigencies of climate change.

### 1AC Advantage – Democracy

#### Advantage 2 is Democracy

#### Incorporation of multinational alliances is key to effective integration of artificial intelligence systems in military logistics and support – it's the only way to effectively counter future threats

Cooper 2021 – a nonresident senior fellow at the Atlantic Council, former assistant secretary at the US Department of State, a former senior intelligence officer for the US Joint Special Operations Command, and a combat veteran.

R. Clarke Cooper December 23 “A multipolar world requires more adaptive US security thinking” New Atlanticist https://www.atlanticcouncil.org/blogs/new-atlanticist/a-multipolar-world-requires-more-adaptive-us-security-thinking/

While the scale and volume of military interventions by China, Russia, and Iran are reportedly lower now than at the height of Cold War, the increasing risks of disruptive actions by these state actors and their proxies in a multipolar world require deterrence featuring robust technological solutions, which can only emerge from smart, adaptive policy.

The United States and its security partners are awaiting the Biden administration’s Global Posture Review, along with the potential expansion of security cooperation procedures, expanded congressional reviews, and a revision of the Conventional Arms Transfer (CAT) Policy—which would further protract an already lengthy arms-sale process. Meanwhile, dictatorial adversaries of democracy and freedom in Beijing, Moscow, and Tehran are aggressively seeking opportunities for disruption wherever Washington might expand or reduce security cooperation, or simply withdraw its presence. Ready access to low-cost, but effective, commercial technologies render that threat even more potent.

For the United States to remain a leader in this new multipolar world and more effectively plan its global posture, it must snap out of a Cold War-style mindset, cut down on bureaucracy, and refrain from expanding processes that hamstring security cooperation.

The Trump administration made some notable advances to promote innovation and protect US technological advantage through its 2017 National Security Strategy; 2020 National Strategy for Critical and Emerging Technologies, designed to actively promote innovation; and its commitment to revise the US export policy for Unmanned Aerial Systems (UAS). These policies were a good start, but not enough. Now President Joe Biden has an opportunity to bring them to fruition.

To understand the rapid emergence of UAS threats, look no further than the growth of Iran’s military drone program in recent years, which also extends to Iran-backed groups across various regional conflicts. This includes Houthi rebels in Yemen using drones against Saudi Arabia, Hamas deploying them against Israel in the Gaza Strip, and Iraq-based Shia militia using them to attack US troops—likely including the recent drone attack on Al Tanf, a remote US outpost on the Syrian-Jordanian border. Iran’s increasing use of this technology, specifically “suicide” or “kamikaze” drones that fly into their targets and explode, requires integrated air defenses and Counter-Unmanned Aircraft Systems (C-UAS) technology. Regional US partners in the Middle East, which have increasing requirements to deter Iranian aggression, will seek every opportunity to acquire it from the US government.

The US security establishment has long acknowledged that adversaries like China and Iran are pursuing commercial, off-the-shelf technologies that can threaten US personnel, penetrate allies’ and partners’ air defenses, and generally challenge regional stability. But the US approach still has room for improvement.

As part of its new CAT policy, the Biden administration is considering expanding bureaucratic processes for arms sales to better safeguard US interests—but this inadvertently chips away at the prime placement of American aerospace and defense industries in the global marketplace. Extending the processes for military arms sales and transfers risks ceding the security cooperation space to US adversaries. The United States has a unique role in the world, and its national-security interests—including its defense industrial base—shouldn’t be compromised (certainly not by the government) in pursuit of a “level playing field,” as recently advocated by Assistant Secretary of State for Political-Military Affairs Jessica Lewis. For the US government to suggest putting US industry on par with competitors is counterintuitive; it is a national- and economic- security imperative for the government to bolster US industry to excel with every possible advantage.

US security cooperation historically encompasses facilitating arms sales, staging military training and exercises, developing interoperability among allies and partners, and bolstering the sovereign defense capabilities of security partners. All these efforts need to continue at a deliberate pace—but in a post-Cold War world, the United States no longer has a monopoly on arms sales with an overt technological advantage in all areas.

In recent years, intelligence, surveillance, and reconnaissance capabilities became the focus of Chinese UAS production, and as then Chairman of the Joints Chiefs of Staff Joe Dunford noted in 2018, “Whoever has the competitive advantage in artificial intelligence and can field systems informed by artificial intelligence, could very well have an overall competitive advantage.” Many of us in the national-security enterprise at the time were also concerned with how AI innovation would shape the development of drones and integrated air-defense systems. With that technological competition heating up, allies and partners matter more than ever.

To remain the “partner of choice” for its allies and partners, the United States needs to work closer with them in collaborative partnerships, such as the trilateral AUKUS defense pact among the United States, Australia, and the United Kingdom. It can also develop other proactive collaborative schemes in emerging technologies to enhance shared capabilities and interoperability, help security partners successfully meet updated UAS export policy, and aggressively advocate for and develop integrated air-defense capabilities.

For the sake of American interests, the US government must carefully foster its partnerships and spark a level of defense innovation to keep the United States and its partners truly secure.

#### The aff is a key first step to creating international standardization around harmonized, democratic governance on AI

Heikkila 2021 – staff writer @ Politico

BY MELISSA HEIKKILÄ March 29, 2021 4:14 pm “NATO wants to set AI standards. If only its members agreed on the basics.” https://www.politico.eu/article/nato-ai-artificial-intelligence-standards-priorities/

On paper, NATO is the ideal organization to go about setting standards for military applications of artificial intelligence. But the widely divergent priorities and budgets of its 30 members could get in the way.¶ The Western military alliance has identified artificial intelligence as a key technology needed to maintain an edge over adversaries, and it wants to lead the way in establishing common ground rules for its use. ¶ “We need each other more than ever. No country alone or no continent alone can compete in this era of great power competition,” NATO Deputy Secretary-General Mircea Geoană, the alliance’s second in command, said in an interview with POLITICO.¶ The standard-setting effort comes as China is pressing ahead with AI applications in the military largely free of democratic oversight.¶ David van Weel, NATO’s assistant secretary general for emerging security challenges, said Beijing's lack of concern with the tech's ethical implications has sped along the integration of AI into the military apparatus.¶ "I'm ... not sure that they're having the same debates on principles of responsible use or they're definitely not applying our democratic values to these technologies,” he said.¶ Meanwhile, the EU — which has pledged to roll out the world's first binding rules on AI in coming weeks — is seeking closer collaboration with Washington to oversee emerging technologies, including artificial intelligence. But those efforts have been slow in getting off the ground.¶ For Geoană, that collaboration will happen at NATO, which is working closely with the European Union as it prepares AI regulation focusing on “high risk” applications.¶ The pitch¶ NATO does not regulate, but “once NATO sets a standard, it becomes in terms of defensive security the gold standard in that respective field,” Geoană said.¶ The alliance's own AI strategy, to be released before the summer, will identify ways to operate AI systems responsibly, identify military applications for the technology, and provide a “platform for allies to test their AI to see whether it's up to NATO standards,” van Weel said. ¶ The strategy will also set ethical guidelines around how to govern AI systems, for example by ensuring systems can be shut down by a human at all times, and to maintain accountability by ensuring a human is responsible for the actions of AI systems.¶ “If an adversary would use autonomous AI powered systems in a way that is not compatible with our values and morals, it would still have defense implications because we would need to defend and deter against those systems,” van Weel said. ¶ “We need to be aware of that and we need to flag legislators when we feel that our restrictions are coming into the realm of [being detrimental to] our defense and deterrence,” he continued.¶ Mission impossible?¶ The problem is that NATO's members are at very different stages when it comes to thinking about AI in the military context.¶ The U.S., the world's biggest military spender, has prioritized the use of AI in the defense realm. But in Europe, most countries — France and the Netherlands excepting — barely mention the technology’s defense and military implications in their national AI strategies. ¶ “It’s absolutely no surprise that the U.S. had a military AI strategy before it has a national AI strategy," but the Europeans "did it exactly the other way around," said Ulrike Franke, a senior policy fellow at the European Council on Foreign Relations, said:¶ That echoes familiar transatlantic differences — and previous U.S. President Donald Trump's complaints — over defense spending, but also highlights the different approaches to AI regulation more broadly.¶ The EU's AI strategy takes a cautious line, touting itself as "human-centric," focused on taming corporate excesses and keeping citizens' data safe. The U.S., which tends to be light on regulation and keen on defense, sees things differently.¶ There are also divergences over what technologies the alliance ought to develop, including lethal autonomous weapons systems — often dubbed “killer robots” — programmed to identify and destroy targets without human control. ¶ Powerful NATO members including France, the U.K., and the U.S. have developed these technologies and oppose a treaty on these weapons, while others like Belgium and Germany have expressed serious concerns about the technology.¶ These weapons systems have also faced fierce public opposition from civil society and human rights groups, including from United Nations Secretary-General António Guterres, who in 2018 called for a ban. ¶ Geoană said the alliance has “retained autonomous weapon systems as part of the interests of NATO.” The group hopes that its upcoming recommendations will allow the ethical use of the technology without “stifling innovation.” ¶ Staying relevant¶ These issues threaten to hamper NATO's standard-setting drive. "I think there’s a certain danger that if NATO doesn’t take this on as a real challenge, that it may be marginalized by other such efforts,” Franke said.¶ She pointed to the U.S.-led AI Partnership for Defense, which consists of 13 countries from Europe and Asia to collaborate on AI use in the military context — a forum which could supplant NATO as the standard-setting body. ¶ That could have consequences for human rights, too.¶ “NATO… is a great place to responsibly think about how to harness the good parts of this technology and how to prohibit the parts that would be catastrophic for humanitarian law and human rights law, and people at the end of the day,” said Verity Coyle, a senior adviser at Amnesty International, which is part of the Stop Killer Robots campaign. ¶ “Without oversight mechanisms to ensure ethical standards and measures, which would guarantee that this technology will operate under meaningful human control” NATO’s strategy could head into an “ethical vacuum,” Coyle said.¶ Franke said it's better for the alliance to focus on the basics, like increased data sharing to develop and train military AI and cooperating on using artificial intelligence in logistics.¶ “If NATO countries were to cooperate on that, that could create good procedures and set precedents. And I think we should then move on to the more controversial things such as autonomous weapons systems,” she said.

#### International cooperation key to prevent authoritarian AI from crushing democracy worldwide

Imbrie et al 2020 - Senior Fellow at Georgetown's Center for Security and Emerging Technology

Andrew Imbrie Ryan Fedasiuk Catherine Aiken Tarun Chhabra Husanjot Chahal "Agile Alliances: How the United States and its Allies Can Deliver a Democratic Way of AI" Center for Security and Emerging Technology https://cset.georgetown.edu/publication/agile-alliances/

How can the United States collaborate with allies and partners to shape the trajectory of artificial intelligence in ways that will promote liberal democratic values and protect against efforts to wield AI for authoritarian ends?

This question is both important and urgent. It is important because America’s broad network of alliances and security partnerships is a singular asset in defending liberal values. It is urgent because China, Russia, and other authoritarian powers seek to achieve strategic advantage through AI and the export of censorship and surveillance technologies to countries across the globe.1 By one estimate, more than 100 countries purchase surveillance and censorship gear from China and Russia, receive training on these technologies, or simply imitate methods of surveillance and censorship that are designed to control public opinion and stifle dissent.2

As the digital and physical environments become intertwined, authoritarian practices in one domain will increasingly encroach upon the other. At stake are the core values of liberty, equality, and justice that underpin free and open societies. All democratic nations must work together to uphold basic principles, set international rules of the road, and articulate a positive vision for the future in the age of AI.

Within the United States, and certainly within allied countries, debate persists over the threat of digital authoritarianism and how to counter it. While U.S. allies will likely vary in their strategic orientations toward China and Russia, there is a growing consensus on the need to showcase a democratic way of AI. These debates will take shape in a world of globalized markets for AI talent and integrated supply chains. In this context, the right U.S. approach would leverage its network of allies and partners to safeguard democracy and liberal values. An alliance-centric strategy provides a competitive advantage over any single country that attempts to develop a robust AI ecosystem on its own.

The United States and its allies should play to their strengths. This positive agenda begins with shaping the ecosystems for the development and deployment of safe and reliable AI. The most effective approach would capitalize on advances in AI and machine learning to foster sustainable and inclusive economic growth, improve service delivery, and promote transparent and accountable governance. The United States and its allies should pursue a vision of the future in which AI enables strengthened data privacy standards and respect for civil liberties; economic empowerment of citizens within rules-based market economies; cleaner, safer, and more efficient transportation; precision medical diagnosis; greater access to education; and more effective disaster response.

#### Democracy solves extinction

Cremer and Kemp 2021 – research Scholar at FHI and a Research Affiliate at the Centre for the Study of Existential Risk (University of Cambridge) and research associate at the Centre for the Study of Existential Risk at the University of Cambridge

Carla Zoe Cremer and Luke Kemp "Democratising Risk: In Search of a Methodology to Study Existential Risk" The Future of Humanity Institute, Oxford. Centre for the Study of Existential Risk, Cambridge. https://arxiv.org/ftp/arxiv/papers/2201/2201.11214.pdf

There is an intimate and neglected relationship between existential risk and democracy. Democracy must be central to efforts to prevent and mitigate catastrophic risks. It is also an antidote to many of the problems manifest in the TUA. Do those who study the future of humanity have good grounds to ignore the visions, desires, and values of the very people whose future they are trying to protect? Choosing which risks to take must be a democratic endeavour.

We understand democracy here in accordance with Landemore as the rule of the cognitively diverse many who are entitled to equal decision-making power and partake in a democratic procedure that includes both a deliberative element and one of preference aggregation (such as majority voting)45,115. Decision-making procedures are not either democratic or non- democratic, but instead lie on a spectrum. They can be more or less democratic, inclusive, and diverse.

We posit three reasons for why we should democratise research and decision-making in existential risk: the nature of collective decision-making about human futures, the superiority of democratic reason, and democratic fail-safe mechanisms.

Avoiding human extinction, or crafting a desirable long-term future, is a communal project. Scholars of existential risk who take an interest in the future of Homo sapiens are choosing to consider the species in its entirety. If certain views are excluded, the arguments for doing so must be compelling.

Democracy will improve our judgments in both the governance and the study of existential risks. Asking how our actions today influence the long-term future is one of the most difficult intellectual tasks to unravel, and if there is a right path, democratic procedures will have the best shot at finding it. Hong and Page116,117 demonstrate both theoretically and computationally that a diverse group of problem-solving agents will show greater accuracy than a less diverse group, even if the individual members of the diverse group were each less accurate. Accuracy gains from diversity trump gains from improving individual accuracy. Landemore115, builds on this work to advance a probabilistic argument that inclusive democracies will, in expectation, make epistemically superior choices to oligarchies or even the wise few. This is supported by promising results in inclusive, deliberative democratic experiments from around the world 118. In the long run, democracies should commit fewer mistakes than alternative decision-making procedures. If this is true, it should improve the accuracy of research efforts and decision-making. We are more likely to make accurate predictions about the mechanisms of extinction, probable futures, and risk prevention if the field invites cognitive diversity, builds flat institutional structures, and avoids conflicts of interest.

Thereare many ways to consider the interests of the many. Democratic assemblies could allow global citizens to deliberate about the futures they prefer, citizens could be surveyed, and the field of ERS itself could be diversified. At the moment, the field is, as many academic disciplines are, unrepresentative of humanity at large and variably homogenous in respect to income, class, ideology, age, ethnicity, gender, nationality, religion, and professional background. The latter issue is particularly true of existential risk, which, despite being an inherently interdisciplinary endeavour, is at the highest levels dominated by analytic moral philosophers. We need to be vigilant to what perspectives are not represented in the study of existential risk. An awareness of bias will go some way towards mitigating its negative effects. To get close to replicating the cognitive diversity found among humans, we must begin by inviting different thinkers with different values and beliefs into the field.

Democracies can limit harms. Any approach to mitigating existential threats could create response risks, and the TUA seems particularly vulnerable to this. Despite good intentions and curiosity-driven research, it could justify violence, dangerous technological developments, or drastically constrain freedom in favour of (perceived) security. If we hope to explore ideas but minimise harms, democracies can be used to moderate the measures taken in response to harmful ideas. It seems, for example, vanishingly unlikely that a diverse group of thinkers or even ordinary citizens would entertain the idea of sacrificing 1 billion living, breathing beings for an infinitesimal improvement in reaching an intergalactic techno-utopia. In contrast, the TUA could recommend this trade-off.

The democratic constraint of extreme measures may simply be a form of collective selfinterest. Voters are unlikely to tolerate global catastrophic risks (GCRs), which incur the death of a sizeable portion of the electorate, if they know they themselves could be affected. We expect that scholars who do not support sacrificing current lives in the name of abstract calculations, but would still like to explore the use of expected value theory in existential risk, will be in support of democratic fail-safe mechanisms.

Empirically, this fail-safe mechanism seems to work. Even deeply imperfect democracies, like the ones we inhabit now, often avert detrimental outcomes. Democracies prevent famines 119 (although not malnutrition)120. They make war — a significant driver of GCRs — less likely 121. The inclusion of diverse preferences in democracies, such as those achieved through women’s suffrage, further decreases the likelihood of violent conflict 122. Citizens often show a significant risk aversion in comparison to their government. While surveys are notoriously difficult to collect and interpret, existing data suggest that the public has little support for nuclear weapons use 123–125, but strong support for action against climate catastrophe 126–128. We can further show that when citizens deliberately engage with the subject at hand, their concern and readiness for action often increases 118. For example, citizen assemblies on climate change have recommended widespread policy-changes across sectors, amendments to incentive structures and laws against ecocide to reach emissions targets 129. Indeed, many lament that when it comes to genetically modified organisms and nuclear power, citizens are far too riskaverse130 . The problem is not that the public is riddled with cognitive biases that make them unconcerned about global catastrophes.

Democratic debate cannot be an afterthought. Navigating humanity through crises will involve many value-laden decisions under deep uncertainty. Democratic procedures can deal with such hard choices. Greater cognitive diversity should be represented amongst scholars of ERS. Recommendations on policies that would reduce risk should be passed through deliberative assemblies and await the approval of a wider pool of ordinary citizens, as they will be the ones who will bear this risk. A homogenous group of experts attempting to directly influence powerful decision-makers is not a fair or safe way of traversing the precipice.

### 1AC Solvency

#### The United States federal government should substantially increase its security cooperation with the North Atlantic Treaty Organization over the use of artificial intelligence in military logistics and sustainment.

#### The plan solves – establishing a cooperative framework for AI applications in military logistics and sustainment ensures interoperability amongst allies, maintains readiness, and encourages feedback models that can quell skepticism

Konaev and Chahal 2021 – research fellow and research analys with the Center for Security and Emerging Technology

Margarita Konaev Husanjot Chahal April 2021 “The Path of Least Resistance: Multinational Collaboration on AI for Military Logistics and Sustainment” CSET Issue Brief

The United States and its allies face powerful technical, political, and strategic reasons to pursue and deepen collaboration on AI applications for logistics and sustainment. Whether working within existing frameworks or building new partnerships, there are multiple pathways for collaboration. The final NSCAI report, for example, offers a comprehensive list of ongoing multilateral efforts on AI and associated technologies as well as security alliances and partnerships, some of which could serve as a forum for allies to work together on AI-enabled logistics.64 Below, we recommend four options for allies to explore depending on their interests and capabilities.

1. The United States and its allies should establish joint standards and protocols for the safe and secure sharing, pooling, and storage of nonsensitive datasets relevant to AI applications for logistics and sustainment.

Data relevant to AI-enabled logistics and sustainment includes data on licensing, maintenance personnel, and repair schedules for predictive maintenance; video and navigation data from ground and aerial semiautonomous and autonomous resupply systems and convoys; data supporting maritime awareness and global shipping, and many other tasks and functions.

Considering that data is the foundation of AI/ML-based applications, the United States and its allies will have to agree on standards regulating data sharing, storage, and analysis to ensure privacy, fairness, security, and respect for civil liberties. Identifying the governmental body to lead standardization efforts is a key step. Within the Department of Defense, for example, the responsibility for “the use and implementation of standardization” rests with the Defense Standardization Program Office International Standardization Program.65 Another option is to build on the NSCAI recommendation that the U.S. National Institute of Standards and Technology lead efforts to “promote international standardization in areas that further U.S. and allies’ national security and defense interests in the appropriate and responsible use of AI.”66 Allies will also need to decide on the scope of such standardization efforts. One pathway for alliance-wide collaboration is through NATO standardization agreements that facilitate interoperability, in part by ensuring the commonality of doctrine, procedures or equipment used and compatibility between allies’ products, processes, and services.67 That said, the lead body and institutional configuration for standardization efforts and data partnerships related to AI-enabled logistics and sustainment can and should vary depending on allies’ needs, interests, and capabilities.

2. The United States and its allies should collaborate on R&D initiatives related to AI for logistics and sustainment.

When taken together, the R&D spending of the United States and just six like-minded nations—France, Germany, India, Japan, South Korea, and the United Kingdom—account for more than 50 percent of global R&D investment.68 This is a massive capacity for innovation. And when coupled with the shared interest in AI solutions for logistics and sustainment, there are many opportunities for collaborative R&D projects related to these technologies.

One option is to add joint research and development initiatives related to AI for logistics and sustainment to the agenda of early- stage collaborative efforts like the JAIC’s AI Partnership for Defense. Future meetings coordinated by this partnership could serve as a launchpad for R&D projects that include any number of the interested member states. Another option is to expand existing bilateral and multilateral R&D collaborations to include projects related to AI applications for logistics and sustainment. The Technical Cooperation Program, for example, is a collaboration forum for defense research and development activities among Australia, Canada, New Zealand, the United Kingdom, and the United States.69

3. The United States and its allies should promote multinational private-public partnerships to advance research, development, procurement and fielding of AI- enabled logistics and sustainment technologies. The United States and its allies are home to many small, midsized, and large-scale private companies with international presence and expertise in AI solutions for financial and business processes, healthcare, autonomous vehicle technology, maintenance management, and other areas relevant to logistics and sustainment. Private companies are at the forefront of innovation in AI, and there are great opportunities to leverage their expertise and commercial interests in defense to establish new and strengthen existing multinational private-public partnerships with a focus on AI applications for logistics and sustainment. The United States could work with allies on a bilateral basis; for example, building on Germany or South Korea’s competitive edge in autonomous vehicles technology to explore opportunities for public-private partnership for innovation in autonomous resupply technologies. There is also the option of working with and through regional bodies like the EU to support existing initiatives and public-private partnerships located in allied countries. 70 Another pathway suggested by experts at the Center for a New American Security in their report on building an alliance innovation base is to “launch a cross-national platform to build new companies” focused on national security technologies.71

4. The United States and its allies should include AI-enabled logistics and sustainment technologies and capabilities in joint military exercises.

As AI-enabled technologies become more commonplace, it is vital to include them in joint multinational military exercises.72 From simulations and computer assisted command post exercises to major field exercises that include combined arms live-fire maneuvers integrating air, naval, marine, land, and cyber forces as well as civilian elements, multinational military exercises help forge personal and professional partnerships between allies, ensure doctrinal and technical interoperability, and strengthen readiness.73 Multinational logistic support is different from unilateral logistic support. Thus, if allies expect to use AI-enabled logistic and sustainment technologies in multinational missions, they would benefit from experimenting and training to do so together.

Incorporating AI-enabled technologies into joint military exercises will allow allies to test and assess the technologies’ performance and viability in uncontrolled and dynamic environments— conditions in which AI systems are known to be brittle and vulnerable to adversarial attacks. Utilizing AI-enabled logistical elements and functions in joint exercises can also help allied militaries collect feedback from users and assess compatibility between the new technologies and existing concepts of operations, tactics, techniques, and procedures. User feedback can serve to improve the technology, while lessons learned about the ways in which new technologies fit with operational doctrine can inform necessary adjustments, ultimately, strengthening interoperability and readiness.

