# Aff – AI Ethics Aff – UM22 Starter Packet

## Starter Notes

#### Brief Explanation

The militaries of the world are incorporating Artificial Intelligence into their weapons, planning, operations, logistics – pretty much everywhere. Some countries are going all-in – developing Lethal Autonomous Weapons (LAWs - killer robots) and nano-drone swarms, known charmingly as Genocide Swarms. Others are more cautious and are limiting their AI use to wargame simulations, or targeting mods. Perhaps the biggest issue in controversy is the level of Autonomy. Fully autonomous weapons exclude humans from the kill chain – search, target acquisition, engagement, execution. Low Autonomy weapons might be an AI adversary in a simulated attack against Russian forces in Ukraine. Very few states have (allegedly) developed or deployed fully autonomous weapons, but as the technology improves exponentially, that is a possible future.

This affirmative plan calls for human control – a “human in the loop” who has final say over AI functions. It has the US engage NATO in establishing ethical principles, known as RAI (responsible AI use), for all NATO operations and weapons. There are three reasons for this:

Cohesion. If everyone in NATO is on the same page and coordinated on technology and tactics, that is called Interoperability. The command, political, and public will to get coordinated is called Cohesion. Interoperability and Cohesion are the foundation of effective coalition military forces and operations. AI threatens to disrupt that cohesion and interoperability. If the US has Fully Autonomous weapons, and Italy does not, then those weapon systems will have trouble interoperating (not sure if that is a word). If the US is using mostly automated systems, and France is sending mostly human troops, then France might ask why they should risk French lives when the US is not. If the US spends A Lot on Fully Autonomous weapons, but Lithuania doesn’t have that technology, then the US might feel that other nations are not sharing the burden. If the British public opposes LAWs, and they are in a conflict allied with the US, who is using LAWs, then the British public might demand that their government stop supporting the operation. Or the US might perceive that the UK would stop supporting it. Dialogue to cooperate to establish norms for AI throughout the alliance would improve cohesion and interoperability, which makes for a more effective and credible NATO, which stops a nuclear war.

Crisis Instability. Many of the new AI weapons are “brittle” – they tend to react poorly when the situation goes outside of their programmed parameters. Like if the Ukrainians put reflective tape on stop signs to disorient the Russian drones piloted by AI. For example, without a human in the loop, AI accelerates battle decisions to machine speed. If something goes wrong, it goes Really Wrong Really Fast, without anyone able to check the escalation to nuclear war. Back in the 80’s, Russian Early Warning Radars detected what it thought to be a US nuclear attack and signaled that to Soviet Rocket Command. But a Lieutenant Colonel – Petrov – trusted his gut instinct and said “Maybe is birds, comrade.” Crisis averted. AI would have sent the nuclear weapons in a split second. There are many crises in the future for Europe, and miscalculation or instability in them could escalate a conflict accidentally or mistakenly. Human control would provide a stop in the escalation chain to prevent war.

Human Dignity. Autonomous AI weapons would make decisions about life and death by algorithm. The soldiers who are killed would just be part of a decision tree – depersonalized and objectified. Civilian casualties would become data points. This is unethical because it does not respect human dignity. Now, to be clear – all war is undignified. A human soldier shooting you leaves you just as dead as an autonomous drone. However, that soldier shares your humanity. They feel compassion, and hope, and empathy, and regret. They know what it means to take a life because they value their own. AI has none of that – it cannot “know” what it means to kill or die, because it cannot “feel” life. For better or worse, if war involves lethal decisions, the choice to kill another person should be made by a person. International and Human Rights laws are founded on the principle of Human Dignity. Our actions, arguments, motives and intentions must respect the Dignity of all persons. Death by algorithm does not respect the dignity of individual people, because AI cannot “know” what it means to be alive. (This is where the Cybernetics K comes in…) This is a deontological argument, not a consequential or utilitarian one. It says that before you decide if plan has good or bad outcomes, you first have to determine whether it is Right or Wrong. If AI weapons are unethical, you never even evaluate if they have good consequences – that is the Ethics First framework argument.

#### Some Comments

The 1AC is WAY too long to read all three advantages – it is impossible to run them all. DON’T destroy the quality of the evidence by trying to highlight it down to read all three. Instead, choose two, or maybe even one, advantage to read, and cut out cards before highlighting into incoherence. For instance, if you want to run Human Dignity, that works pretty well all by itself.

I know that there are three inherency cards and like 8 extension or AT blocks on inherency, and that is too much. In fairness, this case is probably not inherent, so “Be Prepared!”

A lot of the literature and international debate is about LAWs. It’s more exciting to talk about Killer Robots. However, that is only a small fraction of the military uses for AI in NATO, so don’t get hung up on that. On the other hand, “human control” means that weapons are no longer “autonomous” – at least not fully autonomous. So the plan does de facto ban LAWs.

## 1AC

### 1AC - Inherency

#### Contention One – Inherency – The Pentagon does not require Human Control for artificial intelligence in weapons.

Allen, 2022 - Director, AI Governance Project, Strategic Technologies Program at CSIS [Gregory C. June 6 “DOD Is Updating Its Decade-Old Autonomous Weapons Policy, but Confusion Remains Widespread” [https://www.csis.org/analysis/dod-updating-its-decade-old-autonomous-weapons-policy-confusion-remains-widespread Acc 6/6/22](https://www.csis.org/analysis/dod-updating-its-decade-old-autonomous-weapons-policy-confusion-remains-widespread%20Acc%206/6/22) TA]

In November 2012, the Department of Defense (DOD) released its policy on autonomy in weapons systems: DOD Directive 3000.09 (DODD 3000.09). Despite being nearly 10 years old, the policy remains frequently misunderstood, including by leaders in the U.S. military. For example, in February 2021, Colonel Marc E. Pelini, who at the time was the division chief for capabilities and requirements within the DOD’s Joint Counter-Unmanned Aircraft Systems Office, said, “Right now we don't have the authority to have a human out of the loop. Based on the existing Department of Defense policy, you have to have a human within the decision cycle at some point to authorize the engagement." He is simply wrong. No such requirement appears in DODD 3000.09, nor any other DOD policy. Misconceptions about DODD 3000.09 appear to extend even to high-ranking flag officers. In April 2021, General Mike Murray, the then-four-star commander of Army Futures Command, said, “Where I draw the line—and this is, I think well within our current policies—[is], if you’re talking about a lethal effect against another human, you have to have a human in that decision-making process.” Breaking Defense, a news outlet that reported on Murray’s remarks at the time, stated that the requirement to have a human in the decisionmaking process is “official Defense Department policy.” It is not. DODD 3000.09 does not ban autonomous weapons or establish a requirement than U.S. weapons have a “human in the loop.” In fact, that latter phrase never appears in DOD policy. Instead, DODD 3000.09 formally defines what an autonomous weapon system is and requires any DOD organization proposing to develop one to either go through an incredibly rigorous senior review process or meet a qualifying exemption. Regarding the latter, cyber weapons systems, for example, are exempted. The DOD recently announced that it is planning to update DODD 3000.09 this year. Michael Horowitz, director of the DOD’s Emerging Capabilities Policy Office and the Pentagon official with responsibility for shepherding the policy, praised DODD 3000.09 in a recent interview, stating that “the fundamental approach in the directive remains sound, that the directive laid out a very responsible approach to the incorporation of autonomy and weapons systems.” While not making any firm predictions, Horowitz suggested that major revisions to DODD 3000.09 were unlikely.

#### Our military does not prioritize ethics in the deployment of AI.

Lawrence and Cordey, 2020 – researchers for The Cyber Project at the Belfer Center for Science and International Affairs [Christie and Sean, August, The Cyber Project Paper “The Case for Increased Transatlantic Cooperation on Artificial Intelligence Edited by Lauren Zabierek and Julia Voo https://www.belfercenter.org/sites/default/files/2020-08/TransatlanticAI.pdf Acc. 4/21/22 TA]

In recent months, Head of Global Governance, Regulation, Innovation and the Digital Economy at the Centre for European Policy Studies Andrea Renda pointed out that interests and political support for greater transatlantic coordination and collaboration on AI seems to be increasing. This is notably demonstrated by the visit in early 2020 of high-level officials on both sides of the Atlantic. The first, as already mentions in the Political collaboration section, was the visit in January from former Director of the JAIC Lt. Gen. Jack Shanahan and then CTO Nand Mulchandani to Brussels. During their visit to the NATO headquarters and with EU leaders, Lt. Gen. Shanahan underlined the need for greater collaboration for AI, particularly within NATO, in order to counter revisionist states such as China and Russia that promote digital authoritarianism. As Acting Director of the JAIC Nand Mulchandani mentioned, Lt. Gen. Shanahan also underscored the need for the US and Europe to rally around common values and not allow technicalities around ethics to block collaboration. 279 The second high level visit was by a delegation from the European Parliament’s Civil Liberties Committee, which visited Washington D.C and Boston in February 2020. The delegation held meetings with US Congressional members and representatives across the US Administration, including the DOS, DOJ, DHS, FTA, FBI, and PCLOB. The Members of the European Parliament (MEPs) also held meetings with representatives from industry, universities, think-tank, start-ups, and NGOs. The discussions centered on a variety of AI topics, ranging from potential future US federal legislation on personal data protection, the use of artificial intelligence in law enforcement, and the visa waiver program.280

#### NATO states have differing positions on responsible use for AI – the potential exists for agreement, but states are implementing their own policies.

Stanley-Lockman, 2021 - Center for Security and Emerging Technology [Zoe CSET Issue Brief August “Responsible and Ethical Military AI Allies and Allied Perspectives” https://cset.georgetown.edu/publication/responsible-and-ethical-military-ai/ Acc. 4/21/22 TA]

With more of a focus on norms and state responsibility, a broader definition of responsibility beyond the DOD “responsible AI” principle can also introduce new convergences for U.S. RAI implementation. The DOD RAI Strategy and Implementation Pathway recently tasked by Deputy Secretary Kathleen Hicks can incorporate these views and help allies refine their approaches to AI ethics in order to enable greater cooperation and allied AI adoption. This is because many allies see firm approaches to managing ethical risk as a prerequisite policy question before investing in AI-enabled capability development—including defensive systems and countermeasures. Overall, international engagement is mutually beneficial to responsible AI endeavors. The United States should look at how other countries are implementing their approaches, just as the United States can exert influence and maintain its leadership role in responsible and ethical AI for defense by helping its allies and partners form their own views in alignment with one another. Conclusion No single actor has a monopoly on the answers to implementing responsible AI in any high-risk area, let alone defense. Cooperation is therefore important to collectively navigate the difficulties of responsible governance of emerging technologies. For DOD, the focus has been predominantly on the transposition of safe and ethical AI principles into action. Rather than adopting principles for defense, some allies are moving straight into implementation. Thus far, this is borne out in tabletop exercises, outreach, ministerial committees, ethical reviews, education and certifications, exercises and trials, and defense programs of record. It is too early to judge these fledgling efforts, but tracking their evolution may prove useful to broader AI ethics implementation, be it for other defense ministries or even civilian actors. While jumping straight to implementation can mean a more pragmatic focus on tools, tracking how different AI stakeholders use those tools may be more difficult. In this way, principles can be seen as a helpful organizing force, as is the case for DOD. This said, the scale of the U.S. military bureaucracy and national security innovation base may require higher visibility relative to allied counterparts. Still, another key difference is precisely this visibility. The analysis here is based on information in the public domain, which may also partially explain its transatlantic tilt. The U.S. approach to responsible and ethical AI for defense also differs from other countries in that the consultation and process that led to its principles is far more transparent than is true for most allies. A possible Catch-22 could be at play here, with allies reticent to publicize approaches to such controversial issues, despite the fact that offering such inroads can build trust and confidence that governments are handling these high-stakes questions responsibly.

### 1AC - Plan

#### Plan: The United States federal government should substantially increase its security cooperation with the North Atlantic Treaty Organization on ethical principles to ensure human control in artificial intelligence systems.

### 1AC - Advantage – Cohesion

#### Advantage – NATO Cohesion

#### NATO does not have a coordinated position on the ethics of AI – this undermines military and political cohesion, which undermines NATO militarily.

Stanley-Lockman, 2021 - Center for Security and Emerging Technology [Zoe CSET Issue Brief August “Responsible and Ethical Military AI Allies and Allied Perspectives” https://cset.georgetown.edu/publication/responsible-and-ethical-military-ai/ Acc. 4/21/22 TA]

At the same time, significant differences in ethical approaches to AI in defense could imperil political cohesion and undermine coalition success. Politically, alignment on ethics is important because shared values are at the foundation of U.S. alliances.3 This also trickles down to the operational level, where differing views on ethics could mean that allies field their systems with different legal authorizations and rules of engagement.4 If coalition partners deem each others’ capabilities to be based on different legal, ethical, and doctrinal assumptions, then forces may not be able to communicate and operate together.5 Further, if different ethical bases for capability development mean that some countries have higher thresholds for what they develop and contribute to coalition operations, then others may perceive them as not equally sharing risks to life.6 As such, political cohesion and policy considerations about ethics could directly influence operational effectiveness. In other words, failure to align allied perspectives on AI ethics in defense will inevitably undermine the ability of allied forces to understand each other and work together.7

#### Diverse AI standards undermine military interoperability because it prevents different nations militaries from cooperating. NATO dialogue is key to coordinate ethical standards for military AI. Meaningful human control which respects human dignity is essential to political cohesion.

van der Merwe, 2021 - Fellow Center for European Policy Analysis Defense Tech Initiative [Joanna, Feb 17, “NATO Leadership on Ethical AI is Key to Future Interoperability” https://cepa.org/nato-leadership-on-ethical-ai-is-key-to-future-interoperability/ Acc 4/16/22 TA]

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.

#### The ethical use of AI is essential for political cohesion of the alliance because it is necessary to the Legitimacy of its military operations.

Trabucco and Stanley-Lockman, 2022 – prof of Political Science, University of Copenhagen and prof of Defense and Strategic Studies, Nanyang Technological University [Lena and Zoe, The Oxford Handbook of AI Governance, March, “NATO’s Role in Responsible AI Governance in Military Affairs” https://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780197579329.001.0001/oxfordhb-9780197579329-e-69 Acc 4/16/22 TA]

The political dimension of the Alliance rests on the bedrock of a shared commitment to the “principles of democracy, individual liberty and the rule of law,” as enshrined in the foundational North Atlantic Treaty of 1949.60 Shared values are important for NATO operations because they help constitute their legitimacy. In addition to the North Atlantic Council exerting civilian oversight over NATO operations, legitimacy also includes respect for international legal principles including the core principles of international humanitarian law, or the laws of armed conflict, distinction, proportionality, and necessity. Without political oversight and legitimacy, NATO’s military power would be less effective at shaping norms and promoting stability in the international system. The introduction of AI means that NATO has the moral and strategic imperative to adopt technologies that confer legitimacy and responsible innovation.61 Acting on a shared commitment to democratic values is vital to the political cohesion of the NATO Alliance, just as much as it is a determinant of military effectiveness in a predictable security environment. Put simply, shared values are important to both political and operational coherence between Allies. In its 2018 Framework for Future Alliance Operations, the strategic command Allied Command Transformation urged discussion of the legal and ethical dimensions of technological advancement to both know how it would impact NATO decision-making and how the Alliance would be prepared to address adversaries who do not share in that vision.62 As such, NATO is contending with the ways that ethical AI impacts its own cohesion internally and how differences between allies may project outward in the face of competitors whose ethical frameworks and commitment to the rule of law differ. Internally, there is a strong national government commitment to responsible AI. Recently, transatlantic cooperation has initiated partnerships of largely NATO states committed to advancing responsible AI with goals towards data sharing and future interoperability.63 AI defense partnerships are not restricted to military innovation but rather aim to facilitate civilian innovation cooperation for defense purposes.

#### Cohesion is essential for an effective alliance – AI poses the greatest threat to NATO interoperability and cohesion

Dufour 2018 - Colonel in the Canadian Army, currently working with NATO [Martin, NDC Policy Brief No. 6 December “Will artificial intelligence challenge NATO interoperability?” https://www.ndc.nato.int/news/news.php?icode=1239 Acc. 4/21/22 TA]

NATO has arguably been the most successful alliance of its kind, and much of this success can be attributed to its cohesion in the face of various threats. At the heart of this cohesion lie two important notions: burden sharing between members; and interoperability. The Alliance’s cohesion however has increasingly come under pressure over the last two decades, and there are growing challenges with the level of interoperability between member countries. While numerous technical and political factors influence interoperability, the emergence of disruptive technologies such as genetic engineering, nanotechnology, additive manufacturing and robotics, are likely to make this challenge more acute in the next two decades. Of the many technologies rapidly emerging, none is likely to have as significant an impact as that of artificial intelligence, which combines with other technologies and multiply their effect by allowing the development of advanced autonomous systems. And while the latter holds the promise of developing new classes of weapons with great military potential, its asymmetrical adoption among the various NATO allies could also lead to significant interoperability problems.

#### An effective NATO is essential to the long term peace of Europe

de Maizière and Mitchell, 2020 - Former German Defense Minister and former U.S. Assistant Secretary of State [Thomas and Wess, November 25, “NATO 2030: United for a New Era Analysis and Recommendations of the Reflection Group Appointed by the NATO Secretary General” https://www.nato.int/nato\_static\_fl2014/assets/pdf/2020/12/pdf/201201-Reflection-Group-Final-Report-Uni.pdf Acc. 4/12/22 TA]

Conclusion: The Reflection Process concludes at an important inflection point in world affairs and Euro-Atlantic relations, in which the future role of NATO is of growing importance to a stable and open international order. The effects of Covid-19 will echo through the decade ahead, exacerbating existing trends, potentially heightening international competition, and causing long-term scarring to the global economy. While the historical record suggests room for optimism about NATO’s long-term future, it also cautions against complacency and self-congratulation. Political adaption is in the lifeblood of NATO but it is also a baseline requirement of its survival. In 1949, twelve countries established the Alliance: binding post-War Europe to a Western trajectory and cementing the transatlantic bond. Seventy-one years on, twelve have become thirty, standing together to defend the security and prosperity of a billion people. Throughout this time, NATO has been through phases of renewal and reorientation, while always delivering its central mission and never deviating from its founding principles. Throughout, the Alliance has remained strong and resolute at each turn, always challenging itself to be the best it can be. This ability to respond, adapt, and renew its internal bonds has been NATO’s hallmark over the last seven decades. Throughout our consultations, there was a unanimous view that another such moment is upon the Alliance today. Since 2014, supported by the outstanding work of the Secretary General who was appointed that year, NATO has implemented the biggest reinforcement of collective defence in a generation. The Alliance now needs a process of political adaptation to match the progress made in the military sphere. The urgency of this effort is driven by an evolving security environment which has become more challenging and complex in recent years. Alongside the potent threat from Russia, China requires particular attention as its influence and presence grows. Terrorism in all its forms and manifestations remains an immediate threat. More space is being contested physically, as the line between peace and war continues to blur, with disinformation and subversion posing serious challenges to our democracies. Hybrid attacks need new thinking about deterrence and defence, driven in part by new and emerging technologies. Agreeing a shared response to these challenges has at times tested NATO unity, with Allies taking positions that reflect anxieties about their long-term strategic futures. No single Ally can address these challenges alone. So it is essential that all Allies recommit to the spirit as well as the letter of the Washington Treaty, reaffirm their political commitment to one another, sustain their commitment to democratic values, and glean the benefits that come from the projection of collective strength. As our report describes, NATO needs to enhance its ability to respond to both existing and new threats, from both state and non-state actors, increase its range of political tools to deter adversaries and defend the Alliance in the modern threat environment. The Alliance will maintain the capacity for continual adaptation to reflect changing strategic circumstances. 5 Conclusion In our recommendations, we have set out ways in which NATO could respond to emerging technology and hybrid attacks, including by working more effectively with partners. A balance also needs to be found between the vital contribution North America continues to make to the security of Europe, and the increasing share of the burden which European Allies themselves will be taking in the years ahead. This should come together under a new Strategic Concept, which recognises the progress made and the new challenges since 2010; and equips the Alliance to deal with those to come. In the face of attempts to divide, competing priorities, criticism and intense scrutiny, Allies need to retain their confidence in the durability and vitality of the Alliance, manage differences, rise above disagreements and close their ranks against threats affecting them, as they have for more than seventy years. The peace that most of Europe has enjoyed for the last seven decades is a historical exception, not the rule. NATO remains the guardian of that precious asset. As we submit our recommendations, we have every confidence that NATO will move from reflection to further action, so that it can continue to be the cornerstone of Allies’ collective defence and for the preservation of peace and security for decades to come.

#### The Ukraine conflict could escalate to a global great power war. A cohesive and unified NATO is essential to contain the conflict – disunity will be seen as weakness by Moscow.

Graham, 2022 – Fellow at the Center for Preventive Action and Europe Program at the Council on Foreign Relations [Thomas, March 8 Contingency Planning Memorandum No. 38 “Preventing a Wider European Conflict” [https://www.cfr.org/report/preventing-wider-european-conflict Acc 6/11/22](https://www.cfr.org/report/preventing-wider-european-conflict%20Acc%206/11/22) TA]

The large-scale Russian invasion of Ukraine now underway could quite plausibly precipitate a wider conflict in Europe. The United States is focused primarily on raising the costs to Russia with punishing sanctions and reassuring North Atlantic Treaty Organization (NATO) allies neighboring Russia of its commitment to collective defense. Less attention has been given to containing the war to Ukraine and preventing its escalation into a broader European conflict. The stakes are enormous. The ripple effects of a wider conflict in Europe would spread across the globe, stressing the geopolitical, economic, and institutional foundations of the international order the United States has fashioned and underwritten since the end of the Second World War. It would test the resilience of the U.S. global system of alliances, the international financial system, global energy markets, arms control regimes, and global institutions in the face of ever more violent great power competition. No region of the world would be spared, although developments on the Eurasian supercontinent, the other locus of world power and economic might outside North America, would bear the gravest consequences for U.S. interests. NATO (North Atlantic Treaty Organization) The Russian military intervention in Ukraine could easily escalate into a larger conflict stretching from the Baltic to the Black Sea and further west into Europe. Although Russia, wielding massive military superiority, might overrun Ukrainian forces in a matter of weeks, stabilizing and pacifying the country will likely prove to be a grueling and costly affair. A significant Ukrainian resistance movement is almost certain to emerge. With sustained Western support, it could prolong the warfare for months, if not years. The first wave of sanctions that Washington has levied on Moscow could be followed by others in a continuing effort to raise the cost to Moscow and force it to yield. A negotiated end to the conflict will not come easily, since Washington has framed it in Manichean terms as a world historical struggle between the democratic West and the aggressive, malevolent, and autocratic Russia. Anything short of “victory” will be decried as surrender or appeasement in the West, while Russia will not capitulate on a matter it considers vital to its security and prosperity. The stage is thus set for an escalating cycle of violence, with Moscow seeking to stamp out a Ukrainian insurgency and retaliate against Western efforts to stop Russia’s advance. If the conflict wears on, Moscow could be increasingly tempted to expand its military operations further into Europe to achieve its goals. As a first option, Russia could intensify pressure on states neighboring Ukraine (e.g., Hungary, Poland, Romania, and Slovakia) that could provide safe havens for insurgents or the inevitable government-in-exile. It will doubtless reinforce its military presence in Kaliningrad and elsewhere in the Baltics and patrol the Baltic Sea more aggressively. It could deploy hybrid-war tactics—cyberattacks, disinformation campaigns, and economic sabotage—to destabilize countries providing safe havens. If those actions did not sufficiently degrade the resistance, Moscow could even launch direct attacks on insurgents and their supporters outside Ukraine, as well as attempt to assassinate leading figures in the government-in-exile, akin to the attacks it has made on Chechen rebels and Federal Security Service (FSB) defectors in Europe in recent years. Such steps could, at a minimum, draw frontline NATO states directly into the military conflict with Russia, obligating the United States and other allies to come to their defense. To build up further pressure, Moscow could also “weaponize” the inevitable refugee flows into neighboring states. Refugees, who would likely number in the millions, would move first into unoccupied Ukrainian territory but eventually into adjacent European states, which have shown little tolerance for outsiders. Moscow could use harsh military and police tactics that would increase the number of refugees and seek to guide them into countries where they would create the greatest socioeconomic stress, such as Moldova. In addition, Moscow could increase the tension by pushing Belarusian President Aleksandr Lukashenko to again seek to push thousands of Middle Eastern migrants across the borders into Poland and Lithuania. That could lead to border clashes, as it almost did on occasion last fall, with Russia supporting its ally, Belarus, and NATO states coming to the defense of allies under attack. A second option Moscow could pursue is opening up a second front in the Balkans. In recent years, Russia has taken a number of destabilizing actions in the region, seeking to weaken Montenegro after its accession to NATO, exacerbate tensions between Serbs and Bosniaks in Bosnia-Herzegovina, and undermine relations between Serbia and Kosovo. As it fought in Ukraine, Russia could encourage Republika Srpska leader Milorad Dodik to press for separation from Bosnia, threatening to reignite the bitter wars of the 1990s in the former Yugoslavia. A Balkans war would complicate the security calculus of all countries in the region, as well as that of Germany and France, which have significant interests there. To quell the fighting, NATO countries could decide to use military force against Bosnian Serb forces enjoying Russian support. If the conflict wears on, Moscow could be increasingly tempted to expand its military operations further into Europe to achieve its goals. A third, riskier, option would be to directly attack the United States, the country that Moscow believes is orchestrating a larger anti-Russia campaign. In response to Western sanctions designed to crater Russia’s financial system and undermine critical industries, Moscow could launch major cyberattacks against U.S. critical infrastructure. If a cyberattack were to take down a major financial institution or corrupt its records, the ensuing havoc in U.S. markets could prompt overwhelming public and congressional pressure for a forceful response. The U.S. and NATO response to Russian actions will impact Moscow’s decisions on the conduct of the conflict. Both a weak response and an excessively harsh one could lead to escalation. In the first case, Moscow could be tempted to press militarily even further into Europe to enlarge its sphere of influence. Vladimir Putin has demanded that NATO withdraw its forces back to the lines they held in 1997, when the NATO-Russia Founding Act was signed and the first wave of post−Cold War expansion remained in the future. His remarks announcing the start of hostilities against Ukraine hinted at a broader effort to restore Russia’s control over all of the former Soviet Union. That could include military action against the Baltic states, especially Lithuania, through which Moscow could try to carve out a land corridor to Kaliningrad, a Russian exclave on the Baltic Sea. NATO would have little choice but to provide military aid to those states if it did not want to forfeit its role as the central pillar of European security. Crippling sanctions, meanwhile, could provoke Putin to lash out with greater violence. If Putin felt cornered, he could escalate the conflict either horizontally to other countries or vertically to the nuclear level in a desperate effort to save himself, his regime, and, in his mind, Russia itself. And he could find considerable public support for such a reaction. Already, some Russians believe that U.S. and EU sanctions are aimed not simply at the leaders behind the war but, by cratering the economy, at all Russians. Warning Indicators As is the case with the current crisis in Ukraine, Moscow’s intentions will remain ambiguous. The indicators of an approaching escalation in the conflict beyond Ukraine are likely to fall into three categories. The first indicators that political and military conditions are increasing the risk of broader conflict include a breakdown in channels of communication with Moscow. The absence of active diplomatic ties would preclude a negotiated resolution of the conflict in Ukraine. An end to U.S.-Russian military-to-military channels would undermine any effort to avoid direct military conflict between the two countries. Another indicator would be major insurgent successes that dramatically increase Russian casualties. Moscow would be tempted to move more aggressively against insurgent safe havens rather than capitulate on what it considers to be its vital interest in Ukraine. A wider European conflict would pose the stiffest challenge to the global standing of the United States since the end of the Cold War and to the international system it has built and underwritten for decades longer. Second are the indicators that Moscow is preparing for a broader conflict, which it would undoubtedly argue had been forced by Western actions. Such signs include Kremlin efforts to prepare the Russian public for a wider conflict, which could entail official statements, greater media focus on escalating Western “aggression,” an increased pace of civil defense drills, and mobilization of reserves. Another indicator includes the massing of Russian forces in the Baltic region. It could include such moves as aggressive hybrid actions to destabilize Poland and the Baltic states, coupled with efforts to rally indigenous ethnic Russian communities against their governments. Third are the indicators that Moscow is intentionally seeking to widen the conflict. This could include greater support for Bosnian Serb leader Dodik, such as diplomatic and financial backing, and provision of weapons. They could also encourage Serb leaders to more assertively pursue their grievances against Kosovo. Implications for the United States A wider European conflict would pose the stiffest challenge to the global standing of the United States since the end of the Cold War and to the international system it has built and underwritten for decades longer. It would test the durability of its global system of alliances and the efficacy of international regimes and institutions that have guarded world peace, security, and prosperity. The challenge would come at a time when the United States itself is in immense disarray, as a deeply polarized polity confronts massive domestic problems—the pandemic, inflation, racial justice, and cultural wars—that leave less time and fewer resources for foreign matters. The United States will be tested to see whether it can muster the will, energy, and creativity to execute an effective policy toward the unfolding crisis in Europe. At home, public attention has been focused on developments in and around Ukraine, but the Joe Biden administration cannot ignore the home front. In response to U.S.-levied sanctions, Russia can be expected to step up its cyber operations against the United States. It will more actively sow disinformation, seek to exacerbate domestic tensions, and paralyze critical infrastructure. The severity of the attacks will likely rise in proportion to the harshness of the sanctions Washington levies on Moscow. Abroad, the fate of the transatlantic community, a central pillar of U.S. security and prosperity, would be a stake. One of the Biden administration’s priorities, as laid out in the Interim National Security Strategy Guidance released in March 2021, is repairing U.S. alliances—especially with Europe—after four disruptive years under President Donald Trump. Although relations are more cordial, significant substantive differences remain and the willingness of allies to align behind a common purpose for the long haul remains questionable. The United States’ allies have rallied behind a harsh set of sanctions in response to Russia’s invasion of Ukraine, but preserving unity as the conflict drags on remains a challenge, especially if sacrifice is spread unevenly across NATO, as will most likely be the case. Putin will seek to exploit divisions through differentiated levels of pressure on NATO members, targeted energy cutoffs, offers of negotiation, and the like to advance two long-standing Russian goals: the end of NATO as a collective defense organization and the erosion of the foundations of the EU. Should he succeed, the new order that would emerge in Europe is far from certain. But Russia would undoubtedly play a central role in its formulation, and almost any conceivable new order would diminish the power and role of the United States on the continent. A similar situation obtains in the Indo-Pacific region. The Biden administration spent 2021 bolstering relations with its allies and partners—energizing the Quad (the United States, Australia, India, and Japan), and cutting a submarine deal with the United Kingdom and Australia—to meet the growing strategic challenge posed by China. A major, prolonged European distraction could undo further efforts to pivot to Asia, raise doubts among allies and partners about the credibility of the U.S. commitment, and free China to pursue its objectives with greater vigor. The United States could avoid this outcome by pursuing lesser goals in Europe—leading to the quicker development of a new order less favorable to American interests—or by a massive buildup of its military capabilities that would enable it to play a major, perhaps decisive, role in both regions. The latter would have to come at the cost of the Biden administration’s domestic priorities. Whether the Biden administration could muster sufficient domestic political support, if it decided to move in this direction, is far from certain. The United States’ allies have rallied behind a harsh set of sanctions in response to Russia’s invasion of Ukraine, but preserving unity as the conflict drags on remains a challenge, especially if sacrifice is spread unevenly across NATO. In addition to regional challenges, a major European conflict would also stress critical international regimes and institutions. One of the first victims would likely be the arms control regime that has served as the foundation of strategic nuclear stability for the past fifty-plus years. The United States withdrew from some central elements—including the Anti-Ballistic Missiles (ABM) and the Intermediate-Range Nuclear Forces (INF) treaties—but two critical elements have remained in place: the New START treaty and the Nonproliferation Treaty (NPT). A wider conflict in Europe would all but guarantee that the United States and Russia could not agree to a follow-on treaty to the New START treaty before it expires in 2026, and the NPT review conference tentatively scheduled for August 2022 would fall by the wayside. As a consequence, the incipient arms race now underway, fueled by new technologies—hypersonics, cyber tools, and artificial intelligence—would accelerate. A new wave of nuclear proliferation could ensue, especially if U.S. allies and partners lose faith in America’s commitment to extended deterrence. Mutually assured destruction, which for better or worse has anchored strategic stability since the early 1970s, would be severely stressed in a multipolar nuclear landscape with Russia and the United States fighting at least a proxy war. Likewise, a broader conflict in Europe would stress, perhaps to the breaking point, the United Nations and many of its auxiliary organizations. Already stymied by a growing rift between the Western permanent members and Russia and China, the Security Council would have failed in its primary reason for being—to prevent the outbreak of a major conflict in Europe. It could continue to exist as a forum for the airing of grievances and acrimonious debate, but it would serve little purpose as a platform for addressing major global issues. Finally, the humanitarian costs of a wider conflict in Europe would be staggering, particularly given the destructiveness of modern weapons. Beyond the physical destruction and loss of life, untold numbers of refugees would flow across borders not only into Central East Europe but perhaps further West depending on the scale of the fighting. The strain on the socioeconomic systems—coming on top of the stress of the two-year-old pandemic, economic dislocation, and mounting inflation—could bring some close to collapse. Preventive Options U.S. policy toward Russia has traditionally been a combination of deterrence and diplomacy. The Biden administration deployed both as it tried to dissuade Russia from invading Ukraine. Both have a role to play in reducing the risk of a wider European conflict, now that Russia has invaded. Many of the steps that the Biden administration is now taking to counter Russia could be accelerated and expanded to deter it from expanding its military operations beyond that country. They would likely prove more effective due to NATO’s Article 5 collective defense guarantee, which does not apply to Ukraine. The Biden administration could: With its NATO allies, accelerate and expand its current augmentation of forces in vulnerable allies along the frontier with Russia to reassure them—and convince Moscow—of the alliance’s commitment to collective defense. Step up its already intensive schedule of consultations with allies to maintain alliance unity in the face of a burgeoning Russian threat. Develop a long-term plan to reduce Europe’s dependence on imported Russian gas, building on the stopgap measures it is already putting in place to deal with a near-term decision by Moscow to stop flows of gas westward. Consider cutting off energy imports from Russia, and asking the Europeans to do the same, but only after it has prepared the American public for the economic hardship (rising energy costs, inflation) such a step would entail. Accelerate efforts to harden American and allied critical infrastructure against cyber intrusions. The Biden administration could also resume its diplomatic efforts to find a negotiated solution. To that end, it could: Resist the temptation to cut off channels of communication, as past administrations have done in reaction to Russian aggression. White House−to-Kremlin and military-to-military channels will be critical to reducing misunderstandings that could lead to direct military confrontation between the two countries. In addition, a White House−to-Kremlin link could provide a platform for negotiating an end to the conflict before it spreads beyond Ukraine. Carefully recalibrate its rhetoric to ensure that the confrontation does not turn into an existential one, where victory, whatever that might mean, is the only acceptable outcome. Such a posture would ignore the reality that Russia is unlikely to capitulate in a matter of vital interest—and would escalate rather than surrender. Talk of regime change and possible war crimes charges would probably prove counterproductive and fuel public support for escalation, especially at a moment when polls suggest the war effort enjoys the backing of the vast majority of the Russian population. Avoid appearances that the United States and NATO are waging a conflict against the Russian people. Releasing constructive proposals for resolving the conflict (including provisions for the lifting of sanctions), and urging the Ukrainians to publish reasonable negotiating terms, would be more likely than bellicose warnings to turn the Russian elites and public against the war. Russians need to be persuaded that the United States and Europe are not seeking a punitive peace but are open to a renewal of relations should their country act to end the conflict. Accelerate efforts to get information to the Russian people that would give them a more accurate portrayal of the brutal, unnecessary conflict their leaders are waging allegedly on their behalf. Students and young professionals would be particularly receptive to such information and inclined to protest. The mitigating options identified below, with the exception of invoking Article 5, could also be taken now to induce Russia to de-escalate and withdraw from Ukraine and to prevent it from expanding its military operations beyond Ukraine. Mitigating Options Should the conflict spread beyond Ukraine despite U.S. efforts, the task will be to bring it to an end on terms favorable to the United States as quickly as possible. Washington could consider diplomatic initiatives, defensive steps, and sanctions. Diplomatically, Washington could invoke Article 5 of the North Atlantic Treaty to make clear NATO’s determination to come to the aid of members under Russian attack. It could call for an urgent session of the UN Security Council to focus on the threat posed by Russia to international peace and security. The debate would doubtlessly be acrimonious, but the United States needs to make a concerted effort to shape public opinion and isolate Russia as the aggressor. Washington could also propose a P5 (the five permanent members of the UN Security Council: the United States, China, France, Russia, and the United Kingdom) meeting to discuss steps to reduce the risk of nuclear war. To avoid turning this into a two-bloc standoff between Russia and China and the Western powers, India could be added to the discussion. But New Delhi could resist being drawn into an East-West conflict, as it has in the past. The Biden administration should take care not to provoke severe Russian retaliation or produce spillover effects that cause undue harm to its or its allies’ interests. With regard to defensive measures, Washington could enlarge NATO de facto to coordinate strategy and tactics with Sweden and Finland, with an eye to their de jure membership in the near future. It could also send a small NATO contingent to the Balkans (Albania, Croatia, Montenegro, and North Macedonia) to warn Serbia and Republika Srpska against aggressive actions against Kosovo and Bosnia-Herzegovina. Concerning sanctions, Washington could build on the sanctions it had already levied to raise the costs further. However, the Biden administration should take care not to provoke severe Russian retaliation or produce spillover effects that cause undue harm to its or its allies’ interests. Recommendations The Biden administration is already taking steps to prevent the spread of conflict in Europe and harden the resilience of allies and partners in the face of Russia’s invasion of Ukraine: further augmentation of NATO forces, including a greater presence of American troops and equipment, along the entire Russia/NATO frontier stretching from the Baltic to the Black Sea; frequent consultations with allies and partners; steps to handle the large-scale exodus of refugees from Ukraine; organization of fuel shipments to Europe from various sources to cover gaps in the event of a Russian cutoff of gas exports; measures to harden U.S. and allied computer networks against attacks. The task is to turn those expedient measures into strategies to fortify the transatlantic community against a prolonged threat from the East, which Russia will continue to pose even if the current crisis is somehow defused in the near future. In particular, the United States needs to work with its European allies to drastically reduce Europe’s dependence on Russian gas. The goal should be to cut that dependence in half by the end of the decade by fully using the regasification facilities in place, building more, and accelerating work on renewables. In addition, even as the United States and European Union are dealing with the war in Ukraine, they need to recommit themselves to sorting out the continuing problems in Bosnia-Herzegovina and between Serbia and Kosovo to reduce the opportunities for destabilizing Russian interference in the Balkans. Finally, to ease the burden on states bordering Ukraine, the United States should be working with the UNHCR and its allies to develop plans for the long-term resettlement of Ukrainian refugees throughout Europe in case of a long period of instability in Ukraine. The United States should confront the urgent crisis in Europe without unduly sacrificing focus on the strategic challenge in the Indo-Pacific. All these steps, however, do not go far enough to deal with the enduring Russia challenge. The Biden administration needs to do more, ideally as part of a larger effort to reposition the United States strategically on the global stage. Critically, the United States should confront the urgent crisis in Europe without unduly sacrificing focus on the strategic challenge in the Indo-Pacific, and to prepare for a major change in the geopolitics of the Eurasian supercontinent. A tall order but not an impossible task. There are three core elements to this task: rethinking NATO, enhancing the U.S. presence in the Indo-Pacific, and creating a security forum to enhance allies’ support for U.S. policy across Eurasia. Rethinking NATO. The strategic goal should be the achievement of a near perfect overlap in NATO and EU membership among European states. That would provide the foundation for the development of a united European pillar inside NATO, in a sense resolving the tension between NATO and the EU (if not necessarily between the United States and Europe). The European pillar would assume ever greater responsibility for the defense of the continent, backed up by the American strategic deterrent, thus freeing up American forces to deal with the growing challenges in the Indo-Pacific region. The alliance’s new strategic concept, to be adopted at the Madrid Summit this coming June, provides an opportunity to articulate this goal, as well as to lay out the full breadth and enduring nature of the Russia challenge. The United States should consider pressing for the following steps: Fortify NATO’s eastern border. The alliance should abandon the pledge of the 1997 NATO-Russia Founding Act not to deploy permanent substantial combat forces to new members. It should augment its forces in vulnerable member states, as long as there is no agreement between NATO and Russia to mutually restrict force levels in border zones. Prepare for the eventual membership of Finland and Sweden to reinforce the northern flank. In the face of Russian conduct, the populations of these two countries are reconsidering their long-standing traditions of neutrality. While staying out of the domestic debate, the United States and other allies should indicate that they would welcome the two countries into the alliance and articulate clearly the changing nature of the security environment in the Baltic region brought on by a more aggressive Russia. Repair relations with Turkey. This is a matter primarily for the United States, which has levied sanctions on its ally for its purchase of S-400s, an advanced Russian air defense system. The United States could take a first step by approving the sale to Turkey of the F-16s it has requested. Washington should also look for an opportunity amidst deteriorating relations with Moscow to persuade Ankara to reconsider its purchase of S-400s. Forego expansion into the former Soviet space for an extended period. No one believes that any former Soviet state will be ready for membership for years to come. Without necessarily abandoning the Open Door policy, the alliance should make clear that it will not expand eastward while it focuses on its own consolidation.

#### Ethical principles for AI improve NATO interoperability – cooperation is essential because it builds on ethical bonds.

Gilli, 2020 - Senior Researcher at the NATO Defense College [Andrea, NDC Research Paper No.15 – December ““NATO-Mation”: Strategies for Leading in the Age of Artificial Intelligence” https://www.ndc.nato.int/news/news.php?icode=1514 Acc 4/21/22 TA]

Artificial Intelligence, machine learning and big data represent some, but not the only, instances of technological progress. In contrast to other realms of technology, however, artificial intelligence bodes far-reaching ramifications across all areas of society, the economy, and the military, on account of its ubiquitous nature that enables pervasive diffusion. When major technological changes occur, governments usually step in to update regulations or introduce ethical rules to help align incentives among different actors. Some measures include providing key complementary goods and services, which the market may otherwise undersupply. Governments also draw strategic directions. The Atlantic Alliance is encountering a major challenge; but is also standing before a potent opportunity to shape the future security environment, thereby preserving the freedom and well-being of its Allies’ citizens, and maintaining its technological leadership. One possible way forward consists of pursuing the NATO-mation agenda described in this report: a set of individual and collective initiatives, joint solutions and coordinated actions spanning across several fields and domains and at different levels. This Research Paper has highlighted 11 different areas where action is possible and desirable. Challenges, dynamics, actors and constraints differ in each area, but NATO can play a significant role as both as initiator and as coordinator. In the ethics domain, NATO has an interest in upholding its founding values. Innovation-wise, there is a strong rationale for the Alliance to identify or even create an internal actor to champion AI as well as to help Allies generate an innovative workforce and pioneer more modern work environments. Change, however, is difficult. Innovation, if history has any lesson to spare, is even more difficult. Launching pilot projects can help subdue scepticism and temper the understandably reluctant attitude of some, all the while fostering greater familiarity with new technologies. While the transformation we are observing is technology-driven, its main repercussions will be on human beings, their ideas, their norms and their organizations. In addition to ushering in an innovative workplace and an innovative workforce, experimentation will be necessary to accept, understand and improve novel technologies, as well as to steer their evolution to fulfil ethical considerations, alongside tactical, operational and strategic necessities. Traditionally, NATO has played a significant part in this respect and, if anything, should continue and probably expand this role further. NATO Allies have, however, a broader opportunity to shape the evolution of AI-related technologies both through increasing R&D spending and through targeted investments. The bulk of AI research is driven by the private sector. Most observers worry that this has deprived military establishments of the control over new technologies. Private-sector driven research, at least in the realm of AI, has several drawbacks, including a short-term and narrow focus, and a reliance on economically, technologically and environmentally unsustainable solutions. There is a role for NATO-wide coordinated public action and investments, and eventual concertation with the European Union, in tackling these issues. Similarly, Allies will soon have to contemplate and prepare for the infrastructures on which AI systems will run: quantum and cloud computing as well as 5G networks warrant closer scrutiny. Whether NATO should provide cloud computing the way it does through AWACS aircraft, airspace management, is however, another issue. Historically, NATO has delivered collective defence with a strong attention to arms control. Whilst not an easy endeavour with immediate payoffs, the Alliance can contribute to ongoing debates on how to reach the goal of preserving international stability. NATO armed forces, combined, are more than the sum of the single parts: this is attributable to interoperability. In the NATO context, standardization plays a critical role: coordination among Allies is important, both within the Alliance and without, such as in Standards Development Organizations (SDOs). The Atlantic Alliance won the Cold War and overcame the challenges it faced in the ensuing decades because of the bonds among the Allies. Such bonds are not primarily political, military or diplomatic: they are cultural, ideological and ethical, and are based on the founding principles on which the Alliance was built. Democracy, rule of law, human rights, and free markets have guaranteed the longevity of transatlantic relations. AI technologies, through deep-fakes, may undermine those values. This is an insidious challenge which, however, may also one day prove existential. This is why NATO must be poised to play a key role in this technological realm.

#### Ethical principles for AI increase political support for NATO by calming public fears.

Valášek, 2017 - director of Carnegie Europe [Tomáš August 31, “How Artificial Intelligence Could Disrupt Alliances” https://carnegieeurope.eu/strategiceurope/72966 Acc 4/22/22 TA]

This dilemma is not new. Even today, capitals delegate certain decisions to commanders and assume the political risk if an operation goes badly. But in such cases, responsibility can be drawn after the fact and the guilty can be punished—there is no such recourse with AI. Also, while publics understand and make allowances for human fallibility, they feel uncomfortable about machine-made mistakes. This puts democracies at a distinct disadvantage. Undemocratic governments that are unconcerned about public reaction will have fewer qualms about removing humans from the loop. This strengthens the case for a broad international agreement on offensive military uses of AI, to reassure potentially anxious publics and, ideally, prevent the most egregious applications of artificial intelligence in warfare. In short, it is time to put AI more prominently on NATO’s and the EU’s agenda.

#### Public Support is crucial for cohesion and interoperability – it builds solutions to burden sharing problems and attracts a tech workforce.

Lin-Greenberg, 2020 - member of the MIT Security Studies Program [Erik Vol 3, Iss 2 Spring, Texas National Security Review “Allies and Artificial Intelligence: Obstacles to Operations and Decision-Making” http://dx.doi.org/10.26153/tsw/8866 Acc 4/22/22 TA]

Even if a state has the resources to develop AI capabilities, limited public support for AI-enabled military systems can hamper such efforts. Opposition can stem from the uncertainty surrounding AI’s functionality, or from moral and ethical objections to delegating decisions on the use of force to computers. One recent cross-national survey, for instance, finds significant public disapproval of the use of lethal autonomous weapons among key U.S. allies. To be sure, autonomous weapons and AI are distinct, but AI is incorporated into the software architecture of most autonomous systems, and pundits and the public often conflate the two.57 In South Korea and Germany, 74 and 72 percent of the local populations, respectively, oppose their use (compared to 52 percent opposition among the U.S. public).58 These two countries are close U.S. allies that host dozens of U.S. military installations and over 60,000 American troops.59 Tepid public support at home and abroad can stymie alliance military operations in two ways. First, public opposition to the use of AI among allied populations may lead policymakers to restrict the use of AI-enabled technologies for military operations. In the event of future hostilities, for example, the South Korean or German governments might oppose an ally’s use of AI-enabled lethal weapon systems on their territory.60 Indeed, advocacy from the public and activist groups has led a growing number of states — including U.S. allies like Pakistan and Jordan — to call for bans on the use of lethal autonomous weapon systems.61 Second, civilian engineers and researchers that develop AI technology may refuse to work on military AI contracts. Disruptions to AI development can hinder the fielding of new capabilities and generate mistrust between the government and civilian firms. Google employees, for instance, protested their involvement in Project Maven, a Defense Department program that uses AI to analyze video collected by military drones.62 In a letter to their CEO, the employees argued that “Google should not be in the business of war,” explaining that the company should not “outsource the moral responsibility of [its] technologies to third parties,” and that work on Defense Department-backed AI would “irreparably damage Google’s brand.”63 The resistance ultimately led Google to terminate its involvement in the contract and generated public criticism of the Defense Department’s AI efforts.64

### 1AC - Advantage - Crisis Instability

#### Advantage – Crisis Instability

#### Europe faces a future of crises that require NATO to adapt. Disruptive technologies will exacerbate these crises.

de Maizière and Mitchell, 2020 - Former German Defense Minister and former U.S. Assistant Secretary of State [Thomas and Wess, November 25, “NATO 2030: United for a New Era Analysis and Recommendations of the Reflection Group Appointed by the NATO Secretary General” https://www.nato.int/nato\_static\_fl2014/assets/pdf/2020/12/pdf/201201-Reflection-Group-Final-Report-Uni.pdf Acc. 4/12/22 TA]

2 Introduction and Main Findings “NATO stands as history’s most successful alliance.” NATO enters the eighth decade of its existence with both a longer record of success and a wider assortment of looming challenges than its founders could have foreseen when they signed the Washington Treaty in April 1949. In the thirty years since the collapse of the Soviet threat that called NATO into existence, the Western Alliance has defied innumerable predictions of its imminent demise. It ended two wars and ethnic cleansing in the Western Balkans, extended the hand of partnership to Russia and other former adversaries, stepped up to the threat of terrorism directed against NATO territory, engaged abroad including in Afghanistan, and responded with clarity, unity, and resolve to the threat posed by Russian aggression in the Euro-Atlantic region. Today, NATO stands as history’s most successful alliance, encompassing nearly a billion people and half of global GDP across a space that stretches from the Pacific coast of North America to the Black Sea. Yet, future uncertainties demand that NATO continues to adapt. The world of the next ten years will be very different than the world that the Alliance inhabited either during the Cold War or the decades that immediately followed. It will be a world of competing great powers, in which assertive authoritarian states with revisionist foreign policy agendas seek to expand their power and influence, and in which NATO Allies will once again face a systemic challenge cutting across the domains of security and economics. Well-known threats like terrorism, in all its forms and manifestations will persist, even as new risks loom from pandemics and climate change, and as emerging and disruptive technologies (EDTs) present both dangers and opportunities for the Alliance. Against this changing backdrop, NATO has experienced internal strains. Recent years have seen Allies engaged in disputes that partly reflect anxieties about their long-term strategic futures. Some Europeans worry that the United States is turning inward—or that its commitment to their continent will diminish as it increases focus on the Indo-Pacific. Some Americans worry that Europeans will shirk their responsibilities for the common defence – or even pursue a path of autonomy in a way that splinters the Alliance. Inside NATO, societal divisions have arisen and representative democracy is being challenged. In many ways, the Alliance could be said to be formidable in military strength; but it is far from invulnerable to such political turbulence. In spite of these challenges, NATO remains indispensable. In fact, the fundamental purpose of NATO is more demonstrably clear today than it has been for decades. NATO has weathered stormy times before, surviving the Soviet threat, the Suez Crisis, divisions among Allies over the Vietnam war, dictatorships in its own ranks, the Euromissile debates, disagreements over enlargement, and the Iraq War—just to name a few. Now, as then, Allies have remained bound together by a combination of shared principles, democratic institutions, and the benefit that all Allies derive from collective security. Looking out to 2030, the need for a collective defence Alliance to protect Europe and North America against threats to their physical security and democratic way of life is as strong as ever. A Strategic Anchor in Uncertain Times “The fundamental purpose of NATO is more demonstrably clear today than it has been for decades.” 6 Yet NATO will have to continue to adapt. In a world of systemic challengers and proliferating threats, the Alliance, in complementarity with the comprehensive military adaptation it has undergone, must cement its ability to act as the principal political forum for the strategic and geopolitical challenges facing the transatlantic community. Fulfilling this role will require even greater cohesion than NATO has possessed in recent years. As it has since NATO’s founding, cohesion resides in the ability and will to act collectively against shared threats. This is the lifeblood that ensures the vitality, credibility, and durability of the Alliance; it becomes all the more important in a sharpened competitive environment that requires collaboration and effective networks to deal with growing threats. In recent years, Allies have strengthened the military component of NATO and should continue to do so. But in parallel, they must move decisively to bolster the political dimension of NATO, including its foundations of shared democratic principles, mechanisms of consultation, processes of decision-making, and political tools for responding to current and emerging threats. If they do so, NATO will be in a strong position to protect the freedom and security of its members and act as an essential pillar of an open and stable international order.