Moreover, including AI-enabled logistics and sustainment technologies and capabilities in military exercises can help build trust between human operators and intelligent technologies. The issue of trust in human-machine teaming is particularly consequential in the context of multinational coalition because people from different countries can differ in their attitudes toward technology which in turn could affect interoperability, military effectiveness, and mission success as a whole.74

#### Partnerships through NATO are key – it's the only way to attract investment and direct the private sector towards ethical development

Warrell 2021 – staff writer @ Financial Times

HELEN WARRELL “High-tech warfare will be high on agenda at summit, but most members are playing catch-up with China” Financial Times https://www.ft.com/content/61c1945c-d153-4d58-b9c5-dffd99a6919e

As Russia intensifies cyber hostilities and China weaponises artificial intelligence, joining forces in the field of high-tech warfare will feature high on the list of topics discussed by Nato allies at a summit next week. But the transatlantic alliance’s 30 members will need to move fast if they aim to make up lost ground.¶ Nato is proposing a new tech innovation centre bringing together military personnel with industry to foster digital defence start-ups. Some of these might be financed by a separate initiative, also set to be debated: a venture capital fund for innovation which member states could choose to opt in to.¶ The efforts are belated, as Nato secretary-general Jens Stoltenberg himself acknowledged. “For decades, Nato allies have been leading when it comes to technology, but that’s not obvious any more,” he told the Financial Times in an interview last week. “We see China especially investing heavily in new, disruptive technologies like artificial intelligence, autonomous systems, big data, and they implement them into new advanced weapon systems, drones, submarines, aircraft and so on.”¶ He is not the first to sound the alarm. Eric Schmidt, the former Google chief executive who now chairs the US’s National Security Commission on AI, warned earlier this year that Beijing was planning to undermine conventional military forces by “leapfrogging” to new technologies. The commission’s report, published in March, raised concerns that China would use AI for “reconnaissance, electromagnetic countermeasures and co-ordinated firepower strikes”.¶ Part of the problem is that western defence institutions have been slow to recognise the potential of innovation beyond their own industry.¶ “For decades, a lot of technological development would happen within the defence sector — the internet, nuclear, GPS, all of that was developed by the defence industry and then shared with the civilian sector,” Stoltenberg said. “Now, it goes the other way around. It’s a civilian sector which is leading in the development of artificial intelligence, quantum computing, and many of the new disruptive technologies.”¶ Some NATO members are ahead of others. The US and France have published military AI strategies, while the UK announced this year that it is to establish a centre for defence AI. For the first time, Britain’s intelligence agency, MI6, is recruiting from the private sector for a new head of its “Q” branch — the technical lab made famous in the James Bond films.¶ Establishing a new NATO hub — known as an “accelerator” — in which tech companies and members of the armed forces can experiment with new ideas has advantages, according to Professor Fiona Murray, co-director of MIT’s innovation initiative.¶ Start-ups and investors do not always have the time to tackle defence challenges when solutions are “hard to test, markets are fragmented and procurement is slow”, Murray said.¶ Working together would create a wider market for new products and enhance collective security, she noted. It was “not enough” for countries to be handling this individually, she said.¶ The US has started marshalling allies on the policy implications of using new technology. The Pentagon’s “AI Partnership for Defense”, comprising 13 countries (including Nato members Canada, Denmark, Estonia, the UK, France and Norway) met virtually for the first time last year to agree joint military standards on AI. Schmidt’s commission has called on the Five Eyes intelligence-sharing alliance (the US, UK, Canada, Australia and New Zealand) to work more closely on developing AI systems.¶ Ulrike Franke, an expert in military technology at the European Council on Foreign Relations, argues that NATO’s tech centre will be most effective if it prioritises systems designed to facilitate joint military operations. The alliance should look at areas such as AI-enabled command and control, she said, which could give members a unified picture of the battlefield across multiple regions, using intelligent data analysis to sift information.¶ Franke said that in the vast arena spanning drones to quantum computing, there was a temptation to cover too much. “It makes massive sense for Nato to look more at this [technology]”, she said. “The question is, what exactly are they focusing on? There’s a danger of Nato spreading itself too thin.”

#### Key members of NATO will say yes

Konaev and Chahal 2021 – research fellow and research analys with the Center for Security and Emerging Technology

Margarita Konaev Husanjot Chahal April 2021 “The Path of Least Resistance: Multinational Collaboration on AI for Military Logistics and Sustainment” CSET Issue Brief

This is not to say that adopting and developing, let alone collaborating on AI-enabled logistics will be an easy task for the U.S. military and allied defense organizations. The ML and deep learning algorithms behind commercial AI-enabled logistics are generally not optimized for military needs.39 And if the experience of the Department of Defense is any indication, there are multiple challenges with regards to the data needed to power AI applications—from lack of data to problems with traceability, access, and interoperability of data collected by different systems.40 Moreover, data security and privacy concerns as well as different legal frameworks for how personal data is collected, handled, processed, and stored remain a critical barrier to international collaboration. Lack of clarity surrounding how to implement the exemptions for research incorporated into the General Data Protection Regulation, for example, has stalled collaboration between the U.S. National Institutes of Health and some European counterparts.41

These and other technical barriers and privacy-related concerns are indeed significant. But developments in privacy-preserving ML techniques, including homomorphic encryption, secure multi-party computation, and federated learning offer opportunities for allies to share and pool data without compromising the privacy of individual users and organizations whose data is being used.42 The United States can also work with allies to develop technical standards and protocols for harmonizing data collection, formatting, storage, and archiving to ensure data security and integrity.43

Overall, the U.S. military and allied defense organizations will face nonnegligible technical barriers whether adapting commercial AI technologies or building AI-enabled systems and tools in-house. From a comparative standpoint, however, military logistics and sustainment applications that fall under the broader category of enterprise AI applications present “low hanging fruit” for the U.S. military (and presumably for other technologically advanced militaries).44 Moreover, international collaboration on AI-enabled military logistics and sustainment is likely more within reach than collaboration on AI integrated into weapons systems or applications that feed on sensitive data collected by proprietary weapons and sensor systems.45

With key U.S. allies like the United Kingdom, Germany, France, South Korea and Japan already pursuing efforts to leverage AI for military logistics and sustainment, collaboration in this area seems politically feasible.

The integration of AI into weapons systems has raised ethical concerns and opposition in some communities across the United States and in allied countries. Yet by focusing collaboration on AI applications for military logistics and sustainment functions, the United States and its allies could potentially sidestep the contentious “killer robots” debate. Collaborative efforts to develop and apply AI tools to areas such as defense supply chain management, personnel management, and equipment maintenance can improve existing processes and functions, save costs and increase efficiencies in defense organizations. Multinational collaboration around this set of goals and applications is less likely to galvanize widespread grassroots opposition than programs on AI-enabled drones or autonomous ground combat vehicles.

Moreover, some of the United States’ closest allies are already investing in AI and ML technologies for logistics and sustainment. The United Kingdom’s Ministry of Defense’s (MOD) Autonomy Programme, for example, identifies defense resupply and logistics challenges through the Defense and Security Accelerator as one of its key activities.46 In 2019, MOD also allocated £66 million (about $83 million) to accelerate robotic projects for the British Army, including autonomous logistics vehicles supporting resupply missions in conflict zones.47 Notably, the UK’s Defense Science and Technology Laboratory and the U.S. Army Combat Capabilities Development Command’s Ground Vehicle Systems Center have been working together since 2016 on the Coalition Assured Autonomous Resupply project, prototyping semiautonomous logistics convoys, along with ground and aerial autonomous resupply systems, and demonstrating the interoperability of the two nations’ armies with autonomous driving technology.48

France’s military AI strategy also views “logistics and operational readiness” as one of the priority areas for the defense ministry, including a focus on predictive maintenance.49 Notably, the strategy states that “mission performance and assisted maintenance applications, especially for cooperation with countries that have the same systems” as France pose no significant problems in terms of sharing classified data. And in addition to its key European partners, France is also open to collaboration with the United States given the similar approach to AI development. 50 Along similar lines, the German Army identifies AI for personnel and material management, including predictive maintenance, as one of the main areas for action on AI development.51

Japan and South Korea are also increasingly investing in military applications of AI, including for logistics and sustainment. South Korea’s National Strategy for Artificial Intelligence lists national defense as a key area for AI applications, including using AI to “quickly analyze and process large-scale defense data and develop and support common services such as medical care, logistics, and administration.”52 Meanwhile, Japan’s Acquisition, Technology and Logistics Agency (ATLA) has identified “logistical support technologies” in its medium- to long-term defense technology outlook back in 2016. More recently, ATLA has been working with private sector partners on research and development projects applying AI for defense logistics and “streamlining system maintenance work.”53

## EXT – NATO Advantage

### UQ – Hybrid Warfare Now

#### Adversaries are engaged in hybrid warfare now that compromises decisionmaking – risks escalation

Lucarelli et al 2021 - Professor at the University of Bologna, member of the Board of Directors of the Forum on the Problems of Peace and War and of the Institute of International Affairs

Sonia Lucarelli Alessandro Marrone Francesco N. Moro “Executive Summary” Nato Decision-Making In The Age Of Big Data And Artificial Intelligence, Nato Allied Command Transformation Università Di Bologna Istituto Affari Internazionali

Digital revolution has substantially transformed the world we live in, providing great opportunities but also making societies more vulnerable. Technology makes external interferences cheaper, faster and all- encompassing: citizens can potentially become direct targets of information warfare, all members of a society can be part of conflicts one way or another. From advanced weaponry to command and control, most security-related domains are undergoing deep transformations as data availability and transmission increase exponentially. In this context, three interconnected aspects are explore through this publication with a view to the Alliance’s evolution: Big Data and organizational challenges for NATO; hybrid threats to Allies’ decision- making; the adoption of AI in the defense domain and NATO’s role.¶ Big Data and Organizational Challenges for NATO. Basing decisions on a much larger amount of information than was previously possible could lead to a real revolution in the decision-making processes of complex organizations, especially because this information would concern different dimensions of reality and it would be constantly updated. Beside the huge quantity of information available, the high speed at which the data are generated and need to be processed is another defining factor of Big Data. Also, they will typically be acquired from diverse sources and their trustworthiness has to be carefully evaluated. Finally, any data can have different value in different phases of the decision-making process. All these features impose specific requirements on organizations that aim at using Big Data to reduce the uncertainty in which they operate. For instance, the huge volume of data compels to acquire new data storage technologies, while the high speed demands new processing tools and the variable trustworthiness and value force organizations to elaborate new methods of analysis. Accordingly, any actor that seeks to exploit Big Data should have clear goals and a well-defined strategy to delineate and implement its specific objectives.¶ A key issue with Big Data is providing decision makers with data that are truly relevant for their purposes, and not simply interesting. Chief data officers and senior data-related leadership positions will acquire a crucial importance in the analysis of information and in the actual decision-making process, but these positions require a special mix of talent and tools that are currently scarce in many large organizations, especially in the public sector and even more in the military one.¶ Another key issue lies in the emerging tension between centralization and decentralization of the decision- making process of organizations that are introducing Big Data analysis in their work. Paradoxically, while Big Data should promote widespread responsibility and tactical awareness, at the moment advanced digitalization seems to be linked to clear centripetal forces in large organizations. The centripetal tendency leads towards the de-responsibilization of the lower ranks and to a progressive loss of practice in choosing. Thus, it would be advisable to integrate Big Data in the Alliance’s decision-making favoring diffused ownership and devising different tools for different branches of the organization, based on their specificities. It would also be helpful to create well-designed and reliable evaluation procedures to measure the effectiveness of organizational innovations as well as of the execution of the new decision-making processes. In particular, identifying the initial failures is especially important, to learn from them and avoid structural problems.¶ Hybrid Threats to Allies’ Decision-Making. Hybrid threats is a broad category encompassing a variety of actors, actions and targets. As for actors, due to their actual capabilities, intentions and recent track records, China and Russia can be identified as the most gathering threats.¶ Concerning actions, information is key under several respects. It refers to Big Data and AI taken together, as the latter entails the use of algorithms to learn from the former with a view to exploit the target’s vulnerabilities. Digital connections are the underlying infrastructure used to perpetrate hybrid threats in the information domain. Western societies rely on virtual world platforms that can be targeted by potential attackers. Since global networks defy borders and limit state jurisdiction, they are harder to defend and allow potential attackers to act below the threshold of detection and attribution. Hybrid threats also benefit from the unprecedent speed and scope of information. This is not new in principle, but it has reached game- changing levels. On the one hand, managing this massive flow of information is just prohibitive for NATO and its member states; on the other hand, high speed of circulation translates into increased operational tempo.¶ Hybrid threats may take aim at a variety of targets, yet particularly concerning are offensive actions that might lead to societal polarization, elite disagreement and biased perceptions of foreign actors. These actions have the potential to affect decision-making at different levels, even undermining democratic states’ institutions. Accordingly, these hybrid threats could undermine decision-making process of Allies – and by reflex, NATO’s too. Decision makers face in particular three main set of problems when crafting a response to hybrid threats.¶ 1) How to respond in non-escalatory ways? Since hybrid attacks exploit the grey zone to create ambiguity, including by manipulating the threshold of detection and granting plausible deniability, decision makers are faced with the risk of overreaction.¶ 2) How to respond in democratic ways? Potential attackers may severely impair the decision-making process of democratic systems, putting under stress, for example, the constraint to abide by domestic and international law.¶ 3) How to get public support? Since hybrid threats are usually covered or difficult to attribute, policy makers also have to persuade the public opinion of the very same existence of the threat.

### Solvency – NATO Key

#### NATO is key – it provides a framework for understanding and integrating AI

Lucarelli et al 2021 - Professor at the University of Bologna, member of the Board of Directors of the Forum on the Problems of Peace and War and of the Institute of International Affairs

Sonia Lucarelli Alessandro Marrone Francesco N. Moro “Executive Summary” Nato Decision-Making In The Age Of Big Data And Artificial Intelligence, Nato Allied Command Transformation Università Di Bologna Istituto Affari Internazionali

The AI Adoption in the Defense Domain and NATO’s Role. In discussing what AI will mean for allied militaries and the Alliance as such, a basic question should be addressed: is AI a technological revolution or is it an instance of technological evolution? Different pieces of evidence can support both interpretations. It would probably be hard for Allies, from a political perspective, to adapt swiftly to a rapid technological revolution. NATO approach, because of the consensus characterising its procedures, will have to be more evolutionary, granular and nuanced. In any case, it is unlikely to see in the next future AI making decisions for the North Atlantic Council (NAC) or the Nuclear Planning Group (NPG). There are psychological, cultural, organizational, political as well as technical reasons for this. The journey to AI is likely to be rather troublesome. Agile software development, for instance, enables the development of superior software but, at the same time, also calls for different procedures, organizational structures and processes, touching upon organizations’ identities, missions and culture.

Another topical issue is the private-public partnership on AI. This is key in the AI race between the US and China – possibly leading to disadvantages for Allies vis-à-vis China – and in the relations between NATO and major civilian companies working on AI and Big Data. There is also the fundamental need to ensure interoperability in a fragmented scenario in terms of the Allies’ adoption of AI technologies. NATO has historically been an important player in the processes of standardization and could be such also in this case. In this context, some creativity may be needed: for instance, should NATO provide cloud computing services, namely enablers, the same way it provides air-space management or ground surveillance? Could the Alliance envision an integration of nationally-owned AI assets as it does for the integrated air and missile defense? These are important questions which, however, highlight the fact that defense is a sovereign issue and most decisions are taken by national governments, not by NATO as such.

The Alliance could play a prominent role in the AI domain. For instance, NATO could establish an AI champion to help Allies understand, adopt and integrate AI. Such champion could start with small projects aiming at validating the effectiveness of the solution, and then it could help Allies in training. A key, related issue in this regard is education and training. Similarly, the importance of wargames, simulations and experimentations is going to grow, and NATO has a role to play here, as the unique avenue to convene allied military and political bodies.

Lucarelli et al 2021 - Professor at the University of Bologna, member of the Board of Directors of the Forum on the Problems of Peace and War and of the Institute of International Affairs

Sonia Lucarelli Alessandro Marrone Francesco N. Moro “Technological Changes And A Transformed International Security Environment” Nato Decision-Making In The Age Of Big Data And Artificial Intelligence, Nato Allied Command Transformation Università Di Bologna Istituto Affari Internazional

Digital revolution has substantially transformed the world we live in, providing great opportunities but also making societies more vulnerable and transforming the meaning of state borders. Technology makes external interferences cheaper, faster and all-encompassing: citizens can potentially become direct targets of information warfare, all members of a society can be part of conflicts one way or another. From advanced weaponry to command and control, most security-related domains are undergoing deep transformations as data availability and transmission increase exponentially. This is especially true as the emergence of so-called hybrid tactics contributes to universalize the battlefield. Also, attackers may lose control of their offensive cyber weapons, and ‘collateral damages’ across the private sector and the public worldwide might be more and more difficult to contain. Less visible, yet important challenges connected with Information Communication Technologies (ICTs) also exist. For instance, data overload can create problems for decision- makers that are unable to detect important signals. Losing sight of how machines make their calculations – a somewhat inherent feature of Artificial Intelligence (AI) – can hinder deeper understanding of phenomena as well as learning, besides having dense ethical implications.

A crucial question for Western societies and governments is how to deal with technological changes by exploiting their many benefits while managing to limit their risks. Broadly speaking, observers have long noticed the potentialities of technologies in the security domain: better situational awareness, early warning against threats and risks, the ability to prevent and/or stop attacks to happen, the use of technology against the adversaries’ own technologies, and eventually deterrence of high-end hybrid warfare or, at least, the increase of resilience against it. In particular, in order to harness the potential of new technologies, higher levels of security are needed. While internet is unfortunately not secure by design, it has to be somehow retrofit to guarantee a certain level of protection – for instance by avoiding a single point of failure, developing better firewalls, etc. Ultimately, the digital revolution poses challenges to decision makers both as potential users of new technologies and as leaders of targeted societies. Learning to achieve political aims through the support of technological innovations and at the same time acquiring the ability to prevent and manage interferences, if not attacks, have become paramount.

However, achieving such results is not only about engineering. Technologies need ad hoc governance, organizations and skilled users to properly function. Actually, history is full of examples of good technologies that were improperly used and/or unable to provide the expected gains. Therefore, a joint, multi-disciplinary efforts is needed to think and manage technologies in a more comprehensive and secure way across various domains. For instance, the very same design of AI needs exchanges with social scientists in order to limit

### UQ – Defense Industrial Base

#### Ukraine puts the US and NATO Defense Industrial Base on the Brink

Clark and Montoya 2022 - Senior Research Associate, Center for National Defense and Spring 2022 Member of the Young Leaders Program at The Heritage Foundation

Maiya Clark Jacob Montoya, May 5 2022 “The War in Ukraine Continues; Can the U.S. Defense-Industrial Base Keep Up?” Heritage Foundation https://www.heritage.org/defense/commentary/the-war-ukraine-continues-can-the-us-defense-industrial-base-keep

Three months after Russia’s latest invasion of Ukraine, the Ukrainian army continues to fight valiantly. Weapons provided by NATO members have sustained the resistance thus far, but more will be needed if Ukraine is to stand a fighting chance against Russia’s far-larger military. The West clearly intends to keep the arms and munitions flowing, but will its atrophying defense-industrial base be up to the task? Do the U.S. and NATO have enough weapons to supply Ukraine for a prolonged conflict? The U.S. is not the “arsenal of democracy” that it used to be. Indeed, many experts doubt it has the capacity needed to meet its own needs, considering the possibility of conflict with China or perhaps even a two-front war. Supplying Ukraine with weapons, although necessary, will almost certainly exacerbate the issue of an already depleted American arsenal. Even as they push for accelerated deliveries to Ukraine, multiple government officials have stressed the need for the U.S. to replenish its own munitions stockpiles. >>> Biden’s Defense Budget Is Detached From Reality Undersecretary of Defense for Acquisition and Sustainment William LaPlante recently said that the Pentagon needs “to have more hot production lines,” even if it means having “redundant production lines” to fix single-point failures. Sen. Jack Reed, Rhode Island Democrat and chairman of the Senate Armed Services Committee, stated that his panel is pushing the Pentagon to replenish its inventory of weapons sent to Ukraine, but multiple issues stand in the way. These issues include stagnant assembly lines, the scarcity of specialized parts and disrupted international supply chains. Take, for example, the FIM-92 Stinger. A portable, shoulder-fired antiaircraft missile, the Stinger has been vital for Ukraine’s defense against air attacks and troop deployments by Russian helicopters. The problem is that, prior to the invasion, the U.S. had not planned to refresh its stockpile of Stingers until at least the 2030s. The focus, instead, was on gearing up to eventually start production of a more advanced Stinger. Now, the U.S. is scrambling to overcome difficulties, like obsolete parts and workforce issues, in order to produce more 1970s-era Stinger missiles for Ukraine. Raytheon, the manufacturer, said this week that it will take “years” before they can build new Stingers. Meanwhile, our allies have even bigger problems. Multiple NATO allies’ defenses are based on old Soviet systems that need to be replaced or augmented. Poland’s offer to send its entire operational MiG-29 fighter-jet fleet to Ukraine shed light on this fact. Some NATO allies—mainly Poland, Slovakia and Bulgaria—continue to use outdated Soviet-Russian equipment inherited from their predecessor regimes after the 1989-91 collapse of Communism. Slovakia has sent another aging Soviet-era platform, the S-300 anti-aircraft missile system, to Ukraine. The MiG-29 entered service in 1982 and the S-300 system in 1978, and getting spare parts and replacement missiles would be a real challenge even if the source weren’t a hostile Russia. The conflict has, however, given rise to silver linings. Many of our allies are waking up to the need to boost their defense spending. Germany has decided to buy F-35s from the U.S. and pledged an increased defense budget, exceeding NATO’s 2%-of-GDP target. Poland has moved to increase its defense spending as well, with the goal of reaching 3% of GDP by 2023. To some degree, the Russia-Ukraine conflict has served as a stress test for the West’s defense industrial base. From that has come a growing recognition that, for too long, America has underestimated the amount of munitions and platforms required in modern warfare. Due to the complexity and time required to manufacture today’s precision weapons, we must start thinking now, before a war breaks out, about whether America has enough weaponry to sustain a conflict.

### AI Key to Readiness

#### Cooperation is key – incorporation of AI is key to readiness

Franke 2021 – policy fellow at European Council on Foreign Relations

Ulrike Esther Franke January 2021 “Artificial Divide: How Europe And America Could Clash Over Ai” European Council on Foreign Relations

International competition on technology, such as 5G, has recently attracted significant attention. At the 2020 Munich Security Conference, for example, tech was an important topic – yet the discussion was not really about tech, but about power, as the rivalry over who builds 5G telecommunications infrastructure turned into a US-Chinese competition. This was despite the fact that the leading 5G providers are European and Chinese.

There is a growing realisation that the adoption of AI-enabled systems may have geopolitical consequences and eventually affect the global balance of power. In particular, AI may give one actor considerable power over others, be it in the form of an economic boost or an AI-enabled military advantage, or through control over crucial technology components and standards.

In the US, there is growing concern over the possibility that China might become too strong an AI actor. The competition over global leadership between the US and China is intensifying, with technology in general, and AI in particular, as battlefields. The US fears that AI may give China a competitive edge. Therefore, countering China’s AI ambitions – as embodied in its attempts to dominate international technology standards bodies, for example – has become an important motive for the US to seek international cooperation. In this context, Joe Biden has proposed an “alliance of liberal democracies” to present an economic and political alternative to China.

#### AI key to logistical streamlining – that's key to military power

Konaev and Chahal 2021 – research fellow and research analys with the Center for Security and Emerging Technology

Margarita Konaev Husanjot Chahal April 2021 “The Path of Least Resistance: Multinational Collaboration on AI for Military Logistics and Sustainment” CSET Issue Brief

Focusing on AI-enabled Military Logistics and Sustainment¶ In military affairs, logistics is tasked with managing the global supply chain for the armed services, including “the transfer of personnel and materiel from one location to another, as well as the maintenance of that materiel.”27 Sustainment is a broader term, encompassing logistics as well as financial management, personnel services, and health services which together provide the support necessary to maintain operations until the mission is accomplished.28 The two functions are closely intertwined. NATO’s Allied Joint Doctrine for Logistics, for instance, offers a comprehensive definition of logistics that also entails elements of sustainment, encompassing the aspects of military operations that deal with “design and development, acquisition, storage, movement, distribution, maintenance, evacuation and disposition of materiel; transport of personnel; acquisition, construction, maintenance, operation and disposition of facilities; acquisition or furnishing of services; and medical and health service support.”29¶ Logistics and sustainment are essential to military effectiveness, readiness, survivability, and endurance, and in many ways, constitute the lifeblood of military power.30 The Department of Defense, in turn, sees great promise in leveraging AI/machine learning (ML) technologies for military logistics and sustainment to better maintain equipment, reduce operational costs, and improve readiness. The Department of Defense’s AI strategy, for example, includes efforts related to AI-enabled logistics and sustainment, such as “implementing predictive maintenance and supply, and streamlining business processes,” as part of its strategic approach to “delivering AI-enabled capabilities that address key missions.”31 Joint Logistics, in turn, is one of the JAIC’s key mission initiatives, dedicated to “improving fleet readiness through AI-driven diagnostics, training, process improvements, demand forecasting, and supply chain optimization.”32¶ The discussion below outlines the technological, political, and strategic imperatives and opportunities for multinational collaboration on AI-enabled military logistics and sustainment.¶ Naturally, the principal mission of militaries is national defense and the force (including logistics and sustainment functions) must be prepared for combat at any time. Modern militaries, however, are massive organizations that employ hundreds of thousands of people, if not more. The Department of Defense, for example, employs 2.91 million people, and less than half of them, or 1.3 million, are active duty personnel.33 And unlike military functions such as fires or movement and maneuver of forces and equipment, many of the tasks related to military logistics and other financial, personnel, and health services are administered in noncombat settings.