#### A lack of human control increases crisis instability and escalation risks – recent wargaming simulations prove that the threat is already here.

Sauer, 2021 - Senior Research Fellow at Bundeswehr University [Frank serves on the International Panel on the Regulation of Autonomous Weapons IRRC No. 913 March “Stepping back from the brink: Why multilateral regulation of autonomy in weapons systems is difficult, yet imperative and feasible” https://international-review.icrc.org/articles/stepping-back-from-brink-regulation-of-autonomous-weapons-systems-913 Acc 4/5/22 TA]

Escalation risks and crisis instability Weapons systems operating without human control generate not only new vulnerabilities but also unpredictability due to unforeseeable interactions with their environment, in turn creating new risks of unintended, unwanted escalation.66 In that regard, the interaction between two or more autonomous systems is to be considered in particular. High-frequency trading67 provides a useful analogue, because unforeseen and unwanted interaction processes between two or more autonomously operating trading algorithms occur on a regular basis, sometimes causing so-called “flash crashes” and resulting in financial losses. This can be remedied with regulation of the financial market to an extent, but without internationally binding regulation of autonomy on the battlefield, unforeseeable interactions of LAWS might end in unintended use of force at machine speed, even accidental war before humans can intervene.68 This risk is not in some distant future. At the Dubai Airshow in 2019, the chief of staff of the US Air Force, General David Goldfein, presented the simulated engagement of an enemy navy vessel with a next-to-fully automated kill chain. The vessel was first picked up by a satellite, then target data was relayed to airborne surveillance as well as command and control assets. A US Navy destroyer was then tasked with firing a missile, the only remaining point at which this targeting cycle involved a human decision, with the rest of the “kill chain … completed machine to machine, at the speed of light”.69 Any machine error in such a system would, if left uncorrected by a human due to automation bias, propagate quickly. It stands to reason that the error would propagate “at the speed of light” as well, were the human to be removed. A recent wargaming exercise conducted by the RAND Corporation underlines the risks of crisis instability and unintended escalation; in this exercise, simulated forces were set “on ‘full auto’ to signal resolve …[,] in one case lead[ing] to inadvertent escalation. Systems set to autonomous mode reacted with force to an unanticipated situation in which the humans did not intend to use force.”70

**A lack of human control threatens to escalate crises into wars due to the speed of conflicts, the gap between human and AI solutions, and the pressure for pre-delegation**

**Vestner, 2021 - Head of Security and Law Programme at Geneva Centre for Security Policy** [Tobias, July 8 “Warfare and Artificial Intelligence” in Robin Geiß and Henning Lahmann (eds), Research Handbook on Warfare and Artificial Intelligence -forthcoming https://www.gcsp.ch/publications/military-operations-and-artificial-intelligenceGCSP Acc 5/27/22 TA]

Most importantly for military strategy, AI applications may assist decision-makers to monitor the battlefield and develop scenarios. Indeed, AI could be developed to predict the behaviour and reactions of foreign countries or generate simulations of the progression of ongoing conflicts.32 AI may also be useful to assess threats, provide risk analyses, and suggest courses of action, ultimately guiding decision-makers on the best response to take.33 In addition, AI may support the alignment of the armed forces’ ways and means with the given political and strategic objectives - a major function of military strategy. A consequence of such developments would be an increased speed and quality of military processes. While this would provide significant advantages to those states with the most performant AI,34 this may also pressure armed forces to increasingly delegate the orchestration of military operations to AI systems.35 Indeed, the use of AI for military strategy may also lead to challenges. Reliable AI systems would need to be trained with vast data sets.36 Furthermore, it has been warned that AI may exacerbate threats, transform their nature and characteristics, and introduce new security threats.37 A tabletop exercise on the integration of AI into nuclear C2 systems showed that such systems were ‘vulnerable to malicious manipulation that can severely degrade strategic stability’,38 for instance. Such vulnerabilities would derive mostly from the risk posed by third actors using techniques to deceive, disrupt or impair C2 systems,39 which indicates the importance of system safety for AI to be used for military strategy. Another significant challenge is that AI may accelerate the speed of warfare to the extent that humans cease to be able to follow the developments, ultimately leading humans to lose control. 40 This phenomenon has been termed battlefield ‘singularity’ or ‘hyperwar’.41 This may lead to strategic errors and accidents, including involuntary conflict escalation. Even if such risks can be alleviated, the increased reliance on AI would reduce the human element of military strategy, in particular psychology and human judgment. It has been argued that this could lead to a ‘gap between how the AI solves a problem framed by humans, and how those humans would solve it if they possessed the AI’s speed, precision, and brainpower’.42 Yet it has also been argued that strategy development would require the understanding of values, the balance of costs, and the understanding of the complex social system in which war operates, thereby significantly limiting AI’s use for military strategy.43 Yet it is also possible that when enemies possess high levels of rational prediction power provided by AI systems, the decisive factor in warfare will not be the AI systems’ capabilities but the human judgment, in particular concerning critical and difficult choices.44 This, however, presumes a certain level of meaningful human involvement. In sum, AI may enhance military strategy development and strategic decision-making, notably if able to process more data and make sense of complexity with more precision and at a higher speed than humans and simple computing. A likely result is an acceleration of military operations, which may increase pressure on armed forces to integrate AI and may marginalize human judgment. States’ recent adoption of defence strategies on and related to AI indicate that states increasingly intend to develop, acquire, and operationalize AI for military purposes. As such, the possession and use of AI is a strategic objective itself. In light of secrecy around the development of new technologies, states’ investment in military AI can become a strategic liability as it may increase the risk of destabilizing arms races, misperceptions, and miscalculations.

**Crisis instability risks nuclear escalation – the lack of human control threatens the firebreak between conventional and nuclear conflict.**

**Sauer, 2021 - Senior Research Fellow at Bundeswehr University** [Frank serves on the International Panel on the Regulation of Autonomous Weapons IRRC No. 913 March “Stepping back from the brink: Why multilateral regulation of autonomy in weapons systems is difficult, yet imperative and feasible” https://international-review.icrc.org/articles/stepping-back-from-brink-regulation-of-autonomous-weapons-systems-913 Acc 4/5/22 TA]

Strategic instability It has recently been suggested that AI as a decision-making aid to humans might help improve the performance of nuclear early-warning and command and control systems, thus reducing the risk of false alarms and inadvertent nuclear use.72 That said, calls for complete automation in the nuclear realm – that is, for handing over the decision to use nuclear weapons from humans to machines – are practically non-existent.73 But even with the proverbial push of the button not yet delegated to algorithms, the rush to increase autonomy in military applications and to automatize military processes increases the risk of nuclear stability.74 For instance, the increasing capacities of conventional weapons systems – including weapon autonomy – are beginning to affect the strategic level. This development has been described as the increasing “entanglement” of the nuclear and the conventional realm resulting, for example, from “non-nuclear threats to nuclear weapons and their associated command, control, communication, and information (C3I) systems”.75 Simply put, advanced conventional capabilities increasingly allow for nuclear assets to be put at risk. Autonomy in conventional weapons systems is one such advanced capability, thus feeding into this increasing entanglement and, in turn, deteriorating strategic stability. One specific illustration of this dynamic is the deployment of stealthy unmanned aerial vehicles and the use of “swarming”. Perdix is a swarming test program pursued by the US Air Force. In the future, drone swarms of this type might facilitate the search for dispersed mobile missile launchers. Another example is the use of maritime autonomous systems for hunting nuclear-powered ballistic missile submarines, known as SSBNs. The DARPA-funded Anti-Submarine Warfare Continuous Trail Unmanned Vessel is a program that resulted in the development of an autonomous trimaran called Sea Hunter, which is currently being tested by the US Navy. Its ability to detect and pursue SSBNs could potentially limit the second-strike capabilities of other nuclear powers. These capabilities are just emerging, and neither Perdix nor Sea Hunter, nor their successors, will single-handedly destabilize the global nuclear order. Also, the hypothesis that systems such as Sea Hunter would render the oceans “transparent”,76 virtually nullifying the utility of sea-launched nuclear weapons as a reliable second-strike asset, is hotly debated. Nevertheless, the mere perception of nuclear capabilities becoming susceptible to new risks from the conventional realm is bound to sow distrust between nuclear-armed adversaries. Furthermore, a system like Sea Hunter demonstrates how autonomous weapon technologies are expediting the completion of the targeting cycle, thus putting the adversary under additional pressure and potentially creating “use-them-or-lose-them” scenarios with regard to executing a nuclear second strike. The entanglement problem, which weapon autonomy is feeding into, is further aggravated by an increasing political willingness to use nuclear means to retaliate against non-nuclear attacks on early-warning and control systems or the weapons themselves. The Trump administration's nuclear posture review77 signals that the United States may, from now on, respond with nuclear means to significant, non-nuclear strategic attacks (moving away from a “single-purpose” nuclear deterrence framing for nuclear weapons). Russia has already held this position for some time due to the United States’ advantage in conventional weapons technology. This does not bode well for stability between the two largest nuclear powers. To sum up this section, weapon autonomy not only promises military benefits but also creates new vulnerabilities and, more importantly, contributes to an overall accumulation of strategic risk and instability. Increasing operational speed beyond the capability of human cognition removes humans as a valuable fail-safe against unwanted escalation.

**Autonomous AI undermines NATO’s collective defense by eroding nuclear deterrence**

**Gilli, 2020 - Senior Researcher at the NATO Defense College** [Andrea, NDC Research Paper No.15 – December ““NATO-Mation”: Strategies for Leading in the Age of Artificial Intelligence” https://www.ndc.nato.int/news/news.php?icode=1514 Acc 4/21/22 TA]

Arms control, technology regimes and confidence building NATO’s core task of collective defence has been at the heart of the Atlantic Alliance since its inception. In strategic terms, collective defence translates into deterrence and is in fact fundamental to ensure the security, wellbeing and freedom of Allies and their citizens. Collective defence is, however, just one side of the coin. Historically, NATO Allies have also pursued arms control and disarmament. Recent statements on the role of nuclear weapons bear testament to this: while NATO wishes for a world free of nuclear weapons, nuclear deterrence remains a pillar of the Alliance with a view to preventing intimidation, coercion or attack from outside powers.263 The emergence of AI, ML and BD has generated an important debate on nuclear stability.264 Many worry that, when integrated into strategic forces, AI may bring about a set of nefarious consequences: the brittleness characterizing algorithms may lead to inaccuracy, and thus to crises;265 machine speed may lead to the removal of humans from the loop, thus tipping crises into escalations;266 last but not least, some still emerging technologies such as AI may undermine the survivability of second-strike nuclear capabilities, thus eroding the foundations of nuclear deterrence.267

#### Ethical principles and Responsible AI use prevents miscalculation and escalation

International Panel on the Regulation of Autonomous Weapons, 2021 [(iPRAW) coordinated by: German Institute for International and Security Affairs, July “Building Blocks for a Regulation on LAWS and Human Control Updated Recommendations to the GGE on LAWS” https://www.readkong.com/page/building-blocks-for-a-regulation-on-laws-and-human-control-8617434 Acc 2/27/22 TA]

Albeit not being at the center of the CCW debate on LAWS, military AI and machine autonomy could also have manifold implications for international security and strategic stability. A major benefit of applying autonomous functions for military purposes is the possibility of accelerating information processing, decision-making, and command and control cycles. A faster tempo of warfare however also runs risk of overwhelming human operators and undermining human judgment, especially in crisis situations. This could be aggravated by the fact that AI-enabled systems are often not entirely comprehensible for humans, especially those relying on machine or deep learning. Automation bias, meaning human overreliance and over- trust in the effectiveness of machine autonomy, has already caused various accidents in the civilian domain and could be particularly acute if human operators were not aware of the limits of AI and autonomy. Therefore, technical errors, coupled with unpredictable, opaque systems and automation bias could lead to a situation where humans might lose the ability to control escalation and manage war termination. Furthermore, already existing threat perceptions and an increasing speed of warfare could spur arms competition towards greater levels of autonomy that again increases the speed of conflicts, leading to a vicious circle. Similarly, while sophisticated AI- enabled systems might not be easily built or acquired, rather "crude" LAWS and their components could diffuse rather rapidly, potentially falling into the hands of illegitimate or irresponsible actors. Export controls might be able to mitigate this issue to a certain extent. Whether AI-enabled systems and machine autonomy will strengthen or undermine strategic stability will to a large extent depend on their application and the human role. In many cases, AI technologies could aid human operators and strengthen strategic stability. For example, by enabling the integration of heterogeneous data and rapid information processing, AI methods could improve situational awareness of human operators and commanders. This however presupposes that technical risks and limitations as well as risks in relation to human-machine interaction are taken into account and that safety measures and adequate training of human operators ensure reliable systems and their responsible use. Ultimately, the focus should be on aiding rather than replacing the unique judgment of humans.

#### Human control solves crisis management and prevents accidental nuclear escalation.

Sauer, 2021 - Senior Research Fellow at Bundeswehr University [Frank serves on the International Panel on the Regulation of Autonomous Weapons IRRC No. 913 March “Stepping back from the brink: Why multilateral regulation of autonomy in weapons systems is difficult, yet imperative and feasible” https://international-review.icrc.org/articles/stepping-back-from-brink-regulation-of-autonomous-weapons-systems-913 Acc 4/5/22 TA]

Humans are more resistant to mass error than machines. Also, humans, despite being slower and sometimes making mistakes, are better managers than machines. They have the capacity to grasp an unusual situation and understand its context as well as to reflect on a decision, its genesis, its implications and the weight of the responsibility that accompanies it. In terms of crisis management, all this makes humans superior to machines, which so far are only capable of recognizing patterns and executing predefined actions, and which reach superhuman performance only in those narrowly defined scenarios for which they were specifically trained. By removing human control, the distinct role of humans as a versatile fail-safe mechanism is lost. The prominent case of Lieutenant Colonel Stanislav Petrov renders this evident. The 1983 NATO exercise Able Archer was misunderstood by the Soviets as a cover for an attack with tactical nuclear forces. During this time, a Soviet early-warning satellite registered first one, then a couple more US nuclear intercontinental ballistic missile launches. Petrov, the watch officer in charge at the time, decided (correctly) that this had to be a false alarm and gave the all-clear up the chain of command, thus preventing further, potentially nuclear escalation in this tense situation. Petrov's decision could not have been made by a completely automated system. He later testified that he had arrived at his decision by following a gut feeling, by wondering about the nature of the supposed strike, and by drawing on his past experiences with the early-warning system that he deemed not fully trustworthy.71 If the human on the destroyer in the next-to-fully automated kill chain presented by General Goldfein were ever to be removed, fully actualizing the key advantage of weapon autonomy that is fighting at machine speed, the “Petrov effect” would be lost. While, in that conventional scenario, this would not mean the inadvertent use of nuclear weapons, strategic stability is nevertheless already being affected by the effort to increase autonomy in military systems.

### 1AC - Advantage - Human Dignity

#### Advantage – Human Dignity

#### Every person has inherent worth – if we value ourselves, then we Must respect the value of others to be consistent. Sacrificing the dignity of some to protect others denies equal dignity and is morally unacceptable. Every person must be treated as an end in and of themselves.

Applbaum, 1998 - Professor of Ethics and Public Policy at the Carr Center for Human Rights Policy [Arthur "Are Violations of Rights Ever Right?\*." Ethics 108.2 (1998): 340-366 Acc 12/27/20 TA]

Since we think of ourselves as beings that matter, consistency demands that we extend that status to others. Says Nagel, ‘‘I believe, as did Kant, that what drives us in the direction of universal- izability is the difficulty each person has in regarding himself as having value only for himself, but not in himself. If people are not ends in themselves—i.e. impersonally valuable—then they have a much lower order of worth.’’ If one wishes to view and value oneself as a being that is an end in itself, and not as a means to be used for the ends of others, then the status of an end must be extended to others. The violation of other persons—using them as means—therefore is an impersonal bad, something we all have reason to avoid and prevent. But if such violation is bad, why should we not seek to minimize violations, even if that sometimes requires a lesser violation? Because a violation-minimizing violation uses one as a means for the ends of others and so fails to treat persons as ends in themselves. If persons are to matter in the highest possible way, then morality must value not only the absence of violations of persons, but the treatment of persons as beings who have the status of being inviolable—whose violation is not permissible. ‘‘What actually happens to us is not the only thing we care about: What may be done to us is also important, quite apart from whether or not it is done to us—and the same is true of what we may do as opposed to what we actually do.’’ Since having the status of inviolability is of great value, if morality permits violations so as to maximize the good of not being violated, all persons cease to have a high degree of inviolability, which is a great bad. We all may be better off in a world in which morality always treated us as ends, and so where it is always morally impermissible to violate us, even though we are thereby more likely to suffer violation at the hands of immoral actors

#### Only respecting human dignity prevents treating humans as a means to an end. Utilitarianism is an instrumental rationality, which denies human dignity.

Heyns, 2016 - Professor of Human Rights Law, University of Pretoria [Christof, Human Rights Quarterly 38 (2016) 350–378 “ Human Rights and the use of Autonomous Weapons Systems (AWS) During Domestic Law Enforcement” <https://www.academia.edu/37475669/Human_Rights_and_the_use_of_Autonomous_Weapons_Systems_AWS_During_Domestic_Law_Enforcement> Acc 12/27/20 TA]

There are different conceptions of dignity. For example, it has a religious connotation for some and is tied up with the belief that humans are created in the image of God (imago Dei);87 others rely on the Kantian notion that each person should be treated as an end and not as a means.88 Dignity can also be seen as related to the capacity of someone to be a moral person and as moral responsibility.89 Violations of dignity often take the form of physical infringements of the person, but it is not confined to that—not being able to act out one’s moral choices could be another form of indignity. Underlying the concept of dignity is a strong emphasis on the idea of the infinite or incommensurable value of each person.90 The Kantian concept of dignity assigns this value to each person as a separate and unique, or irreplaceable, individual. Acts of indignity involve an unwarranted reduction of this worth. Each person has an inner core that may not be infringed upon, even if such infringement would be beneficial to the common good because that would mean they are used as a tool. Individual dignity cannot be accounted for properly within schemes of instrumental rationality, where competing claims are measured against each other based on their assigned weights, because each human being is considered to be of infinite value.91 Exactly whose dignity is potentially at stake? In the first place, I would submit, the concern should be about the dignity of those at the receiving end of the force used: those targeted as well as those caught in the crossfire.92 Secondly, the dignity of those in whose name force is used may also be at stake. The effect of AWS on the dignity of these two different categories will now be considered in turn. How does the use of AWS impact the dignity of those subjected to the use of force? It has been argued that to have the decision whether one lives or dies being made by machines is the ultimate indignity and similar arguments can be made about other forms of force, especially if they are potentially lethal or can seriously maim. 93 A machine, bloodless and without morality or mortality, cannot fathom the significance of using force against a human being and cannot do justice to the gravity of the decision.94 Each instance where force is used against a human being requires that another human being should decide afresh whether to cross that threshold. The heuristic argumentation used by computers fails to capture and do justice the complexity and fullness of human life and decisions about life. Robots cannot be preprogrammed to respond in an appropriate way to the infinite number of scenarios that real life—and real people—offer.95 Death by algorithm means that people are treated simply as targets and not as complete and unique human beings, who may, by virtue of that status, meet a different fate. They are placed in a position where an appeal to the humanity of the person on the other side is not possible. Some have argued that people in such situations are treated like pests or objects, as a nuisance that must be gotten rid of, rather than as someone with inherent dignity.96 When someone comes into the sights of a computer, that person is literally reduced to numbers: the zeros and the ones of bits.

#### Even if AI saves lives, it destroys the Dignity that gives value to lives.

Docherty, 2018 - senior researcher in the Arms Division of Human Rights Watch [Bonnie August 21, “Heed the Call A Moral and Legal Imperative to Ban Killer Robots” [https://www.hrw.org/report/2018/08/21/heed-call/moral-and-legal-imperative-ban-killer-robots#](https://www.hrw.org/report/2018/08/21/heed-call/moral-and-legal-imperative-ban-killer-robots) Acc 12/27/20 TA]

Showing respect for human life entails minimizing killing. Legal and ethical judgment helps humans weigh different factors to prevent arbitrary and unjustified loss of life in armed conflict and beyond. It would be difficult to recreate such judgment, developed over both human history and an individual life, in fully autonomous weapons, and they could not be pre-programmed to deal with every possible scenario in accordance with accepted legal and ethical norms. Furthermore, most humans possess an innate resistance to killing that is based on their understanding of the impact of loss of life, which fully autonomous weapons, as inanimate machines, could not share. Even if fully autonomous weapons could adequately protect human life, they would be incapable of respecting human dignity. Unlike humans, these robots would be unable to appreciate fully the value of a human life and the significance of its loss. They would make life-and-death decisions based on algorithms, reducing their human targets to objects. Fully autonomous weapons would thus violate the principles of humanity on all fronts.

#### Autonomous artificial intelligence does not respect human dignity – it lacks empathy and judgement. Death by algorithm reduces human targets to data points, not people.

Docherty, 2018 - senior researcher in the Arms Division of Human Rights Watch [Bonnie August 21, “Heed the Call A Moral and Legal Imperative to Ban Killer Robots” [https://www.hrw.org/report/2018/08/21/heed-call/moral-and-legal-imperative-ban-killer-robots#](https://www.hrw.org/report/2018/08/21/heed-call/moral-and-legal-imperative-ban-killer-robots) Acc 12/27/20 TA]

Due to their lack of emotion and legal and ethical judgment, fully autonomous weapons would face significant obstacles in complying with the principles of humanity. Those principles require the humane treatment of others and respect for human life and human dignity. Humans are motivated to treat each other humanely because they feel compassion and empathy for their fellow humans. Legal and ethical judgment gives people the means to minimize harm; it enables them to make considered decisions based on an understanding of a particular context. As machines, fully autonomous weapons would not be sentient beings capable of feeling compassion. Rather than exercising judgment, such weapons systems would base their actions on pre-programmed algorithms, which do not work well in complex and unpredictable situations. Showing respect for human life entails minimizing killing. Legal and ethical judgment helps humans weigh different factors to prevent arbitrary and unjustified loss of life in armed conflict and beyond. It would be difficult to recreate such judgment, developed over both human history and an individual life, in fully autonomous weapons, and they could not be pre-programmed to deal with every possible scenario in accordance with accepted legal and ethical norms. Furthermore, most humans possess an innate resistance to killing that is based on their understanding of the impact of loss of life, which fully autonomous weapons, as inanimate machines, could not share. Even if fully autonomous weapons could adequately protect human life, they would be incapable of respecting human dignity. Unlike humans, these robots would be unable to appreciate fully the value of a human life and the significance of its loss. They would make life-and-death decisions based on algorithms, reducing their human targets to objects. Fully autonomous weapons would thus violate the principles of humanity on all fronts.

#### Human Dignity requires that the decision to take human life be made by a human. Even if war is inevitable, inhumanity is not.

Rosert, 2019 - Professor for International Relations at Universität Hamburg [Elvira, with Frank Sauer Researcher at Bundeswehr, Global Policy, July 5 “Prohibiting Autonomous Weapons: Put Human Dignity First” https://doi.org/10.1111/1758-5899.12691 Acc 12/27/20 TA]

In addition to its successful mobilization in stigmatization and norm‐setting processes on anti‐personnel landmines and cluster munitions, the principle of distinction as enshrined in International Humanitarian Law also figures prominently in the debate on lethal autonomous weapons systems (LAWS). Proponents of a ban on LAWS frame these as indiscriminate, that is, unable to distinguish between civilians and combatants, and thus as inherently unlawful. The flip side of this particular legal argument is, however, that LAWS become acceptable when considered capable of distinguishing between combatants and civilians. We thus argue, first, that this particular legal basis for the call for a ban on LAWS might be rendered obsolete by technological progress increasing discriminatory weapon capabilities. Second, we argue that the argument is normatively troubling as it suggests that, as long as civilians remain unharmed, attacking combatants with LAWS is acceptable. Consequently, we find that the legal principle of distinction is not the overall strongest argument to mobilize when trying to stigmatize and ban LAWS. A more fundamental, ethical argument within the debate about LAWS – and one less susceptible to ‘technological fixes’ – should be emphasized instead, namely that life and death decisions on the battlefield should always and in principle be made by humans only. Lethal autonomous weapons systems: a threat to human dignity Numerous arguments motivate the current call for an international, legally binding ban on so‐called lethal autonomous weapons systems (LAWS).1 Strategic concerns include proliferation, arms races and escalation risks (Altmann and Sauer, 2017; Rickli, 2018). Military concerns include the incompatibility of LAWS with a traditional chain of command or the potential for operational failures cascading at machine speed (Bode and Huelss, 2018; Scharre, 2016). Ethical concerns include the fear that LAWS might further increase the dehumanization and abstractness of war (and thus its propensity), as well as its cruelty if warfare is delegated to machines incapable of empathy or of navigating in dilemmatic situations (Krishnan, 2009; Sauer and Schörnig, 2012; Sparrow, 2015; Sparrow et al., 2019; Wagner, 2014). Legal concerns include difficulties of attribution, accountability gaps, and limits to the fulfillment of obligatory precautionary measures (Brehm, 2017; Chengeta, 2017; Docherty, 2015). But the most prominent concern, focalizing some elements of the concerns just mentioned, is the danger these weapons pose to civilians. This argument's legal underpinning is the principle of distinction – undoubtedly one of the central principles of International Humanitarian Law (IHL), if not the central principle (Dill, 2015). As multifaceted and complex as the debate on military applications of autonomy is now, what has been articulated at its very beginning (Altmann and Gubrud, 2004; Sharkey, 2007) and consistently since then is that LAWS would violate IHL due to their inability to distinguish between combatants and civilians. This image of LAWS as a threat to civilians is echoed routinely and placed first by all major ban supporters (we substantiate this claim in the following section). That LAWS would be incapable of making this crucial distinction – and thus have to be considered indiscriminate – is assumed because ‘civilian‐ness’ is an under‐defined, complex and heavily context‐dependent concept that is not translatable into software (regardless of whether the software is based on rules or on machine learning). Recognizing and applying this concept on the battlefield not only requires value‐based judgments but also a degree of situational awareness as well as an understanding of social context that current and foreseeable computing technology does not possess. We unequivocally share this view as well as these concerns. And yet, in this article, we propose to de‐emphasize the indiscriminateness frame in favor of a deeper ethical assertion, namely that the use of LAWS would infringe on human dignity. The minimum requirement for upholding human dignity, even in conflicts, is that life and death decisions on the battlefield should always and in principle be made by humans (Asaro, 2012; Gubrud, 2012). Not the risk of (potential) civilian harm, but rather retaining meaningful human control to preserve human dignity should be at the core of the message against LAWS.2

#### The Process of taking a human life matters as much as the consequence – if the process denies humanity, it undermines dignity. Autonomous AI denies dignity because machines cannot understand the value of human dignity, so the decision cannot take into account the unique individual to be killed.

Docherty, 2018 - senior researcher in the Arms Division of Human Rights Watch [Bonnie August 21, “Heed the Call A Moral and Legal Imperative to Ban Killer Robots” [https://www.hrw.org/report/2018/08/21/heed-call/moral-and-legal-imperative-ban-killer-robots#](https://www.hrw.org/report/2018/08/21/heed-call/moral-and-legal-imperative-ban-killer-robots) Acc 12/27/20 TA]

Respect for Human Life and Dignity Definition A second principle of humanity requires actors to respect both human life and human dignity. Christof Heyns, former special rapporteur on extrajudicial, summary or arbitrary executions, highlighted these related but distinct concepts when he posed two questions regarding fully autonomous weapons: “[C]an [they] do or enable proper targeting?” and “Even if they can do proper targeting, should machines hold the power of life and death over humans?”[68] The first considers whether a weapon can comply with international law’s rules on protecting life. The second addresses the “manner of targeting” and whether it respects human dignity.[69] In order to respect human life, actors must take steps to minimize killing.[70] The right to life states that “[n]o one shall be arbitrarily deprived of his life.”[71] It limits the use of lethal force to circumstances in which it is absolutely necessary to protect human life, constitutes a last resort, and is applied in a manner proportionate to the threat.[72] Codified in Article 6 of the International Covenant on Civil and Political Rights, the right to life has been recognized as the “supreme right” of international human rights law, which applies under all circumstances. During times of armed conflict, international humanitarian law determines what constitutes arbitrary or unjustified deprivation of life. It requires that actors comply with the rules of distinction, proportionality, and military necessity in situations of armed conflict.[73] Judgment and emotion promote respect for life because they can serve as checks on killing. The ability to make legal and ethical judgments can help an actor determine which course of action will best protect human life in the infinite number of potential unforeseen scenarios. An instinctive resistance to killing provides a psychological motivation to comply with, and sometimes go beyond, the rules of international law in order to minimize casualties. Under the principles of humanity, actors must also respect the dignity of all human beings. This obligation is premised on the recognition that every human being has inherent worth that is both universal and inviolable.[74] Numerous international instruments—including the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights, the Vienna Declaration and Programme of Action adopted at the 1993 World Human Rights Conference, and regional treaties—enshrine the importance of dignity as a foundational principle of human rights law.[75] The Africa Charter on Human and Peoples’ Rights explicitly states that individuals have “the right to the respect of the dignity inherent in a human being.”[76] While respect for human life involves minimizing the number of deaths and avoiding arbitrary or unjustified ones, respect for human dignity requires an appreciation of the gravity of a decision to kill.[77] The ICRC explained that it matters “not just if a person is killed or injured but how they are killed or injured, including the process by which these decisions are made.”[78] Before taking a life, an actor must truly understand the value of a human life and the significance of its loss. Humans should be recognized as unique individuals and not reduced to objects with merely instrumental or no value.[79] If an actor kills without taking into account the worth of the individual victim, the killing undermines the fundamental notion of human dignity and violates this principle of humanity. Application to Fully Autonomous Weapons It is highly unlikely that fully autonomous weapons would be able to respect human life and dignity. Their lack of legal and ethical judgment would interfere with their capacity to respect human life. For example, international humanitarian law’s proportionality test requires commanders to determine whether anticipated military advantage outweighs expected civilian harm on a case-by-case basis. Given the infinite number of contingencies that may arise on the battlefield, fully autonomous weapons could not be preprogrammed to make such determinations. The generally accepted standard for assessing proportionality is whether a “reasonable military commander” would have launched a particular attack,[80] and reasonableness requires making decisions based on ethical as well as legal considerations.[81] Unable to apply this standard to the proportionality balancing test, fully autonomous weapons would likely endanger civilians and potentially violate international humanitarian law.[82] Fully autonomous weapons would also lack the instinctual human resistance to killing that can protect human life beyond the minimum requirements of the law.[83] An inclination to avoid killing comes naturally to most people because they have an innate appreciation for the inherent value of human life. Empirical research demonstrates the reluctance of human beings to take the lives of other humans. For example, a retired US Army Ranger who conducted extensive research on killing during armed conflict found that “there is within man an intense resistance to killing their fellow man. A resistance so strong that, in many circumstances, soldiers on the battlefield will die before they can overcome it.”[84] As inanimate objects, fully autonomous weapons could not lose their own life or understand the emotions associated with the loss of the life of a loved one. It is doubtful that a programmer could replicate in a robot a human’s natural inclination to avoid killing and to protect life with the complexity and nuance that would mirror human decision making. Fully autonomous weapons could not respect human dignity, which relates to the process behind, rather the consequences of, the use of force.[85] As machines, they could truly comprehend neither the value of individual life nor the significance of its loss. They would base decisions to kill on algorithms without considering the humanity of a specific victim.[86] Moreover, these weapons would be programmed in advance of a scenario and could not account for the necessity of lethal force in a specific situation. In a CCW presentation as special rapporteur, Christof Heyns explained that: to allow machines to determine when and where to use force against humans is to reduce those humans to objects; they are treated as mere targets. They become zeros and ones in the digital scopes of weapons which are programmed in advance to release force without the ability to consider whether there is no other way out, without a sufficient level of deliberate human choice about the matter.[87] Mines Action Canada similarly concluded that “[d]eploying [fully autonomous weapons] in combat displays the belief that any human targeted in this way does not warrant the consideration of a live operator, thereby robbing that human life of its right to dignity.”[88] Allowing a robot to take a life when it cannot understand the inherent worth of that life or the necessity of taking it disrespects and demeans the person whose life is taken. It is thus irreconcilable with the principles of humanity enshrined in the Martens Clause.

#### Human dignity demands that humans remain in the loop for artificial intelligence weapon systems.

International Panel on the Regulation of Autonomous Weapons, 2021 [(iPRAW) coordinated by: German Institute for International and Security Affairs, July “Building Blocks for a Regulation on LAWS and Human Control Updated Recommendations to the GGE on LAWS” https://www.readkong.com/page/building-blocks-for-a-regulation-on-laws-and-human-control-8617434 Acc 2/27/22 TA]

The precautionary principle: The obligation to take precautions is not limited to attacks but the principle applies – at least to a certain extent – to military operations in general. The notion of “military operations” has a broader meaning encompassing “any movements, maneuvers and other activities whatsoever carried out by the armed forces with a view to combat.” Parties to a conflict have to take all feasible measures to verify the target and to avoid excessive damage to civilians. Weapon systems based on computational methods could be a helpful instrument to support humans in their decision-making processes, especially with regard to target verification. However, in case LAWS are deployed, it would be questionable whether such weapon systems are able to obtain reliable information to distinguish adequately between legitimate and illegitimate targets. As adumbrated above, the distinction between combatants and civilians and between military and civilian objects respectively is challenging, often requiring the cognitive capacity to detect slight nuances in human behavior and changes of circumstances. Furthermore, the principle of precautions in attack requires parties to a conflict to take feasible measures to avoid excessive harm to civilians. This entails the obligation to deploy weapons with predictable effects which, in turn, necessitates an adequate understanding of the weapon system and its operating principles by the human operators and the military commanders. Furthermore, the use of weapon systems based on computational methods may oblige parties to a conflict to apply even higher standards of precaution. It is also important to bear in mind that the principle of precautions requires parties to a conflict to abort a mission in case the military objective turns out to be civilian. A LAWS would have to be able to autonomously abort a mission in case of doubt regarding the respective target. One way to address the risk of legal violations posed by the employment of LAWS is to regulate how these systems are used, i.e. with human control, rather than to regulate the systems, that is, their numbers or capabilities, themselves. Human Control as a Consequence of IHL? The obligation to maintain human control arguably derives from IHL, at least by implication. However, IHL does not indicate how human control should be operationalized. It is arguable that the principles of distinction, proportionality, and precautions in attack imply a requirement for the user to have sufficient situational understanding but also options for intervention. Accordingly, the operator/commander must be able to review legal assessments and translate human decision-making into the system’s action during attack prior to the actual engagement. One option to exert control is to impose operational constraints on LAWS, for example, by not using them in anti-personnel mode or against military objects by use. Even if some of those legal issues were be solved by technological achievements in the future, certain ethical challenges would still call for human control in the use of force, especially if used against human targets. Therefore, iPRAW’s ethical considerations focus on the concept of human dignity. Based on the work of Peter Asaro and Christof Heyns, we defined a set of three minimum requirements for human dignity in the use of force as the ability to: Recognize a human being as a human, not just distinguish it from other types of objects and things but as a being with rights that deserve respect; Understand the value of life and the significance of its loss; and Reflect upon the reasons for taking life and reach a rational conclusion that killing is justified in a particular situation. Depending on the moral position, one would assume or deny that autonomous functions in weapon systems break the link to moral agency. In the first case, it would be necessary to safeguard moral agency through human control, in the latter case one would want to safeguard the ability to use a weapon system lawfully at the current state of technology. In consequence, both positions would require human control in both the design of the system and in its use. Inherent in both views is an acknowledgment – tacit or explicit – of the principle of human control.

### 1AC - Solvency

#### Contention Two – Solvency - The US is key to promote AI principles in NATO because of its scientific and military leadership and its ability to coordinate nations.

**Kahn and Horowitz, 2021 – Research and Senior Fellows at the Council on Foreign Relations** [Lauren and Michael, The Washington Quarterly 44:4 “Leading in Artificial Intelligence through Confidence Building Measures” [https://doi.org/10.1080/0163660X.2021.2018794 Acc 6/6/22](https://doi.org/10.1080/0163660X.2021.2018794%20Acc%206/6/22) TA]

Leveraging US Leadership Advances in artificial intelligence, driven by machine learning methods and related approaches, are already reshaping international politics. Economics, societies, and now militaries are adapting, with various degrees of speed. As it is early in the age of AI, there is still significant uncertainty about the specific ways that AI and machine learning will impact military behavior and the future of war. One significant concern involves the potential for AI-enabled military applications to increase the risk of accidents, unintentional conflict, and inadvertent escalation. Poorly programmed, trained, or deployed algorithms could be subject to accidents and their uses could be misinterpreted by adversaries. Even if algorithms work as intended and give militaries an advantage, the increase in the speed of warfare from their use could create pressure for escalation in a crisis or early in a conflict. In the midst of competition with China and Russia, the United States can simultaneously benefit and be at risk from military applications of AI. Given its economic, military, and scientific leadership, the United States has a unique opportunity to shape the global AI landscape through the promotion of norms and CBMs that could decrease the risk of unintentional conflict and escalation. Only the United States has the convening power to bring allies and adversaries to the table, whether bilaterally or multilaterally, for dialogue around areas of shared interests—the areas most likely to be building blocks for cooperation. Key areas for potential cooperation include AI safety standards, dialogue on AI and strategic stability, commitments to keep humans in the loop for the use of nuclear weapons, and an Autonomous Incidents Agreement. All require further conversation. Through proposals that involve shared commitments to standards and policies that the United States would be willing to pursue unilaterally, the United States can increase global AI safety without revealing information that would compromise US capabilities or undermine US military adoption of AI. The United States can therefore leverage AI to ensure future military superiority and simultaneously decrease the risk that military uses of AI will have disastrous unintended consequences.

#### NATO is key to ethical principles for AI weapons due to its democratic principles and its existing agencies with experience in AI

Stanley-Lockman, 2021 - Center for Security and Emerging Technology [Zoe CSET Issue Brief August “Responsible and Ethical Military AI Allies and Allied Perspectives” https://cset.georgetown.edu/publication/responsible-and-ethical-military-ai/ Acc. 4/21/22 TA]

Multilateral Institutions Focusing on Ethical and Responsible AI in Defense Understanding ethics and legality as part of the adoption of emerging technologies is not only a priority for democratic countries, but also a topic of interest for multilateral institutions that are part of the security and defense architecture. Autonomy in weapons has been on the agenda at the UN level for longer than the countries highlighted here have spent time bridging technical and policy approaches to responsible AI in defense. Select multilateral institutions are also critical for consultations and alignment about these issues. Beyond those mentioned here, several smaller allies may be waiting for multilateral views to then drive their own approaches to RAI, rather than dedicating resources to first issuing national views that will later have to align with broader multilateral structures. NATO is an obvious player in this domain, for reasons that are described below. The emerging PfD is important as an AI-specific multilateral format for like-minded countries—including non-treaty partners—to coalesce on this policy area. North Atlantic Treaty Organization (NATO) NATO is an important actor because it can help coordinate and facilitate consultations between allies to come to agreement on how ethical and responsible AI developments impact interoperability, cohesion, and operations. Further, the NATO Defence Planning Process is the primary defense planning tool for many Allies.142 The focus on principles for “responsible use” is consistent with NATO’s added value without dwelling too much on development—which happens primarily at the national (or bi- /multilateral levels outside of NATO).143 Here, responsibility refers both to best practices in engineering (e.g., ethical design) and responsible state behavior.144 The North Atlantic Council and Military Committee—the senior civilian and military decisionmaking bodies in NATO—began contending with EDTs, including AI, in 2018.145 This high-level interest built on several years of military and scientific experience at the working levels, as well as the introduction of conceptual and operational considerations in the workstream of Allied Command Transformation and the NATO Science & Technology Organization in the 2010s. When presenting on EDTs to the senior civilian and military leadership at NATO in 2018, then-Supreme Allied Commander Transformation General Denis Mercier stressed that legal, ethical, and political differences between Allies could “endanger our capacity to operate together.”146 He also focused on considerations around the “level of confidence in new technologies” as an adoption factor that is not purely technical.147 This set the tone for political alignment on ethical concerns across the Alliance—already building on the foundations of the shared value embodied in the North Atlantic Charter and legal framework in which NATO operates. Subsequently, in October 2019, the Allies agreed to an EDT Roadmap that cited “legal and ethical norms” and “arms control aspects” as key technology areas among Alliance priorities to consider.148 The political will to cooperate on technologies was solidified in February 2021, when NATO Defence Ministers endorsed an EDT Strategy.149

#### NATO serves as The global model for ethical AI – acting now can incentivize other nations to follow along.

Stanley-Lockman and Trabucco, 2022 – prof of Defense and Strategic Studies, Nanyang Technological University and prof of Political Science, University of Copenhagen [Zoe and Lena, The Oxford Handbook of AI Governance, March, “NATO’s Role in Responsible AI Governance in Military Affairs” https://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780197579329.001.0001/oxfordhb-9780197579329-e-69 Acc 4/16/22 TA]

Ethics and values One of the vital aspects of AI which has garnered significant global attention is the ethical implications of artificial intelligence as a military technology—an issue that has divided much of the global community, including NATO member states. As a starting point, researchers and analysts have considered the implications of emerging military technology in terms of ethical responsibility and regulation, especially as states and organizations continue to release AI ethical principles, guidelines, and standards.55 We explore how NATO can operationalize the debate around ethics and values of military AI to garner coordination and continue progress of EDT harmonization among partners. Building on the theoretical discussion from STS and military innovation literature above, the adoption of technologies that reinforce values serves the strategic interest of NATO to shape technological innovation against current waves of illiberalism. Additionally, infusing AI development with certain ethical principles and values can have operational advantages and benefits, and NATO can, in particular, promote the ethical principles as operational standards for the Allies. A common critique within the ethics debate is that approaching new technology with an ethical or democratic values-driven perspective translates into comparative military disadvantage. Essentially, if your adversary develops technology without the constraints of ethical principles then there will be diminished effectiveness on the battlefield.56 We find this critique unfounded because it assumes there is a false trade-off between ethics and effectiveness; instead, we argue ethical foundations are built into the architecture of modern warfare.57 As such, ethics is a background condition for battlefield effectiveness, which is already infused in military decision-making and helping to guide the boundaries of international humanitarian law. As such, ethical guidelines do not have to detract from a military’s capacity or competency to devise means and methods of warfare that will serve their national or coalition interest.58 If anything, a first-mover advantage can incentivize an ethical and values-driven AI to establish the threshold of technological standards globally.59

#### A statement of ethical principles is a Confidence Building Measure, which helps reduce the risk of AI instability

Horowitz and Scharre, 2021 - Senior Fellows at the Technology and National Security Program at the Center for a New American Security [Michael and Paul, Jan 12, “AI and International Stability: Risks and Confidence-Building Measures” [https://www.cnas.org/publications/reports/ai-and-international-stability-risks-and-confidence-building-measures Acc 6/6/22](https://www.cnas.org/publications/reports/ai-and-international-stability-risks-and-confidence-building-measures%20Acc%206/6/22) TA]

CBMs may be a useful tool for managing risks relating to military AI applications. There are a number of possible CBMs that states could adopt that may help mitigate the various AI-related risks previously outlined. These include broad CBMs applicable to AI as a category, CBMs designed to address some of the limitations of AI, and CBMs focused on specific missions for which militaries might use AI.49 Broad CBMs These CBMs focus broadly on mechanisms for dialogue and agreement surrounding military uses of AI, rather than the specific content of agreements. Given that a key goal of CBMs is to enhance trust, mechanisms that serve as a building block for more substantive dialogue and agreement can, in some cases, be an end in themselves and not just a means to an end.50 These could include promoting international norms for how nations develop and use military AI systems, Track II academic-to-academic exchanges, direct military-to-military dialogues, and agreements between states regarding military AI, such as a code of conduct or mutual statement of principles. Promoting Norms In 2019, the U.S. Defense Innovation Board proposed a set of AI principles for the U.S. Defense Department, which DoD subsequently adopted in early 2020. While these principles no doubt have domestic audiences in the U.S. defense community and tech sector, they also serve as an early example of a state promulgating norms about appropriate use of AI in military applications. The DoD AI principles included a requirement that DoD AI systems be responsible, equitable, traceable, reliable, and governable.51 (The full set of DoD AI principles is included in the Appendix). Similarly, the DoD’s unclassified summary of its AI strategy, released in 2019, called for building AI systems that were “resilient, robust, reliable, and secure.”52 A focus of the strategy was “leading in military ethics and AI safety.”53 There is value in states promoting norms for responsible use of AI, including adopting and employing technology in a way that reflects an understanding of the technical risks associated with AI systems. While stating such principles is not the same as putting in place effective bureaucratic processes to ensure their compliance, there is nevertheless value in states publicly signaling to others (and to their own bureaucracies) the importance of using AI responsibly in military applications. While these norms are at a high level, they nevertheless signal some degree of attention by senior military and civilian defense officials to some of the risks of AI systems, including issues surrounding safety, security, responsibility, and controllability. These signals may aid internal bureaucratic efforts to mitigate various AI-related risks, as bureaucratic actors can point to these official documents for support. Additionally, to the extent that other nations find these statements credible, they may help signal to other nations at least some degree of awareness and attention to these risks, helping to incentivize others to do the same.

#### Even if dialogue does not produce a viable plan, the process of discussion promotes cohesion through shared values.

Hill and Marsan, 2018 - Director and Senior Assistant, NATO Office of Legal Affairs [Steven and Nadia, 7-18-18 “Artificial Intelligence and Accountability: A Multinational Legal Perspective” https://www.sto.nato.int/publications/STO%20Meeting%20Proceedings/STO-MP-IST-160/MP-IST-160-PP-4.pdf Acc 4/21/22 TA]

In the 2016 Warsaw Summit Communiqué, NATO Heads of State and Government recognized that “the changed and evolving security environment demands the ability to meet challenges and threats of any kind and from any direction”.2 As an Alliance of 29 Nations focused on collective defense as one of its core tasks, NATO must be prepared to address emerging threats and security challenges arising from the development of new technologies. Among these, the development and use of Artificial Intelligence (AI) presents both opportunities and challenges to the North Atlantic security landscape. On 22 March 2018, Allied Command Transformation, NATO’s adaptation hub located in Norfolk, Virginia in the United States of America, organized an informal workshop with NATO Ambassadors and Military Representatives to discuss the impact of the development of disruptive technologies on the Alliance. One question raised concerned the interoperability challenges NATO could face as Allies develop disruptive technology with differing capabilities. A take-away from the discussion is that Nations may wish to discuss some of the legal implications of this emerging technology in a multilaterally forum such as NATO. We have already witnessed the effect that the development and use of AI is having on Allied security: the recent revelations regarding the use of Facebook data by a consulting firm for political leverage show that automated data processes providing sophisticated profiling of individuals can be used to manipulate the fundamental elements of democracy, with potentially profound effects on security. How Allies respond to this changed security environment, both individually and collectively, raises a number of legal questions. The cross-cutting nature and widespread impact of AI-enabled technologies necessitates multinational discussion and debate. For now, these debates are fueled by the absence of State practice and jurisprudence on the development and use of AI-enabled technology. Multinational organizations such as NATO can provide a venue for discussion amongst Allies, providing a forum where States can express their views on these issues from a military and security perspective. As of yet, there are no NATO policies providing guidance on how to address the development and use of AI technology. Consequently, this paper provides some preliminary observations from the personal perspective of NATO legal advisers who have begun to encounter these issues rather than on the basis of agreed NATO positions or doctrine. It is therefore intended to introduce rather than resolve some of the key legal issues that are likely to arise in future AI-related discussions within NATO. This paper begins by presenting the concept of “legal interoperability,” one of the tools that legal advisers working in NATO seek to promote. It then introduces some of the current legal issues and debates surrounding the development and use of AI, including the difficulty in defining key concepts arising out of the increased use of AI such as “autonomy,” and questions pertaining to accountability.3 Finally, this paper examines how further dialogue among Allies and with NATO partners can contribute to the development of a reliable approach on accountability issues related to AI-enabled technology. The paper argues that given the rapidly evolving technology and the asymmetric approach and capabilities of nations on the matter, efforts within the Alliance should focus on ensuring NATO’s “legal preparedness” so that collective action is not thwarted by legal hurdles and mismatched legal approaches.