#### Collaboration is key to ensure interoperability of military operations

Konaev and Chahal 2021 – research fellow and research analys with the Center for Security and Emerging Technology

Margarita Konaev Husanjot Chahal April 2021 “The Path of Least Resistance: Multinational Collaboration on AI for Military Logistics and Sustainment” CSET Issue Brief

There is a strong consensus among U.S. national security experts that collaboration with allies on artificial intelligence can promote common security interests and ensure that the future of emerging technologies reflects shared democratic values and ethical principles. The Department of Defense Artificial Intelligence Strategy, for example, calls for engaging with “international allies and partners” as a key step toward harnessing AI.2 Putting the strategy into practice, the Joint Artificial Intelligence Center (JAIC) has launched an AI Partnership for Defense, bringing together representatives of defense organizations from 13 nations to “create new frameworks and tools for data sharing, cooperative development, and strengthened interoperability.”3

U.S. allies are generally supportive of collaboration, including around military applications of AI, and are particularly interested in ensuring common standards for interpretability, safety, and security of AI-enabled, safety-critical systems.4 As the NATO Deputy Secretary General Mircea Geoană has noted, “there are considerable benefits of setting up a transatlantic digital community cooperating on AI,” with NATO playing a key role “as a facilitator for innovation and exchange.”5 The congressionally mandated National Security Commission on Artificial Intelligence (NSCAI) has explicitly urged the Department of Defense and the State Department to support NATO’s AI initiatives as well as negotiate formal AI agreements with allies in the Indo-Pacific.6

That the United States and its allies are voicing interest in collaboration on AI is a positive development considering that failing to work together could be costly. Because of the gap in technological and military capabilities between the United States and its allies, the development and integration of AI into military systems will not proceed at the same rate or scope. These disparities could create new problems and amplify existing challenges for coordination and interoperability in multinational coalitions, with potentially adverse implications for cohesion and military effectiveness.7 Indeed, as the NSCAI warns, U.S. allies already “concerned about being able to operate effectively together as the United States fields greater numbers of autonomous systems.”8

The push toward closer collaboration, then, stems in part from the understanding that gaps in technological and military capabilities, amplified by uneven progress in AI, could harm the long-term health of U.S. alliances. Yet despite both this growing urgency and shared interest in multinational collaboration on AI, there are notable political, bureaucratic, and technological challenges that could impede progress.

#### Military Incorporation of AI is key to maintaining supremacy

Gould 2022 - senior Pentagon reporter for Defense News, covering the intersection of national security policy, politics and the defense industry

By Joe Gould June 1 2022 “US military may need innovation overhaul to fight future wars, Milley says” https://www.c4isrnet.com/congress/2022/06/01/us-military-may-need-innovation-overhaul-to-fight-future-wars-milley-says/

The U.S. military may need to reorganize to fight future wars, which will be profoundly changed by artificial intelligence, robotics and other advanced technologies, according to Army Gen. Mark Milley, chairman of the Joint Chiefs of Staff.¶ The nation’s top military officer said during a trip to Europe this week that he’s working on recommendations that could lead to a high-level reorganization. After launching Army Futures Command in 2018 to drive modernization when he was that service’s chief of staff, Milley said he’s mulling a similar effort for the joint force.¶ “You’re going to have to do really fundamental changes to our military in order to take advantage of this change in the character of war. In order to do that, you need organizations to drive that,” he told reporters. “You look at what the Army did with Army Futures Command, for example. Can that be done at the joint level, at the DoD level?”¶ How Army Futures Command could be adapted across the services, which have innovation efforts of their own, is unclear, and Milley wasn’t ready to say whether he’d be proposing an umbrella “Joint Futures Command.” Army civilian leaders have moved some of the service’s command’s powers back to its senior civilian acquisitions office, though it shepherded 24 modernization programs since its inception.¶ The comments follow a warning he gave graduating cadets at the U.S. Military Academy at West Point last week that the military’s technological edge is in danger. No longer the unchallenged global power, America is being tested in Europe by Russian aggression and in Asia by China’s dramatic economic and military growth.¶ “We’re going to have to really think hard about fundamental shifts to our military,” Milley said in London. “The country that maximizes development of these technologies with their doctrines and organizations, in the time we have available, could be decisive in the next conflict ... I would suggest, in 10 to 15 years, you have to do these fundamental changes.”¶ The Pentagon has been trumpeting its stepped up investments in emerging technologies and last week made its latest tech-focused organizational move. An Emerging Capabilities Policy Office will help integrate autonomous systems, hypersonic tech, directed-energy weapons, and other innovations into the department strategy, planning guidance and budget processes.¶ The principal military advisor to the president and the secretary of defense, Milley said he is also thinking through the implications of emerging technologies, following the lead of Defense Secretary Lloyd Austin. The military is examining options for operational design and structure of the force ― its brigades, divisions and fleets ― but also its institutions.¶ “The institutions we have today may or may not be optimally designed to leverage these technologies,” he said.¶ Drawing a parallel with the horse bit and stirrups that allowed for mounted warfare some 3,000 years ago, Milley said that the existing technology behind Fitbits and iPhones allow soldiers to sense their environment like never before while accurate, long-range precision munitions let them destroy targets like never before.¶ Coupled with AI’s potential to speed battlefield decision-making and the robotics and the autonomous technologies that are transforming the character of labor, militaries and warfare could be entirely transformed. Trucking, which is already adapting to driverless vehicles, and other industries that lend themselves to robotics will fundamentally change, Milley said.¶ “With respect to the military, that’s no less true. We have a wide variety of tasks that can be and probably will be conducted by some form of robot,” he said. “The unmanned aerial vehicle is an example, but you could see in the future, pilotless air forces ― manned/unmanned teaming where you have one aircraft that’s got a human in it and the rest of the squadron are robots.¶ “You could see tank formations where maybe one armored vehicle is manned and the rest are robotic,” Milley said. “You could see a sailor-less Navy where one or two ships are command-type ships and the rest are all robotic ships.”¶ With the potential to reduce casualties and manpower costs, and revamp logistics, the implications are “almost infinite,” he said, adding that the Pentagon should be investing in those technologies, and changing the concepts of how it fights, its doctrine, organizations, leadership development.¶ “I believe we that we are in a fundamental change in the character of war, and by that I mean how you fight, where you fight, the doctrine, the equipment, the tactics, techniques and procedures, and so on,” Milley said. “We’re in the middle of a real, unbelievable fundamental change, which is probably the biggest fundamental change in the history of warfare.”

### Tech Leadership Key to Readiness

#### US proactive leadership is key – it's the only way to effectively counter China

Gude 2022 – Executive Director of the think tank Trusted Future

Ken Gude May 31, 2022 “The U.S. Must Lead a New Transatlantic Alliance on Tech Policy” https://www.realclearpolicy.com/articles/2022/05/31/the\_us\_must\_lead\_a\_new\_transatlantic\_alliance\_on\_tech\_policy\_834883.html

The United States and Europe have reinvigorated the transatlantic security alliance in response to Russia’s invasion of Ukraine. The galvanizing event of a major war in Europe has spurred greater action on security cooperation than at any point in decades. More importantly, it has accelerated the discussion about the importance of a common strategic vision for the United States and Europe to work together to counter autocratic adversaries. ¶ Despite the emerging consensus on defense needs, disagreements on important issues such as how we deal with increasingly vital emerging technologies continue to frustrate a common path forward on democracy and technology. The NATO security alliance was essential for meeting the challenges of the 20th century, but today's growing challenges, including leading the global technological future, will require even better cooperation in more areas. To ensure that democracies remain at the forefront of economic development through this rapidly changing international environment, the United States should lead a new transatlantic technology alliance with our European allies based on our shared democratic values.¶ Well over half of the economic growth since the end of World War II has been directly attributable to technological innovation. The American people see the importance of innovation with large majorities telling us in a recent survey that they want U.S. technology leadership so that the United States becomes a home for the good paying jobs of the future, and that Congress should promote that leadership through bipartisan investment. In a rare recent feat of that bipartisanship, a conference committee of the House and Senate is now considering bipartisan legislation that will invest billions to expand American innovation, strengthen our cyber workforce, and diversify our STEM pipeline.¶ We need to increase investment in this innovation ecosystem because China is outpacing the U.S. in establishing leadership in the critical emerging technology sectors that will drive the new jobs and industries for decades to come. China’s remarkable growth and investment in its technology sector has caught many around the world by surprise. According to Harvard University’s Belfer Center for Science and International Affairs, China “has displaced the U.S. as the world’s top high-tech manufacturer,” and, “has become a serious competitor in the foundational technologies of the 21st century.” But just as the United States is utilizing a powerful alliance with Europe to assist Ukraine as it fights to counter Russian aggression, we need a strong partnership with our European allies to meet this new challenge of winning the technological future. NATO was established to ensure that the security architecture of Europe was not defined by undemocratic forces. Likewise, the global technology future should be forged through democratic values. As Commerce Secretary Gina Raimondo has said, “We, together with our allies, who care about privacy, freedom, individual rights, individual protection, we need to write the rules of the road.”¶ Unfortunately, current proposals in Europe will hinder transatlantic cooperation in this critical sector, undermine American innovators, and potentially strengthen the hand of organized criminals and nation states that want to abuse technologies for malign purposes. For example, the bipartisan leadership of the Senate Finance Committee voiced concerns that the European Digital Markets Act would “unfairly disadvantage U.S. firms to the benefit of not just European companies, but also powerful state-owned and subsidized Chinese and Russian companies, which would have negative impacts on users’ privacy, security, and free speech.” Despite the issues with the European approach expressed by their colleagues, some American legislators are pushing for the United States to follow Europe’s lead. A group of former Cabinet-level national security officials recently warned that these U.S. proposals “would provide an open door for foreign adversaries to gain access to the software and hardware of American technology companies… [which] could result in major cyber threats, misinformation, access to data of U.S. persons, and intellectual property theft.” However well-intentioned these American and European proposals are, this is the wrong framework for a transatlantic technology alliance.

### 2AC – AI Coop Key to NATO

#### AI cooperation key to NATO effectiveness

Lin-Greenberg 2020 – postdoctoral fellow at the University of Pennsylvania’s Perry World House

Erik Lin-Greenberg, National Security Review, Vol 3, Iss 2. Spring. "Allies and Artificial Intelligence: Obstacles to Operations and Decision-Making" https://tnsr.org/2020/03/allies-and-artificial-intelligence-obstacles-to-operations-and-decision-making/

Second, incorporating AI-enabled capabilities into alliance planning exercises and wargames will help prepare policymakers and commanders to better employ AI.132 Wargames, for instance, might ask leaders to employ AI-enabled capabilities or respond to a rival’s use of AI-enabled weapons. These events allow leaders to test and refine institutional processes in a low-risk environment, while also socializing practitioners to the potential uses, limitations, and risks of AI-enabled warfare.

Conclusion

As additional funding and research drive increases in the effectiveness and reliability of AI, the military use of AI technologies will likely expand. And as more states integrate AI into their armed forces, the United States will find itself working with allies to build and exercise AI capabilities that are interoperable and support alliance decision-making processes. Failure to cooperate early and often on the development and use of AI may leave allies ill-prepared for operations in an era in which AI is an increasingly common fixture in the arsenals of both friends and foes.133

Alliances face two broad sets of challenges when integrating AI into operations. First, AI complicates alliance operations. The resource and data requirements needed to build and maintain AI systems pose obstacles to burden-sharing and interoperability. Adversaries can also use AI to launch military deception campaigns that complicate operational coordination. Second, AI can significantly strain alliance decision-making. New AI technologies promise to increase the speed with which allies and adversaries conduct operations, decreasing the time partners have to debate potential courses of action. Decision-making can also be disrupted if adversaries use AI to generate misinformation that can degrade trust among allies. To overcome these challenges, allies will need to establish multinational agreements and standardization guidelines that help ensure data is structured in ways that promote interoperability, while technical measures will help preserve data privacy, allow for data sharing, and minimize the consequences of AI use on the part of adversaries.

Whether and how states grapple with these challenges will shape the conduct of multinational operations and has implications for alliance politics and the global balance of power. Alliances that effectively integrate AI technology will be better positioned to counter threats, while those that allow AI to stymie decision-making and operations may find themselves disadvantaged on the battlefield. Within alliances, member states that quickly master the integration of AI into their militaries may gain significant influence, even if they are less powerful than other alliance partners in conventional terms. Because of their AI know-how, these states may play a dominant role in developing the norms, standards, and doctrine for AI use and help set an alliance’s AI strategy. In a similar vein, Estonia leveraged its cyber warfare expertise to bolster its position in NATO. Despite being territorially small and weak in conventional military terms, Estonia’s specialized expertise allowed it to play a leading role in shaping NATO’s cyber doctrine.134 A state’s successful development of AI can therefore increase its voice and sway within complex multinational institutions.

### 2AC – AI key to NATO – Burden Sharing

#### AI gaps in NATO create burden-sharing conflicts

Lin-Greenberg 2020 – postdoctoral fellow at the University of Pennsylvania’s Perry World House

Erik Lin-Greenberg, National Security Review, Vol 3, Iss 2. Spring. "Allies and Artificial Intelligence: Obstacles to Operations and Decision-Making" https://tnsr.org/2020/03/allies-and-artificial-intelligence-obstacles-to-operations-and-decision-making/

The existence of “AI haves” and “have-nots” within an alliance can complicate burden-sharing — a central tenet of military alliances. On one hand, states with robust AI capabilities can specialize their contributions to alliance operations and focus on providing AI-related capabilities. If, however, AI applications become a necessity for warfighting in the future, states that lack AI capabilities may be less able to contribute to alliance operations. States better equipped with AI capabilities may subsequently be forced to take on a greater share of work, generating both political and operational challenges. Politically, “AI haves” may complain that “AI have-nots” are not adequately contributing to a mission, straining relations between allies. Operationally, capability gaps can hamper an alliance’s ability to deploy forces or achieve military objectives. During the NATO-led air war over Kosovo in 1999, for instance, many NATO members possessed limited numbers of precision-guided munitions in their arsenals and often lacked the training to employ them, curtailing their ability to contribute to operations.65 As a result, responsibility for carrying out the air campaign fell to a small number of allies. In a larger conflict, burden-sharing might be critical to sustaining operations or securing battlefield victories.

### 2AC – AI Key to NATO – Interoperability

#### Integration of AI systems into logistics and sustainability is key to interoperability

Konaev and Chahal 2021 – research fellow and research analys with the Center for Security and Emerging Technology

Margarita Konaev Husanjot Chahal April 2021 “The Path of Least Resistance: Multinational Collaboration on AI for Military Logistics and Sustainment” CSET Issue Brief

Considering both the potential for leveraging developments from the private sector and lower barriers to in-house innovation, collaboration on AI for logistics and sustainment could also involve allies with more limited military-industrial capacities. Based on its fact-finding mission to Singapore, NATO’s Science and Technology Committee observed that “small and medium-sized Allies with smart scientists and engineers can play an outsized role in AI development and adoption.”38 This is a significant advantage, arguably unique to AI technologies, and especially timely considering that even the relatively wealthy U.S. allies are facing cuts to their defense budgets due to the economic fallout from the COVID-19 pandemic. Moreover, collaboration that includes input from small and medium-sized allies can strengthen interoperability, contribute to allied burden sharing, and buttress the long-term viability of U.S.-led defense partnerships.

### 2AC---NATO AI key to Deterrence

#### AI key to effective NATO deterrence versus Russia and China

Soare 2021 - Research fellow for defence and military analysis at International Institute for Strategic Studies, DMAP programme. Transatlantic and European defence innovation and EDTs.

Simona R. Soare June 11"Innovation as Adaptation: NATO and Emerging Technologies" https://www.gmfus.org/news/innovation-adaptation-nato-and-emerging-technologies

Throughout NATO’s history, defense innovation has been critical to its technological edge and its deterrence and defense posture against multiple threats. The unprecedented progress in emerging and disruptive technologies (EDTs) offers the prospect and challenge of transformative defense innovation for allied armed forces and societies at large. Technological progress in artificial intelligence (AI) and machine learning, advanced robotics, biotechnologies and human enhancement, quantum technologies, big-data analytics, and fifth-generation telecommunication systems, as well as growing autonomy in the critical functions of military systems, promise to change how wars are fought, how fast, where, and by whom. These technologies enable new forms of military presence, coercive action, and power projection in and across old and new domains (for example, cyberspace and outer space) and below and above the conventional threshold of armed conflict.

However, NATO and the transatlantic allies are neither the only nor the most agile actors investing in emerging and disruptive technologies. China and Russia already invest substantially in and have accelerated their adoption of these technologies in military applications. To maintain its strategic advantage against China and Russia, NATO needs to become an agent of innovation and be more agile and strategic in supporting allies to jointly exploit new technologies for deterrence, defense, and resilience purposes. NATO has prioritized EDTs and signaled it has joined “the technological adoption race” against China and Russia.1 Much work remains to be done. Allies remain divided on the ethical and legal specifics of the military use of EDTs and by their national-industrial preferences. Technological capacity across the alliance also varies significantly and, as always, funding is in short supply. Concrete decisions on how to consolidate innovation in EDTs, a critical task for NATO’s mission and future adaptation, are expected at this month’s Brussels summit. Specifically, allies will respond to calls for a “strategic surge” in EDTs2 innovation by establishing a Defense Innovation Accelerator, an opt-in instrument funded through dedicated national contributions, which NATO hopes will incentivize innovation and transatlantic cooperation on emerging technologies.3

#### Solves multipolarity and deterrence

Soare 2021 - Research fellow for defence and military analysis at International Institute for Strategic Studies, DMAP programme. Transatlantic and European defence innovation and EDTs.

Simona R. Soare June 11"Innovation as Adaptation: NATO and Emerging Technologies" https://www.gmfus.org/news/innovation-adaptation-nato-and-emerging-technologies

Long-term great-power competition has returned and it has a strong technological dimension. The time when NATO had the luxury to adapt at its own pace to a changing strategic environment is over. To survive and remain relevant in a multipolar world of rapidly evolving security risks and threats, and to compete successfully against Russia and China, NATO needs a new framework centered on innovation as adaptation. The alliance’s ongoing efforts in EDTs and the new NATO Strategic Concept are timely opportunities to start on this new path. A focus on inclusive innovation in NATO could increase adaptability and competitiveness in the long-term, help to disrupt, deter or defeat adversarial subversive actions, mitigate transnational threats and, more importantly, maintain solidarity and the principle of indivisible security among the allies.

### 2AC---Yes Hybrid Threats---China

#### Chinese hybrid threats risks mischaracteriziation---being able to successfully characterize attacks is key

Smith 2021 - Director of Research and Analysis at the Centre of Excellence for Countering Hybrid Threats and visiting professor for the academic year 2020–2021 at the College of Europe, Bruges

Hanna Smith “Hybrid Threats to Allied Decision-Making” NATO Decision-Making in the Age of Big Data and Artificial Intelligence https://www.iai.it/sites/default/files/978195445000.pdf

Recent digital and technological developments have enabled many completely new tools, which have given rise to new virtual platforms that fall outside current norms and rules. These new tools have also brought unprecedented speed to all kinds of action. Interconnectivity and globalization have created new possibilities for network-based action, lowered borders, changed geopolitics and made sure that there is more data around us than ever before. New actors have emerged in international politics, who are looking to enhance their status. Authoritarian and democratic states appear to be entering into a new form of ideological battle. In this situation one can ask: what are the rules of the game? An important weapon in this new battle is hybrid threats. Hybrid threats constitute a shadow policy for authoritarian states that supports their strategic aims and is based on their strategic culture traditions. The clear dividing lines, unwritten rules, players and goals of the Cold War are history. This situation is challenging for planners, decision-makers and foresight building.

The concept of hybrid threats has entered into political normality by appearing in the discourses and documents of the EU, NATO and their member states. The concept has been examined through many different disciplinary lenses: international relations, strategic studies, security studies, military studies, history and political science – to name a few. This multidisciplinary analytical mosaic also blurs the picture of what hybrid threats really are. The Report “The Landscape of Hybrid Threats: A Conceptual Model”, issued by the European Centre of Excellence for Countering Hybrid Threats (Hybrid CoE) together with the European Union (EU) Commission’s Joint Research Center, uses hybrid threats as an umbrella concept, under which different types of activity occur: interference, influence, operations, campaigns and even warfare (Giannopoulos, Smith and Theocharidou, 2020). The approach adopted would enable a comprehensive analysis including civilian, political, military and academic thinking. This chapter will take the report’s conceptual model as its starting point for hybrid threat analysis.

Hybrid threats are still difficult to define, which on the one hand complicates the adoption of strategies to counter them, common positions and a holistic approach, but on the other hand gives flexibility, greater freedom to be creative and possibility to combine different disciplines and backgrounds. Consequently, the characterization of hybrid threats will help to identify real threats, potential threats and also those aspects that might look like threats but are not. Too tight definition might, in the worst case, point in the wrong direction and also tie one’s hands when it comes to responding.

There is still an ongoing debate regarding the usefulness of the concept of hybrid threats. Those saying that hybrid threats are mostly “old wine in new bottles” mean that perhaps we do not need a new concept, and we could just adjust the old ones to current circumstances. To this Frank Hoffman, who is often seen as the man behind the ‘hybrid warfare’ concept, answered in the following way: “New language and new terms aid us in thinking differently and characterizing what is truly new, hopefully without overlooking what is enduring in war. A new lexicon captures the changes better than hanging on to old terms with new meanings” (Hoffmann, 2010).

The ‘old’ in the concept of hybrid threats lies in the fact that interference and influence have always been part of international politics. Also, the technique of combining different domains like social, political, informational, military and legal ones has been part of the strategic thinking behind influence, interference and military operations. This thinking is also present in today’s activities that constitute hybrid threats. What is new, then – although anchored to traditions in the authoritarian strategic thinking – is related to today’s security environment and how it is different compared to the Cold War’s, for example. The battle between democratic and authoritarian state systems today is not as clear-cut as the division between communist and capitalist countries was during the Cold War. Furthermore, digital and technological developments have provided new platforms for influencing, new tools for both interference and influence, and have extended the domains where action happens – from the traditional military domains like land, air and sea, to cyber and space, to more comprehensive domains like culture and administration. These are all connected and, through hybrid threats activities with a targeted approach, even the best prepared states and alliances can be challenged.

The logic of interference found in hybrid threats is substantially based on authoritarian strategic culture. Strategic culture itself as a concept has been contested, but in recent years it has found its way back into security studies. It is worth noting that the Cold War juxtaposition, the bipolarity of the superpowers, crucially downplayed the relevance of national aspects relating to cooperation, competition, conflict, and war. In that way, the ‘national character’ of the enemy, which was very important before the Second World War, was downplayed during the Cold War years (Miklossy & Smith, 2020: xiii). Post-Cold War studies started to pay attention again to different domestic processes and their effects. As Glenn observed, “[t]he mid-nineties witnessed the emergence of a new school of realists that sought to move beyond the basic insights of Waltzian neorealism by investigating the interaction of systemic pressures and domestic processes in the foreign policy decision making process, thus providing a much richer explanatory account of why states choose certain foreign policies over others” (2009: 523-551). From examining national strategic cultures, the theory can also be extended to cover strategic cultures of a particular state system. Here the concept of authoritarian strategic culture comes from the studies that produce characterizations of authoritarian and totalitarian regimes (Linz, 2000; Svolik, 2012; Brooker, 2014). There are national specificities when it comes to behavior, and there are specificities that are linked to the state system. The national specificities are more difficult to define due to the fact that culture as a concept is complex. A state system is relatively easier. A state system often defines the regime type as well as its relationship to civil society, opposition and the military.

This chapter begins by presenting the characteristics of hybrid threats, as identified in the authoritarian strategic thinking specifically in relation to Russia and Chinese traditions. Those characteristics are then put into the context of decision-making following David Omand’s Situation awareness, Explanation, Estimate and Strategic notice (SEES) model. In the third part, the challenges that the new information environment presents us are considered, and finally the chapter draws some conclusions relating to allied decision-making.

Hybrid Threats and Strategic Thinking As mentioned in the introduction, this chapter takes as its starting point the report “The landscape of Hybrid Threats: A conceptual model”. The report does not claim to be an exhaustive source for the description of all the characteristics that hybrid threats might have, and there might be many more that have to do with the changing nature of the phenomenon. However, the report does identify five characteristics deemed to be the most important with respect to the challenges they pose to decision-making: • Usage of multiple synchronized tools, used to create linear and non-linear effects; • Ability to create ambiguity with plausible or implausible deniability and to hide true intent; • Deliberate threshold manipulation and the use of grey zones like borders between war and peace, friend and enemy, virtual and real, internal and external, etc; • Exploitation of the seams of democratic societies and the different jurisdictions (local, state, international); • Use of decoys. These five challenges are all related to Russian and Chinese interference and influence traditions, which will be presented in the following sections. In turn, they are part of wider strategic culture, which is the product of a centuries-long dialogue between a people and its history (Gray, 2006: 15). Strategic culture is closely interlinked with the idea of national interests in a spatial context that is defined by potential threats, perceptions of friends and foes, traditions of alliances, and institutional linkages (Miklossy & Smith, 2020: 263).

Traditions of Chinese strategic thinking Since uncovering strategic culture is beyond the scope of this chapter, the approach is to present some dominant ideas that are still present today in Chinese thinking relating to interference, influence and winning conflicts and wars. The Chinese thinking presented here is based on three books; On Strategy Studies (2006) published by the People’s Liberation Army (PLA), Political Work Guidelines of the People’s Liberation Army (2003), where the “Three Warfares” concept is introduced, and The seven military classics of Ancient China (2017), which presents seven texts from different times seen as cornerstones of Chinese military tradition. This is particularly relevant since President Xi Jingping has forbidden the use of foreign theory books in education and has mandated turning back to their own classics including those on strategy (Nojonen, 2019). Therefore, Chinese practitioners of strategy are actively studying their own classics in building a professional identity and practices based on the particular traditional conceptualization of the Chinese strategy work (Nojonen, 2019).

The book On Strategy Studies, published in Chinese, introduces the concept of “supraplanning”: a dynamic process towards a goal – and not a rigid adherence to a sequence of steps that is forever fixed and precisely worked out in advance. The authors outline three factors that determine the strategic behavior of the Chinese military: strategic thinking, strategic environment and military capacity. The book makes a point that the aim is “to lure the other side into developing misperceptions…and to [establish for oneself] a strategically advantageous position by producing various kinds of false phenomena in an organized and planned manner with the smallest cost in manpower and materials” (Detweiler, 2009: 10).

In analyzing Chinese strategic behavior, the authors argue that the tradition, understanding and practice of stratagems is the dominant pattern of Chinese strategy thinking. Based on the book, the characteristics of Chinese supraplanning are: a) resourcefulness and decisiveness; b) deep stratagems and distant deliberations; c) comprehensive planning and preparations; d) flexibility and ingenuity. It is important to note that different concepts found in traditional Chinese strategic thinking are presented in a dialectic way, such as “weakness and strength”, and “clandestine manoeuvres and open operations”. This means that concepts are not strictly defined, but rather remain borderless and ambivalent, creating ambiguity. Also, these concepts can be nouns and verbs at the same time; in other words, they can be both abstractions of cognitive processes as well as actual practices. This means that a solid picture of each given situation might be very difficult to form without a profound knowledge of Chinese language (Nojonen, 2019).

Also, the more well know Chinese concept of “Three Warfares”, in the book Political Work Guidelines, comprises three different components: Psychological Warfare, Public Opinion Warfare and Legal Warfare. The Three Warfare concept was first made official in the revisions of the PLA’s Political Work Regulations in 2003. - Psychological Warfare is defined as operations that achieve political and military aims by influencing a target’s psychology and behavior through the distribution of specific information. Situational awareness can be blurred with informational manipulation, and different biases can be supported. In this respect, the ‘targets’ are practitioners and decision-makers. Psychological Warfare methods include deterrence, coercion, deception, instigation, seduction, bribery, inducement and confusion. These methods are part of both theoretical and doctrinal descriptions. - Public Opinion Warfare is defined as operations aimed at influencing both domestic and international support with the use of selective information delivered through different media. This is different from psychological warfare in the way that it aims to control the masses. The main channels for this type of activity are the internet and traditional media sources, such as broadcasting and newspapers. Towards the public opinion, warfare concept channels also include international organizations and academic forums that can be used from within under a tailor-made approach. - Legal Warfare is used to attain legal superiority by using domestic and international law to gain a political initiative or military advantage. Rather than viewing law as a method of rational order- making, legal warfare looks for ways to use legal advantage to influence targets by delivering the effects of interference, response, defeat, deterrence, or defense via legal means, including through national or international channels.

The third book, The seven military classics of Ancient China, gives a comprehensive picture from a historical perspective of how Chinese rulers and generals have analyzed the best ways to keep power, get power, conquer land, defeat the enemy and gain control. The book includes Sun Tzu’s famous “Art of War”, and Huang Shigong’s “Three Strategies”, which discusses the Art of War. In the latter text, for example, the line “Follow their (enemy) trends in order to break them. Be wild with your words in order for them to make mistakes. Surround them with your net in order to catch them”, could be applied to today’s security environment, where the manipulation of information is based on the assumption that decision-makers will make mistakes that favor the actors providing misinformation. All these texts have psychological elements, search for weaknesses and look for ways to covertly succeed.

This snapshot of Chinese strategic thinking already shows that it will be very hard from outside China to identify actions that are seen and planned by Beijing to be borderless and ambivalent. Furthermore, different levels of decision-making are the main target. The various tools are designed to work in the way that situational awareness is blurred and context is lost, which means that estimates, warnings and preparedness in the target are incomplete.

### 2AC---Yes Hybrid Threats---Russia

#### Russia is weaponizing AI through hybrid warfare---that undermines NATO decision-making

Gady 2021 - Research Fellow for Cyber, Space and Future Conflict, International Institute for Strategic Studies

Franz-Stefan Gady “Hybrid Threats to Allied Decision-Making: Merging Whack-A-Troll Tactics with Whole-Of-Society Defense Concept” NATO Decision-Making in the Age of Big Data and Artificial Intelligence https://www.iai.it/sites/default/files/978195445000.pdf

This chapter seeks to offer preliminary answers to two questions. First, to what degree will Artificial Intelligence (AI)-enabled information warfare exacerbate hybrid threats to NATO decision-making? Second, what can NATO countries do to alleviate the threat? To narrow the research scope, this chapter will principally look at threats posed by Russian AI-enabled information warfare operations under the concept of gibridnaya voyna. The study argues that given that AI-enabled information warfare has the potential to amplify societal polarization, elite disagreement within domestic politics, and reshape the perception of the “Russian threat” in NATO member countries, it can have a direct negative impact on national and NATO decision-making. Such operations, however, only amplify existing symptoms of polarization and disagreement found within NATO member states and are not their root causes. The chapter concludes that NATO must better integrate tech-centric so-called “whack-a-troll” tactics with a whole-of-nation strategy to better safe-guard NATO decision-making and alliance cohesion. Renewed discussion of whole-of-society defense concepts to inform national security strategies may be useful in this regard.

Introduction NATO defines hybrid threats as threats that “combine military and non-military as well as covert and overt means, including disinformation, cyber attacks, economic pressure, deployment of irregular armed groups and use of regular forces” (2019). Such hybrid methods are used to blur the line between war and peace and “attempt to sow doubts in the minds of target populations.” NATO further emphasizes that “[t]he speed, scale and intensity of hybrid threats have increased in recent years.” The latter can partially be traced back to various technological advances including in the fields of Artificial Intelligence (AI) and offensive cyber capabilities, utilized in conjunction with deliberate attempts by competitor nations to undermine the political cohesion of NATO member states from within.

Hybrid threats pose a number of unique challenges to political decision-making within both NATO member states and the Alliance’s various deliberative bodies, where decisions are based on the principle of consensus preceded by consultation processes (NATO, 2020). In particular, meddling by outside powers in political processes by means of influence operations, broadly defined as “organized attempts to achieve a specific effect among a target audience,” is one of the top concerns of NATO leadership (Thomas et al., 2020). In particular, Russian tactical-operational influence operations under the concept of gibridnaya voyna (‘hybrid warfare’) have been receiving a great deal of attention since 2014. As Ofer Fridman notes, such operations target society at large, seeking to undermine political cohesion in an adversary state by employing methods that amplify the divisions and polarizations among its citizens (2018).

Definitional confusion has plagued the discussion on hybrid warfare. Fridman, who sketches the conceptual evolution of the term in both the West and Russia, points out that at least three different phenomena have been described as hybrid warfare in past years with no agreed upon definition. Indeed, the term ‘hybrid warfare’ itself may at this point obfuscate rather than clarify modern conflict characteristics. As Fridman argues: “Despite the political usefulness of the term hybrid warfare, it would appear that Russian and Western military professionals now recognize that the term is next to useless for describing the real nature of contemporary conflicts, leading them to promote more specific definitions, such as information warfare, cyber warfare, which are now prevalent in the West, or new-generationwarfare, which is currently prevalent in Russia” (2018: 157).

Indeed, the Russian Chief of the General Staff, General Valery Gerasimov, has publicly aimed to draw a distinction between new-generation warfare and hybrid warfare with the former – given its emphasis on military capabilities – being the main focus of the Russian Armed Forces (Fridman, 2018).

Nonetheless, it is evident from a review of Russian military literature that hybrid warfare focused on weakening societal cohesion of an opponent still retains a prominent spot in Russian national security thinking. For example, a 2015 article on future warfare published in the widely-read journal of the Russian Ministry of Defence stated in strong terms the centrality of information to the Russian understanding of future war, asserting that “it is precisely the information-psychological struggle which will, in the main, create the preconditions for the achievement of victory [in future warfare]”. The article, authored by two frequent contributors on future warfare, continued: “…the achievement of strategic objectives in future wars will be impossible without the establishment of information dominance over the enemy. In future wars, special disinformation operations and [operations for] misleading the military-political leadership of the other side will include a system of interconnected and carefully-agreed upon large-scale measures according to the plan of new-type war (‘hybrid war’), including the use of various means of actions upon the personnel of the armed forces and population of the state with the objective of creating internal tension (schism) in society. Information-psychological operations in future war will pursue by non-forceful means the objective of achieving the significant weakening of the military potential of the enemy by means of affecting his information processes, misleading [him], demoralizing the population and the personnel of the armed forces” (Bogdanov and Chekinov, 2015: 45)

As part of such future Russian gibridnaya voyna campaigns, the effective integration of AI with cyber capabilities that enable faster and more precise weaponization of information has the potential to compromise and undermine NATO decision-making at multiple levels. This chapter consequently seeks to offer preliminary answers to two questions in this regard. First, to what degree will AI-enabled information warfare1 exacerbate hybrid threats to NATO decision-making? Second, what can NATO countries do to alleviate the threat?

To narrow the research scope, this chapter will principally look at threats posed by Russian influence operations under the concept of gibridnaya voyna.

Factors Influencing NATO Decision-Making In order to answer to the above questions, it is first necessary to outline the various influences that impact allied decision-making within NATO. According a recent RAND study, member states’ decision-making processes on their own participation in NATO operations can be broadly divided into three categories: • Domestic politics; • Perception of the Russian threat; • Alliance dynamics (Binnendijk and Priebe, 2019).

Notably, RAND finds that domestic politics and perceptions of the Russian threat have the larger impact in decision-making processes involving an unconventional (i.e. hybrid) attack on a NATO country. In the future, such an attack would undoubtedly feature AI-enabled information warfare as part of gibridnaya voyna embedded within a new-generation warfare campaign. Consequently, this chapter will primarily focus on domestic politics and perceptions of the Russian threat to illustrate Russian tactical-operational AI-enabled information warfare.

According to the RAND study, domestic political considerations that influence decision-making regarding support or opposition to NATO military action in an unconventional environment are impacted by a number of factors, including the proximity of public elections, general public support for a particular course of action, elite agreement or disagreement (coalition governments can be particularly vulnerable in this case), and a centralized or decentralized foreign policy decision-making structure. Perceptions of the Russian threat in turn are also subject to a number of factors including perceptions of Moscow’s aims and motivations, escalation risks, vulnerabilities to Russian economic sanctions as well as military retaliations, and competing national security demands (Binnendijk and Priebe, 2019).

Most relevant for this chapter is that in both instances – domestic politics and perceptions of the Russian threat – AI-enabled information operations have the potential to influence factors in favor of Russia. For example, such operations could expand the audience reach of NATO-skeptical parties during election seasons, or in advance of a parliamentary vote in order to undermine elite consensus on anti-Russian actions. Alternatively, with the help of a carefully crafted ‘what aboutism’ narrative employed part of a wider disinformation operation, Moscow could amplify disagreement over aggressive Russian actions within a target country by emphasizing online that Russia, like any other country, is merely pursuing legitimate selfinterest.

AI-Enabled Information Warfare AI-enabled information warfare entails the use of algorithms capable of processing and learning from big data to execute attacks against specific targets autonomously or semi-autonomously in order to achieve a desired effect in the information space. 2 The terms ‘autonomously’ and ‘semi-autonomously’ describe respectively the ability of the algorithm without or with (limited) human intervention to learn from vast amounts of data in order to execute polymorphic attacks on multiple fronts in the information space (for example, simultaneous attacks on a microblogging site synchronized with emails phishing attacks), in which the algorithm is capable of changing its identifiable features (for example, by creating multiple malicious online identities fitted with unique malware packages). The most relevant media for AI-enabled information warfare are audio, text and video (Giles and Hartmann, 2020). Furthermore, AI-enabled information operations target all interrelated dimensions of the information environment – physical, informational, and cognitive/emotional. Herbert Lin and Jaclyn Kerr define the information environment as, the “aggregate of individuals, organizations, and systems that collect, process, disseminate, or act on information” (2019: 4).

AI-enabled information warfare methods may plausibly be deployed in various other ways. For example, AIenabled algorithms permit the building of realistic simulations of individuals “to test every individual’s reaction to events (both virtual and real), advertising, political campaigns, and psychological operations, and even to guess what might go viral through person-to-person interactions” (Libicki, 2017: 52). Such simulations could be created by deploying an algorithm capable of pattern recognition to study the social media behavior of a select target group of individuals in a specific country. This in turn could be used to create personalized phishing emails for social engineering attacks, but also to create so-called ‘deepfakes’ to gain access to sensitive systems or to facilitate the spreading of disinformation. Another example is the use of bots in order to ’hijack’ public perceptions: “Bots, trolls, and sock puppets can invent new ‘facts’ out of thin air leading to a polarized society and a culture of mistrust” (Wright, 2019: 318). The main objective behind creating alternate facts would not be to create a convincing alternative narrative – which is an objective of strategic communications – but rather to erode the solidarity of groups facing the same threat by playing on the fears and anxieties of individuals (Libicki, 2017).

In sum, AI-enabled information warfare differs from ‘regular’ information warfare in four crucial areas: 1. Speed: AI can accelerate the pace of operations by, for example, faster identifying targets due to the expedited operationalization of cyber intelligence, surveillance and reconnaissance (ISR) data as a result of increased pattern recognition capabilities of algorithms. 2. Scope: AI can expand the scope of information warfare operations by semi-autonomously or autonomously executing polymorphic attacks on multiple platforms with the help of bots, trolls, or sock puppets. 3. Scale: AI can increase the chances of a particular message or narrative going ‘viral’ in the information space by, for example, self-learning algorithms ‘wargaming’ the potential impact of specific content online, or AI-enabled facial recognition software that is capable of recognizing emotional states of individual humans. 4. Sophistication: AI can not only increase the sophistication of microtargeting processes, but also facilitate the creation of ever more convincing synthetic media products (such as ‘deepfakes’) with the support of Generative Adversarial Networks (GANs) where it is increasingly difficult to separate real from synthetic identities (Rocca, 2019).

Since AI is both scalable and effective, it is likely to be of significant utility to those seeking to undermine Western democracies because it will permit adversaries to avoid making tradeoffs between scale and effectiveness. In particular, AI will likely allow adversaries to expand exponentially the scale and rate of attacks, while also increasing the number of targets (Rocca, 2019). In addition, the following factors are all likely to enhance the utility of AI in information warfare: societies’ growing dependence on cyberspace as a news source; citizens’ increased reliance on social media; the difficulties individuals face in distinguishing between fake and genuine news sources; the unprecedented levels of access to information; and the speed at which information can be spread between individuals (Giles and Hartmann, 2020).

### Impact – US-Sino AI Tech Race

#### The US-Sino AI arms race is escalating --- the aff positions dominance that spills over to modernizing military tech --- it’s a national security question

Lucas and Waters 2018 - Asian Technology Correspondent for the Financial Times and technology analyst for Silicon Valley

Louise Lucas and Richard Waters 4-30-18 “The AI arms race: China and US compete to dominate big data” Financial Times https://www.ft.com/content/e33a6994-447e-11e8-93cf-67ac3a6482fd

Algorithms trained on mountains of Chinese data may soon be making decisions that deeply affect the lives of people in the US. Take Yitu Technology, a Shanghai-based artificial intelligence start-up that won top honours in two AI competitions in the US last year for its facial recognition technology. The system was built for Chinese law enforcement using data collected by the authorities. Or as the company boasts, it was honed on the “world’s largest portrait system, covering more than 1.5bn people.” Yitu is now looking for customers in the US to put its software to work. “There are a lot of applications for this technology,” says Wu Shuang, who heads its Silicon Valley research group. This story is the first in a series on the growing competition between the US and China over AI, which will have an impact on the contest for military superiority, the international trading system and the future of the Chinese Communist party. It is not alone. Shenzhen-based Malong Technologies has also trained its image recognition algorithms on masses of Chinese data — in its case, by analysing hundreds of thousands of photos from fashion shows to identify trends for clients in the garment industry. It says it is now trialing the technology with ecommerce companies in the US. A “key difference in China is there are just more people, more data, more businesses — it’s just bigger,” says chief technology officer Matt Scott, a former Microsoft researcher who moved to China to co-found the company. “Having access to that data in China, we can export [the technology] around the world.” Algorithms like these are the advanced guard in a battle that will go a long way to determining economic leadership in the era of Big Data — a contest where China is catching up quickly and now vying with the US to be the dominant force. The AI revolution is often thought of in terms of robots or drones that can do tasks once performed by humans. But its impact will also be felt from a less visible source — the ability to sweat the data the hardest. Machine learning systems that can find patterns by analysing large data sets are at the cutting edge of today’s artificial intelligence. For some industries, deep learning — the most advanced form of the technology — has the potential to create value equivalent to as much as 9 per cent of a company’s revenues, according to a report in April from McKinsey Global Institute. That translates into trillions of dollars of potential economic value — and the US and China are the clear leaders. “If you look globally, it’s a two-horse race in AI,” says Michael Chui, a McKinsey partner who led the study. Visitors to the China Public Security Expo in Shenzhen in October are scanned by facial recognition software © Reuters In China, the AI boom has fed the country’s swelling sense of self-confidence in its expanding technology base. President Xi Jinping has made AI one of the central pillars of the Made in China 2025 plan to transform the country’s economy and has set a goal of being the world leader in the technology by 2030. At the same time, China’s advances are also contributing to an opposite paranoia in the US that its technology exceptionalism can no longer be taken for granted. The Trump administration’s plans for a trade war with Beijing are motivated — at least in part — by fear of China’s advances in new technology. “It’s clear that the US government sees itself in a tech arms race with the Chinese government,” says Robert Silvers, a partner at legal firm Paul Hastings and former assistant secretary for cyber policy at the department of homeland security. “The US is taking the view that these kinds of technologies are so transformative that the country that gets the lead is going to have not just economic or tech advantage but also national security advantage.” One reason the contest over AI is so charged is that it is connected with a race to find a new military edge. As well as answering mundane customer queries and piloting driverless cars, the same technology can also be deployed to synchronise drone swarms, analyse pictures taken by spy drones and control autonomous boats. Dominance in AI could bring a step change in warfare, says Sean Gourley, founder of Primer, a Silicon Valley AI start-up whose backers include the CIA’s venture capital arm. Technology shifts like this can undermine the military advantage of great powers. “It’s likely to be coupled with the reordering of global power. Whoever is best at this will be in a strong position in 10 years’ time,” he says.