## Case Extensions

### Inherency – No Human Control

#### The US military does not require human control for AI, despite common misperceptions

Freedberg, 2019 – deputy editor for Breaking Defense [Sydney J “The frontline of a new age in defense Artificial Intelligence” https://cdn2.hubspot.net/hubfs/2097098/MCM120\_BreakingDefense\_AI\_ebookR1%20(1).pdf Acc 5/25/22 TA]

The April 2018 Army released its ATLAS artificial intelligence targeting program solicitation, inspiring runaway headlines about “AI-powered killing machines.” Why did this happen? The answer lies in a strange mix of misperceptions and some very real loopholes in the Pentagon’s policy on lethal AI. “The US Defense Department policy on autonomy in weapons doesn’t say that the DoD has to keep the human in the loop,” Army Ranger turned technologist Paul Scharre said. “It doesn’t say that. That’s a common misconception.” Buzzwords & Firestorms ATLAS came to public attention in about the worst way possible: an unheralded announcement on a federal contracting website (fbo.gov) on February 19th 2019, an indigestible bolus of buzzwords that meant one thing to insiders but something very different to everyone else — not just the general public but even civilian experts in AI. The name itself is ominous: ATLAS stands for Advanced Targeting and Lethality Automated System. The wording on the website made it worse, soliciting white papers on “autonomous target acquisition technology, that will be integrated with fire control technology, aimed at providing ground combat vehicles with the capability to acquire, identify, and engage targets at least 3X faster than the current manual process.” “The LA in ATLAS stands for Lethality Automated,” pointed out an appalled Stuart Russell, an AI scientist at Berkeley who’s campaigned for a global ban on lethal autonomous weapons. “‘Acquire, identify, and engage targets’ is essentially the UN definition of lethal autonomy.” But it’s not the military definition, which is where the problem starts. The military has long applied the loaded word “lethality” to anything that could make weapons more effective, not just the weapons themselves. Adding new infrared targeting sensors to tanks, for example, is officially a “lethality” upgrade. Networking Navy ships so they can share targeting data is called “distributed lethality.” Then came Defense Secretary Jim Mattis, a retired Marine Corps four- star who liked the word “lethal” so much that underlings plastered it on everything they were trying to sell him on, from high-tech weapons to new training techniques. What about “engagement”? In plain English, a “military engagement” means people are trying to kill each other (lethally).” But in the military, “engagement” can mean anything from “destroy” to “consider” to “talk to.” A Key Leader Engagement (KLE) in Iraq meant soldiers talking with a tribal elder, sheikh, or other influential person over tea. So in military language — at once abstrusely technical and sloppy — an artificial intelligence can increase “lethality” and “engage” a potential target by helping a human soldier spot it and aim at it, without the AI having any control over the trigger.

#### DOD policies do not require human control for AI due to unclear definitions

Freedberg, 2019 – deputy editor for Breaking Defense [Sydney J “The frontline of a new age in defense Artificial Intelligence” https://cdn2.hubspot.net/hubfs/2097098/MCM120\_BreakingDefense\_AI\_ebookR1%20(1).pdf Acc 5/25/22 TA]

• DoD 3000.09, Section 4.c(2), covers “human- supervised autonomous weapons systems” — since a human overseer can turn it off at any time , like Aegis– and specifically limits them to defensive purposes, explicitly banning the “selecting of humans as targets.” • Section 4.c(3) allows computer-controlled non- lethal systems, such as radar jammers. (Automated cybersecurity software is permitted elsewhere). • Section 4.c(1) allows the use of lethal force by “semi- autonomous weapons systems” (emphasis added), which aren’t fully computer-controlled. But even those must “not autonomously select and engage individual targets or specific target groups that have not been previously selected by an authorized human operator.” Such strictly regulated systems are a far cry from the Terminator, or even Stuart Russell’s more realistic nightmare scenario of swarming mini-drones. But while Section 4.c is the heart of the Pentagon policy on autonomous weapons, it’s immediately followed by a loophole: • Section 4.d states that “Autonomous or semi- autonomous weapon systems intended to be used in a manner that falls outside the policies in subparagraphs 4.c.(1) through 4.c.(3) must be approved” before development can proceed. Who approves? Two deputy secretaries of defense (policy and technology) and the Chairman of the Joint Chiefs. Getting three such high-level officials to sign on is a daunting challenge for any bureaucrat, but it’s hardly impossible. • Even after the three officials approve an exception, the system must follow a long list of safety and testing guidelines and ensure “commanders and operators [can] exercise appropriate levels of human judgment in the use of force.” But “appropriate” is left undefined. What’s more, if all three officials agree, they can ask the Deputy Secretary of Defense to waive all of those restrictions, “with the exception of the requirement for a legal review, in cases of urgent military operational need” — again, left undefined. Nowhere in this document, incidentally, will you find the comforting but imprecise phrase “human in the loop.” In fact, when I used it in a query to the Pentagon, I got gentle chiding from DoD spokesperson Elissa Smith: “The Directive does not use the phrase ‘human in the loop,’ so we recommend not indicating that DoD has established requirements using that term.”

#### UN principles did not encourage Human Control.

Bolton, 2021 - professor of political science at Pace University [Matthew with Matilda Byrne, Ryan Gariepy, Emilia Javorsky, Volker Lehmann, and Laura Nolan, January “Addressing The Threat Of Autonomous Weapons Maintaining Meaningful Human Control” http://library.fes.de/pdf-files/iez/17215.pdf Acc 5/27/22 TA]

MEANINGFUL POSITIVE OBLIGATIONS Many States have coalesced around the concept of meaningful human control as the basis for new international law on LAWS. However, meaningful human control is not explicitly referenced in the 11 Guiding Principles. States opted for less clear terminology like »human responsibility« and »human-machine interaction« in paragraphs b) and c). There is concern that such language, without elaboration and clarification, would add little meaningful constraint on State behavior. To be meaningful, certain operational and technical requirements for human control need to be met. It must be active and involved (so-called »in-the-loop«) not passive (»on-theloop « or »out-of-the-loop«). Human control needs to be maintained from the activation of a weapon until an attack is completed, aborted or terminated. This requires real-time human supervision at the level of the attack, including full knowledge of the weapon system’s actions and a reliable communications link between the weapon and its operator. It also requires allowing sufficient time in decision-making for a human operator to make meaningful decisions about targeting and a capacity to intervene and deactivate the system. A positive obligation to maintain a ratio of human operators/weapon systems greater than or equal to 1:1 may help in this regard.

#### The US minimizes regulations on military AI

Lawrence and Cordey, 2020 – researchers for The Cyber Project at the Belfer Center for Science and International Affairs [Christie and Sean, August, The Cyber Project Paper “The Case for Increased Transatlantic Cooperation on Artificial Intelligence Edited by Lauren Zabierek and Julia Voo https://www.belfercenter.org/sites/default/files/2020-08/TransatlanticAI.pdf Acc. 4/21/22 TA]

AI Regulation and Principles Although the US has made significant progress in detailing its research priorities and developing interagency groups responsible for coordinating research efforts, the US federal government still lacks a mature, overarching regulatory framework or governance structure to guide AI innovation and deployment. The US government’s approach, spearheaded by the Trump administration, has been to provide the minimal level of regulation necessary to appease industry’s desire for guidance while avoiding burdensome regulation that the Administration and industry fears would limit innovation. In line with the American AI Initiative, the Office of Management and Budget (OMB) published its January 2020 draft memo with guidance intended to aid Federal agencies as they develop regulatory and non-regulatory oversight approaches to non-government applications of “weak”140 AI.141 The memo highlighted the need “to avoid regulatory and non-regulatory actions that needlessly hamper AI innovation and growth.”142 It detailed ten principles to guide oversight (see Table 2 below). The memo urges departments and agencies to consider non-regulatory approaches to address risks posed by AI applications, including providing exemptions from regulations, pursuing safe harbor pilot programs, increasing public access to government data, and developing voluntary consensus standards. Furthermore, Agencies should engage in international dialogues to promote consistent regulation while protecting American AI interests and democratic values.144 Despite this progress, it is not clear how this policy will be executed as none of the guidance has become law.145

### Inherency - Cooperation

#### NATO cooperation on AI is fragmented and underfunded now.

Lawrence and Cordey, 2020 – researchers for The Cyber Project at the Belfer Center for Science and International Affairs [Christie and Sean, August, The Cyber Project Paper “The Case for Increased Transatlantic Cooperation on Artificial Intelligence Edited by Lauren Zabierek and Julia Voo https://www.belfercenter.org/sites/default/files/2020-08/TransatlanticAI.pdf Acc. 4/21/22 TA]

Transatlantic collaboration for AI-related research is taking place at varying levels although these projects are relatively ad hoc and materialize within existing scientific and technological research agreements and roadmaps. For instance, the current Roadmap for US-EU Science & Technology prioritizes four areas for transatlantic cooperation, most of which leverage AI (e.g., health, transportation, bioeconomy, marine and arctic research) or promote institutions that do (e.g., European Organization for Nuclear Research or CERN).35, 36 These collaborative links are supported and promoted through a variety of arrangements and initiatives, such as BILAT 4.0, EURAXES37 or the European Network of Research and Innovation Centers and Hubs (ENRICH). In general, and despite challenges to systematically integrating US entities into European research programs, the US remains the leading non-EU (“third country”) participant in Horizon 2020,38 with over 60 participations and 1,200 partnerships.39 US funding contributions to Horizon 2020 and participation in AI-related projects, however, is meager than its broader research involvement in Horizon 2020. For instance, US collaborative links with Horizon 2020 projects can only be found in 2% of AI-related projects, 12% of deep learning projects, and 4% of machine learning-related projects.40 Accordingly, there is still plenty of room for improvement.41

#### US NATO AI coordination is insufficient now – adversarial AI proves we are vulnerable

Lawrence and Cordey, 2020 – researchers for The Cyber Project at the Belfer Center for Science and International Affairs [Christie and Sean, August, The Cyber Project Paper “The Case for Increased Transatlantic Cooperation on Artificial Intelligence Edited by Lauren Zabierek and Julia Voo https://www.belfercenter.org/sites/default/files/2020-08/TransatlanticAI.pdf Acc. 4/21/22 TA]

After being told in the wake of 9/11 that European and NATO allies pledged to fight Al Qaida alongside American troops, the then United States National Security Advisor Condoleezza Rice said “it was good to have friends in the world at a time like this.”1 Nicholas Burns, the then US Ambassador to NATO, has since reflected on the importance of the transatlantic alliance. Losing the relationship with NATO and members of the European Union, he believes, would lead the US to “lose our strongest anchor in a dangerous and complex world.”2 The world has changed a lot since September 2001, however these relationships are no less important. Global terrorism is still a threat, but the rise of China and technological advancements have converged to create both new opportunities and new challenges. Artificial intelligence (AI) promises to help the world find a vaccine for Covid-19, add up to $15.7 trillion to the global economy, and improve militaries’ ability to detect, defend, and deter against cyberattacks.3 However, AI technologies could also provide adversaries and authoritarian governments with tools to increase censorship, automate disinformation. and engage in constant cyber or kinetic conflict.4 Despite all of these changes, the importance of a strong relationship between the United States and the European Union has been a constant. The transatlantic disagreements that have characterized the past few years—and have hampered a united front on emerging technologies like 5G and AI5—are not the first time US-EU relations have suffered, but they should not further divide allies that share common values.6 Deepened US-EU cooperation across the entire AI ecosystem7 is necessary to advance a more secure, safe, and prosperous world, but to do this the current level of AI-related coordination and partnership needs to be increased. This report’s purpose is twofold: first, to inform policymakers and researchers about the current state of transatlantic AI efforts; and second, to recommend specific areas where transatlantic AI collaboration should be strengthened. Based on a comprehensive study of over 260 documents and reports covering the period from December 1997 to June 2020, we proposes more than 16 recommendations to increase US-EU AI collaboration across the entire AI ecosystem, as well as 9 recommendations for AI cooperation in the healthcare, environmental sciences, and defense sectors. Greater transatlantic efforts are needed to prevent the advancement of an AI vision that is adversarial and harmful to the wellbeing of the United States, the European Union, and allies.

### Harms – Cohesion

#### Different ethical perspectives can undermine political cohesion – different ethical perspectives can increase burden sharing tensions

Stanley-Lockman, 2021 - Center for Security and Emerging Technology [Zoe CSET Issue Brief August “Responsible and Ethical Military AI Allies and Allied Perspectives” https://cset.georgetown.edu/publication/responsible-and-ethical-military-ai/ Acc. 4/21/22 TA]

This philosophical debate is implicit in the Defence Ethics Committee’s opinions, and is relevant to adjacent questions about AI for two practical reasons. First is that French military officers see the need for guiding principles for technology that increases operational distance or can be applied to grey-zone activity. They note that ethics and law are well structured in rules of engagement, commander’s intent, and compliance with legal frameworks for conflict. But because these often only apply above a certain threshold of hostility, guidance that allows the armed forces to maintain “ethics and moral strength” for other types of military activity is lacking.69 This includes governance for technology that increases the distance between operators and operations, including in the information domain. As technology broadens and accelerates changes to the operating environment, taking these ethical and moral considerations into account could necessitate new “deontological principles” on duty and obligation for the French Armed Forces.70 The concept of distance from operations enters into advisory opinions, both in relation to automation bias and psychological effects. But even with the advisory opinions of the ministerial committee, such a framework is still missing.71 Second is that different allied perspectives on distance from operations could affect coalition operations if political differences widen. If guiding principles on distance from operations enter into rules of engagement or prompt questions about commanders’ intent and responsibility, then different ethical bases for the use of new technologies in warfare could create political tensions. More specifically, if the more technologically advanced allies send more AI-enabled support and fewer troops as their contributions to coalition operations, some allies may perceive that others are not willing to equally share the burden of risks to life.72 If not managed, sensitive issues that stem from different ethical risk calculations could decrease political cohesion.

#### AI challenges alliance cohesion because uncoordinated capabilities destroy interoperability.

Lin-Greenberg, 2020 - member of the MIT Security Studies Program [Erik Vol 3, Iss 2 Spring, Texas National Security Review “Allies and Artificial Intelligence: Obstacles to Operations and Decision-Making” http://dx.doi.org/10.26153/tsw/8866 Acc 4/22/22 TA]

Artificial intelligence (AI) promises to increase military efficiency, but also poses unique challenges to multinational military operations and decision-making that scholars and policymakers have yet to explore. The data- and resource-intensive nature of AI development creates barriers to burden-sharing and interoperability that can hamper multinational operations. By accelerating the speed of combat and providing adversaries with a tool to heighten mistrust between allies, AI can also strain the complex processes that allies and security partners use to make decisions. To overcome these challenges and prepare for AI-enabled warfare, policymakers need to develop institutional, procedural, and technical solutions that streamline decision-making and enhance interoperability. In June 2019, the United States announced a new artificial intelligence (AI) partnership with Singapore that calls for collaboration on the development and use of AI technologies in the national security domain.1 Is this type of cooperation a harbinger of things to come? The burgeoning military use of AI — technology that carries out tasks that normally require human intelligence — has the potential to alter how states carry out military operations. AI-enabled technologies — like autonomous drone swarms and algorithms that quickly sift through massive amounts of information — can increase the speed and efficiency of warfare, but they may also exacerbate the coordination and decision-making challenges frequently associated with multinational military operations carried out by allies and security partners. Policymakers and experts in the United States and other countries have urged international cooperation on the development and use of AI, but this guidance overlooks important questions about the challenges of AI collaboration in the security domain. President Donald Trump’s executive order on AI directs “enhance[ed] international and industry collaboration with foreign partners and allies” to maintain “American leadership in AI.”2 Similarly, the congressionally chartered National Security Commission on Artificial Intelligence warns, “If the United States and its allies do not coordinate early and often on AI-enabled capabilities, the effectiveness of our military coalitions will suffer.”3 Several of Washington’s allies have echoed these calls for collaboration. Germany’s 2019 National AI Strategy advocates for “work[ing] with the nations leading in this field … to conduct joint bilateral and/or multilateral R&D activities on the development and use of AI.”4 While cooperation is important, what challenges might allies and partners encounter as they work together to develop and deploy AI in the military domain? And what steps might states take to overcome these obstacles?

#### Interoperability is key to cohesion – it enables communication, intelligence and planning.

Dufour 2018 - Colonel in the Canadian Army, currently working with NATO [Martin, NDC Policy Brief No. 6 December “Will artificial intelligence challenge NATO interoperability?” https://www.ndc.nato.int/news/news.php?icode=1239 Acc. 4/21/22 TA]

What interoperability means Cohesion, often mentioned as the Alliance’s center of gravity, lies at the heart of NATO’s success. Underwriting this cohesion is the ability of member states to share the burden of producing military capabilities to service the whole, and the burden of conducting operational missions. To do this successfully, members have to be able to undertake military actions in concert with each other in a fully coordinated, and as much as possible integrated manner. This is referred to as interoperability, defined as “the ability of systems, units or forces to provide services to, and accept services from other systems, units or forces and to the use the services so exchanged to enable them to operate effectively together”.1 This definition implies that there are several layers to interoperability which need to be addressed to ensure forces are able to operate together effectively in a military context. These include technical features permitting systems to physically connect to one another and exchange information; and the alignment of procedures and processes to allow military personnel to function within the same space and achieve common goals without fratricide. It also implies that this takes place at various levels of operation, from tactical to strategic. A high level of interoperability allows allies to effectively exchange intelligence and information, cooperatively plan complex military operations, and conduct integrated missions with fully exchangeable force packages.

#### AI swarms will undermine human control, which destroys allied support for military operations.

Valášek, 2017 - director of Carnegie Europe [Tomáš August 31, “How Artificial Intelligence Could Disrupt Alliances” https://carnegieeurope.eu/strategiceurope/72966 Acc 4/22/22 TA]

But the deployment of AI by allies carries its own political risk. While its use to defend networks or information integrity is widely accepted, AI’s military applications will introduce new tensions to alliances. The sense of equality and codecision among members could be at risk because of worries about accountability. When countries fight as a group they want to have a say in how that alliance prosecutes the war. But that becomes impossible if the fighting in the future is done by machines. While for now the United States has a policy of keeping a human “in the loop” on decisions to use lethal force, military tactics and technology keep evolving. As artificial intelligence becomes capable of tackling more complex tasks, the killing in the future may not be done by a single missile-armed unmanned aerial vehicle (UAV) but, in the medium term, by swarms of UAVs that use AI to constantly adopt tactics and targeting in real time, leaving little time and space for human interference. This development might make allies more reluctant to join the fight in the first place. They would worry that if AI-directed weapons kill innocent civilians by mistake or inflict disproportional carnage, governments will be blamed despite having no control over the action itself.

### Harms - Interoperability

#### Uncoordinated adoption of AI systems undermines NATO interoperability, making miscalculation and accidents more likely.

Trabucco and Stanley-Lockman, 2022 – prof of Political Science, University of Copenhagen and prof of Defense and Strategic Studies, Nanyang Technological University [Lena and Zoe, The Oxford Handbook of AI Governance, March, “NATO’s Role in Responsible AI Governance in Military Affairs” https://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780197579329.001.0001/oxfordhb-9780197579329-e-69 Acc 4/16/22 TA]

Even without being attacked, governability of AI in a NATO context also means understanding how AI-enabled and autonomous systems developed by the 30 Allies—and other partners—will interact with one another. NATO has expressed interest in governability as a principle of AI “to disengage or deactivate in case of unintended behavior,”85 which echoes the U.S. Department of Defense definition of governable AI.86 Disengaging adversaries is important to maintain de-escalation measures in conflict. For NATO, interoperability between systems also relates to governable AI because allies must also consider how the interactions between the 30 Allies’ own AI-enabled and autonomous systems may result in unintended or emergent behavior.87 This means that NATO has a responsibility to coordinate activities—be they technical exchanges, standardization efforts, or training and exercises—to build confidence that the systems perform as humans intend.88 Without this coordination, the lack of interoperability of allied systems could lead to accidents, and separately, the potential loss of operational effectiveness also presents vulnerabilities for adversaries to exploit. In addition to governability, NATO and its Allies are assessing the risks that bias, attacks, and lack of interpretability can introduce in relation to the anticipated uses of a given AI system.89 In security and defense, new and heightened risks include poisoning of the information environment, deception systems and techniques, uncertainty about the performance of systems in new and unknown environments, and the possibility that tensions or accidents escalate at a faster tempo than humans and institutions can process, among others. These risks can manifest either in motivated attacks or unintentional failure modes.90 In both cases, assuring and certifying that military assets are safe and secure is important given the inherently high risk in operational environments. These operational environments include the presumption that an adversary is disrupting one’s own systems, be it by directly attacking the AI systems themselves, or disrupting the broader command, control, and communications systems under which the AI systems are operating.91 Mitigating these types of risks is typically done in testing, evaluation, validation and verification (TEVV) and in experimentation activities.92 Yet AI cannot be validated and verified the way traditional software systems are because there is no guarantee that an AI system will perform in the real world as it does in a testing environment, and because lifelong-learning systems will perform differently over their lifecycle. Having robust assurance and TEVV processes in place are also important for operators to build trust in the systems they are meant to use, as well as for citizenries and coalition partners at large to see that accountability procedures still apply. As such, building institutional procedures to govern AI safety and security is necessary to build trust in the use of the technology—as well as to develop countermeasures and defensive systems that protect against adversarial threats. NATO thus has an institutional responsibility to prevent and mitigate these intentional and unintentional failures if using AI in operations and mission support.93 As Table 69.1 shows, the Alliance also has a range of relevant entities to coordinate national approaches to AI safety and security, as well as facilitate safety measures as part of responsible use in the Alliance-wide ecosystem.

#### Without coordination, adoption of AI by NATO will undermine interoperability as it becomes a zero sum competition between allies

Gilli, 2020 - Senior Researcher at the NATO Defense College [Andrea, NDC Research Paper No.15 – December ““NATO-Mation”: Strategies for Leading in the Age of Artificial Intelligence” https://www.ndc.nato.int/news/news.php?icode=1514 Acc 4/21/22 TA]

What types of problem could emerge? Technology-generated efficiency gains in production lead to lower prices. However, lower prices lead to increases in demand – because the relative price of substitute goods (rivals) increases.76 Over the past decade, AI – and, in particular, ML – has made a particular activity, prediction, cheaper: it is reasonable to forecast that this trend will continue in the future.77 As AI becomes cheaper, however, the demand for AI-related services will increase, thus leading to more demand for related necessities like AI specialists, AI infrastructure (and 5G networks) and AI components (processors). This in turn might well lead to scarcity and higher prices, thus pitching actors against one another – not unlike the early stages of the COVID-19 crisis, when individual self-interested actions led to collectively bad outcomes.78 In the context of a military alliance, the problem goes much deeper, as it can generate a beggar-thy-neighbour effect with allies competing for the same scarce resources.79 Moreover, without consultation and cooperation, Allies could end up developing different technological solutions, with the risk of undermining compatibility and interoperability. Similarly, they could end up prioritizing some problems over others, with the risk of developing multiple, different and redundant solutions while neglecting other points in need of attention.80 However, through intra-alliance coordination and cooperation, as well as dialogue and consultation, secondary market mechanisms and other approaches, NATO could provide an important contribution to identify and address this type of problems.81

#### Asymmetric AI development undermines NATO interoperability

Dufour 2018 - Colonel in the Canadian Army, currently working with NATO [Martin, NDC Policy Brief No. 6 December “Will artificial intelligence challenge NATO interoperability?” https://www.ndc.nato.int/news/news.php?icode=1239 Acc. 4/21/22 TA]

Overcoming the interoperability gap It is evident that of the emerging disruptive technologies, none is likely to have as significant an impact on warfare as that of artificial intelligence. The effect of artificial intelligence is already being felt in numerous fields, and its further development and combination with other technologies will compound this, allowing the development of advanced autonomous systems. While the latter holds the promise of creating new classes of weapons with great military potential, disproportional growth among the various NATO allies could lead to complex interoperability problems, further widening the existing interoperability gap between member nations. Over the next two decades Alliance members will be increasingly challenged by the rapid evolution of artificial intelligence and risk becoming unable to operate together should the asymmetric adoption of emerging technologies not be carefully managed. It is therefore paramount that countries begin preparing for the future impact of artificial intelligence in the military realm, and start adopting the technology in niche areas to ensure they do not fall too far behind.

#### Rapid US adoption of AI widens the NATO interoperability gap

Dufour 2018 - Colonel in the Canadian Army, currently working with NATO [Martin, NDC Policy Brief No. 6 December “Will artificial intelligence challenge NATO interoperability?” https://www.ndc.nato.int/news/news.php?icode=1239 Acc. 4/21/22 TA]

The true power of artificial intelligence however emerges when it is combined with other technologies to enable fully autonomous operations. Definitions of autonomous systems are varied, but all revolve around the concept of systems able to make autonomous decisions, independent of human operators, based on a self-constructed understanding of a situation, and with the ability to adapt to the changing environment at a speed unmatched by humans. This ability to learn and adapt without human input is the key distinction between today’s task-specific automated systems and fully autonomous systems. Once coupled to weapons systems such as uninhabited vehicles, or command and control apparatus, such autonomous systems could then herald a new era of warfare where the time required to collect and analyze large amounts of data, and make quick decisions in the face of rapidly evolving situations is greatly reduced, thereby providing a significant competitive advantage. This new era was called “hyper war” or “war at the speed of light” in a 2017 report on NATO Adaptation. 6 This report reveals that the United States, witnessing its technological advantages rapidly eroding, has embarked on a Third Offset Strategy, which heavily relies on the adoption of emerging disruptive technologies, and is already well on its way to adopting a range of capabilities including “robotics, system autonomy, miniaturization, scaling big data, artificial intelligence and deep learning”.7 The rapid development and adoption of such technologies has the potential to further widen the interoperability gap between NATO members.