#### Chinese expansionism makes war likely in the event of tech supremacy despite international checks and M.A.D.

Colby and Ratner 2014 - Robert M. Gates Fellow at the Center for a New American Security and the Senior Fellow and Deputy Director of the Asia-Pacific Security Program at the Center for a New American Security

Elbridge Colby and Ely Ratner “Roiling the Waters: Why the United States needs to stop playing peacemaker and start making China feel uncomfortable” Foreign Policy Journal Online http://www.foreignpolicy.com/articles/2014/01/21/roiling\_the\_waters

Though officials on both sides of the Pacific are publicly loath to add fuel to the fire, it is increasingly clear that China's recent regional provocations are the result of more than just knee-jerk reactions or bureaucratic malfunctions over long-forgotten borders or arcane historical ownership. Beijing's far-reaching claims in the East and South China seas -- and coercive efforts to intimidate neighbors -- have unsettled countries from Vietnam to the Philippines to Japan because they amount to an expansionist strategy, with profound implications for U.S. power and regional security. China's latest act of revisionism, in late November, was to declare an air defense identification zone (ADIZ) across large swaths of the East China Sea, including over the disputed Senkaku Islands (called the Diaoyu by the Chinese). America's response was twofold: The White House indicated that it would not officially honor the ADIZ designation (a message delivered by sending unarmed B-52 bombers through the zone on what the Pentagon called a routine and long-planned training mission), but it initially encouraged commercial airliners to comply with Beijing's request to identify themselves to Chinese air traffic control. Meanwhile, it dispatched high-level officials to calm the waters: When Vice President Joe Biden met with Chinese leaders in early December, his mission, according to one senior administration official, was to push for "crisis management mechanisms and confidence-building measures to lower tensions and reduce risk of escalation or miscalculation." This effort to play the role of regional peacemaker echoes the Obama administration's approach in 2012 during the Scarborough Shoal standoff between China and the Philippines, as well as during the row between Tokyo and Beijing after Japan nationalized the Senkaku Islands. But if China's ends haven't changed, its means have -- in the past years, Beijing has stepped up efforts to achieve its long-held territorial aims. As a former Chinese ambassador told us in December, her country's position in the world is like that of "a new student that jumped many grades." Maybe so, but Beijing's behavior since 2009 is more akin to that of a brash adolescent both unaware and blithe to the potential consequences of adventurous behavior. U.S. officials have been careful to avoid provoking a China that appears increasingly willing to flex its newfound military muscle. U.S. officials have been careful to avoid provoking a China that appears increasingly willing to flex its newfound military muscle. Perhaps that's why Biden invoked his father's advice in warning on the eve of his Beijing visit that "the only conflict that is worse than one that is intended is one that is unintended." But an overemphasis on stability can be dangerous. While preventing inadvertent war in Asia is obviously a worthy goal, it is just as important to discourage China from believing that it can employ economic, military, and diplomatic coercion to settle international disagreements without triggering a serious response. Making the risk of escalation too low will at some point start running counter to U.S. interests. Why? Because China is taking advantage of Washington's risk aversion by rocking the boat, seeing what it can extract in the process, and letting the United States worry about righting it. Beijing's playbook of tailored coercion relies in part on China's confidence that it can weather ephemeral international outrage while Washington takes responsibility for ensuring the situation doesn't get out of control. This means that reducing the likelihood of escalation through high-level strategic dialogues and military-to-military hotlines, however important, is in and of itself insufficient to curb Chinese assertiveness. History has demonstrated the perils of focusing too much on stability at the expense of deterrence. The Cuban missile crisis, the modern world's closest brush with the apocalypse, was precipitated by Soviet Premier Nikita Khrushchev's perception that the United States, especially President John F. Kennedy, was overly concerned about stability and cooling tensions between the superpowers. Khrushchev's sense that America could be pushed was formed by Kennedy's cautious reactions to assertive Soviet moves toward Berlin, as well as Khrushchev's measure of Kennedy at the 1961 Vienna superpower summit as "weak" and accommodating. Over the following year and a half, Khrushchev and the Soviet Union sought to exploit what they perceived to be shaky American resolve, pressing in Berlin, where East Germany built a wall closing off the free part of the city, and secretly deploying nuclear-armed missiles to Cuba. Only through a demonstrated willingness on the part of Kennedy to go to the nuclear brink -- with U.S. nuclear forces on high alert and U.S. naval forces prepared to forcibly halt Soviet ships attempting to run the blockade (accompanied by a U.S. concession on missile deployments in Turkey) -- was the United States able to get Moscow to back down. Needless to say, restraint and a willingness to negotiate were elemental to a peaceful resolution of the crisis, but only in the context of a major mobilization of U.S. forces against Cuba, the elevation of the U.S. alert level to Defcon 2 (one step short of nuclear war), and chilling threats designed to convince the Soviets that conciliation was the only viable move. OF COURSE, CHINA IS NOT THE SOVIET UNION. And 2014 is not 1962. The point is simply that a country with the power of the USSR or China, unsatisfied with features of the existing order, motivated to do something to change it, and skeptical of the resolve of the United States, could well pursue a policy of coercion and brinkmanship, even under the shadow of nuclear weapons. As historian Francis Gavin has argued, the whole history of the Cold War shows that countries like China -- and, at times, the United States -- can bluff, coerce, and threaten their way to geopolitical gain. The worst way to deal with such a power is to leave it with the impression that these approaches work. Just as the United States would have been far better off if Kennedy, at the Vienna summit, had squelched Khrushchev's doubts about his resolve to defend Berlin, it will be far better if the leadership in Beijing has the clear sense that the United States will meet each challenge to its and its allies' interests resolutely. Taking a cue from history, the United States needs to inject a healthy degree of risk into Beijing's calculus Taking a cue from history, the United States needs to inject a healthy degree of risk into Beijing's calculus, even as it searches for ways to cooperate with China. This does not mean abandoning engagement or trying to contain China, let alone fomenting conflict. But it does mean communicating that Beijing has less ability to control escalation than it seems to think. China must understand that attempts to roil the waters could result in precisely the kinds of costs and conflicts it seeks to avoid. To make this work, the United States should pursue policies that actually elevate the risks -- political, economic, or otherwise -- to Beijing of acting assertively. On the high seas, the focal point for the region's territorial disputes, China has bullied its neighbors by relying on non-military vessels. China is using its rapidly expanding coast guard to assert its expansive sovereignty claims by harassing non-Chinese fishermen, oil companies, and military vessels that pass through contested waters in the East and South China seas. This has the benefit of exploiting China's dominant numerical advantage while keeping the U.S. Navy on the sidelines. Washington should blur the false distinction between non-military and military ships by stating that it will respond to physical coercion and the use of force as deemed appropriate -- regardless of whether the perpetrator is a white- or gray-hulled ship. Exercises that practice U.S. naval operations against aggressive non-military vessels would be a good place to start. So would calling upon China to end its illegal occupation of the disputed Scarborough Shoal off the Philippine coast, while contesting Chinese administration there by sending the U.S. Navy through the area to assert its right to freedom of navigation. The Chinese PLA Navy, for its part, hasn't been shy to test the waters. In early December, the U.S. Pacific Fleet revealed that the guided-missile cruiser USS Cowpens, while shadowing China's new aircraft carrier on a routine mission in international seas, was forced to take evasive action when a PLA Navy warship attached to the carrier group approached on a collision course, literally forcing the cruiser into a game of chicken. "The Chinese knew what they were doing," a military official told CNN. Beyond the sea, the United States must demonstrate a willingness to push back militarily when China attempts to coerce America's allies and partners. To do this, the U.S. military needs capabilities and plans that not only prepare it for major war, but that also offer plausible, concrete options for responding to Chinese attempts to exploit America's perceived aversion to instability. Leaders throughout Asia will be watching. Too much caution, especially if China is clearly the initiator, may be read as U.S. weakness, thereby perpetuating rather than diminishing China's incentives toward adventurism. The United States can further raise the stakes by deepening its military ties with Japan. This year, the two countries will rewrite the guidelines that govern the roles and responsibilities of their partnership. The result could be major steps forward in joint military planning and interoperability. Washington can also play a key role in mending fences between Tokyo and Seoul, renewing trilateral cooperation to address the many interests -- and common threats -- that the three countries share. Beyond America's traditional alliances in Northeast Asia, the Obama administration must demonstrate a concrete, long-lasting commitment to Australia, the Philippines, and Singapore in order to provide the United States with a more diversified set of partners and forward-operating locations in Asia, as well as broader political legitimacy. Beijing's planners worry about America's burgeoning military alliances and partnerships in Asia. Good. That means they'll be more reluctant to start a fight if doing so means China could end up facing a multitude of the region's powerhouses. The point, of course, is not to increase the likelihood of conflict between the United States and China. Rather, the goal is to cultivate real, long-term stability in Asia that doesn't give China a license to push, prod, and bully. Critics might assert that taking these steps will invite precisely the kind of Cold War-like competition that will make conflict, if not outright war, most likely. This is a real possibility, and U.S. policymakers will have to carefully balance deterrence with engagement. But those who are reluctant to push back need to ask themselves whether China's top leaders currently see a sufficient downside in acting assertively. Clearly, they do not.

#### China is scaling up tech and military innovation— US scientific advancement is critical

Ni 2018 - Researcher, Strategic and Defense Studies Centre, Australian National University

Adam Ni March 5, 2018 "China’s quest for techno-military supremacy” theconversation.com/chinas-quest-for-techno-military-supremacy-91840

Chinese President **Xi** Jinping **wants to transform China’s military into the** world’s most powerful force by 2050. And **he could be** on track to **do it.** On the opening day of its National People’s Congress in Beijing yesterday, **China reported a defence budget of ¥1.11 trillion ($A225 billion)** for 2018. That represents an 8.1% increase in its defence budget, compared to a 7% increase last year. **China’s** military has modernised rapidly **in recent years**. Since January alone **it has demonstrated new capabilities in** stealth fighter jets**,** drones**,** naval ships **and** advanced missiles**. Chinese scientists are also working to develop** revolutionary technologies **that would change the way wars are fought – and the way we live.** Read more: Asia is set for a difficult year in 2018 – much of it centred around China Challenging US military might While China still lags the US in overall technological capability, **it has narrowed the gap** substantially. In the coming decades**, it is poised to challenge US** technological supremacy **in key fields such as** artificial intelligence,supercomputing **and** quantum information science. **What explains China’s rise as a technological power?** First**, it has leveraged the innovation of other countries via technology transfers, and the** acquisition of foreign companies and talent. It has also been reverse-engineering Western technology, and conducting state-sponsored industrial espionage. According to one security analysis, between 2006 and 2013 the Chinese military stole confidential data from more than 140 organisations around the world. The problem was so serious that in May 2014, the US Department of Justice indicted five Chinese military hackers for cyber-espionage activities against US companies. Read more: For Beijing, the greatest threat to China's national security is not the Kim regime: it is the US Second, **China has been able to mobilise resources for priority technology sectors and** research and development (**R&D**) projects in a way that many democracies are simply unable to do because of the limits of government power or popular mandate. Large state subsidies, government R&D funding, tailored regulations, market barriers and lax individual rights (such as privacy) protection have **given Chinese domestic companies an** edge over their foreign competitors. A good **example** of this **is** the **rise of China’s** internet sector to global prominence**, as represented by giants such as Tencent and Alibaba.** Finally, **China has substantially increased its R&D expenditure** in recent years. From 2012 to 2017, China’s annual R&D spending rose 70.9% to ¥1.76 trillion ($A356 billion). **The US National Science Board expects China to** surpass the US **in R&D investment**, in purchasing power terms, **by the end of** this year. China’s new superweapons Here are a few examples of how China is making rapid progress in high-tech fields with military applications. Hypersonic technology A Chinese hypersonic gliding vehicle. Wikimedia, CC BY-SA Hypersonic technology **could one day allow us to travel from Beijing to New York in about two hours**, rather than the 13 hours it currently takes. China is developing a hypersonic glide vehicle known as DF-ZF to make its nuclear and non-nuclear missiles extremely fast, **manoeuvrable and capable of** defeating existing missile defence systems. To support this effort, China **is building the world’s most advanced hypersonic wind tunnel** for testing the extreme conditions of supersonic flight. **While an operational hypersonic missile is still years away, once developed it would be a formidable weapon**. **It could also have a** destabilising effect **on strategic relations between China and other powers by** compressing the time window for decision-making **in a conflict or crisis situation**. Quantum technology A quantum computer. Flickr/Lars Plougmann, CC BY-SA **Another area** of China’s focus is quantum technology, which uses subatomic mechanics to process and transmit information in a fraction of the time required by existing technology. **China is making rapid headway in quantum communication, computing and cryptography**. In August 2016, **China launched the** world’s first quantum satellite. **This enabled Chinese researchers to conduct cutting-edge experiments in quantum entanglement and** teleportation. To win the quantum race, China announced last year that it will build the world’s largest quantum research facility at a cost of ¥76 billion ($A15.4 billion). **Quantum technology would enable the Chinese military to set up virtually unbreakable communication networks**. It would also provide it with overwhelming computing power for information operations, such as the decryption of secret communications by adversaries. Read more: China's quantum satellite could make data breaches a thing of the past Electromagnetic technology **China is also in the advanced stages of developing an electromagnetic** railgun**. This supergun uses electromagnetic energy to shoot powerful projectiles** over vast distances at incredible speed. These projectiles are aerodynamic and their power comes from the kinetic damage generated by the intense speed at which they travel. Recent photos circulated on **Chinese** social media **show** what is suspected to be **an experimental electromagnetic railgun mounted on the bow of the Chinese navy ship.** This indicates that **China may soon be the** first in world **to test such a weapon at sea,** where it could revolutionise naval combat. In contrast, **the US Navy is winding down its railgun research program because of** resource constraints and shifting priorities. **The above examples are only a few among** dozens of high-tech fields **in which China is making rapid progress**. **Others include** biotechnology**,** robotics**,** supercomputing**,** nanotechnology**,** advanced materials**,** space **technology, and** a**rtificial** i**ntelligence**. In fact, **the Chinese government has identified 17 engineering and science megaprojects that are key to China’s economic and military strength.** These include advanced satellites, large nuclear reactors, large aircraft and high-end electronic chips. China’s **continued rise as a technological giant will have profound** implications for its military power **as Beijing leverages civilian technology for its military**. This effort is so important that President **Xi considers it a top priority**. To underscore this, Xi created a powerful commission under his direct leadership to provide high-level guidance and oversight. Much hinges on how Beijing chooses to use its new-found military and technological might. Indeed, China’s extensive geopolitical ambitions and increasingly assertive foreign policy **are ominous signs that foreshadow the challenges ahead.**

## EXT – Democracy Advantage

### Lack of Regulation Now

#### Lack of a regulatory framework makes the development of military AI uncertain

Shafeeq 2022 - researcher at Centre for Aerospace & Security Studies

MAHEEN SHAFEEQ 06.15.2022 “Little Self-Regulation for Militaries Developing Artificial Intelligence” https://intpolicydigest.org/the-platform/little-self-regulation-for-militaries-developing-artificial-intelligence/

Over the years, there have been significant advancements in the militarization of artificial intelligence. To a limited extent we are already witnessing these innovations on the battlefield in Ukraine and elsewhere.¶ Several types of AI applications such as autonomous drones, electronic warfare systems, target recognition, and the use of AI for logistics and transport have already made their way into modern militaries. However, unregulated research AI applications could jeopardize meaningful human control and oversight of the battlefield. AI applications have not yet fully matured and could have a number of ethical, moral, and legal consequences that necessitate greater oversight. To address these issues, measures have been taken by the United States, NATO, and China to implement ethical processes and guidelines in the conduct and deployment of AI technologies.¶ In 2020, the Pentagon adopted five ethical principles for AI that cover responsibility, equitability, traceability, reliability, and governability. These series of ethical principles are for the deployment of AI for both combat and non-combat functions. Additionally, these principles assist and guide the U.S. military in upholding ethical, legal, and policy commitments in the domain of AI. These AI principles aim to ensure U.S. leadership in AI for years to come.¶ In 2021, NATO released six principles for the use of AI in defense and security that are based on lawfulness, accountability, traceability, reliability, governability, and bias mitigation. These principles are aimed at aligning common values and an international commitment of allied nations to abide by international law and ensure interoperability. The formal adoption of an AI strategy will ensure the necessary collaboration between transatlantic allies to meet defense and security challenges. As NATO has been at an early stage of the research and development of AI, the focus appears to be on the desire to nurture an innovative AI ecosystem and reduce reliance on traditional capacity development mechanisms.¶ While China has not formally published ethics for artificial intelligence, it has published its first position paper on regulating military applications of artificial intelligence. It calls for the establishment of an “effective control regime” for “military applications of AI,” and that countries should follow the principle of “AI for good.” It asserts that AI applications should be under “relevant human control.” However, the definition of “relevant human control” remains vague. For the governance of artificial intelligence, it stresses international cooperation and the development of a broader consensus on the formulation of a “universal international regime.”¶ The above governance principles of the U.S., NATO, and China address different priorities. U.S. and NATO principles have been developed for cooperation among allies while strengthening international competitiveness. Whereas China primarily focuses on the development of artificial intelligence for assisting developing countries in strengthening their governance.¶ It has been acknowledged that China has bypassed the U.S. in AI development. This could inform why the focus of the U.S. and NATO has been on enhancing their competitive capabilities. In theory, all three have emphasized adopting governance principles for the development and use of artificial intelligence, however, the practical manifestation of these principles has yet to be seen.¶ The practical implementation of global regulation of AI military applications has been lagging. Even states with advanced research and development in AI defense applications are in the early phase of regulation and have not reached their full maturity. Therefore, the present is an ideal time to develop mutually agreed principles to facilitate programmers, developers, coders as well as manufacturers, and so on in their adoption. The move towards practical adoption could start with multistakeholder discussions, workshops, conferences, and research between technologically advanced countries and technologically progressing countries with the aim to develop an agreeable framework on principles of AI governance.

### 2AC NATO Leadership 🡪 Democracy

#### incorporation in multinational frameworks like NATO are key to ensure democratic values

Cook 2022 – Director, Defense-Industrial Initiatives Group and Senior Fellow, International Security Program

Cynthia Cook March 3 2022 “Solidifying Partnership Gains through Enhanced Defense Industrial Cooperation” Center for Strategic and International Studies https://www.csis.org/analysis/solidifying-partnership-gains-through-enhanced-defense-industrial-cooperation

Along with being an unnecessary tragedy in every conceivable dimension, the war in Ukraine is a historic critical juncture. Countries aligned against Russia and other actors seeking to degrade international norms, should work together immediately to plan for three things. The first step is to commit to understanding the new threat and its boundaries. The European Union, NATO, United States, and other nations have the opportunity to provide global leadership in this space as democracies across the world seek to understand the threats they face. A second step is to develop the framework for a new generation of strategic cooperation, perhaps in an expanded European Union or NATO. This could be as simple as discussing defense budgets or as robust as having a planning session for joint exercises. A third, longer-term step to solidify these gains and to strengthen enduring ties is to develop enhanced industrial cooperation with partners and allies, especially in Europe. Sweden and Finland are reportedly considering whether to join NATO. Germany reacted to the invasion with a quick and decisive rethink about its defense spending, rearmament, and contributions to NATO. These represent significant opportunities to strengthen cooperative industrial ties. Lessons from examples of other successful multinational cooperation frameworks can be used to consider what mix of approaches would best consolidate this momentous shift. Options include identifying a suite of multinational projects to counter urgent threats, expanding the role of existing multilateral industrial cooperation institutions, or expanding the National Technology Industrial Base (an arrangement in which United States works with some of its closest industrial partners, namely Canada, the United Kingdom and Australia). A review of what commercial technologies Germany excels at that could be added to U.S. and allied weapon systems could offer quick hits both in terms of excellent capabilities and a clear focus for German defense investment. Defense industrial and technological cooperation grounded in common values is not just an alternative model to coercive spheres of influence but is also critical to translating solidarity in sentiment to capabilities and the potential for action. These actions would signal to Russia (and by inference to other potential adversaries) that the West can stand up to its threats, and that it should think twice, or three times, before pressing its territorial claims. It could also signal to other potential adversaries that allied nations will work together to protect themselves and hopefully to ensure peace and prosperity. They are watching.

### NATO Key

#### The aff spills over by standardizing best practices for incorporating AI into military practices

Lockman and Trabucco 2022 - Associate Research Fellow in the Military Transformations Programme at the Institute of Defence and Strategic Studies at the S. S. Rajaratnam School of International Studies in Singapore and dual degree candidate pursuing a PhD in political science at Northwestern University and a PhD in Law at iCourts Center of Excellence in International Courts at the University of Copenhagen

Zoe Stanley-Lockman and Lena Trabucco March 2022 “NATO’s Role in Responsible AI Governance in Military Affairs” The Oxford Handbook of AI Governance DOI: 10.1093/oxfordhb/9780197579329.013.69

NATO’s increasing interest in EDTs introduces the need to consider how governance priorities can help reinforce the Alliance’s influence. The STS and military innovation literature provide the theoretical foundations for NATO’s stewardship of AI as they place attention on “the role that institutions play in shaping technological trajectories.”45 As AI development continues, the actions that NATO and its members take will have important implications for their capacity to adopt, respond to, and shape their future operating environment. Particularly for democracies, this confers to military stakeholders a dual responsibility to prevent and manage risks, as well as to proactively shape their approach to technological development anchored in democratic values and security. As a multinational alliance with an incentive to drive cooperation and alignment, NATO is situated to define and operationalize norms, as well as promote standards that help shape the contours of future military effectiveness and technological competition.¶ In a RRI framework, not only is this an institutional role, but it also becomes an institutional responsibility. To apply this responsibility to NATO’s stewardship of AI, the institutional interplay between technology, structure, and concepts is a form of socio-technical system with important implications for AI governance because they link the ways that an institution uses its power to adopt and shape AI trajectory to its respective ends.¶ Already, several mechanisms are built into military bureaucracies to ensure that technology is adopted in alignment with responsible engineering practices and responsible state behavior.46 The Alliance is organized to harmonize between Allies so that their contributions enhance military effectiveness and political cohesion between like-minded democracies. We argue that these effectiveness-centric mechanisms likewise empower NATO to exert its influence in technology governance. More specifically, this entails the Alliance helping steward technological development for a more predictable strategic environment and enhanced democratic clout around the exploitation of technology reinforcing rule of law. For NATO, we focus on strategic and policy planning, as well as standards and certification because they reflect the Alliance’s particular strengths and interests in S&T. These practices are relevant to governance insofar as they exemplify an institution’s power to shape the trajectory of technological development—but this selection is by no means exhaustive.47¶ Instead, our aim is to explore how these mechanisms are operationalized at the Alliance level. In this vein, Table 69.1 dissects the role that its various bodies play in managing technology, promulgating and operationalizing standards, and leading change through policy. The role of NATO in this equation is largely shaped by its members’ own approaches to technology, and member-state-driven processes are complemented by “policy entrepreneurs” and technical experts in the International Staff and related bodies.48 Table 69.1 does not list the ways that AI affects the various functions of NATO, but rather spotlights the entities that together operationalize AI governance through cumulative processes on policy and standardization.¶ Strategic and policy planning¶ NATO structures around strategic and policy planning both set Allied ambitions and priorities and have the competency to implement them through its many consultative bodies, coordination formats, and albeit to a lesser extent, technology foresight capacities. NATO has facilitative power among Allies, both for defense planning and for the conduct of operations. A cornerstone in modern architecture of international security is coalition warfare—or, more broadly, joint operations. Working with military partners has become a critical feature of modern security policy, where there is more power in enhancing numbers, but also in having allies that lend political and practical legitimacy to deterrence and operations.49 NATO is vital to that effort for many reasons, but also because NATO’s facilitative power is significant to promote coordination and cooperation. Simply put, partners and allies are a necessary feature of modern military behavior, and strategic and policy planning are necessary functions to encourage and underpin cohesion in alliance settings. This is important for AI governance because the nature of AI poses new strategic challenges and will require multilateral approaches and some degree of cohesion to effectively incorporate RRI frameworks in policy planning. As such, the necessity of working with security partners extends to the AI-policy frontier.¶ A number of NATO entities carry out strategic and policy planning, recognizing the importance of policy alignment to sustain political strength and military effectiveness. As relates to S&T, allies’ representations to NATO, defense ministries, and policy entrepreneurs from the relevant entities summarized in Table 69.1 support and negotiate how the Alliance approaches EDTs. NATO’s strategic documentation and forward-looking policy analysis incorporates hints of technological determinism, including noting how technological change inevitably shapes the future strategic and operating environment. Further, the connections between technology and competitive advantage over adversaries and competitors are embodied in the Alliance’s desire to maintain its “technological edge” as the “foundation upon which NATO’s ability to deter and defend against potential threats ultimately rests.”50 This places technology squarely within NATO’s core purpose of deterrence and defense—and while this signals NATO’s express commitment to technology through these channels, this reliance on technology also obscures whether NATO’s governance capacity will be adaptive, anticipatory, or participatory. This position of technological determinism may result in more limitations for AI governance.¶ Standards and certification¶ To maintain its relevance in a security architecture increasingly concerned with the way that technology shifts power dynamics and scales threats to international security, NATO has an incentive to foster cooperation, promote standards of practice, and incentivize Allied AI harmonization. It is strategically salient to facilitate a dialogue and engagement among Allies on AI, but it is practically important to use NATO’s position to facilitate Allied cooperation regarding standards to project the Alliance’s ability to interoperate in future operations. NATO standards aim to enhance interoperability among partners and successful implementation of strategy.¶ More specifically, standards and certification are used to establish and implement requirements aligned with safe development and responsible use of technology. In addition to purely technical standards, NATO has operational standards that specify “conceptual, organizational or methodological requirements to enable materiel, installations, organizations or forces to fulfil their functions or missions.”51 In line with the definitions from STS and military innovation scholarship, standards can thus be seen as a mechanism to translate responsibility-derived state and organizational AI policy into actionable functions. In fact, NATO has set certain standards for the Allies and these standards subsequently become the norm.¶ Within NATO, it is the NATO Standardization Office (NSO) that coordinates thousands of experts to align technological development with military requirements that can help enhance effectiveness, interoperability, and cohesion.52 While the NSO is primarily responsible for setting standards, other NATO entities—including in the NATO Science and Technology Organization (STO)—play important roles in implementing them and coordinating between national approaches.53 Certification frameworks and the promulgation of best practices can similarly help incentivize the transposition of RRI into military organizations, even if standardization is by no means a purely military governance tool.

### NATO Key to Democratic Development

#### NATO is key to establishing ethical foundations for AI

Merwe 2021 - Fellow at the Defense Tech Initiativ

Joanna van der Merwe February 17, 2021 “NATO Leadership on Ethical AI is Key to Future Interoperability” https://cepa.org/nato-leadership-on-ethical-ai-is-key-to-future-interoperability/

Establishing NATO ethical AI principles is the first step toward both technical and political alignment.¶ In October 2020, Deputy Secretary General of NATO Mircea Geoană highlighted the benefits of establishing a “transatlantic community cooperating on Artificial Intelligence (AI).” The Deputy Head of NATO’s Innovation Unit followed with a commitment to its responsible use. The US Department of Defense (DoD) adopted Ethical Principles for AI in 2020 and has committed to bringing together NATO member and partners to operationalize these principles. Despite these statements and developments, more work is required to tackle the very real challenge that ethical AI will pose to future interoperability within NATO.¶ Without a NATO-led initiative focused on aligning these ethical principles across the Alliance, the interoperability risk of nations fielding AI-based systems that hinder joint operations is high. As the foremost security framework for Europe and North America, as well as the leading defense alliance for promoting and protecting democratic values, NATO is able to facilitate alignment on this issue. As part of a broader strategy on emerging and disruptive technologies, NATO must prioritize ethical AI if it wishes to promote the shared values upon which it was founded, play a key role in facilitating innovation across the Atlantic, and ultimately retain the ability of its members to undertake joint operations.¶ Establishing NATO ethical AI principles is the first step toward both technical and political alignment, in turn enhancing and fostering interoperability, which is the foundation for NATO to respond to emerging threats as an Alliance, in a flexible and timely manner.¶ A key challenge for NATO is raising awareness that the answers to ethical questions can no longer be left to later stages of the development and procurement cycle. Decisions made at the political and legal level will have a significant impact on the engineering practices used to develop AI, as well as the technical characteristics of the AI-based systems. The answers to questions such as respecting human dignity, human control, and accountability will be the foundation upon which many technical elements are programed. Systems developers need to make a number of calls throughout the development cycle informed by the answers to key questions, including:¶ how to label data¶ what data to use, and¶ what is an acceptable outcome?¶ These answers will also impact how AI systems are evaluated and ultimately deployed.¶ If individual nations or groups are left to develop their own ethical principles without wider alignment to NATO, the result will be a number of AI-based systems with varying technical specifications based on the legal and policy decisions made by individual governments when answering the key questions. As has been demonstrated in areas such as facial recognition and policing algorithms, the assumptions made by those developing the tools and answering the key questions have a significant impact on the real-world functioning of the tool and societal acceptance of its ethics. The risk of tools failing to gain acceptance depends on the legal and ethical decisions made by governments. For the military, this may mean one state using an AI-based system that is seen as unacceptable by another, and in a joint operation one state fielding a system that cannot be used by another. Or worse yet, this could render a joint operation impossible. Without the ability to interoperate across NATO, the inability to effectively and efficiently respond to future threats would undermine the Alliance.¶ The role of the private sector is another aspect of ethical AI development that has proved a challenge to governments and the transatlantic relationship. Within states, governments have struggled to adequately regulate Big Tech firms, which has led to these companies encroaching on government responsibilities to protect and uphold the public interest. This encroachment permeates all aspects of government, including defense and security. As Deputy Secretary of Defense Kathleen Hicks discussed during her confirmation hearings, the lack of competition is also a challenge to innovation in the private defense industry. This, along with a lack of regulation, feeds into the power imbalance between the sectors. Consequently, private sector companies building the AI and AI systems that are or will be deployed on the battlefield are deciding the ethics policies for themselves.¶ The transatlantic partnership must focus on coordinating these core principles and systematic governance to ensure AI systems development aligns with the rule of law and democracy. In particular, this must ensure answering questions about human dignity, human control, and accountability. NATO is the ideal defense and security forum for this alignment. Given the US lead on adopting ethical principles for the entire DoD and the EU’s drive to assert checks and balances for private-sector tech companies, NATO remains the organization that can bring these two together and establishes the ethical bottom line. These will then ensure the diverging legal and ethical stances towards Big Tech do not lead to an interoperability barrier in the future. If developments surrounding the General Data Protection Regulation (GDPR) and the challenges it brought for U.S.-based, data-driven companies are any indication, a strong transatlantic led initiative is needed in order to ensure the same challenges do not hinder NATO.¶ The solution to the challenge that ethical AI poses for the future of interoperability within NATO is for the Alliance to establish shared transatlantic ethical principles, informed by the US DoD, the EU, and others. Establishing these principles will not only strengthen transatlantic political relations; more technically, it will allow for the establishment of standardization agreements and inform training and education initiatives of the Alliance in the future.

#### US cooperation with allies on AI key to democracy

Imbrie et al 2020 - Senior Fellow at Georgetown's Center for Security and Emerging Technology

Andrew Imbrie Ryan Fedasiuk Catherine Aiken Tarun Chhabra Husanjot Chahal "Agile Alliances: How the United States and its Allies Can Deliver a Democratic Way of AI" Center for Security and Emerging Technology https://cset.georgetown.edu/publication/agile-alliances/

The United States has long benefited from its network of allies and partners that contribute forces, specialized capabilities, and legitimacy to U.S. leadership in the world. In recent years, however, this network has come under strain. Disputes over burden sharing and mutual recriminations have raised questions about the cohesion and durability of existing alliance structures. Recent U.S. policy shifts and withdrawal from certain international agreements have deepened fears that the United States no longer sees its allies and partners as central to U.S. strategic objectives and national security.

America’s alliances are weakening at a time of growing competition between democratic nations and authoritarian regimes. Authoritarian regimes are surviving longer and becoming more adept at using AI-enabled surveillance and censorship technologies to export their values abroad.5 China and Russia present a significant challenge to liberal democratic societies.6 A world in which China and Russia deploy AI to widen the net of information controls is a world of diminished rights and protections for the individual, fewer safeguards for privacy and the rule of law, more data exploitation, and limited opportunities for judicial redress or public dissent.7

Despite the importance of alliances in promoting democratic values and protecting against a mounting authoritarian challenge, the United States lacks a strategic approach for cooperating with allies and other like-minded partners on AI.

#### US EU cooperation on AI key to global US leadership and democratic AI

Voo and Zabierek 2020 - Global Cybersecurity and Tech Policy Manager in HP Inc's Strategy and Policy team and Executive Director of the Cyber Project at Harvard Kennedy School's Belfer Center

Julia Voo and Lauren Zabierek August "The Case for Increased Transatlantic Cooperation on Artificial Intelligence" https://www.belfercenter.org/sites/default/files/2020-08/TransatlanticAI.pdf

The next decade will be a decisive time for the US to shape its future role in the world. Democracies are being tested and toyed with by malign powers, as seen in the form of Russian interference in the 2016 US Presidential elections and subsequent disinformation campaigns by other nations. Great power politics and the national security implications of emerging technologies, such as AI, are breaking up supply chains and further fragmenting the internet. We’re witnessing shocks to the liberal economic order and global governance as a result of several economic crises and the aftermath of the biggest public health crisis in a century. Societies across the world will be looking to develop and implement new technology to deal with crises and recover from economic losses faster. The rise of revisionist powers and the transformative potential of emerging technologies means that the US and its European allies need to prioritize investing in capabilities and its relationships to ensure that emerging technologies align with liberal, democratic values. While the US currently maintains a slight edge in research and development of AI capabilities, that advantage is eroding as a result of a shortage of AI talent, lack of engagement between the federal government, academia, and the private sector, and overall gaps in federal government funding. US innovation has its roots in an open and multicultural society. American leadership in innovation is the result of decades of attracting, training, and recruiting the brightest minds in the world. While recognizing that there are some national security risks, efforts to cut off the flow of students will be detrimental to long-term US innovative capabilities. The European Union while maintaining its role as a leader in AI ethical guidelines, also faces challenges stemming from a lack of talent as well as insufficient funding and uncoordinated AI expertise and application across the Member States. Moreover, the EU suffers from other institutional challenges that are most glaringly demonstrated by the UK’s vote to leave the EU in 2016—which unbeknownst at the time dealt a major blow to the EU’s AI ecosystem. The US and EU need to enhance cooperation in the development and application of AI in healthcare, environmental science, and defense. When the US and EU work together on global challenges such as healthcare and environment science, the rest of the world benefits. And there are other key geopolitical challenges that the US and EU face that can only be balanced together. We are delighted to share with you this analysis of the AI landscape between the US and EU, written and researched by our students working with the Cyber Project and China Cyber Policy Initiative, Christie Lawrence and Sean Cordey. We feel this report provides a strong evidence base for further collaboration, and puts forth thoughtful recommendations. The importance of the transatlantic relationship cannot be understated. The world needs strong leadership in these uncertain times and the US and EU bring unique strengths to the table that collaboratively can strengthen the other’s advantage in the face of unprecedented technological and geopolitical challenges. The US and the EU need to work together.

#### Plan builds a coalition that spills over to broader international collaboration---solves democratic alternatives to Chinese AI---countries will follow the model

Imbrie et al 2020 - Senior Fellow at Georgetown's Center for Security and Emerging Technology

Andrew Imbrie Ryan Fedasiuk Catherine Aiken Tarun Chhabra Husanjot Chahal "Agile Alliances: How the United States and its Allies Can Deliver a Democratic Way of AI" Center for Security and Emerging Technology https://cset.georgetown.edu/publication/agile-alliances/

The United States has a vested interest in setting the rules of the road for artificial intelligence. Western countries have already taken the lead in developing principles governing the application of artificial intelligence. China has produced its own set of principles and engages actively in international bodies, such as the International Telecommunication Union (ITU) and the 3rd Generation Partnership Project (3GPP), to establish standards for mobile network technologies and the future governance of AI.

By assuming leadership in AI, the United States and its allies face risks and opportunities. The risks are twofold. On the one hand, standard setting could become a casualty of geopolitical competition as leading countries precipitate a race to the bottom. On the other hand, China already asserts its principles and standards through a variety of multilateral fora. The opportunity is that the United States and its allies can act now to set global standards for AI reflecting and supporting human rights and liberal democratic values, while addressing critical questions surrounding the rollout of 5G, facial recognition for surveillance, automated cyber exploitation and defense, and autonomous weapons systems. A Japanese official responding to the CSET survey noted that the United States and its allies should adopt a citizen-centric AI strategy. Such citizen-centric strategies would seek to develop and deploy AI for the benefit of democratic societies, including strengthened data privacy standards and respect for civil liberties; economic empowerment of citizens within rules-based market economies; greater access to education, precision medicine, energy efficiency, and more inclusive social service provision.

The United States should lead a multilateral effort with allies and partners to set international rules of conduct for AI. This effort should build on and extend the OECD Principles on AI and the International Organization for Standardization working group initiatives on standards for data and AI safety and security. The United States and its allies could establish a standing platform to coordinate policies on standard-setting in multilateral fora. This is likely an area for productive dialogue, as partners are eager to coordinate policies and share best practices around norms and standards. In fact, all surveyed officials were extremely or very interested in this avenue for international collaboration.

Longer term, the United States and its allies should explore the conditions for a common AI market, including standards for testing, verification, and validation of AI technologies, as well as common practices for certifying companies that support liberal democratic values and privacy.87 This common market would create incentives for other countries to abide by these principles in the development and deployment of safe and reliable AI. As one EU representative observed, if the West could offer a viable way of doing AI that respects privacy and fundamental rights, developing (and democratic) countries would be more inclined to follow the Western model.

#### The aff spills over to broader international democratic cooperation on AI

Franke 2021 – policy fellow at European Council on Foreign Relations

Ulrike Esther Franke January 2021 “Artificial Divide: How Europe And America Could Clash Over Ai” European Council on Foreign Relations https://ecfr.eu/publication/artificial-divide-how-europe-and-america-could-clash-over-ai/

A glance at the history of artificial intelligence (AI) shows that the field periodically goes through phases of development racing ahead and slowing down – often dubbed “AI springs” and “AI winters”. The world is currently several years into an AI spring, dominated by important advances in machinelearning technologies. In Europe, policymakers’ efforts to grapple with the rapid pace of technological development have gone through several phases over the last five to ten years. The first phase was marked by uncertainty among policymakers over what to make of the rapid and seemingly groundbreaking developments in AI. This phase lasted until around 2018 – though, in some European states, and on some issues, uncertainty remains. The second phase consisted of efforts to frame and AI challenges politically, and to address them, on a domestic level: between 2018 and 2020, no fewer than 21 EU member states published national AI strategies designed to delineate their views and aims, and, in some cases, to outline investment plans.

The next phase could be a period of international, and specifically transatlantic, cooperation on AI. After several years of European states working at full capacity to understand how to support domestic AI research, including by assembling expert teams to deliberate new laws and regulations, there is growing interest among policymakers and experts in looking beyond Europe. On the EU level, AI policy and governance have already received significant attention, with the European Commission playing an important role in incentivising member states to develop AI strategies, such as by starting to tackle issues around how to make sure AI is “ethical” and “trustworthy”. But recent months have seen a rise in the number of calls for international cooperation on AI driven by liberal democracies across the world. Western countries and their allies have set up new forums for cooperation on how to take AI forward, and are activating existing forums. More such organisations and platforms for cooperation are planned.

Calls for cooperation between the United States and Europe have become particularly regular and resonant: following last year’s US presidential election, it was reported that the European Commission planned to propose a “Transatlantic Trade and Technology Council”, which would set joint standards on new technologies. And, in September 2020, the US set up a group of like-minded countries “to provide values-based global leadership in defense for policies and approaches in adopting AI”, which included seven European states, in addition to countries such as Australia, Canada, and South Korea. In June 2020, the Global Partnership on Artificial Intelligence was founded to consider the responsible development of AI; it counts among its members the US, four European states, and the European Union.

This paper examines the reasons European states may want to work with the US on AI, and why the US may want to reach out to Europe on the issue. It also identifies the points of disagreement that may stop the allies from fully fleshing out transatlantic AI cooperation. The paper shows that, while both sides are interested in working together, their rationales for doing so differ. Furthermore, economic and political factors may stand in the way of cooperation, even though such cooperation could have a positive impact on the way AI develops. The paper also argues that transatlantic cooperation in the area of military AI could be a good first step – here, Europe and the US should build on existing collaboration within NATO. The paper concludes with a brief discussion of the different forums that have been created or proposed for transatlantic and broader Western cooperation on AI.

### 2AC---US Key to Global Democracy

#### US key to global democracy

Diamond 2021 - Senior Fellow at the Hoover Institution and the Freeman Spogli Institute for International Studies at Stanford University

Larry Diamond "A World Without American Democracy?". Foreign Affairs. July 2. https://www.foreignaffairs.com/articles/americas/2021-07-02/world-without-american-democracy

A prolonged global democratic recession has, in recent years, morphed into something even more troubling: the “third reverse wave” of democratic breakdowns that the political scientist Samuel Huntington warned could follow the remarkable burst of “third wave” democratic progress in the 1980s and the 1990s. Every year for the past 15 years, according to Freedom House, significantly more countries have seen declines in political rights and civil liberties than have seen gains. But since 2015, that already ominous trend has turned sharply worse: 2015–19 was the first five-year period since the beginning of the third wave in 1974 when more countries abandoned democracy—twelve—than transitioned to it—seven.

And the trend continues. Illiberal populist leaders are degrading democracy in countries including Brazil, India, Mexico, and Poland, and creeping authoritarianism has already moved Hungary, the Philippines, Turkey, and Venezuela out of the category of democracies altogether. In Georgia, the dominance of the Georgian Dream Party has led to the steady decline of electoral processes and a breakdown in the rule of law. In Myanmar, the military overthrew the elected government of Aung San Suu Kyi, ending an experiment in partial democracy. In El Salvador, president Nayib Bukele staged an executive coup by removing the attorney general and Supreme Court justices who were obstacles to his consolidation of power. In Peru, democracy hangs from a thread as the right-wing autocrat Keiko Fujimori advances vague claims of election fraud in a bid to overturn her narrow electoral defeat to left-wing opponent Pedro Castillo.

What is especially striking about this last case is that Fujimori’s gambit bears a grim resemblance to the lie perpetuated by former U.S. President Donald Trump and his followers about the 2020 presidential election. This is no coincidence. As the journalist and historian Anne Applebaum has observed, fictitious claims of fraud and “stop the steal” tactics are becoming a common means by which autocratic populists try to obstruct democracy. Such tactics have long been a source of instability in countries struggling to develop democracy. But the fact that the most recent iteration of the antidemocrat’s playbook draws heavily on precedents in the world’s most important and powerful democracy marks the start of a dangerous new era.

Today, the United States confronts a growing antidemocratic movement, not just from the ranks of fringe extremists but also from a substantial group of officeholders—a movement that is challenging the very foundations of electoral democracy. Should this effort succeed, the United States could become the first ever advanced industrial democracy to fail—that is, to no longer meet the minimum conditions for free and fair elections as political scientists and other scholars of democracy define them.

The failure of American democracy would be catastrophic not only for the United States; it would also have profound global consequences at a time when freedom and democracy are already under siege. As Huntington noted, the diffusion of democratic movements and ideas from one country to another has helped drive positive democratic change. Antidemocratic norms and practices can spread in a similar fashion—especially when they emanate from powerful countries. That is why the acceleration of a democratic recession into a democratic depression happened largely on Trump’s watch. And it is why no development would more gravely damage the global democratic cause than the democratic backsliding of its most important champion.

THE DEMOCRATIC TRIAD

A democratic system of government stands on three legs. The first leg is popular sovereignty—rule by the people. Democracy demands that people are able to choose and replace their leaders in regular, free, and fair elections; that all adult citizens are able to vote free from intimidation and obstruction; and that candidates and parties are free to compete and campaign. Crucially, elections must be administered impartially, so that valid ballots are counted accurately and power is granted to those who win.

Liberty is the second leg of liberal democracy. A fully democratic system provides strong protections for freedom of speech, the press, association, and assembly. It ensures that these rights are equally protected for all social groups. And it promotes a culture of mutual tolerance and respect for the rights of political opponents.

The third leg—the rule of law—defends and strengthens the other two. It ensures that democratic procedures are impartially enforced by an independent judiciary and other regulatory bodies that check the abuse of power. In most advanced democracies, excluding the United States, these instruments of accountability include national bodies to administer elections and to monitor corruption.

Trump was the first U.S. president to demonstrate contempt for all three legs of the triad of liberal democracy. He attacked the media as “fake news” and “absolute scum” and called for his election opponent to be “locked up.” He invited his followers to commit acts of violence against protesting opponents. Upon his defeat, he insisted that the election results were fraudulent and had to be overturned. Throughout his presidency, he waged war on an independent judiciary, the Federal Bureau of Investigation, his own attorney general, the Office of Government Ethics, the civil service, and a host of other actors who refused to bend to his political will or sought to enforce the rule of law.

The United States’ outsize importance will influence struggling democracies and embattled autocracies alike.

Many scholars of democracy perceived an unprecedented threat to U.S. democracy when Trump entered office in 2017 and feared grave assaults on the second and third legs of the democratic triad, in particular. This assessment was partially correct. Not since President Richard Nixon and rarely in U.S. history has there been such a determined effort to misuse and subvert administrative and rule-of-law institutions for nakedly political ends—but these attempts achieved only limited effect. The bulk of the press and the judiciary remained independent. The FBI avoided political capture. Outside the Republican Party and Trump’s own administration, freedom of speech thrived. From 2017 through 2020, liberty and the rule of law more or less held.

In three respects, however, most scholars misjudged the nature of the peril—and underestimated its gravity. First, many assumed that Trump himself constituted the biggest threat to U.S. democracy and that his defeat would lance the poisonous boil on the body politic. Second, with notable exceptions, including the Yale historian Timothy Snyder and the Carnegie Endowment scholar Rachel Kleinfeld, many underestimated the potential for violence on the part of Trump’s true-believing followers. And third, most underestimated the extent to which Trump would remake the Republican Party as an institution not only slavishly loyal to him but also hostile to democracy.

Fortunately, leading up to the 2020 election, democracy scholars and civic organizations correctly anticipated the threats to electoral integrity posed by zealous Trump partisans, as well as the staggering logistical challenges presented by the pandemic. As a result, they launched one of the most energetic civic campaigns in U.S. history to register an unprecedented number of voters, to give them safe and early access to the ballot, to ensure that local electoral administrations had the resources necessary to administer the vote, and to prepare to combat any potential efforts to overturn the legitimate results of the presidential election. The election was not a nightmare scenario, as some had feared. In fact, it proved to be one of the best-administered elections in U.S. history, leading election experts Nathaniel Persily and Charles Stewart III to call it a “miracle.”

IT COULD STILL HAPPEN HERE

Yet what followed was, in the words of Persily and Stewart, a “tragedy,” with “lies about vote fraud and the performance of the system [cementing] a perception among tens of millions of Americans that the election was ‘rigged.’” Such “manufactured distrust” has extended past the January 6 insurrection in Washington. Although President Joe Biden’s inauguration has deescalated imminent threats to civil liberties and the rule of law, the core element of electoral democracy—free and fair elections—is now under relentless partisan assault. Republican state legislatures are accelerating efforts to make it more difficult for African Americans, Latinos, and other Democratic-leaning constituencies to vote by passing laws that make it more difficult to vote by mail and to vote early, and that make it easier to purge voters from voting rolls. These changes are driven not by documented evidence of malfeasance associated with these practices but by deliberately false narratives about election fraud.

Now, the greatest threat to American democracy is posed by legislative initiatives seeking to subvert the independence of electoral administration, including the counting and certification of the vote. As the election law expert Richard Hasen has observed, “At stake is something I never expected to worry about in the United States: the integrity of the vote count.” A recent law passed in Georgia, for example, removes the secretary of state (currently Brad Raffensperger, who refused to manufacture the 11,780 votes Trump needed to win the state) as chair of the state Election Board and gives the state legislature—a highly partisan institution—the ability to name the new chair. Representatives in Michigan have politicized the Board of State Canvassers, which certifies election results, by replacing a Republican who voted to certify Biden’s election victory with a movement conservative. In Michigan and in Nevada, Trump loyalists are seeking to consolidate control over election supervision by running candidates for secretary of state—giving them the authority to preside over election administration and the tools to try to block Democratic votes. And at the federal level, Republicans could take back control of the House of Representatives (helped by their unilateral ability to redraw 187 congressional districts following the most recent census) and use their majority to manipulate the 2024 presidential results in their favor—especially if the 2024 election resembles 2020, when Democrats won a decisive popular vote victory but relied on narrow margins in a handful of states for an Electoral College majority.

Once a political system loses bipartisan consensus respecting the rules of the democratic game, it can be a short slide to autocracy. The world has watched this happen in Hungary, Turkey, and Venezuela. It is not inconceivable that it could happen in the United States.

THE GATHERING STORM

To warn of the failure of American democracy is not hyperbole or simply a slogan meant to motivate action. Political scientists may differ on the minimum conditions for democracy, but they agree on this: a country cannot be considered a democracy if it does not broadly ensure the neutral and fair administration of elections. If the outcome of a major national election in the United States were to be determined by fraudulent exclusion or the manipulation of votes, the country would cease to be a democracy, no matter how much freedom of expression might survive (for a time).

More than 100 prominent democracy scholars recently warned in a collective statement that Republican assaults on electoral integrity could bring about the demise of U.S. democracy. They appealed to Congress to pass the John Lewis Voting Rights Act and to adopt other measures to “ensure the sanctity and independence of election administration.” But with broad national legislation to ban partisan gerrymandering and strengthen voting standards unlikely in the near term, it will also be up to civil society to defend American democracy.

That defense is made more urgent by the gathering storm of democratic backsliding around the world. The United States’ outsize importance as a source of political diffusion, for good or ill, makes it an example that will influence struggling democracies and embattled autocracies alike. Both in backsliding democracies such as the Philippines and Poland and in deepening autocracies such as Turkey and Venezuela, Trump’s mantra of “fake news” emboldened strongman leaders in their assaults on the media. If the United States winds up disfiguring its democracy by politicizing electoral administration and suppressing minority votes, autocrats will gleefully seize upon the American precedent as justification for their methods of blocking democratic change. And in declining democracies, politically vulnerable incumbents will embrace similar methods of violating electoral integrity in order to hang on to power.

In short, what happens to democracy in the United States is likely to determine the fate of democracy around the world: whether this third wave of democratic reversals is turned back or gains horrific new momentum.

### Impact – Democracy

#### Democracy solves a laundry list of impacts---economic growth, public goods, alliances, and war---the US is key.

Lee 2018 - an assistant professor at the U.S. Air War College and a Security Fellow with Truman National Security Project

Carrie Lee September 10th; “Why Democracy Promotion is in the Strategic Interest of the United States”; https://medium.com/truman-doctrine-blog/why-democracy-promotion-is-in-the-strategic-interest-of-the-united-states-ae959c111b2f;

However, reducing the United States’ emphasis on a values-driven foreign policy is wrong, and contrary to the strategic interests of the United States. Democracy promotion in particular serves a key role in safeguarding U.S. interests and promoting global, long-term growth in ways fundamentally compatible with U.S. strategic interests. After all, democracies protect private property in important ways, invest in public goods, are more politically stable, make for more dependable allies, and empirically do not go to war with one another. Ultimately, a world full of democratic governments is safer, more prosperous, and more stable — all states of being that the United States has an interest in promoting.

Democracy guarantees that the public has a stake in its own institutions and government, which leads to investor confidence and growth. Since elected politicians are accountable to property owners and are held in check by an independent judiciary, democracies tend to have better mechanisms for protecting private property than their autocratic counterparts. This makes democracies a particularly attractive type of country for investors — both public and private — because checks and balances make it difficult for the state to nationalize industries. Further, private property rights protected by the legal system encourage entrepreneurship and small business development, both of which are key to a growing and modernizing economy. As a result, democracies tend to be wealthier and more economically stable than their autocratic counterparts. This is fundamentally in the interest of the United States in that both private and public investors have an interest in seeing returns on their investments, thereby potentially making countries less willing to go to war if that would require severing economic ties. Democratic institutions ensure that citizens with both economic and political power are heard.