### Harms – Crisis Instability

**AI weapons systems will increase the risk of accidents and miscalculation during a crisis because autonomous machine speed is too fast for humans to control**

**Scharre, 2021 - Director of Studies at Center for New American Security** [Paul, Texas National Security Review Vol 4, Iss 3 Summer “Debunking the AI Arms Race Theory” https://tnsr.org/2021/06/debunking-the-ai-arms-race-theory/Artificial Intelligence Acc 5/27/22 TA]

An Accelerating Tempo of Warfare One possibility for how AI could alter warfare in a manner that would leave all states worse off would be if it accelerated the tempo of war past the point of human control, making warfare faster, more violent, and less controllable. There are advantages to adding intelligence into machines, but given the limitations of AI systems today, the optimal model for achieving the highest quality decision-making would be a joint human-machine architecture that combines human and machine decision-making. One way in which machines outperform humans, however, is in speed. It is possible to envision a competitive dynamic in which countries feel compelled to automate increasing amounts of their military operations in order to keep pace with adversaries. Then-Deputy Secretary of Defense Robert O. Work summed up the dilemma when he asked, “If our competitors go to Terminators and we are still operating where the machines are helping the humans and it turns out the Terminators are able to make decisions faster, even if they’re bad, how would we respond?”22 This is a classic security dilemma. One state’s pursuit of greater automation and faster reaction times undermines other states’ security and leads them to similarly pursue more automation just to keep up. If states fall victim to this trap, it could lead to all states being less secure, since the pursuit of greater automation would not merely be an evolution in weapons and countermeasures that simply leads to the creation of new weapons in the future. At some point, warfare could shift to a qualitatively different regime in which humans have less control over lethal force as decisions become more automated and the accelerating tempo of operations pushes humans “out of the loop” of decision-making. Some Chinese scholars have hypothesized about a battlefield “singularity,” in which the pace of combat eclipses human decision-making.23 U.S. scholars have used the term “hyperwar” to refer to a similar scenario.24 While the speed of engagement necessitates automation in some limited areas today, such as immediate localized defense of ships, bases, and vehicles from rocket and missile attack, expanding this zone of machine control into broader areas of war would be a significant development. Less human control over warfare could lead to wars that are less controllable and that escalate more quickly or more widely than humans intend. Similarly, limiting escalation or terminating conflicts could be more challenging if the pace of operations on the battlefield exceeds human decision-making. Political leaders would have a command-and-control problem in which their military forces are operating “inside” (i.e., faster than) their own decision cycle. The net effect of the quite rational desire for nations to gain an edge in speed could lead to an outcome that is worse for all. Yet, competitive dynamics could nevertheless drive such a result.

**Autonomous AI decision making creates a “Black Box” – military strategies become Unexplainable, which makes them impossible to understand or study for humans and prevents us from repeating mistakes.**

**Lin-Greenberg, 2020 - member of the MIT Security Studies Program** [Erik Vol 3, Iss 2 Spring, Texas National Security Review “Allies and Artificial Intelligence: Obstacles to Operations and Decision-Making” http://dx.doi.org/10.26153/tsw/8866 Acc 4/22/22 TA]

Uncertainty Surrounding AI Technology AI can also strain alliance decision-making by fueling uncertainty about information and military actions. Unlike human analysts or military personnel who can be asked to explain and justify their findings or decisions, AI generally operates in a “black box.” 97 The neural networks that underpin many cutting-edge AI systems are opaque and offer little insight into how they arrive at their conclusions.98 These networks rely on deep learning, a process that passes information from large data sets through a hierarchy of digital nodes that analyze data inputs and make predictions using mathematical rules. As data flows through the neural network, the net makes internal adjustments to refine the quality of outputs. Researchers are often unable to explain how neural nets make these internal adjustments. Because of this lack of “explainability,” users of AI systems may have difficulty understanding failures and correcting errors.99 Policymakers have called for the development of more transparent AI systems, and researchers are working to develop explainable AI tools that peer inside the AI black box.100 Yet, many decision-makers remain uncomfortable with the uncertainty surrounding AI-enabled systems. The commander of the U.S. Air Force’s Air Combat Command, for instance, publicly explained that he was not yet willing to rely on AI programs to analyze the full-motion video collected by reconnaissance drones. He argued that although systems are improving, they are still unable to consistently provide accurate analysis.101 So long as the decisions and analysis of AI systems remain opaque, military commanders may be reluctant to trust AI-enabled systems. And if used, AI may contribute to the fog of war, rather than reduce it, making it difficult to make decisions using information delivered by AI technologies. The operational implications associated with uncertainty and lack of trust in AI would likely be exacerbated in multinational alliance contexts. There is significant cross-national variation in trust in AI technologies, even among close allies. One 2018 survey, for instance, found that just 13 percent of respondents in Japan and 17 percent of respondents in South Korea trust artificial intelligence, compared to 25 percent of respondents in the United States. Similar disparities exist between the United States and many of its NATO allies. In Spain, 34 percent of respondents trust artificial intelligence, compared to 21 percent in Canada, 40 percent in Poland, and 43 percent in Turkey.102 Given this variation, policymakers and commanders from some states may be more reluctant to use AI-enabled systems or trust the information they deliver than leaders from other states during multinational operations.

**Autonomous AI undermines nuclear security during a crisis – it makes systems vulnerable to hacking and disruption.**

**Shah, 2019 - Research Assistant at the Center for International Strategic Studies** [Syed Sadam CISS Insight Vol.VII, No.2 “The Perils of AI for Nuclear Deterrence” https://journal.ciss.org.pk/index.php/ciss-insight/article/download/10/9 Acc 5/25/22 TA]

AI cyber threats and nuclear deterrence Spoofing is useful to fool a target by pretending to be the original source. In nuclear matters, it can be used to access top-secret information or for ordering a false nuclear launch or to expose the system’s vulnerabilities. 26 However, with the inception of AI and the use of speech synthesis, and faking voice commands, spoofing has been revolutionized in recent years. An AI hacker can lure in more targets quantitatively, and qualitatively than humans. Zero Fox, an IT security company conducted research to compare the efficiency of artificial and natural intelligence by sending different users a hacking malicious link. Artificial hacker (Ah) was taught to design and implement its own phishing bait, unlike Mr. Thomas Fox-Brewster who participated in the experiment. Ah succeeded in luring 275 victims at the rate of 6.75 tweets per minute, and Thomas could only target 49 users and pump out 1.075 tweets per minute.27 28 Malicious use of AI in spoofing makes nuclear decision-making and communication systems quite vulnerable. If several fake early- warnings appear to be real, will the commander-in-charge of the nuclear weapons order the launch? Similarly, individuals working on sensitive information may mistakenly provide secret information to an AI hacker. The threats of cyber-spoofing are not recent. Emanating from threats, the scale and scope of attacks and methods are not only diverse but also real. It happened in 1983 when the algorithm of Early Warning System (EWs) wrongly sensed incoming missiles, a warning sounded multiple times; however, the officer-in-charge Stanislav Petrov prevented the imminent crisis by trusting his instincts and not the alarm bell. 29 The rise in the use of autonomous weapons and systems will also drive inferior AI adversaries’ interest in using cyber countermeasures. 30 Every software run machine is vulnerable to attack, and particularly zero-day attacks come out even with all the defensive measures.

#### A lack of human control undermines accountability, which entangles NATO in conflicts initiated by AI.

Hill and Marsan, 2018 - Director and Senior Assistant, NATO Office of Legal Affairs [Steven and Nadia, 7-18-18 “Artificial Intelligence and Accountability: A Multinational Legal Perspective” https://www.sto.nato.int/publications/STO%20Meeting%20Proceedings/STO-MP-IST-160/MP-IST-160-PP-4.pdf Acc 4/21/22 TA]

4.0 ACCOUNTABILITY OF AI-ENABLED TECHNOLOGY International and domestic law offers some tools to cope with the effects of AI-enabled weapons from a multinational collective defense perspective. New technology does not necessarily require new laws and it is not the aim of this paper to propose the creation of new legal frameworks. The applicable legal framework will depend on the technology used and on the actual and potential effects caused by that technology and can include various national laws, human rights law, the law of state responsibility, international humanitarian law and the law of armed conflict. With machines taking on the qualities of human intelligence, including perception, cognition and action, the issue of accountability for illegal acts performed by autonomous systems has dominated the debate. The issue is not so much what legal framework applies, but who is legally responsible for the effects of AI-enabled weapons. Accountability and Responsibility AI-enabled action that constitutes an “armed attack” within the sense of Article 51 of the UN Charter, could potentially set off the invocation of Article 5 of the Washington Treaty. Setting aside the issue of the threshold to be applied to determine whether an AI-enabled attack would constitute an “armed attack”, the preliminary question that would arise is that of attribution. After all, assigning responsibility for an armed attack is a necessary precondition to the use of self-defence measures. AI-enabled weapons challenge our traditional notions of responsibility: who can be held accountable for the effects of this technology, especially when fully autonomous? Can we even talk of a “legal personality” of AI-enabled systems? In this area, States have been rather clear in expressing the need for responsibility to be attributed to human beings.18 The international debates and discussions on the legal approach to take with respect to lethal autonomous weapons systems (LAWS) provides a useful reference on the concept of “human control” where the substance of the debate has been how to regulate human-machine interaction, often referred to as “human-machine teaming”. The human role in independent machine decision-making can vary, as exemplified through the OODA loop of decision-making (Observe, Orient, Decide and Act).19 An “in the loop” system requires human intervention for its operation, an “on the loop” system provides for human intervention if needed, and an “out of the loop” system does not require human intervention at all, a prospect that is criticized by observers who have supported the concept of “minimum human control.” Privileging human judgment and accountability above mechanical efficiency, the United States, for example, has taken a clear stance towards asserting that a human being should always be kept in the decision-making loop for the use of LAWS, as the ultimate decider on the use of lethal force in the battlefield.

### Extend – Harms - Human Dignity

#### 1. Inhumanity – AI cannot respect human dignity because it cannot know the value of life because it is not alive.

Docherty, 2014 - senior researcher in the Arms Division of Human Rights Watch [Bonnie “Shaking the Foundations The Human Rights Implications of Killer Robots” Human Rights Watch http://www.hrw.org/sites/default/files/reports/ arms0514\_ForUpload\_0.pdf Acc 12/27/20 TA]

Fully autonomous weapons would possess the power to kill people yet be unable to respect their dignity. As inanimate machines, they could truly comprehend neither the value of individual life nor the significance of its loss. Allowing them to make determinations to take life away would thus conflict with the principle of dignity.82 Critics of fully autonomous weapons have expressed serious moral concerns related to these shortcomings. In his 2013 report to the Human Rights Council, Christof Heyns, the special rapporteur on extrajudicial killing, wrote, [A] human being somewhere has to take the decision to initiate lethal force and as a result internalize (or assume responsibility for) the cost of each life lost in hostilities, as part of a deliberative process of human interaction…. Delegating this process dehumanizes armed conflict even further and precludes a moment of deliberation in those cases where it may be feasible. Machines lack morality and mortality, and should as a result not have life and death powers over humans.83 Heyns described this issue as an “overriding consideration” and declared that if fully autonomous weapons are found morally unacceptable, “no other consideration can justify the deployment of [fully autonomous weapons], no matter the level of technical competence at which they operate.”84

#### 2. Hope – Autonomous AI weapons deny dignity because algorithmic decisions deny Hope, which is essential to dignity.

Heyns, 2016 - Professor of Human Rights Law, University of Pretoria [Christof, Human Rights Quarterly 38 (2016) 350–378 “ Human Rights and the use of Autonomous Weapons Systems (AWS) During Domestic Law Enforcement” <https://www.academia.edu/37475669/Human_Rights_and_the_use_of_Autonomous_Weapons_Systems_AWS_During_Domestic_Law_Enforcement> Acc 12/27/20 TA]

The interrelated considerations of time and hope play a role in this context. One of the problems presented by computer algorithms that determine when AWS will be allowed to release force is that they do so in advance, on the basis of hypotheticals, while there is no true and pressing emergency rendering such a far-reaching decision unavoidable. Even if it may be permissible in a real emergency to take far-reaching measures, it does not follow that such decisions can be taken in the abstract. Decisionmaking by politicians and scientists about the life and limb of people based on theoretical possibilities contemplated in the halls of the legislature or laboratories risks trivializing the issues at stake. Hypotheticals such as the ticking-bomb scenario present the same kind of problem. It makes crossing the threshold of using force against another human being too easy. The statute authorizing the shooting down of the plane, struck down in the German Air Security case cited above, had a similar quality—it authorized in advance, in the abstract, the ending of the lives of imaginary passengers. This seems to fly in the face of the requirement that the use of force against a human being should be a measure of last resort.97 Hope, often against the odds, is an important part of our psychological makeup and dealing with the harshness of reality.98 A sentence of life without parole, for example, like the death penalty, can be seen as a violation of dignity because it means “writing off” the person, not leaving open the possibility of hope. The possibility of a deliberative process somewhere down the line, where a change of mind and fate is possible, is ruled out in advance by the introduction of AWS if human control is sacrificed in the process A world in which death comes with the certainty of science, with no prospect, however farfetched, of a last minute change of plan, or the possibly of human compassion—what may be called humanitarian override—offers little room for hope. Hope in this sense—and thus dignity—may be one of the casualties of AWS.

#### 3. Objectification – Autonomous weapons systems violate human dignity because they reduce humans to objects – to data points.

Sauer, 2021 - Senior Research Fellow at Bundeswehr University [Frank serves on the International Panel on the Regulation of Autonomous Weapons IRRC No. 913 March “Stepping back from the brink: Why multilateral regulation of autonomy in weapons systems is difficult, yet imperative and feasible” https://international-review.icrc.org/articles/stepping-back-from-brink-regulation-of-autonomous-weapons-systems-913 Acc 4/5/22 TA]

The key ethical implication of weapon autonomy in a weapons system's critical functions is thus that allowing algorithms to make kill decisions violates human dignity because the victim is reduced to an object, a mere data point fed to an automated, indifferent killing machine. It is worth spelling out that this objection is valid even if civilians (or other non-combatants) remain unharmed. After all, narrowing the focus solely to the possibility that LAWS might not be able to make proper – or even better – distinctions between combatants and civilians, a cornerstone of the legal case against LAWS discussed in the CCW, loses sight of the fact that combatants, too, are imbued with human dignity. In other words, weapon autonomy raises a more fundamental concern than the legal strand of the LAWS debate suggests, because “successfully discerning combatants from noncombatants is far from the only issue”.89 As a general rule, the use of LAWS against humans can be deemed an unacceptable infringement on human dignity because delegating the decision to kill to an algorithm devalues human life.90 Exceptions from this rule would only be conceivable if they were explicitly not made on the basis of weighing bare lives against each other and then deliberately opting for algorithmic killing. An example for such a boundary case could be a sailor's reliance on weapon autonomy in a narrowly bound scenario of desperate self-defence. If the aforementioned navy frigate91 were to be under a saturation attack by anti-ship missiles and, potentially, also manned aircraft, then inadvertently endangering human life by relying on autonomous defensive fire for the survival of the ship and its crew could be considered acceptable ex post. Generally speaking again, being killed as the result of algorithmic decision-making matters for the person dying because a machine taking a human life has no conception of what its action means: “In the absence of an intentional and meaningful decision to use violence, the resulting deaths are meaningless and arbitrary.”92 In other words, the least we can do when killing another human being in war is to recognize this death of a fellow member of our species and put the weight accompanying this decision onto our conscience. The mindlessness of machines killing humans based on software outputs strips the latter of their right to be recognized as humans in the moment of death. This also matters for society at large. Modern warfare, especially in democracies, already decouples societies from warfighting in terms of political and financial costs.93 A society outsourcing moral costs by no longer even concerning itself with the act of killing, with no individual combatants’ psyches burdened by the accompanying responsibility, crosses a moral line. It risks losing touch with fundamental humanitarian values such as the right to a dignified life and respect towards fellow human beings.94 To sum up this section, while the legal verdict on weapon autonomy increasing IHL compliance is still out and will be for some time, a more fundamental objection against LAWS based on deontological limits is valid today.

#### 4. Compassion – AI systems cannot uphold dignity because they cannot feel compassion for others.

Docherty, 2018 - senior researcher in the Arms Division of Human Rights Watch [Bonnie August 21, “Heed the Call A Moral and Legal Imperative to Ban Killer Robots” [https://www.hrw.org/report/2018/08/21/heed-call/moral-and-legal-imperative-ban-killer-robots#](https://www.hrw.org/report/2018/08/21/heed-call/moral-and-legal-imperative-ban-killer-robots) Acc 12/27/20 TA]

In order to treat other human beings humanely, one must exercise compassion and make legal and ethical judgments.[52] Compassion, according to the ICRC’s fundamental principles, is the “stirring of the soul which makes one responsive to the distress of others.”[53] To show compassion, an actor must be able to experience empathy—that is, to understand and share the feelings of another—and be compelled to act in response.[54] This emotional capacity is vital in situations when determinations about the use of force are made.[55] It drives actors to make conscious efforts to minimize the physical or psychological harm they inflict on human beings. Acting with compassion builds on the premise that “capture is preferable to wounding an enemy, and wounding him better than killing him; that non-combatants shall be spared as far as possible; that wounds inflicted be light as possible, so that the injured can be treated and cured; and that the wounds cause the least possible pain.”[56] While compassion provides a motivation to act humanely, legal and ethical judgment provides a means to do so. To act humanely, an actor must make considered decisions as to how to minimize harm.[57] Such decisions are based on the ability to perceive and understand one’s environment and to apply “common sense and world knowledge” to a specific circumstance.[58] Philosophy professor James Moor notes that actors must possess the capacity to “identify and process ethical information about a variety of situations and make sensitive determinations about what should be done in those situations.”[59] In this way, legal and ethical judgment helps an actor weigh relevant factors to ensure treatment meets the standards demanded by compassion. Judgment is vital to minimizing suffering: one can only refrain from harming humans if one both recognizes the possible harms and knows how to respond.[60] Application to Fully Autonomous Weapons Fully autonomous weapons would face significant challenges in complying with the principle of humane treatment because compassion and legal and ethical judgment are human characteristics. Empathy, and the compassion for others that it engenders, come naturally to human beings. Most humans have experienced physical or psychological pain, which drives them to avoid inflicting unnecessary suffering on others. Their feelings transcend national and other divides. As the ICRC notes, “feelings and gestures of solidarity, compassion, and selflessness are to be found in all cultures.”[61] People’s shared understanding of pain and suffering leads them to show compassion towards fellow human beings and inspires reciprocity that is, in the words of the ICRC, “perfectly natural.”[62]

#### 5. Inherent Worth – AI denies dignity because it cannot respect the Inherent Worth of individuals – it can only mimic morality.

Johnson and Axinn, 2013 - Prof of Philosophy at the Univ of South Florida and PhD Candidate in Engineering at Penn [Aaron and Sidney, Journal of Military Ethics, Volume 12, Issue 2, August “The Morality of Autonomous Robots” www.tandfonline.com/10.1080/15027570.2013.818399 Acc 12/27/20 TA]

Morality Humans give themselves moral commands, programs are given the commands they are to follow. A machine can replicate an action that has been called moral, but morality does not come from following someone else. In this way a machine can act morally, by mimicking its programmer, but it cannot be moral. Similarly when playing back a video of a moral act one would not say that the video was moral, it is simply replaying the moral act of its subject. An autonomous robot is clearly more complicated than a video, and can more directly interact with the world and respond to feedback, however it is still just playing back moral actions, and is not truly making the decisions for itself. Moral commands are based on values, and values are produced and indicated by sacrifices (Axinn 2010, also see section on Military Honor, below). While robots are aware of following orders, they are not aware of making sacrifices. Artificial Intelligence still has no real notion of sacrifice (and Artificial Morality is still just a phrase and not a developed subject). Therefore robots have no values of their own, although they are following the values of their programmers. A distinctive human characteristic therefore is the ability to think morally based on one’s values, and to give oneself the moral commands. Morality requires, according to Kant, that the principle of one’s action must be one that is capable of being followed universally. Again, not the specific act, but the principle of the act must be one that everyone can follow. The ability to judge and extract the principles of an action cannot be codified or programmed. As Kant put it, ‘judgment…cannot be taught.’ (1965: p. A133). Furthermore, Kant insists, ‘general logic can supply no rules for judgment…’ (1965: p. A135). Without this ability we find once again that a robot can only mimic morality by replicating actions as commanded.

### Harms - Framework – Ethics First

#### NATO has a moral obligation to adopt ethical principles for AI weapons before they are used

Gilli, 2020 - Senior Researcher at the NATO Defense College [Andrea, NDC Research Paper No.15 – December ““NATO-Mation”: Strategies for Leading in the Age of Artificial Intelligence” https://www.ndc.nato.int/news/news.php?icode=1514 Acc 4/21/22 TA]

Ethical purpose: ethics and values (with Zoe Stanley-Lockman) NATO has an interest, and a moral obligation, to promote the adoption of its values in the realm of AI. Democratic values inform the Alliance’s goals, thus giving meaning to its material capabilities – including its military power. At the same time, the integration of AI into the fields of security and defence poses unique moral, ethical, legal, and safety-related questions.85 It is thus imperative that the Alliance actively considers and operationalizes AI ethics, regardless of the degree and scope of AI integration within NATO and its Allies. The common principles and values pronounced in the Atlantic Treaty represent the foundations on which NATO was built. Such principles and values – democracy, freedom, rule of law, individual rights, free markets – are the bond underlying the transatlantic community, which in fact predates the Atlantic Alliance.86 Norms and values can strongly shape the international system.87 Given the intense international competition in the technological, military, economic, and normative domains, embedding democratic values into AI is as much a strategic imperative for the Alliance as it is a functional one.88 In addition to signalling to domestic populations that NATO and its Allies follow through on their commitments to uphold values as the basis of the political and military Alliance, incorporating AI ethics into the “NATO-mation” agenda also serves as a bulwark against the incursion of unwelcome illiberal values in the course of future technological development.89

#### Morality must come first because the weapons don’t exist yet, and the ethical framework will Decide how they are treated.

Johnson and Axinn, 2013 - Prof of Philosophy at the Univ of South Florida and PhD Candidate in Engineering at Penn [Aaron and Sidney, Journal of Military Ethics, Volume 12, Issue 2, August “The Morality of Autonomous Robots” www.tandfonline.com/10.1080/15027570.2013.818399 Acc 12/27/20 TA]

Conclusion For the reasons presented above, reasons both military and humanitarian, we propose that autonomous robots, carrying lethal weapons and operated by computer programs alone, be treated on the same basis as the United States now treats chemical weapons (gas warfare among them). As noted earlier, the U.S. and all other nations should agree not use such weapons. A second Ottawa-style conference would be an appropriate mechanism to accomplish this moral goal internationally. Nuclear weapons are an example of technology that was brought into use before civilization and the laws of war could react to them. We need to act now to establish the moral and legal standing of automatic robots before they enter into common usage. The Ottawa conference prohibiting anti-personnel mines (August 2007), as mentioned, would be an excellent model for what should be done about automatic robots. A nation that relies on such weapons ignores the humanitarian basis for the laws of war, and when there is an international convention banning them, such a nation will be acting dishonorably. As technology continues to progress there will certainly be borderline questions11, but the central notion cannot be abandoned, that a lethality decision is to be made only by a human and not a machine. That should remain the key focus of debate and be the guiding moral principle.

#### The Moral questions about AI are the most important ones – prefer my contextual evidence

Johnson and Axinn, 2013 - Prof of Philosophy at the Univ of South Florida and PhD Candidate in Engineering at Penn [Aaron and Sidney, Journal of Military Ethics, Volume 12, Issue 2, August “The Morality of Autonomous Robots” www.tandfonline.com/10.1080/15027570.2013.818399 Acc 12/27/20 TA]

The Major Question All of these questions ignore the bigger, more important moral question: should we relinquish the decision to kill a human to a non-human machine? In this paper we argue primarily that the discussion needs to focus on this most important question, and not on the details of the technology or its efficacy. We now further argue that the decision to take a human life must be an inherently human decision and that it would be unethical to allow a machine to make such a critical choice. The concept of what a rational human is, a being that can give itself the moral law, is essential to considering this matter.

### Harms - Framework - Human Dignity

#### Dignity is the most important value because it is a precondition for all other human values

Heyns, 2016 - Professor of Human Rights Law, University of Pretoria [Christof, Human Rights Quarterly 38 (2016) 350–378 “ Human Rights and the use of Autonomous Weapons Systems (AWS) During Domestic Law Enforcement” <https://www.academia.edu/37475669/Human_Rights_and_the_use_of_Autonomous_Weapons_Systems_AWS_During_Domestic_Law_Enforcement> Acc 12/27/20 TA]

However, there is also the further question of whether machines should be given this power. This raises the question of whether the rights to bodily integrity do not require whatever force is used against a human being to be authored by a human being as opposed to a robot. For example, is it not inherently arbitrary for a machine to take decisions about life and death over human beings? The question whether machines should have such power also raises questions about the right to human dignity. B. The Right to Human Dignity The preamble of the Charter of the United Nations reaffirms “faith in fundamental human rights [and] in the dignity and worth of the human person.”74 Article 1 of the Universal Declaration of Human Rights provides that “[a]ll human beings are born free and equal in dignity and rights.”75 The International Covenant on Civil and Political Rights refers to dignity in its preamble but does not list it as a substantive right in the rest of the text, though it is intertwined with other rights.76 The protection of human dignity is the common aim of international human rights law as well as IHL, and this commonality underlies their complementarity.77 Dignity has been called the “mother”78 of all human rights and is recognized to underlie much of IHL.79 Is it inherently a violation of the right to dignity if the decision to use force against a human being is made by a computer as opposed to another human?