Democracies also invest in public goods at much higher rates than autocratic governments. Because politicians must cater to the median voter, they approve policies that invest in public education and healthcare, both of which promote long-term growth and development. Public education invests in a country’s human capital, setting the stage for long-term innovation, adaptability, and advancement. Public healthcare, meanwhile, has been shown to increase overall societal productivity and well-being as people take fewer sick days, citizens are able to afford their healthcare without going bankrupt, and ultimately, the overall costs of healthcare are driven down as citizens become healthier. Productive, innovative societies are also better for the United States — innovation around the world improves global quality of life, results in more educational and vocational opportunities for Americans (both because other universities and jobs become more attractive to Americans who want to go abroad and because potential immigrants are more likely to want to stay in their own country, opening up opportunities for U.S. citizens at home), and may reduce friction between countries over resources and labor.

Democracies are also generally more politically stable because regular election cycles ensure an established process for the habitual and peaceful removal of leaders from power. Elections ensure the non-violent transition of power and reduce the need for mass protest, rioting, and revolution — which makes countries more politically stable. Further, when citizens are granted rights and protections from government abuse, enforced by an independent judiciary, they have fewer grievances against the government and are thus less able to mobilize large numbers of people to violently overthrow the regime. Revolution, while not always violent, often leads to political instability, challenges to growth, increased incentives for diversionary war and conflict, and oftentimes civil war. The externalities of civil war and international conflict then put pressure on the United States to intervene, protect human rights, and otherwise expend resources on other countries’ issues. Further, civil wars are highly destructive to institutions, human capital, and resources, and can have significant security spillover effects, increasing global risk of political instability and violent extremism.

This political stability, in addition to institutional checks and balances, makes democracies better international partners and allies in the long-term. Treaties ratified by multiple branches of government are more durable than executive agreements signed by a single leader who may be replaced within a short period of time. While democracies may be more reluctant to commit to alliances and formal security pacts, once a party to them, they are more dependable than other states with concentrated power at the executive level. These kind of durable commitments are of interest to the United States as it seeks to preserve the liberal world order; it is far more effective to ally with partners whose institutions make withdrawal from the alliance costly.

Finally, it has been empirically observed that democracies do not go to war with one another. While there is a robust debate around the exact nature of the so-called “democratic peace,” it appears that there are qualities particular to democracies that make war between them particularly unlikely: a dovish public constrains leaders’ ability to wage war, competitive elections and a free press make it easier to credibly communicate resolve to potential adversaries, consolidated democracies tend to be more wealthy and economically interdependent, like-minded people are more hesitant to wage war against one another, and so on. Regardless of the precise mechanisms, however, a world of democracies is inherently safer, more prosperous, and less likely to initiate a war against the United States — a key factor in protecting American security and interests.

### 2AC---Democratic Peace Theory True

#### The most exhaustive quantitative study finds DPT to be true.

Imai '21 - Professor of Government and of Statistics at Harvard University [Kosuke and James Lo, "Robustness of Empirical Evidence for the Democratic Peace: A Nonparametric Sensitivity Analysis," International Organization, Vol 75, Issue 3]

How should we resolve this empirical debate regarding the democratic peace?Footnote9 Unfortunately, in the absence of randomized experiments, we can never completely rule out the possible existence of confounding biases that arise from omitted variables. While scholars in this literature have exclusively relied on parametric regression models, this approach requires strong assumptions, namely that the model accurately characterizes the true data-generating process (correct set of variables, right functional form, valid distributional assumption, etc.). Given that these assumptions may not be verifiable from observed data, it is no surprise that various scholars advocate different regression models with diverging sets of variables, resulting in contradictory findings. The difficulty of adjudicating between these alternative modeling approaches has led to the ongoing controversy in the empirical democratic peace literature.

We propose an alternative approach based on nonparametric sensitivity analysis to formally assess the robustness of the empirical evidence.Footnote10 Specifically, we quantify the strength of confounding relationships that could explain away the observed association between democracy and peace. That is, we compute the precise level of unobserved confounding needed to render the observed association between democracy and conflict spurious. The idea is that although not all correlations imply causation, a very strong correlation suggests it. Unlike the parametric regression modeling approach prevalent in the literature, the proposed nonparametric sensitivity approach directly addresses the existence of unobserved confounders without assuming a particular regression model.Footnote11 Although one can never know with certainty from observational data whether democracy causes peace, this nonparametric sensitivity analysis can formally assess the robustness of empirical evidence for the democratic peace.

Our analysis applies the nonparametric sensitivity analysis method originally developed by Cornfield and colleagues, who were concerned with the robustness of the positive association between cigarette smoking and lung cancer in the potential presence of unobserved confounders.Footnote12 The study of the causal relationship between smoking and lung cancer closely parallels the dispute on the democratic peace. In both cases, randomized experiments cannot be conducted for ethical and logistical reasons, and critics contend that the observed association suffers from confounding biases. While no definitive conclusion can be drawn from observational data, Cornfield and colleagues argue that no existing confounder can explain the strong association between smoking and cancer and therefore this relationship is likely to be causal. Their conclusion is worth quoting here:

Cigarette smokers have a ninefold greater risk of developing lung cancer than nonsmokers, while over-two-pack-a-day smokers have at least a 60-fold greater risk. Any characteristic proposed as a measure of the postulated cause common to both smoking status and lung-cancer risk must therefore be at least nine-fold more prevalent among cigarette smokers than among nonsmokers and at least 60-fold more prevalent among two-pack-a-day smokers. No such characteristic has yet been produced despite diligent search.Footnote13

Our application of nonparametric sensitivity analysis to the democratic peace yields striking results. Depending on the definition of democracy, we find that a confounder must be at least forty-seven times more prevalent in democratic dyads than in other types of dyads. Thus, any potential confounder that could explain the democratic peace would have to be at least five times as prevalent as a similar confounder for smoking and lung cancer. In other words, according to our analysis, the positive association between democracy and peace is much more robust than that between smoking and lung cancer.

#### Democratic peace is true

Hegre et al 2019 - Professor Department of Peace and Conflict Research Uppsala University

Havard Hegre Journal of Conflict Resolution, Vol 64, Issue 1, 2020. "Civil Society and the Democratic Peace" https://journals.sagepub.com/doi/full/10.1177/0022002719850620

We theorize that three distinct structures of democratic constraint explain why more democratic dyads do not engage in military conflict with each other. We build on earlier theories that focused on electoral and horizontal accountability. We add a new dimension—the social accountability provided by an active civil society. Using several new measures from the Varieties of Democracy (V-Dem) data set, we stringently test these explanations. We find social accountability to be the strongest and most consistent predictor of nonbelligerence in dyads, that horizontal accountability is still important, but that the independent role of electoral accountability has been somewhat overstated. However, we do find that social and electoral accountability work strongly together, to make for an even greater effect. The finding is robust to a range of specifications and in the face of controls for contending theories that challenge the democratic peace (e.g., the capitalist and territorial peace theories).

The democratic peace has proved to be one of the most influential and durable findings in the history of international relations, if not political science as a whole. As with all influential findings, alternatives have been posed, for example, the “capitalist peace” (Gartzke 2007; Mousseau 2000, 2009, 2013), the “territorial peace” (Gibler 2012), or “political similarity” (Bennett 2006; Raknerud and Hegre 1997; Peceny, Beer, and Sanchez-Terry 2002; Werner 2000). Beyond such empirical challenges, the finding has also been criticized for not providing a fully convincing causal logic that explains the empirical finding (Rosato 2003). This puzzle of what makes democracies less likely to engage in conflict with other democracies still remains subject to a lively and inconclusive debate (Hegre 2014). Our purpose here is to use the new Varieties of Democracy (V-Dem) data, with its ability to more precisely disaggregate the components of democracy, to reconsider its causal logic in a more precise fashion and with a fresh perspective.

We advance the debate by arguing that different forms of constraint on power holders help to explain why democratic dyads are less likely to engage in conflict. To date, the greatest attention has been focused on what we term electoral and horizontal accountability. Electoral accountability (sometimes referred to as vertical accountability) functions because elected politicians try to avoid alienating voters in anticipation of the next round of elections. Horizontal accountability operates through the ability of other branches of government and state institutions to check the power of the executive. We build on previous work that showed that greater electoral participation (Reiter and Tillman 2002; Clark and Nordstrom 2005; Bueno de Mesquita et al. 1999) and greater horizontal constraints on the executive (Reiter and Tillman 2002; Clark and Nordstrom 2005; Choi 2010) work to reduce conflict. An important part of our contribution is to add a new dimension—social accountability. It is provided by organized actors in civil society that have the ability to inflict audience costs on the executive in-between elections and to mobilize in support of opponents during elections.

We also highlight a new measurement tool for capturing democracy as an aggregate and in its component parts in new and potentially fruitful ways. Whereas the vast majority of studies have relied on Polity to capture the degree of democracy among states, we use the V-Dem data, which have both better concept-measurement consistency and also allow us, because of the ability to disaggregate components of democracy, to directly test the different forms of constraint we discussed above. Our sample includes observations from 173 countries across the globe from 1900 to 2010. We test whether these three different forms of accountability—(1) horizontal, (2) electoral, and (3) social—restrain democracies from fighting with each other. When pitting the three mechanisms of accountability directly against each other, we find the weakest support for the form that has received the greatest attention in the literature—electoral. However, its effect becomes salient when it is combined with social accountability between elections. The democratic peace effect thus seems less a product of simple electoral constraint than on the ability of civil society, as well as other state actors, to constrain the incumbent. To our knowledge, this is the first time that anyone has tested the impact of civil society engagement on conflict behavior. In an Online Supplementary File (henceforth SF),1 we demonstrate that our main findings are robust in the face of contending theories and alternate specifications of our tests.

## Ext – Solvency

### 2AC – Solvency – US Key

#### US involvement is key – it's the only way to leverage the integration of tech companies and encourage the development of tech start-ups

Vergun 2022 – staff writer @ DoD News

David Vergun June 9 2022 “Digital Transformation, AI Important in Keeping Battlefield Edge, Leaders Say” https://www.defense.gov/News/News-Stories/Article/Article/3058028/digital-transformation-ai-important-in-keeping-battlefield-edge-leaders-say/

John B. Sherman, DOD's chief information officer, held a fireside chat June 8 with Craig Martell, DOD's chief digital and artificial intelligence officer, at the DOD Digital and AI Symposium.   ¶ Sherman congratulated Martell on his appointment to this new leadership position. He brings a valuable industry perspective to the team, Sherman said, noting that Martell has only been on the job for three days and is hitting the ground running.  ¶ The chief of digital and artificial intelligence, which uses the acronym CDAO, reached Full Operating Capability June 1 and is charged with leading and overseeing DOD's strategy development and policy formulation for data, analytics and AI; breaking down barriers to data and AI adoption within appropriate DOD institutional processes; and creating enabling digital infrastructure and services that support Components' development and deployment of data, analytics, AI and digital-enabled solutions. ¶ Sherman noted that the CDAO has his hands full of real-world operational requirements, including such diverse things as the war in Ukraine, business analytics, counter unmanned aerial systems and data governance. ¶ Martell said he will focus not only on the fight today but also future fights five or 10 years later.  ¶ "We need to find the gaps, the right places where we can leverage value, and then that value is going to drive a virtuous cycle of change," Martell said. "A lot of folks think that DOD should be more like industry. Some of that is true. But [there are] a lot of things about the DOD that can't be more like industry. … We need to find out how to keep the DOD but also make it more efficient and work better." ¶ Sherman mentioned that his and Martell's work involves a lot of coordination and communications with the military services, the Defense Information Systems Agency and combatant commanders regarding everything they do, such as the Artificial Intelligence and Data Accelerator and digital services. They are the ultimate customers. ¶ The team, Sherman continued, constantly thinks about what sort of AI and machine learning capabilities would help them get ahead of specific problem sets, which will vary from combatant command to combatant command.  ¶ For instance, U.S. Southern Command might be focused on transnational criminal organizations, while U.S. European Command might be focusing on threats from Russia and U.S. Indo-Pacific Command on threats from China, he said. ¶ Sherman also mentioned cybersecurity as it relates to securing data and algorithms.  ¶ "We talk a lot about zero trust," he said. "That assumes an adversary is already on our network. How do we micro-segment our network so as to prevent that adversary from moving laterally? And, we're going to leverage AI to help us get even better as we employ zero trust."  ¶ Sherman also said that AI will be important in satellite communications as well as command and control.  ¶ Spotlight: Engineering in the DOD¶ Martell said leveraging the relationship with industry is important. "It doesn't make any sense for us to build things that we shouldn't be building here if industry already has a solution."  ¶ Also, Martell mentioned that startups and innovative small industries should be sought out by DOD for their creative solutions.  ¶ Sherman said he agreed and added that DOD needs to work with small and medium industries to help them bolster their cybersecurity needs.  ¶ Both men said that acquiring and retaining talent in the workforce must be a priority and that the hiring practice needs to be tweaked so that people in industry can do a stint in DOD, go back to industry with more tools in their toolkit and maybe eventually return to DOD in a revolving door sort of scenario.  ¶ Also, they both mentioned upskilling in DOD, which means getting meaningful work in the department so that when these professionals return to industry, they will have new and marketable skills that are desirable and cutting edge.  ¶ Martell noted that he took a pay cut coming into his current position. While the government usually cannot pay as much as the private sector, he said the intangible benefit that attracts him and others, is DOD's mission and service to country.

### 2AC – Solvency – NATO Key

#### Alliances key to AI versus Russia and China---the US can’t do it alone

Imbrie et al 2020 - Senior Fellow at Georgetown's Center for Security and Emerging Technology

Andrew Imbrie Ryan Fedasiuk Catherine Aiken Tarun Chhabra Husanjot Chahal "Agile Alliances: How the United States and its Allies Can Deliver a Democratic Way of AI" Center for Security and Emerging Technology https://cset.georgetown.edu/publication/agile-alliances/

America’s broad network of allies and partners is a source of enduring strength. In an era of economic and technological competition with China and Russia, the United States benefits from allies that share its values and produce troves of strategic resources, including computer and data science experts; private sectors that are innovative, dominant and trend-setting; data on which to train AI algorithms; advanced microprocessors and data storage units; governmental research and development (R&D) investments; diplomatic support for initiatives in AI safety and governance; and the clout needed to export norms and best practices to the rest of the world.

Alliances matter in the AI context because they provide a framework for cooperation, data sharing, dissemination of best practices, joint planning, and procurement. The market adequately incentivizes some forms of cooperation, such as data labelling and exchanges. But alliances can help formalize and expand these relationships, correct for market failures in such areas as AI safety and security, coordinate development of use cases and risk assessments, enhance the legitimacy of international action, and validate the deployment of safe and reliable AI.

America’s alliances and security partnerships will shape the future trajectory of AI, even as AI reshapes the capabilities and operating environments for U.S. allies and partners. By investing in privacy-preserving machine learning and other techniques for improving the interpretability of AI systems, the United States and its allies can promote the development of AI consistent with liberal democratic values. Far-sighted investments could yield large dividends. AI has a wide array of applications that can benefit democracies, from improving data protection and privacy, to promoting transparency and accountability in government.

Advances in AI will also enable new military capabilities. Nations around the world use AI to enhance intelligence collection and analysis, streamline decision-making, lower operating costs, and improve military logistics through predictive maintenance. As China, Russia, and other authoritarian powers integrate AI with military capabilities, U.S. allies and partners will face a more complex operating environment. Advances in software and digital systems could render it more difficult to assess the balance of power in key domains. As the operational tempo of war accelerates, leaders might be tempted to integrate AI and machine learning into early warning and command and control systems, creating new risks and uncertainties for strategic stability.8 Competitors may rush to deploy AI-enabled capabilities without adequate testing, evaluation, verification, and validation. Compounding the risks, adversaries will seek to exploit vulnerabilities in AI systems and may even use AI to execute novel cyberattacks and disinformation campaigns aimed at undermining democratic institutions and sowing discord among the public.9

In meeting these challenges and seizing the opportunities that AI presents, the United States and its allies face tough trade-offs. Three, in particular, necessitate close coordination and prudent mitigation strategies.

First, the United States and its allies face a trade-off between capability and dependency.10 Showcasing a democratic way of AI will require the United States and its allies to pool resources, coordinate policies, and share best practices and information. Leveraging the capabilities of its allies and partners will amplify U.S. power and influence, but will also create inefficiencies and require compromise. While the United States can manage these challenges, it cannot eliminate them entirely—nor should it. As long as AI-related supply chains are global and AI talent both mobile and globally distributed, innovation in AI requires international collaboration.11 To excel in this new context, America will need to embrace its role as a “systems integrator” among like-minded allies and partners.12 Embedding cooperation in dense, decentralized networks plays to the United States’ strengths as a democratic power that favors market approaches to technological cooperation. By combining top-down vision with dynamic, bottom-up innovation and entrepreneurship, the United States and its allies can foster a competitive ecosystem that enables the best ideas to flourish.

These benefits should not obscure the risks. International networks can facilitate cooperation by creating focal points and enhancing the transparency and availability of information.13 As scholars have shown, however, networks of interdependence can also become the sites of competitive power plays, such as the Society for Worldwide Interbank Financial Telecommunication (SWIFT) financial messaging system.14 The United States has used SWIFT to counter terrorism, monitor illicit financial activity, and bolster the sanctions regime against Iran.15 At the same time, China is exploring alternatives to this U.S.-dominated cross-border payments system.16 Emerging competitive dynamics suggest the need for a strategic approach toward the development of AI, especially in semiconductors.

To manage the risks, the United States and its allies should pursue a range of mitigation strategies, including securing and enhancing their defense innovation bases and domestic economic competitiveness, diversifying partnerships in AI, investing diplomatic capacity in norms and standards for AI technologies and mobile telecommunications consistent with democratic values, and promoting flexible institutional configurations for partnership in AI.17

Second, the United States and its allies face a trade-off between competition and cooperation. All nations compete for relative military and economic advantage. In the age of AI, nations will also compete over whose vision of the future attracts the broadest support. Cooperation among democracies is necessary to guard against authoritarian uses of AI, but there are other imperatives for cooperative action. For example, democratic nations must cooperate with strategic competitors to ensure global economic stability and prevent misperceptions and miscalculations from spiraling into hostility; this could be achieved through arms control or international action to create norms and standards for emerging technologies.

Conventional wisdom suggests that the United States competes with China and Russia in AI and collaborates with allies and partners. While accurate, it is equally true that the United States competes with its allies and partners for top talent and resources in AI and must find ways to cooperate with China and Russia on AI safety and security, strategic stability, and crisis management to forestall the risks of accidents and miscalculations.18 When asked about obstacles to collaboration with the United States, for example, multiple officials from allied countries highlighted industrial competition as an impediment.

Cooperative dynamics are typically in pursuit of shared, global interests, while competitive dynamics tend to follow from a national calculation of AI’s impact on relative power and wealth. Researchers and scientists cooperate across national boundaries, but political leaders face difficult trade-offs between national interests and the international networks that foster open-source collaboration in AI.

Navigating these dynamics will require the United States and its allies to pursue a two-pronged strategy: expand areas for cooperation and competition that generate mutual benefits, while shrinking the space for competition that generates harmful effects or a race to the bottom. For example, the United States should manage competition within a rules-based framework that ensures a level playing field, protects intellectual property, and disincentivizes hidden government subsidies. At the same time, it should work with countries to discourage unfair competition that tilts the playing field in favor of state-backed enterprises, destabilizes financial markets, and triggers unforeseen disruptions to global supply chains.

The third trade-off is between safety and speed.19 This trade-off arises from the complex dynamics between the United States and its allies on the one hand, and strategic competitors such as China and Russia on the other. Artificial intelligence presents a range of opportunities and risks for the United States and its allies. AI systems are brittle and can fail accidently or behave unpredictably in real-world settings.20 American, European, Chinese, and Russian leaders increasingly view AI as a core element of national power. In an effort to gain comparative advantage, countries could rush to deploy untested or unsafe AI systems. It is in the interest of U.S. national security to pursue confidence-building measures in AI safety. It is also a core interest of U.S. allies: a majority of officials noted standards to ensure reliable and responsible AI development as a national AI priority and avenue for productive multilateral collaboration. By leading an international effort on safe and reliable AI, the United States and its allies can reduce threats to global security and promote strategic stability.

### 2AC – Solvency – NATO Key

#### NATO is key – it has a framework in place for accelerating development and integration into real-time military applications

Parrikar 2022 - Institute for Defence Studies and Analyses

By Manohar Parrikar May 30, 2022 “China and Russia are pursuing military usage of AI now” https://www.eurasiareview.com/30052022-natos-ai-push-and-military-implications-analysis/

In future, AI will act as an enabler to out-adapt competitors and adversaries. The current AI strategy of NATO needs to address the vulnerabilities in AI systems and related measures for effectively using autonomous weapon systems and military governance of AI. The NATO accelerator has been devised to address, prioritise, and promote interoperability in transatlantic cooperation to drive the strategic innovation process. The key drivers for Innovation in AI and other EDTs will be the establishment of the NATO-Civil-Military Technology capability that will include various actors from the military, civil, state and private sectors as a part of the EDT innovation ecosystem. Another critical factor is the broadening of the NATO–EU cooperation through a joint taskforce on defence innovation and EDTs to regularise and provide strategic capabilities on ethical and adoption challenges of EDTs like AI and ML. Furthermore, NATO needs to protect the use of AI from manipulation and disruption and align it with its stated principle of “Responsible use of AI”. NATO needs to work on AI adoption challenges centred on innovation and arms control. It can look towards bringing in guiding principles on use of AI-driven lethal autonomous weapon systems. It is expected that in the next 2–3 years, AI’s use will be confined to the field of military logistics, reconnaissance, mission planning and support, predictive maintenance of a military facility, data fusion and analysis, cyber defence and optimisation of processes. In the long run, NATO could employ AI for more complex military applications as it generates greater political support for offensive AI military projects.

### 2AC – Solvency – AT EU Say No

#### European allies would say yes – see collaboration on AI as an essential component of future development

Franke 2021 – policy fellow at European Council on Foreign Relations

Ulrike Esther Franke January 2021 “Artificial Divide: How Europe And America Could Clash Over Ai” European Council on Foreign Relations https://ecfr.eu/publication/artificial-divide-how-europe-and-america-could-clash-over-ai/

The next phase could be a period of international, and specifically transatlantic, cooperation on AI. After several years of European states working at full capacity to understand how to support domestic AI research, including by assembling expert teams to deliberate new laws and regulations, there is growing interest among policymakers and experts in looking beyond Europe. On the EU level, AI policy and governance have already received significant attention, with the European Commission playing an important role in incentivising member states to develop AI strategies, such as by starting to tackle issues around how to make sure AI is “ethical” and “trustworthy”. But recent months have seen a rise in the number of calls for international cooperation on AI driven by liberal democracies across the world. Western countries and their allies have set up new forums for cooperation on how to take AI forward, and are activating existing forums. More such organisations and platforms for cooperation are planned.¶ Calls for cooperation between the United States and Europe have become particularly regular and resonant: following last year’s US presidential election, it was reported that the European Commission planned to propose a “Transatlantic Trade and Technology Council”, which would set joint standards on new technologies. And, in September 2020, the US set up a group of like-minded countries “to provide values-based global leadership in defense for policies and approaches in adopting AI”, which included seven European states, in addition to countries such as Australia, Canada, and South Korea. In June 2020, the Global Partnership on Artificial Intelligence was founded to consider the responsible development of AI; it counts among its members the US, four European states, and the European Union.¶ This paper examines the reasons European states may want to work with the US on AI, and why the US may want to reach out to Europe on the issue. It also identifies the points of disagreement that may stop the allies from fully fleshing out transatlantic AI cooperation. The paper shows that, while both sides are interested in working together, their rationales for doing so differ. Furthermore, economic and political factors may stand in the way of cooperation, even though such cooperation could have a positive impact on the way AI develops. The paper also argues that transatlantic cooperation in the area of military AI could be a good first step – here, Europe and the US should build on existing collaboration within NATO. The paper concludes with a brief discussion of the different forums that have been created or proposed for transatlantic and broader Western cooperation on AI.¶ Experts initially thought of AI as a ‘dual-use technology’, meaning that it can be used in both civilian and military contexts. As AI has advanced, with new uses for it emerging all the time, it has now become more common to speak of AI as an “enabler” or a “general-purpose technology” – as¶ electricity is, for example. AI can improve or enable various capabilities in almost all realms imaginable, from medicine and healthcare to basic research; from logistics and transport to journalism . With this change in understanding has come a realisation on both sides of the Atlantic that AI is likely to have immeasurable consequences for economic development, and will have an impact on social and democratic life, labour markets, industrial development, and more. This also means that¶ policymakers and analysts are increasingly asking questions about how AI could affect the global balance of power.¶ There are two main rationales for current efforts at transatlantic cooperation on AI. Firstly, among experts and policymakers, there are concerns that AI may be developed and used in ways that are contrary to liberal democratic values and ethics. Secondly, some policymakers fear that AI may give their geopolitical competitors a significant advantage. While the former is the primary reason why many European states want to work with other democratic countries, the latter has played an important role in motivating the US to seek cooperation with Europe and other allies. This was the case even under Donald Trump, who was not known for his appreciation of alliances in general, and Europeans in particular.

#### Even if the EU member states are skeptical, using NATO as a channel for coordination ensures cooperation

Franke 2021 – policy fellow at European Council on Foreign Relations

Ulrike Esther Franke January 2021 “Artificial Divide: How Europe And America Could Clash Over Ai” European Council on Foreign Relations

Europe and the US will need to choose the appropriate forum for AI cooperation based on its area of focus. Transatlantic cooperation on military AI might be best located within NATO. Members of the alliance have a long history of working together, and NATO already has dedicated units whose task is to ensure that all allies can cooperate and transform together. Given that military interoperability is vital to its functioning, NATO has no alternative but to address this issue, independent of other forums’ work. It would be advisable for NATO, and possibly the EU and its member states, to join the newly established, US-led AI partnership for defence. The current situation – in which the partnership includes only a few European countries and some of the United States’ other like-minded partners – is not constructive from a European viewpoint: Europeans should strive for Europe-wide harmonisation, not the creation of further differences. For cooperation on other areas of AI, such as sharing data or supporting research, other forums, including ad hoc alliances aimed at specific outcomes, may be the way forward. From a European standpoint, however, it would be advisable to try to include the EU as much as possible, so that European positions are not watered down or member states divided among themselves.

### 2AC – AT Unethical AI – “Killer Robots”

#### applications of AI in logistics and sustainability is distinct from militarized autonomous weapons

Konaev and Chahal 2021 – research fellow and research analys with the Center for Security and Emerging Technology

Margarita Konaev Husanjot Chahal April 2021 “The Path of Least Resistance: Multinational Collaboration on AI for Military Logistics and Sustainment” CSET Issue Brief

While we discuss how the United States and its allies can work together on AI for military logistics and sustainment in both combat and noncombat settings, there is no doubt that the environment in question matters a great deal. From data to computational power to available talent, as well as considerations like privacy, safety, and security, implementing AI for military logistics and sustainment functions performed in controlled environments similar to commercial settings is a different endeavor from deploying AI- enabled logistics and sustainment functions in contested and hostile environments. We take these differences into account where relevant, and acknowledge that even under the best of circumstances, there are still significant challenges for both the adoption of AI applications and multinational collaboration in this area.

Technologically attainable

While not without its challenges, military logistics and sustainment tasks, especially those performed in noncombat settings, present a technologically attainable area for multinational collaboration in AI.

Although much of the innovation in AI is occurring in the commercial sector, adopting and adapting commercial AI applications for military purposes is often impossible. Current AI technologies, and especially ML-based systems, tend to perform well in stable environments but struggle with uncertain and novel situations, and remain particularly vulnerable to adversarial attacks.

These vulnerabilities present an unacceptable level of risk in high- stakes military settings, where the environment is uncertain and adversarial by definition. The consequences of mistakes and even system failure, however, are less severe when it comes to some military logistics and sustainment tasks which are administered and managed in noncombat settings, and constitute what some have called enterprise AI applications.

Advances in AI for logistics in commercial aviation, maritime shipping, and transportation sectors are therefore more applicable to certain military logistics and sustainment tasks performed in noncombat settings than for specialized military equipment like autonomous ground combat vehicles or armed drones. In particular, there may be opportunities to adopt and adapt commercial applications for the intelligent automation of tasks such as scheduling equipment maintenance and repairs, updating and issuing licenses, supply tracking and forecasting, and other processes that control the flow of logistics throughout the military organization.34 To reiterate, these are much more than cost cutting and efficiency increasing measures; improvements in these areas enable military readiness and effectiveness in combat.35

In addition to these opportunities to leverage AI-enabled technologies and tools available in the commercial sector in support of military logistics, there are also fewer barriers to in- house innovation within defense organizations. Many of the AI applications relevant to logistics and sustainment can be developed and used in relatively well-controlled and benign environments in settings akin to commercial civilian enterprises. Under such conditions, resources like data and infrastructure, including storage, ETL pipelines, communication bandwidth, and compute can be made available to train ML models for various AI applications.36 Notably, the 2016 Defense Science Board Summer Study on Autonomy raised a similar point regarding logistics planning and execution as “a particularly good candidate for testing and experimentation (T&E) ... because the behavior of logistic software can be evaluated against crisply known metrics.”37

### 2AC – AT Unethical AI – Plan 🡪 Cooperative Framework

#### Cooperating on logistics is key to establish a framework for future implementation

Engels 2022 - Vice President and CTO in Global Business Line Insights & Data, Capgemini Scandinavia

Robert H Engels January 6, 2022 “NATO’s outlook on a responsible military adoption of AI” https://www.capgemini.com/no-no/2022/01/natos-outlook-on-a-responsible-military-adoption-of-ai/

Or as Ulrike Franke, a senior policy fellow at the European Council on Foreign Relations, stated: “It’s better for the alliance to focus on the basics, like increased data sharing to develop and train military AI and cooperating on using artificial intelligence in logistics. (..) If NATO countries were to cooperate on that, that could create good procedures and set precedents.”[2] Training, at all levels of command, is certainly a key factor to cooperatively synchronize the development of maturity in both AI algorithms and operators, thus gradually building increased capacity and professionalism.¶ NATO stresses the importance of an ethical approach and points out that “Allies and NATO must strive to protect the use of AI from such interference, manipulation, or sabotage, in line with the Reliability Principle of Responsible Use, also leveraging AI-enabled Cyber Defence applications.”. Furthermore, they point out the need to develop adequate security certification requirements for AI due to the fact that AI can impact critical infrastructure, capabilities and civil preparedness creating potential vulnerabilities, such as cyberspace, that could be exploited by certain state and non-state actors.¶ The principles mentioned in the NATO strategy allow for modernization and use of AI without stifling innovation, on the contrary even: they might significantly boost the development of areas in artificial intelligence that have not been in focus until now. The AI strategy can point the direction how AI play a decisive role in how NATO’s partners cooperate, analyze and provide vital decision-making information faster and more comprehendible relevant to a wide range of potential challenges and threat situations.

### 2AC – AT Unethical AI – EU Involvement Checks

#### Collaboration with the EU ensures ethical use and application

Franke 2021 – policy fellow at European Council on Foreign Relations

Ulrike Esther Franke January 2021 “Artificial Divide: How Europe And America Could Clash Over Ai” European Council on Foreign Relations

Finally, there may be cases in which an AI-enabled system may be ethically unobjectionable and trustworthy, and the context of its use generally acceptable, but the specific goals for which the system is used are problematic. For example, AI-enabled surveillance might not be problematic per se; and it should be possible to design the underlying technology in a way that does not discriminate. But the specific use of an AI-enabled surveillance system to systematically oppress and exclude members of a minority group would be unethical. Equally, it is ethically problematic to take advantage of AI- enabled capabilities to analyse human behaviour, moods, and beliefs with the aim of influencing people’s behaviour and thoughts – such as during an election, for example. This is true even though the technology itself may have beneficial uses in other settings. In such contexts, many experts have raised concerns over increasingly powerful “deep fake” technologies – AI-enabled ways to create what look like genuine videos of people.¶ A growing number of AI developers are realising that their work could potentially be misused. In early 2019, California-based research lab OpenAI made the news when it announced it had developed a text-generating model able to write whole essays by itself – but that it would not share the dataset it used for training the algorithm or all of the code it runs on. This was unusual, as most AI research – even that by commercial actors – tends to be carried out openly. The organisation argued that it was worried about the misuse of the tool for disinformation. That said, OpenAI later released the full model, stating that it had seen “no strong evidence of misuse”.¶ Throughout the Western world and beyond, concerns have been raised about these dangers. Various firms and organisations, such as Google, have published charters and principles for ethical AI. The ethics of AI has become an area of intense academic research, with new institutions founded to study the topic, and calls for AI ethics to be recognised as an academic field comparable to medical ethics.¶ No actor, however, has so publicly put itself at the forefront of this issue as the EU has. The EU defined the ethical implications of AI as a primary area of interest and work comparatively early on. The European Commission created a “High-Level Expert Group on AI”, which in April 2019 released its Ethics Guidelines for Trustworthy Artificial Intelligence, followed by its Policy and Investment Recommendations for Trustworthy Artificial Intelligence. Ethical AI is not just a concern for EU institutions: every national AI strategy published by member states touches on the topic, and several countries, such as Denmark and Lithuania, identify ethical rules as their first priority.

# \*\*\* Extra Neg Cards \*\*\*

## Solvency

### 1NC – No Solvency – EU Say No

#### EU says no – 4 reasons – distrust of the US, desires for digital autonomy, lack of threat perception, and Brexit all short-circuit transatlantic cooperation

Franke 2021 – policy fellow at European Council on Foreign Relations

Ulrike Esther Franke January 2021 “Artificial Divide: How Europe And America Could Clash Over Ai” European Council on Foreign Relations

Obstacles to cooperation

Both sides of the Atlantic are already motivated to cooperate with each other on AI. But, despite these shared interests, transatlantic cooperation on AI may not be straightforward. Four trends, in particular, could pose problems: transatlantic estrangement; European digital autonomy efforts; differing views on China; and, potentially, Brexit.

Transatlantic estrangement

The transatlantic alliance has had a bad four years. The Trump administration’s criticism of the United Nations and the World Trade Organization, the president’s threats to leave NATO, and his active criticism of the EU all made Europeans wonder whether they had lost their most important partner. Moreover, in light of the conflict over 5G, in the minds of many Europeans, technology in particular has become an area that creates conflict in the transatlantic relationship rather than fostering cooperation.

Although transatlantic relations are likely to improve under Biden, substantial damage has been done, and it will take some time to mend these ties. But, even if relations improve, it is becoming increasingly obvious that US has a diminishing interest in Europe as a geopolitically important part of the world. This trend was already visible under Trump’s predecessor, Barack Obama. It is, therefore, unsurprising that, on technology cooperation, both sides emphasise the importance of working with other actors as well as each other. The US National Security Commission on AI, for example, recommends that the US Departments of State and Defense “should negotiate formal AI cooperation agreements with Australia, India, Japan, New Zealand, South Korea, and Vietnam”. Its March 2020 report emphasises on several occasions the importance of the Five Eyes intelligence alliance. Meanwhile, Europeans are pursuing the idea of an alliance for multilateralism. And, on technology and AI more specifically, they have also begun to reach out to other democratic allies.

European digital autonomy

The most important aspect of transatlantic estrangement, however, is not the loss of trust between the US and Europe – which they will eventually reverse. Rather, during the four years of the Trump administration, and partly in response to isolationist tendencies in the US, Europeans have become much more comfortable talking about European strategic autonomy or sovereignty. Without encouraging the narrative that these efforts are directed against the US, or were primarily an answer to Trump, Europeans aim to empower Europe as an actor in its own right. In the technological realm, this led to the idea of European digital sovereignty, the aim of which is to build up European technological capabilities. Although European digital sovereignty is not specifically targeted at the US, it has led, among other things, to efforts such as the possible regulation of American technology companies and concerns over American firms acquiring European start-ups. European campaigners and some policymakers believe US tech giants such as Google, Apple, Facebook, and Amazon are forces to protect against. European thinking on technology partly developed in opposition to the US and US companies. Thus, European efforts to build up digital sovereignty may impede transatlantic cooperation.

The EU’s effort to strengthen ethical AI, and to make ‘trustworthy AI’ a unique selling point for Europe, might also end up creating problems for transatlantic cooperation. Many EU policymakers believe that the EU’s insistence on ethical AI will eventually become a location advantage for Europe (much like data privacy): as more people become concerned about unethical AI and data security, they will prefer to use or buy AI ‘made in Europe’ rather than elsewhere. In this respect, two European aims are at odds with each other: on the one hand, Europeans want to ensure that AI is developed and used in an ethical way. Partnering with a powerful player such as the US on this matter should be an obvious way to help them achieve this goal. However, if the EU considers ethical AI not just a goal for humanity but a development that may also create commercial advantages for Europe, then transatlantic cooperation on this issue is counterproductive, as it would undermine Europe’s uniqueness.

Finally, many Europeans have expressed scepticism about the extent to which Europe and the US are indeed aligned on ethical AI principles. For example, the Danish national AI strategy argues for a common ethical and human-centred basis for AI. It describes ethical AI as a particularly European approach: “Europe and Denmark should not copy the US or China. Both countries are investing heavily in artificial intelligence, but with little regard for responsibility, ethical principles and privacy.” Many Europeans feel that the US “has no idea how to regulate” cyberspace and continues to show little enthusiasm for doing so. The EU, however, likes to think of itself as a trailblazer when it comes to digital rights, such as the 2014 “right to be forgotten” or the 2018 General Data Protection Regulation.

Differing views on China

As noted, only a few European states look at AI through a geopolitical lens, and EU efforts on this matter focus primarily on strengthening the EU as a global player. This means that the American interest in using transatlantic cooperation as a means to curb Chinese power is likely to have only limited traction in Europe. And US companies, rather than Chinese ones, currently remain the primary ‘other’ for Europe to measure itself against. European regulation efforts still concentrate on US companies rather than Chinese firms. In light of recent changes in language on China in both NATO and the EU, which describe the country as a “strategic competitor” and “systemic rival”, European and American views of China may converge eventually. But, at the moment, Europeans do not feel the same urgency as the US when it comes to pushing back against China. Unfortunately for those in the US who favour greater transatlantic cooperation, the European nation that most often thinks in geopolitical terms, France, is among those most sceptical of the US.

Brexit

Finally, the United Kingdom’s exit from the EU may further complicate transatlantic cooperation on AI. Even if the EU and the UK were to decide to work as closely as possible, the EU would no longer be able to speak as much of Europe as previously. Any transatlantic cooperation on AI will, therefore, require coordination between three, rather than two, actors. Given the UK’s strong technology and AI credentials (AI leader DeepMind is based in London, although it is now owned by Google’s parent company, Alphabet), the country is likely to want to play an important role in any future negotiations on AI standards and use.

### No Solvency – EU Says No – “Tech Sovereignty”

#### EU Says No – Wants to establish digital autonomy separate from the US

Franke 2021 – policy fellow at European Council on Foreign Relations

Ulrike Esther Franke January 2021 “Artificial Divide: How Europe And America Could Clash Over Ai” European Council on Foreign Relations

European policymakers have been less vocal about the geopolitical consequences of AI. So far, the debate in Europe has primarily revolved around AI’s economic and social effects. Of the 21 strategies on AI either published or drafted by EU member states, very few touch on the geopolitical implications of AI. The notable exception to this is France, whose national AI strategy was clearly drafted with a geopolitical mindset. It warns that France and Europe need to “avoid becoming just ‘digital colonies’ of the Chinese and American giants”. The strategy’s inclusion of “American giants” is telling and important. It shows that, from a European point of view, the US is the primary ‘other’ that Europe measures itself against on technology – at least for now. This is despite the fact that, in recent years, Chinese acquisitions of European high-tech firms have caused significant concern.

#### Tech sovereignty prevents cooperation

Konaev and Chahal 2021 – research fellow and research analys with the Center for Security and Emerging Technology

Margarita Konaev Husanjot Chahal April 2021 “The Path of Least Resistance: Multinational Collaboration on AI for Military Logistics and Sustainment” CSET Issue Brief

Another potential barrier to collaboration, particularly with European allies, is the growing momentum around the idea of European digital sovereignty and increasing concerns about continued dependence on U.S. technology companies.17 Part of the push for greater European technology independence stems from Europe being “caught in the crossfire” on a variety of technology issues, including 5G and internet regulation amid the intensifying strategic competition between the United States and China. European nations like France and Germany, among others, are becoming more assertive when it comes to control over their data.18 The experts behind France’s AI strategy, for instance, have advocated for a data policy that is “structured around the goals of sovereignty and strategic autonomy” as a prerequisite for the development of AI in France and in Europe, in an effort to “avoid becoming just ‘digital colonies’ of the Chinese and American giants.”19 Moreover, as Ulrike Franke explains, the EU has taken a stronger stance on protecting individuals’ digital rights through regulations such as the 2014 “right to be forgotten” and the 2018 General Data Protection Regulation.20 Differing views on China, a push toward additional regulations of U.S. technology companies, different approaches toward data privacy, and commercial competition can all hinder transatlantic cooperation on AI.

### No Solvency – EU Say No – Chilling Effect

#### EU tech protectionism creates a chilling effect on the industry – prevents research and development by dissuading start-up participation

Broadbent 2021 - senior adviser (non-resident) with the Scholl Chair in International Business at the Center for Strategic and International Studies in Washington, D.C.

Meredith Broadbent August 10, 2020 “Internet or Splinternet? The Consequences of European Tech Sovereignty” Center for Strategic and International Studies https://www.csis.org/analysis/internet-or-splinternet-consequences-european-tech-sovereignty

Sitting atop resounding commercial success in the domestic as well as the global marketplace, the CEOs of four U.S. digital behemoths appeared last week before the House of Representatives to respond to public and congressional concerns about market domination.¶ The size and success of these champions, under fire for lack of transparency and anticompetitive practices, have triggered similar, more exaggerated concerns in Europe, which are playing out in a frenzy of proposed rulemaking at both the Commission and member-state level. As Congress probes the market behavior of U.S. digital companies, it is important for U.S. legislators to consider parallel rising pressure for digital and industrial protectionism in Europe, particularly in Germany and France. This flurry of regulatory activity endangers transatlantic data transfers—the lifeblood of many innovative U.S. firms—and will hurt U.S. business success globally while simultaneously distracting both Europe and the United States from the broader threat posed by China’s authoritarian state capitalist system.¶ Many Europeans are deeply worried about the continent’s ability to compete long term in the global digital economy, given its challenges in developing competitors to the U.S. and Chinese tech giants. Yet European economies have tremendous strengths—highly educated workforces, depth in engineering, advanced technologies, and a leadership role in a host of industries that are rapidly digitizing, such as agriculture, infrastructure, transportation, logistics, manufacturing, and knowledge-intensive services, for example, financial, business, environmental, and engineering services. Constructing new European regulations for the digital era should be guided first by the do no harm warning.¶ The United States and Europe share an interest in piloting, investing in, and leveraging disruptive technologies like artificial intelligence (AI), blockchain, and the Internet of Things in these key industries, and liberalizing market access for services in emerging markets. The United States and Europe can also work together to ensure firms and workers in more underserved and remote regions are able to apply technologies, access educational and training opportunities, and increase productivity. But improved transatlantic cooperation in supporting innovation, productivity, consumer welfare, and sustainable job creation in a flourishing transatlantic digital economy, under an open and free internet architecture, seems all the more remote in light of where European regulators say they are headed.¶ The Commission released a series of documents earlier this year outlining Europe’s regulatory future, including a White Paper on Artificial Intelligence, a Communication on European Strategy for Data, and a framing paper related to Shaping Europe’s Digital Future. These documents and many more speak to the European desire to achieve “digital autonomy” and “tech sovereignty” through an array of regulatory and tax changes aimed at nurturing indigenous tech firms, developing independent European data pools, and tamping down on large, innovative foreign firms offering attractive digital services to European consumers.¶ Artificial Intelligence¶ Following the General Data Protection Regulation (GDPR) model of being the first mover with comprehensive regulation, the Commission is taking aggressive aim at being the preeminent “global standards setter” in AI. The European Union’s heavy-handed preliminary proposal for AI regulation diverges sharply from the U.S. approach. In its white paper on AI, the Commission has proposed ex ante conformity assessments to control access to the EU market for AI applications originating outside of the EU. That would likely require a new framework with criteria, benchmarks, and standards that European authorities will use to determine if an AI product is “trustworthy, secure and in respect of European values and rules” before it is allowed entry into the European market. This approach could include a pre-market review by EU authorities of algorithms, training data, documentation on programming, and how the system was built, as well as accuracy tests and other requirements. ¶ Also under consideration are data quality and traceability requirements that would require non-EU firms to train AI applications on GDPR compliant data, an extraterritorial regulation that seemingly would burden U.S. firms with requirements to completely retrain many proprietary algorithms developed in the United States with new data sets as a condition of market access in the European Union.¶ Unlike its inaction in the area of federal privacy regulation, which has allowed Europe to set a de facto global standard, the United States has led an international, cooperative effort through the G7 to reach common standards in the challenging area of AI research and development. A coordinated interagency team in the United States focused on AI regulation and emerging issues makes transatlantic collaboration is this new regulatory space a possibility.¶ New Activist Competition Measures¶ In a February 4, 2020, letter to Commission Executive Vice-President Vestager calling for more activist competition policy, France, Germany, Poland, and Italy describe their two overarching goals: (1) moderating competition emanating from “state-backed and subsidized” foreign competitors (e.g., China); and (2) controlling “emergence of large players in the digital economy relying on the accumulation of data and unparalleled network effects resulting in . . . excessive market power.” (e.g., large U.S. and Chinese tech companies.) The four European governments advocate for policies to tackle the “digital platforms with paramount importance for competition,” saying that these firms should be subject to “specific scrutiny” in Europe and an enhanced regulatory framework.¶ In different EU jurisdictions, competition authorities are increasingly weaving the precautionary principle into regulation of technology markets with the idea that new ex ante rules should be imposed ahead of any actual anticompetitive behavioral violation. Legislation pending in the German Bundestag is in this vein. For its part, the French government has put forward a legislative proposal to regulate “systemic platforms.” Under the French plan, competition regulators would be authorized to surveil and block planned acquisitions of European tech startups of almost any size.

### 1NC – No Solvency – Data

#### No solvency – lack of optimization makes AI military application ineffective

Konaev and Chahal 2021 – research fellow and research analys with the Center for Security and Emerging Technology

Margarita Konaev Husanjot Chahal April 2021 “The Path of Least Resistance: Multinational Collaboration on AI for Military Logistics and Sustainment” CSET Issue Brief

This is not to say that adopting and developing, let alone collaborating on AI-enabled logistics will be an easy task for the U.S. military and allied defense organizations. The ML and deep learning algorithms behind commercial AI-enabled logistics are generally not optimized for military needs.39 And if the experience of the Department of Defense is any indication, there are multiple challenges with regards to the data needed to power AI applications—from lack of data to problems with traceability, access, and interoperability of data collected by different systems.40 Moreover, data security and privacy concerns as well as different legal frameworks for how personal data is collected, handled, processed, and stored remain a critical barrier to international collaboration. Lack of clarity surrounding how to implement the exemptions for research incorporated into the General Data Protection Regulation, for example, has stalled collaboration between the U.S. National Institutes of Health and some European counterparts.41

### 1NC – Espionage Turn

#### increased integration makes cyber espionage more likely

Konaev and Chahal 2021 – research fellow and research analys with the Center for Security and Emerging Technology

Margarita Konaev Husanjot Chahal April 2021 “The Path of Least Resistance: Multinational Collaboration on AI for Military Logistics and Sustainment” CSET Issue Brief

Finally, on the technical front, there are numerous challenges to ensuring that hardware and digital systems are interoperable and secure. Creating and maintaining common or interoperable information systems and databases is a massive undertaking considering that in each country, the data resides in repositories lacking standardized formatting or maintained by contractors that keep such information proprietary, especially for data on sensors and weapon systems. Shared information systems and databases are also particularly vulnerable to disruption, manipulation, and data theft in part because of discrepancies in countries’ network security protocols and capabilities.26 These problems are hard to resolve in their own right. But the aforementioned political factors, especially the push toward greater data sovereignty by some of the European allies, only exacerbate these technical challenges for collaborations on AI.