#### Focusing on dignity is essential to make the ban successful – it resonates with the public.

Rosert, 2019 - Professor for International Relations at Universität Hamburg [Elvira, with Frank Sauer Researcher at Bundeswehr, Global Policy, July 5 “Prohibiting Autonomous Weapons: Put Human Dignity First” https://doi.org/10.1111/1758-5899.12691 Acc 12/27/20 TA]

The discourse about LAWS is not and does not have to be confined to the CCW discussions. While human dignity is admittedly not a crucial point of reference within this particular forum, it is a universal and ubiquitous concept that does resonate with States Parties in other UN fora (such as the General Assembly, for instance). In addition, as of 2019, it is in fact quite likely that the CCW will yet again end up being merely an incubator for regulative action. Should the process surrounding LAWS leave the CCW, proponents of a ban on LAWS must be ready to refocus on human dignity. After all, in the US, 55 per cent of the public is opposed to LAWS (Carpenter, 2013); in Germany, 71 per cent of the population is against handing weapons control in warfare over to AI (YouGov 2018). And international opinion polls conducted online by the Open Roboethics Initiative (2015) as well as by IPSOS (CSKR 2019b; Roff, 2017) indicate not only a similar picture but even growing resistance against LAWS at the global level. Since the public's reaction to LAWS is mostly visceral, rather than based on legal considerations, putting human dignity first will gain traction. This point is granted even by skeptics of our line of argument: ‘There could be some campaigning advantages. Saying that something is against human dignity evokes a strong visceral response’ (Sharkey, 2018, p. 9).

#### Dignity is the most important value because it is key to our international human rights obligations

Docherty, 2014 - senior researcher in the Arms Division of Human Rights Watch [Bonnie “Shaking the Foundations The Human Rights Implications of Killer Robots” Human Rights Watch http://www.hrw.org/sites/default/files/reports/ arms0514\_ForUpload\_0.pdf Acc 12/27/20 TA]

IV. Human Dignity The concept of human dignity lies at the heart of international human rights law. The opening words of the UDHR assert that “recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family is the foundation of freedom, justice and peace in the world.”78 In ascribing inherent dignity to all human beings, the UDHR implies that everyone has worth that deserves respect.79 The ICCPR establishes the inextricable link between dignity and human rights, stating in its preamble that the rights it enumerates “derive from the inherent dignity of the human person.”80 Regional treaties echo this position, and the Vienna Declaration of the 1993 World Human Rights Conference affirms that “all human rights derive from the dignity and worth inherent in the human person.”81

### Solvency - Ethics

#### NATO principles for Responsible AI use allow allies to align with the broader agenda.

Stanley-Lockman, 2021 - Center for Security and Emerging Technology [Zoe CSET Issue Brief August “Responsible and Ethical Military AI Allies and Allied Perspectives” https://cset.georgetown.edu/publication/responsible-and-ethical-military-ai/ Acc. 4/21/22 TA]

As part of the implementation of the EDT agenda, the NATO AI Strategy is expected to pick up on this theme in “guidance on both principles for responsible use of AI-enabled platforms and export control mechanisms.”150 Accountability and transparency—for weapon systems with varying levels of autonomy, as well as AI enabled systems—and rules for industry may feature in this approach.151 Already, the NATO Science & Technology Organization has identified a “strong emphasis on explainability, trust and human-AI collaboration” as well as “processes and standards for verification, validation and accreditation” as areas of interest for NATO, though they are not yet formalized in publicly pronounced principles.152 Overall, the issuance of principles at the NATO level will be helpful to reflect priorities of multiple Allies, permit more Allies to align nascent or ad hoc initiatives to the broader agenda with one another, and potentially help bridge responsible AI with best practices or standardization that industry can follow.153

#### Agreeing to ethical principles is essential to responsible use of AI, which includes standardization and interoperability

Christie, 2020 - Deputy Head of the Innovation Unit, NATO Emerging Security Challenges Division [Edward Hunter, 24 November NATO Review, “Artificial Intelligence at NATO: dynamic adoption, responsible use” https://www.nato.int/docu/review/articles/2020/11/24/artificial-intelligence-at-nato-dynamic-adoption-responsible-use/index.html Acc. 4/16/22 TA]

Committing to responsible use The Alliance’s success with AI will also depend on new and well-designed principles and practices relating to good governance and responsible use. Certain Allied governments have already made certain public commitments in the area of responsible use, addressing concepts such as lawfulness, responsibility, reliability, and governability, among others. In parallel, Allies have taken part in the Group of Governmental Experts on Lethal Autonomous Weapon Systems under the auspices of the United Nations, leading to the formulation of 11 guiding principles. Importantly, there is a good case for viewing work on adopting AI and work on principles of responsible use as complementary and synergistic. In effect, there are certain essential principles or goals that will underpin and facilitate both engineering good practice, as well as responsible state behaviour. Certain national principles imply a need for specific design requirements. For example, a principle of governability may be linked to technical abilities to detect and avoid unintended consequences, and to disengage or deactivate in case of unintended behaviour. The technical characteristics required to ensure that these and other objectives are met will necessarily be part of the design and testing phases of relevant systems. In turn, the relevant engineering work will be an opportunity to refine understanding, leading to more granular and more mature principles. Further work in the area of Testing, Evaluating, Verifying and Validating (TEVV) will be essential, as will support from relevant Modelling and Simulation efforts. NATO’s well-established strengths in the area of standardization will help frame these lines of effort, while also ensuring interoperability between Allied forces.

#### The US must coordinate with Allies on ethical principles to ensure the responsible use of AI

Schmidt and Work, 2021 – Chairs of The National Security Commission on Artificial Intelligence [Eric and Robert, “National Security Commission on Artificial Intelligence Final Report Executive Summary” <https://www.nscai.gov/2021-final-report/> Acc 6/7/22 TA]

Manage risks associated with AI-enabled and autonomous weapons. AI will enable new levels of performance and autonomy for weapon systems. But it also raises important legal, ethical, and strategic questions surrounding the use of lethal force. Provided their use is authorized by a human commander or operator, properly designed and tested AI enabled and autonomous weapon systems can be used in ways that are consistent with international humanitarian law. DoD’s rigorous, existing weapons review and targeting procedures, including its dedicated protocols for autonomous weapon systems and commitment to strong AI ethical principles, are capable of ensuring that the United States will field safe and reliable AI-enabled and autonomous weapon systems and use them in a lawful manner. While it is neither feasible nor currently in the interests of the United States to pursue a global prohibition of AI-enabled and autonomous weapon systems, the global, unchecked use of such systems could increase risks of unintended conflict escalation and crisis instability. To reduce the risks, the United States should (1) clearly and publicly affirm existing U.S. policy that only human beings can authorize employment of nuclear weapons and seek similar commitments from Russia and China; (2) establish venues to discuss AI’s impact on crisis stability with competitors; and (3) develop international standards of practice for the development, testing, and use of AI-enabled and autonomous weapon systems.

### Solvency – Human Control

#### Human control is the essential common goal that allows allies to develop AI standards and norms.

Stanley-Lockman, 2021 - Center for Security and Emerging Technology [Zoe CSET Issue Brief August “Responsible and Ethical Military AI Allies and Allied Perspectives” https://cset.georgetown.edu/publication/responsible-and-ethical-military-ai/ Acc. 4/21/22 TA]

In this light, this issue brief seeks to provide policymakers and analysts with one view on how similarities between allied perspectives on ethical AI for defense create opportunity for increased collaboration, and how the differences that are beginning to take shape can undermine said collaboration. Alignment and collaboration start with an understanding of variations in definitions of terms like trustworthy AI, ethical AI, and responsible AI in the defense context. These definitions are often fluid, depending on the legal, ethical, and cultural traditions of different countries. But different conceptions of responsible military AI nevertheless share foundations that help frame the analysis here. Broadly speaking, this issue brief focuses on how defense stakeholders steward AI innovation and integration in ways that: (1) respect the moral and ethical reasoning that underpins the responsible use of force; (2) meet and enhance compliance with law, which is based on ethics and translates reasoning into concrete obligations; and (3) minimize risks and unintended consequences for a safer and more secure international security environment. To uphold ethical, legal, and safe foundations of AI development and deployment in defense, allies coalesce around two shared themes in their approaches to responsible military AI. First is that decisions around the design, development, deployment, and diffusion of AI do not enter into a vacuum, but rather into an existing, multi-layered legal framework. It is not controversial for democratic countries to declare their shared obligation to respect law in order to remain accountable.8 This accountability is owed to domestic citizenries, to the armed forces themselves, and to allies and partners in coalition settings, as well as to adversaries and the international community at large. As such, for some allies, emerging conceptions of responsible AI are closely interlinked with responsible state behavior, with continued legal compliance as the minimum requirement.9 The second commonality in all of the frameworks examined here is a shared focus on human centricity. There are several definitions of human-centric AI, but for the purpose of this analysis, it can be understood as the idea that AI is designed to meet human needs and improve upon the role of the human.10 Not all frameworks use the term itself, but all stress the central role of humans in that machines should not replace humans and that humans remain responsible and accountable for decisions. By extension, this means a common approach to designing AI systems in such a way that the human user is not expected to adjust her or his own decision-making capacities to conform to the technology.11 The inverse would place the machine at the center of decision-making systems. Meanwhile, countries consider humans to be central to defense planning and operations, and stress in their positions that they do not think it moral or lawful to delegate human responsibility to machines.

#### Human control is key to for responsible AI use

Sauer, 2021 - Senior Research Fellow at Bundeswehr University [Frank serves on the International Panel on the Regulation of Autonomous Weapons IRRC No. 913 March “Stepping back from the brink: Why multilateral regulation of autonomy in weapons systems is difficult, yet imperative and feasible” https://international-review.icrc.org/articles/stepping-back-from-brink-regulation-of-autonomous-weapons-systems-913 Acc 4/5/22 TA]

Luckily, the process of conceptualizing the issue and translating it into diplomatic language has begun, and has already made some progress. After almost six years, the codification of a positive obligation of human control over weapons systems is establishing itself more and more at the heart of the debate. This general notion, gaining prominence in the wake of the call for “meaningful human control” originally introduced by the NGO Article 36,15 is being embraced by civil society as well as a consistently growing number of CCW States Parties. Accordingly, the conceptualization is now finding broad acceptance in both academic literature and the diplomatic debate – not least because the United States and the International Committee of the Red Cross (ICRC) have adopted it. This is not some sort of categorical definition of LAWS (versus non-LAWS) via a list of criteria. Instead, it is a functional understanding of the phenomenon.16 From a functionalist point of view, the LAWS issue is best understood as one of autonomy in a weapons system – that is, of the machine rather than a human performing a certain function (or certain functions) during the system's operation.17 Every military operation concluding with an attack on a target can be systematized along discrete steps of a kill chain or targeting cycle.18 This includes finding, fixing, tracking, selecting and engaging the target (as well as assessing the effects afterwards). Many weapons systems are already capable of performing some of the targeting cycle functions without human input or supervision – for example, a drone navigating from one waypoint to the next via satellite navigation and thus performing a part of the “finding” function without having to be remotely controlled. An autonomous weapon, however, completes the entire targeting cycle – including the final stages of selecting and engaging the target with force – without human intervention. In the debate about LAWS, the focus rests mainly on those last two functions (which the ICRC calls “critical”19) because most of the effects of weapon autonomy currently under discussion derive from giving up human control over them and handing the decision to use force over to a machine.20

#### Human control is key – it is the most pressing issue to resolve in military AI

Vestner, 2021 - Head of Security and Law Programme at Geneva Centre for Security Policy [Tobias, July 8 “Warfare and Artificial Intelligence” in Robin Geiß and Henning Lahmann (eds), Research Handbook on Warfare and Artificial Intelligence -forthcoming https://www.gcsp.ch/publications/military-operations-and-artificial-intelligenceGCSP Acc 5/27/22 TA]

At this stage, AI technologies and their military applications, as well as respective policies, are only emerging. Yet the integration of AI into armed forces will most likely transform the preparation and execution of military operations. This paper has analysed how AI systems will most likely affect and be affected by principal instruments for preparing and conducting military operations. Overall, the introduction of AI for military operations leads to a tension between AI influencing these instruments and these instruments serving to properly manage military AI. With regard to strategy, it can be expected that AI will be used for developing strategies, similar to planning activities. The introduction of AI applications throughout armed forces will likely also need to be considered by military strategists, as the speed and complexities of military operations may increase. Doctrine is an appropriate tool to define armed forces’ perception of AI as well as humans’ role regarding the use and control of AI, thereby serving as a hook for institutional ethics, values, and identity. Given doctrine’s purpose, AI will likely not have a major role in determining doctrine. Yet the planning process will likely be heavily supported by AI systems, which may lead to higher quality and speed of planning processes, eventually improving military decision-making. While AI can well support the management of ROE, these are instruments that can serve to guide the concrete authority attributed to AI systems and define human-machine teaming for specific missions in line with superior guidelines such as doctrine, (other) directives, and plans. Orders, however, are likely to become irrelevant for the interaction between AI systems and human-system interaction. Overall, a recurring theme is the interaction between AI systems and commanders, operators, and soldiers. Indeed, human control is a requisite for the purposeful use of AI in a human world. Yet, human-machine teaming remains subject to challenges. Many processes related to military operations will still require human input. Moreover, it seems crucial that military staff will be enabled to follow, understand, and keep appropriate control of AI systems. This is not only an ethical and legal challenge but a requisite to achieve effective enhancement of military operations through the introduction of AI. Further reflections and research on AI and military operations in general as well as on AI and strategy, doctrine, plans, ROE, and orders, in particular, should therefore focus on the human-machine interaction, as this remains the most pressing challenge of AI-enabled warfare. This may serve to find and define an adequate balance between AI influencing instruments for preparing and conducting military operations and these instruments serving to properly manage military AI.

### Solvency - Cohesion

#### Cooperation is essential for cohesion. Ethical AI principles are key to interoperability and doctrine.

Stanley-Lockman, 2021 - Center for Security and Emerging Technology [Zoe CSET Issue Brief August “Responsible and Ethical Military AI Allies and Allied Perspectives” https://cset.georgetown.edu/publication/responsible-and-ethical-military-ai/ Acc. 4/21/22 TA]

Responsible and ethical military AI between allies is important because policy alignment can improve interoperability in doctrine, procedures, legal frameworks, and technical implementation measures. Agreeing not only on human centricity for militaries adopting technology, but also on the ways that accountability and ethical principles enter into the design, development, deployment, and diffusion of AI helps reinforce strategic democratic advantages. Conversely, ethical gaps between allied militaries could have dangerous consequences that imperil both political cohesion and coalition success. More specifically, if allies do not agree on their responsibilities and risk analyses around military AI, then gaps could emerge in political willingness to share risk in coalition operations and authorization to operate alongside one another. Even though the United States is the only country to have adopted ethical principles for defense, key allies are formulating their own frameworks to account for ethical risks along the AI lifecycle. This report explores these various documents, which have thus far been understudied, at least in tandem. Overall, the analysis highlights both convergences in ethical approaches to military AI and burgeoning differences that could turn into political or operational liabilities.

#### Cooperation is key to standardize NATO’s approach to AI, which is key to avoiding technology gaps.

Michelson, 2021 - Senior Fellow at the Center for European Policy Analysis’s Transatlantic Defense Tech Initiative [Colonel (Retired) Brian M. February 23 “Why NATO Needs Lethal Autonomous Weapon Standards” https://cepa.org/why-nato-needs-lethal-autonomous-weapon-standards/ Acc. 4/5/22 TA]

Lethal autonomous weapon systems will come to dominate warfare in the coming years. NATO needs to harmonize its approach to their development and use, or risk being left behind. The rapid weaponization of artificial intelligence, “big data,” social media, robotics, and a host of other technologies presents a clear competitive challenge to NATO, an alliance with members that exist on a wide spectrum of military-technological capabilities. The future effectiveness of NATO will be driven in large part by how it handles these challenges from hobbling its ability both to act in unison and to prevail in a contest of wills. While there are numerous potential technology gaps, one that will likely only increase is partner nations’ ability and willingness to employ lethal autonomous weapon systems. These systems will inevitably grow more capable, and more necessary, in the coming decade. Technological gaps are inevitable considering the disparities in GDP and military budgets. The United States accounts for over 70 percent of NATO’s overall military spending, while the next three largest contributors (the United Kingdom, France, and Germany) provide approximately half of the remaining 30 percent. And with most NATO nations continuing to fund their militaries at under the 2 percent GDP goal, technological gaps will continue to grow. For perspective, the 2021 United States Department of Defense research and development budget is approximately equal to the entire defense outlay of France and Germany combined. With such a large differential, what can be done to help enable effective investments in autonomous weapons by smaller nations? Even more specifically, how can smaller nations provide capabilities that can integrate into, and contribute to the alliance? To better invest limited funds, now is the time to look at a NATO standard for lethal autonomous weapons and their ethical use. While there is no agreed-upon international definition of lethal autonomous weapons systems, the U.S. Department of Defense defines them as “weapon system[s] that, once activated, can select and engage targets without further intervention by a human operator.“ While these are not Schwarzenegger-style Terminators and still have a degree of human control over them, the technology enabling these systems is maturing rapidly, and military necessity will increasingly demand that these systems gain broader parameters of autonomous action. Yet despite the complexity of these systems and the inevitability of their proliferation, NATO does not currently have a common standard for their use or development. In fact, some NATO countries even have opposing views of how to handle them.

### Solvency – Interoperability

#### Addressing ethical concerns is key to interoperability – differing ethical views cause different technological approaches, which destroys NATO’s ability to coordinate between different militaries.

Michelson, 2021 - Senior Fellow at the Center for European Policy Analysis’s Transatlantic Defense Tech Initiative [Colonel (Retired) Brian M. February 23 “Why NATO Needs Lethal Autonomous Weapon Standards” https://cepa.org/why-nato-needs-lethal-autonomous-weapon-standards/ Acc. 4/5/22 TA]

NATO standards are designed to ensure compatibility among weapon systems, communication architecture, and a host of other warfighting systems. The 7.62mm small arms round is a good example of this. But what is the 7.62mm equivalent standard for the development and employment of autonomous weapon systems? This opens a host of related questions regarding the employment of these systems: What Identification – Friend – Foe (IFF) capability should ground and air units require to prevent fratricide? What degree of certainty does a lethal autonomous weapon system require before final engagement? What level of collateral damage is acceptable? What degree of compatibility between systems is required? Should all these parameters (and others) be adjustable, and if so, at what command level? The attendant ethics also need to be addressed. NATO’s experience in Afghanistan was a case study in the challenges of coalition warfare. Differing risk tolerances, legal requirements, ethical views, domestic political concerns, and at times simply combat capability, all combined into to complex policy cocktail that impeded the effectiveness of combat operations. While modern militaries have accountability, legal, and ethical systems incorporated into their command structures, they are not uniform and leaders in differing militaries have varying degrees of authority. The key questions hinge on two issues: Who gets to decide to employ an autonomous weapon, and who is responsible should things go wrong? The Kunduz hospital strike in October of 2015 was driven primarily by human error. Responsibility was fixed on the chain of command and 16 leaders were disciplined. Who will be responsible if a member nation conducts a NATO-authorized strike and it goes terribly wrong? If this framework is not thoroughly established ahead of time, not only is it likely that commanders may hesitate to use this capability, the risk-aversion inherent in bureaucracies may limit the development of autonomous weapons that will be needed in future conflicts. In the emerging field of lethal autonomous weapons, establishing a common NATO standard for the development and use of autonomous weapons will help address the gap in capabilities among NATO member nations. By establishing these standards, nations can ensure that their defense expenditures on autonomous weapons will create systems that are interoperable, able to contribute to NATO’s capability, and can be employed within defensible ethical guidelines.

#### Collaboration is key to avoid lopsided adoption of AI systems, which would undermine joint operations.

Lawrence and Cordey, 2020 – researchers for The Cyber Project at the Belfer Center for Science and International Affairs [Christie and Sean, August, The Cyber Project Paper “The Case for Increased Transatlantic Cooperation on Artificial Intelligence Edited by Lauren Zabierek and Julia Voo https://www.belfercenter.org/sites/default/files/2020-08/TransatlanticAI.pdf Acc. 4/21/22 TA]

Joint US-EU defense-related AI efforts appear sparse,349 however there is a growing push particularly from the US and NATO to increase transatlantic defense cooperation on AI. The aforementioned DOD Artificial Intelligence Strategy stressed the importance the US and allied partners to “maintain its strategic position to prevail in future battlefields and safeguard a free and open international order.”350 Growing Chinese and Russia aggression and weaponization of new technologies like AI is a central motivation for the US government’s push to strengthen the international AI alliance.351 Acting Director of JAIC Nand Mulchandani explains that collaboration with European partners on AI is necessary for three main reasons. First, joint AI R&D and adoption efforts are important for developing strong capabilities and bolstering transatlantic hard power. Second, leading AI capabilities--among the US and its allies--acts as a deterrent for conflict. Third, if deterrence fails, AI-related interoperability and capabilities are necessary if the US and its allies must go to war. A military alliance cannot be lopsided and unequal AI adoption may hinder the tactical aspects of conflict.352 During the already mentioned recent visit to NATO headquarters in Brussels, Former Director of the JAIC Lt. Gen. Shanahan had collaborative engagements with European allies and NATO around the importance of AI joint efforts, ensuring military interoperability, and the convergence of Europe’s AI ethical principles with the DOD’s five principles of AI ethics.353 The visit appeared to increase NATO’s focus on devising an AI strategy for the Alliance.354 Despite these positive steps, there are still concerns about potential obstacles to increased defense collaboration, particularly around IP ownership and funding restrictions that may exclude US involvement in EDF and PESCO.355, 356

#### Ethical principles are essential for Legal interoperability within NATO military operations

Trabucco and Stanley-Lockman, 2022 – prof of Political Science, University of Copenhagen and prof of Defense and Strategic Studies, Nanyang Technological University [Lena and Zoe, The Oxford Handbook of AI Governance, March, “NATO’s Role in Responsible AI Governance in Military Affairs” https://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780197579329.001.0001/oxfordhb-9780197579329-e-69 Acc 4/16/22 TA]

NATO and Technological Change: Three Pillars of AI Governance This section considers three pillars where NATO has procedures and competency to operationalize AI governance through both mechanisms of policy alignment and standards, and enhance security in the international environment. The pillars reflect foundational issue areas constitutive of governance but are also issue areas where previous scholars have cautioned as particularly challenging in the AI governance space. The three pillars—(1) ethics and values, (2) legal norms, and (3) safety and security—are meant to illustrate three conditions for NATO to facilitate policy and standards harmonization. Importantly, these pillars are not exhaustive areas in which NATO will need to consider governance structures to responsibly implement AI technology, but rather highlight particular issues that researchers and analysts acknowledge as significant hurdles in navigating AI governance (see Table 69.2).54 Table 69.2: Cross-tabulating NATO’s governance mechanisms with pillars of AI governance Ethics and Values Legal Norms Safety and Security NATO Policy and Strategic Planning Core, shared values at foundation of Alliance’s political cohesion that informs civilian oversight of operations and overall institutional effectiveness; included in principles Alignment between differing legal interpretations between Allies, particularly as affects the ability of forces to communicate and interoperate in dynamic contexts; constant calibration of policies based on legal interpretations Strategic planning for maintaining integrity of information in military operations and transparency measures that reinforce democratic accountability; setting priorities on defensive systems and countermeasures to protect from motivated attacks and intentional failure modes of AI-enabled weapon systems

#### Legal interoperability is key to NATO cohesion and operational interoperability - different legal viewpoints make it impossible to coordinate militarily.

Hill and Marsan, 2018 - Director and Senior Assistant, NATO Office of Legal Affairs [Steven and Nadia, 7-18-18 “Artificial Intelligence and Accountability: A Multinational Legal Perspective” https://www.sto.nato.int/publications/STO%20Meeting%20Proceedings/STO-MP-IST-160/MP-IST-160-PP-4.pdf Acc 4/21/22 TA]

1.0 THE NATO CONTEXT: LEGAL INTEROPERABILITY NATO is an Alliance of values, and one of the core values that the Alliance defends is the rule of law. The commitment to respect the rule of law is enshrined in the preamble to the 1949 North Atlantic Treaty and is reaffirmed in declarations by NATO Heads of State and Government at their regular Summit meetings. It is a key element of NATO and NATO-led operations and is necessary to ensuring legitimacy and securing public support. Compliance with international law is an essential component of NATO’s success in all of its endeavours and activities. Correspondingly, the demand for legal advice from over 70 legal offices that make up the NATO legal community has never been higher. The scope of issues on which the typical NATO legal adviser is called to advise on can be daunting and guidance on Allied views is not always available, especially in an easy-to-access consolidated format. This is especially true in the context of emerging technologies such as the security impact of AI-enabled tools. Under the auspices of the NATO Office of Legal Affairs, NATO has launched and reinvigorated a number of legal dialogues, including with Allies, partner nations and international organisations. Such legal dialogues are essential to understanding Allies’ potentially conflicting legal postures. NATO Allies each have their sovereign domestic legal systems and are bound by different international legal obligations. Allies also often have their own understanding on what international law obligations are applicable to them and under what conditions. As an alliance of 29 nations, NATO takes all decisions by consensus and the main challenge in such a multilateral environment is enabling Nations to act together in line with the individual legal obligations of each, taking account of the differences in applicable legal parameters. A key technique that legal advisers use to help achieve consensus despite these legal differences is “legal interoperability”. “Legal interoperability” is derived from the military concept of interoperability of forces, whereby the military forces of the 29 Allies are able to work together to achieve common objectives. NATO doctrine defines the interoperability of forces as “[t]he ability of the forces of two or more nations to train, exercise and operate effectively together in the execution of assigned missions and tasks.”4 In the Warsaw Summit Communiqué, Allied Heads of State and Government referred to the need for interoperability to accomplish NATO’s goals. Within NATO, there is often a diversity of legal views on core issues of international law. Let us take, for example, the laws of war, where 27 of NATO’s 29 Allies are party to the Additional Protocols to the Geneva Conventions. This challenge is also reflected in International Criminal Law as the Rome Statute establishing the International Criminal Court is likewise adopted only by 27 Allies. As a military Alliance founded on the rule of law, these sometimes different legal obligations can be challenging. The challenges are especially daunting when there is a need for a rapid decision by Allies based on collective consensus and requiring legal justification. NATO’ raison d’être is collective defence, and legal interoperability is one of the key enablers for the Alliance. From a legal perspective, interoperability refers to the need for Nations to work together in a variety of contexts despite the application of differing legal frameworks and obligations. As one observer of NATO operational law defined it, “‘[l]egal interoperability’ is understood … as the ability of the forces of two or more nations to operate effectively together in the execution of assigned missions and tasks and with full respect for their legal obligations, notwithstanding the fact that nations concerned have varying legal obligations and varying interpretations of these obligations.” 5 Legal interoperability relies on a broad understanding of those areas of legal divergence amongst Allies, which requires careful analysis of the legal positions expressed by the relevant Nations. In the case of new technologies, this understanding is difficult to acquire, in part because Nations have not had the opportunity to set forth their legal views or have refrained from doing so in order to prevent the loss of a potential technological edge. Within NATO, legal interoperability has proven to be indispensable to rapid decision-making and is facilitated by Allies’ pragmatism when faced with questions of collective security, emphasizing and relying on those elements that are common to all rather than on those elements of divergence.

### Solvency - Cooperation

#### NATO sets the Standards for AI Ethics - cooperation is key to setting Operational Norms for responsible AI.

Trabucco and Stanley-Lockman, 2022 – prof of Political Science, University of Copenhagen and prof of Defense and Strategic Studies, Nanyang Technological University [Lena and Zoe, The Oxford Handbook of AI Governance, March, “NATO’s Role in Responsible AI Governance in Military Affairs” https://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780197579329.001.0001/oxfordhb-9780197579329-e-69 Acc 4/16/22 TA]

NATO’s Mechanisms to Govern AI 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

#### Empirically – NATO cooperation can overcome the challenges AI poses to the alliance.

Lin-Greenberg, 2020 - member of the MIT Security Studies Program [Erik Vol 3, Iss 2 Spring, Texas National Security Review “Allies and Artificial Intelligence: Obstacles to Operations and Decision-Making” http://dx.doi.org/10.26153/tsw/8866 Acc 4/22/22 TA]

States are racing to achieve superiority in the AI domain, and AI research and development is flourishing: In early 2019, the U.S. Department of Defense unveiled its AI strategy.5 Meanwhile, China has pledged to develop a $150 billion AI sector by 2030,6 and Russian President Vladimir Putin famously asserted, “whoever becomes the leader in [AI] will become the ruler of the world.”7 AI development promises to bring enhanced accuracy and efficiency to complex and dangerous tasks, but policymakers and scholars have yet to fully explore how these benefits compare with potential risks — particularly in the context of multinational military operations.8 To be sure, decision-makers have expressed concerns about the reliability of AI technologies and the ethical implications of delegating military operations to computers.9 These AI-specific challenges, however, may magnify the coordination and commitment challenges that frequently plague military operations conducted by multinational alliances and coalitions. Drawing from theories of alliance politics and analysis of emerging AI technologies, I map out two areas where AI could hamper multinational military operations. First, AI could pose challenges to operational coordination by complicating burden-sharing and the interoperability of multinational forces. Not all alliance or coalition members will possess AI capabilities, raising barriers to military cooperation as AI-enabled warfare becomes increasingly common. States with AI technologies will also need to overcome political barriers to sharing the sensitive data required to develop and operate AI-enabled systems. At the same time, rivals can stymie multinational coordination by using AI to launch deception campaigns aimed at interfering with an alliance’s military command-and-control processes. Second, AI could hamper alliance and coalition decision-making by straining the processes and relationships that undergird decisions on the use of force. By increasing the speed of warfare, AI could decrease the time leaders, from the tactical to strategic levels, have to debate policies and make decisions. These compressed timelines may not allow for the complex negotiations and compromises that are defining characteristics of alliance politics.10 Decision-making may be further hampered if the “black box” and unexplainable nature of AI causes leaders to lack confidence in AI-enabled systems. And, just as adversaries could use AI to interfere with command and control, they could also use AI to launch misinformation campaigns that sow discord among allies and heighten fears that allies will renege on their commitments. To be sure, barriers to multinational military cooperation are not new, but AI may intensify these difficulties.11 To help overcome these obstacles to coordination and decision-making challenges, alliance and coalition leaders can draw lessons from past cases of successful cooperation and a growing corpus of national-level AI strategies to develop international agreements and standards that streamline the integration of AI into multinational operations.

#### NATO cooperation is necessary for an ethical response – coordination builds public support and addresses important details.

Gilli, 2020 - Senior Researcher at the NATO Defense College [Andrea, NDC Research Paper No.15 – December ““NATO-Mation”: Strategies for Leading in the Age of Artificial Intelligence” https://www.ndc.nato.int/news/news.php?icode=1514 Acc 4/21/22 TA]

It is worth noting that NATO’s role in the AI ethics sphere differs from that of many other organizations, such as national governments and the European Union, because NATO is not a regulatory body. NATO complies with existing laws and regulations, including the Laws of War, which nations and the international community created. This means that regulatory and normative questions such as the development and deployment of autonomous weapons systems will not be determined at NATO level. Nevertheless, there is still room for NATO to play a clear role. Indeed, given doubts and worries about the adoption of AI for military purposes, NATO can help generate more public support and engagement by clearly defining ethical boundaries and moral guidelines. The uses of AI in military operations – ranging from logistics to maintenance, from recruitment to retainment, from intelligence, surveillance and reconnaissance to medical tests and medical evacuation, and more90 – go beyond the discussions on lethal autonomous weapons systems that have dominated European debate about AI in military affairs. Accordingly, the range of ethical questions relevant to NATO extend beyond focusing on the tip of the spear. Seemingly mundane uses of AI, such as in human resources or decision support, can still pose distinct ethical questions the Alliance should be prepared to handle. Addressing security risks,91 minimizing bias in systems,92 developing trust,93 and respecting privacy are fundamental tasks for the Alliance to ensure the future effectiveness of AI, whether in battle or in other functions. The age of intelligent machines requires the Alliance to reiterate its commitment to values as new moral and ethical questions emerge, because algorithms do not have a conscience, personal preferences or moral agency. These statistical machines have no understanding of good and bad, or fair and unjust.94 All an algorithm can do is achieve its human-defined reward function, not provide any context or information on whether the right question is being asked.95 Instead of giving moral agency to algorithms, humans and organizations can view AI as a “moral entity”. This means that we humans are dutybound to adhere to our moral code of conduct when interacting with the systems, rather than shirking human responsibility to computers.96 At the organizational level, this means that the design, development and deployment of AI should be “ethically aligned” with the Alliance’s values and goals.97

### Solvency – Public Support

#### NATO discussions are key to overcome lack of public knowledge about AI policies – this addresses concerns about AI weapons.

Stanley-Lockman, 2021 - Center for Security and Emerging Technology [Zoe CSET Issue Brief August “Responsible and Ethical Military AI Allies and Allied Perspectives” https://cset.georgetown.edu/publication/responsible-and-ethical-military-ai/ Acc. 4/21/22 TA]

A related caveat is that some allies are either in the midst of constructing, or choosing to not publicize, their approaches to ethical and responsible AI. As such, allies’ formulations of responsible military AI should be seen as evolving processes. The narrow availability of information on AI ethics beyond autonomy in weapons may reflect political sensitivities, including cultural differences around how transparent defense ministries and armed forces are. As such, the hope is to fill this gap by addressing how allies conceive of AI ethics for defense.

#### Collaboration builds trust which prevents a political backlash that threatens NATO operations.

van Weel, 2021 – Assistant Secretary General for Emerging Security Challenges, NATO [David, Dec 7, “Artificial intelligence: Can we go from chaos to cooperation?” AEI Panel Discussion - Moderator: Elisabeth Braw https://www.aei.org/events/artificial-intelligence-can-we-go-fromchaos-to-cooperation/ Acc 5/11/22 TA]

Now, in doing so, we have to bridge a gap of distrust. So, I’ve been on panels quite a lot where people say, “Well, please, I don’t trust the defense use of artificial intelligence.” And that’s something we need to address. We are a trusted user. We, NATO, all the 30 allies, we all subscribe to the democratic values, and we all subscribe to the same values that our societies are built upon. And we’re there to protect it. So in using AI, in developing AI, we have to ensure and make clear to both the private sector and to our societies that we are a trusted user of artificial intelligence, that we intend to use AI by the standards that we adhere to — all our weapons systems and the use of force in defending ourselves. And that’s why the AI strategy that we just devised came up. And that’s why we made it public to a large extent. We are not known at NATO for publishing a lot. We try to keep secrets a lot. In this case, I really advocated that that is kind of against the whole purpose of having this AI strategy. The purpose of this AI strategy is to gain a better understanding of what’s out there, to prove that we are willing to engage with this innovative new ecosystems, in order to look at the defense purposes of AI. Also, look at the threats of the misuse of AI by adversaries, making sure that certain technology doesn’t leak away to those who might not adhere to the same standards that we have. And then developing this all in a responsible way.

### Solvency - CBMs

#### A statement of ethical principles is a Confidence Building Measure for AI – it signals our allies and values, which helps improve understanding

Horowitz and Scharre, 2021 - Senior Fellows at the Technology and National Security Program at the Center for a New American Security [Michael and Paul, Jan 12, “AI and International Stability: Risks and Confidence-Building Measures” [https://www.cnas.org/publications/reports/ai-and-international-stability-risks-and-confidence-building-measures Acc 6/6/22](https://www.cnas.org/publications/reports/ai-and-international-stability-risks-and-confidence-building-measures%20Acc%206/6/22) TA]

Code of Conduct Nations could agree to a written set of rules or principles for how they adopt AI into military systems. These rules and principles, even if not legally binding, could nevertheless serve a valuable signaling and coordination function to avoid some of the risks in AI adoption. A code of conduct, statement of principles, or other agreement could include a wide range of both general and specific statements, including potentially on any or all of the confidence-building measures listed above. Even if countries cannot agree on specific details beyond promoting safe and responsible military use of AI, more general statements could nevertheless be valuable in signaling to other nations some degree of mutual understanding about responsible use of military AI and help create positive norms of behavior. Ideally, a code of conduct would have support from a wide range of countries and major military powers. However, if this were not possible, then a multilateral statement of principles from like-minded countries could still have some value in increasing transparency and promulgating norms of responsible state behavior.

#### CBMs promote the responsible use of AI – they create international norms, gain the attention of leaders, and promote bureaucratic change.

Horowitz and Scharre, 2021 - Senior Fellows at the Technology and National Security Program at the Center for a New American Security [Michael and Paul, Jan 12, “AI and International Stability: Risks and Confidence-Building Measures” [https://www.cnas.org/publications/reports/ai-and-international-stability-risks-and-confidence-building-measures Acc 6/6/22](https://www.cnas.org/publications/reports/ai-and-international-stability-risks-and-confidence-building-measures%20Acc%206/6/22) TA]

CBMs may be a useful tool for managing risks relating to military AI applications. There are a number of possible CBMs that states could adopt that may help mitigate the various AI-related risks previously outlined. These include broad CBMs applicable to AI as a category, CBMs designed to address some of the limitations of AI, and CBMs focused on specific missions for which militaries might use AI.49 Broad CBMs These CBMs focus broadly on mechanisms for dialogue and agreement surrounding military uses of AI, rather than the specific content of agreements. Given that a key goal of CBMs is to enhance trust, mechanisms that serve as a building block for more substantive dialogue and agreement can, in some cases, be an end in themselves and not just a means to an end.50 These could include promoting international norms for how nations develop and use military AI systems, Track II academic-to-academic exchanges, direct military-to-military dialogues, and agreements between states regarding military AI, such as a code of conduct or mutual statement of principles. Promoting Norms In 2019, the U.S. Defense Innovation Board proposed a set of AI principles for the U.S. Defense Department, which DoD subsequently adopted in early 2020. While these principles no doubt have domestic audiences in the U.S. defense community and tech sector, they also serve as an early example of a state promulgating norms about appropriate use of AI in military applications. The DoD AI principles included a requirement that DoD AI systems be responsible, equitable, traceable, reliable, and governable.51 (The full set of DoD AI principles is included in the Appendix). Similarly, the DoD’s unclassified summary of its AI strategy, released in 2019, called for building AI systems that were “resilient, robust, reliable, and secure.”52 A focus of the strategy was “leading in military ethics and AI safety.”53 There is value in states promoting norms for responsible use of AI, including adopting and employing technology in a way that reflects an understanding of the technical risks associated with AI systems. While stating such principles is not the same as putting in place effective bureaucratic processes to ensure their compliance, there is nevertheless value in states publicly signaling to others (and to their own bureaucracies) the importance of using AI responsibly in military applications. While these norms are at a high level, they nevertheless signal some degree of attention by senior military and civilian defense officials to some of the risks of AI systems, including issues surrounding safety, security, responsibility, and controllability. These signals may aid internal bureaucratic efforts to mitigate various AI-related risks, as bureaucratic actors can point to these official documents for support. Additionally, to the extent that other nations find these statements credible, they may help signal to other nations at least some degree of awareness and attention to these risks, helping to incentivize others to do the same.

#### CBMs prevent accidental lunch during a crisis through information sharing.

Horowitz and Scharre, 2021 - Senior Fellows at the Technology and National Security Program at the Center for a New American Security [Michael and Paul, Jan 12, “AI and International Stability: Risks and Confidence-Building Measures” [https://www.cnas.org/publications/reports/ai-and-international-stability-risks-and-confidence-building-measures Acc 6/6/22](https://www.cnas.org/publications/reports/ai-and-international-stability-risks-and-confidence-building-measures%20Acc%206/6/22) TA]

Executive Summary Militaries around the world believe that the integration of machine learning methods throughout their forces could improve their effectiveness. From algorithms to aid in recruiting and promotion, to those designed for surveillance and early warning, to those used directly on the battlefield, applications of artificial intelligence (AI) could shape the future character of warfare. These uses could also generate significant risks for international stability. These risks relate to broad facets of AI that could shape warfare, limits to machine learning methods that could increase the risks of inadvertent conflict, and specific mission areas, such as nuclear operations, where the use of AI could be dangerous. To reduce these risks and promote international stability, we explore the potential use of confidence-building measures (CBMs), constructed around the shared interests that all countries have in preventing inadvertent war. Though not a panacea, CBMs could create standards for information-sharing and notifications about AI-enabled systems that make inadvertent conflict less likely.

### Solvency – Global Model

#### Without cooperative solutions, NATO will lose its leverage to create global norms for other countries to follow.

Gilli, 2020 - Senior Researcher at the NATO Defense College [Andrea, NDC Research Paper No.15 – December ““NATO-Mation”: Strategies for Leading in the Age of Artificial Intelligence” https://www.ndc.nato.int/news/news.php?icode=1514 Acc 4/21/22 TA]

The increasing power of processors, accuracy of algorithms, and availability of digital data are driving the dramatic artificial intelligence (AI)-centred technological transformation now in progress. These changes have already turned companies, industries and markets upside down, and we are also starting to see their effects on the battlefield. The employment of unmanned vehicles, reliance on big data for target detection, identification and acquisition, as well as the potentials of machine learning in other critical functions such as logistics and maintenance are only some of the possible examples of how warfare will evolve in the near future. The North Atlantic Treaty Organization (NATO) and its Allies cannot be bystanders during this technological transition. Some countries and organizations have already taken important steps. Others are more hesitant. The Atlantic Alliance has a moral obligation to act, both to preserve and extend its military leadership – and thus the wealth and security of its citizens – and to shape this process in keeping with its democratic principles, freedom-inspired values and commitment to fundamental human rights. As NATO works on its Artificial Intelligence Strategy, which could be published in 2021, this Research Paper aims at contributing to both the policy debate and the public discussion about AI and its implications for the Alliance. The paper offers a series of analyses, lessons learned, proposals, and recommendations, that build on best practices and solutions adopted in the civilian and military fields, on perspectives drawn from the academic literature as well as on ideas generated in the broader AI community. The various parts of the paper are all linked to the single overarching concept of “NATO-mation”, or the idea that NATO has an important role to play so as to prepare for and to shape this technological transformation. NATO Allies need to be proactive: without common, coordinated, cooperative or joint solutions, they will not be able to achieve all their goals effectively and efficiently. The paper thus elaborates on the concept of “NATO-mation” in 11 different building blocks, as summarized below: • Ethical purpose: first and foremost, NATO’s strength comes from its values, which give meaning to its military capabilities and represent the bond between the Allies. As technological progress demands answers to major ethical questions regarding the development, employment and purpose of intelligent machines, NATO and its Allies have the opportunity to shape international norms and behaviour in this respect while simultaneously strengthening their commitment to the Alliance’s founding principles. Setting up an ethical board of experts and adopting some common ethical principles are two starting points.

#### Ethical principles are key to global modeling – moral claims shape the international environment.

Gilli, 2020 - Senior Researcher at the NATO Defense College [Andrea, NDC Research Paper No.15 – December ““NATO-Mation”: Strategies for Leading in the Age of Artificial Intelligence” https://www.ndc.nato.int/news/news.php?icode=1514 Acc 4/21/22 TA]

Lead and shape with ethical principles. The proposed Ethics Board could start its work from scratch, defining a new set of guiding ethical principles for NATO and its Allies, or it could take a pragmatic approach and borrow from the important work already done by several institutions, including the OECD and the European Union.109 As recalled above, work has already been done by international organizations such as the European Union and the OECD, national governments, such as the US Department of Defense and the French Ministry of the Armed Forces, private companies like Google and IBM, as well as non-governmental institutions like the Institute for Electrical and Electronics Engineering.110 Having clear and simple ethical principles is important, both internally, as actors at different levels need to be able to make choices, and externally, as NATO and its Allies may want not only to signal their ethical and moral commitments to their own citizenries, including developers and civil society, but also to shape the international environment. The priority is to ensure that NATO Allies adopt clear ethical guidelines which reflect their values – such as democratic representation, civilian control of the armed forces, individual responsibility, the centrality of human life, and compliance with the Laws of War – and that such values inform international norms, practices, agreements and possible future treaties. Leading in this realm means moulding the future security environment, in particular by embedding democratic values into this pervasive technology.111 What ethical principles should NATO adopt when it comes to AI? This will be up to the Ethics Board, if established, or to other authorities. As recalled, there is, however, a general agreement on some principles:112

#### Allied approaches to AI Ethics foster global modelling by creating a Responsible AI Ecosystem.

Stanley-Lockman, 2021 - Center for Security and Emerging Technology [Zoe CSET Issue Brief August “Responsible and Ethical Military AI Allies and Allied Perspectives” https://cset.georgetown.edu/publication/responsible-and-ethical-military-ai/ Acc. 4/21/22 TA]

To facilitate comparisons with allies’ approaches to AI ethics for defense, two taskings of the RAI Working Council are particularly relevant. The first is the broad, overall aim of leading responsible AI globally. To this end, creating a “Responsible AI Ecosystem” is one of the foundational tenets of RAI implementation.32 Here, international components of this ecosystem include allies and partners to enable better multi-stakeholder collaboration and to also advance norm development “grounded in shared values.”33 With the overall aim of leading responsible AI globally, this foundational tenet is the only one that explicitly names international engagement. Yet other foundational tenets are also relevant to assess convergences and divergences, including: governance structures for accountability; trust based on testing, evaluation, validation, and verification (TEVV); and a whole-of lifecycle approach to risk management.34

#### The DOD must lead our allies on AI policy to raise awareness and perception of ethical issues.

Stanley-Lockman, 2021 - Center for Security and Emerging Technology [Zoe CSET Issue Brief August “Responsible and Ethical Military AI Allies and Allied Perspectives” https://cset.georgetown.edu/publication/responsible-and-ethical-military-ai/ Acc. 4/21/22 TA]

The key takeaways are as follows: • DOD remains the leader in developing an approach to ethical AI for defense. This first-mover position situates the JAIC well to lead international engagements on responsible military AI. • Allies fall on a spectrum from articulated (France, Australia), to emerging (the U.K., Canada), to nascent (Germany, the Netherlands) views on ethical and responsible AI in defense. These are flexible categories that reflect the availability of public documents. • Multilateral institutions also influence how countries perceive and implement AI ethics in defense. NATO and JAIC’s AI Partnership for Defense (PfD) are important venues pursuing responsible military AI agendas, while the European Union and Five Eyes have relevant, but relatively less defined, roles. • Areas of convergence among allies’ views of ethics in military AI include the need to comply with existing ethical and legal frameworks, maintain human centricity, identify ethical risks in the design phase, and implement technical measures over the course of the AI lifecycle to mitigate that risk. • There are fewer areas of divergence, which primarily pertain to the ways that allies import select civilian components of AI accountability and trust into their defense frameworks. These should be tracked to ensure they do not imperil future political cohesion and coalition success. • Pathways for leveraging shared views and minimizing the possibility that divergence will cause problems include using multilateral formats to align views on ethics, safety, security, and normative aspects.

### Solvency - Dialogue

#### Dialogue with allies can overcome differences over the ethical use of AI in defense – discussion moves principles into practical implementation.

Stanley-Lockman, 2021 - Center for Security and Emerging Technology [Zoe CSET Issue Brief August “Responsible and Ethical Military AI Allies and Allied Perspectives” https://cset.georgetown.edu/publication/responsible-and-ethical-military-ai/ Acc. 4/21/22 TA]

Additionally, differences between allies’ views on responsible and ethical AI in defense may also stem from the extent to which other countries apply civilian AI policy and regulation frameworks to their own defense approaches. Although overviews of government principles and policies for ethical civilian AI are not discussed at length here, they become more visible in other countries, as well as the EU. Some of these aspects are encouraging—for example, German industry’s voluntary compliance with trustworthy AI principles, to the extent they overlap with defense, due in part to the fact that there is no equivalent defense framework they can follow and implement themselves. Other entry points of civilian concepts into the defense realm include the Australian concept of contestability, Canadian DND subjectivity to the algorithmic impact assessment, and the choice of some EU countries to apply the General Data Protection Regulation to their defense sectors. These are both related to accountability as well as privacy, which are key differences that should be tracked even though allies overwhelmingly agree on the importance of ethics and safety for AI in defense. Still, similarities between defense stakeholders include the view that militaries could not only inject new risks into their operating environments, but also expose their own organizations to risk if they leave ethical and legal questions unaddressed. Countries may have different ways to define and measure these ethical risks, as Table 1 implies, and as is detailed in the appendices. Overall, though, there is an implicitly common approach which recognizes that they must contend with the associated technical, legal, political, and moral risks from the front end of AI development. More concretely, they also agree that the way to implement responsible AI involves technical measures tied to safety and security, as well as procedures that make the legal context by which they abide as clear as possible. Overall, pathways for leveraging shared views to advance the implementation of responsible AI should include learning from allies whose views emphasize both human responsibility and responsible state behavior extending beyond minimum legal obligations. Addressing these issues is not only a question of good engineering practices, but is also an exercise of responsible state behavior.188 In a narrow sense, responsible AI can refer to ensuring that AI systems enter into human-centric frameworks that are defined by humans to maintain human agency and responsibility. More broadly, though, it is notable that some allies see preserving freedom of action as part of a vision of responsible AI that encompasses responsible state behavior. Having a legitimate basis for military action is a feature of responsible state behavior, with civilian government oversight of militaries at its core to maintain accountability at home and abroad. This enters into the language of responsibility because operating in coalitions under multinational mandates can also confer international political legitimacy to operations.189

#### Dialogue is key to collaboration on AI – it is the first step to cooperation because it builds on common grounds.

Fu, 2021 – Professor of Technology and International Development, University of Oxford [Xiaolan, Dec 7, “Artificial intelligence: Can we go from chaos to cooperation?” AEI Panel Discussion - Moderator: Elisabeth Braw https://www.aei.org/events/artificial-intelligence-can-we-go-fromchaos-to-cooperation/ Acc 5/11/22 TA]

And another very important challenge that we have to address, I mean, I think David will mention, is the AI application in defense. And we really need some, you know, global treaty to make sure we demilitarize and de-weaponize the application of artificial intelligence. So, there are a lot of common grounds between countries. Europe — Jonathan will talk about North America. And also, they are the three major leaders in the world in artificial intelligence. So, based on this common interest and the common grounds, I think to collaborate, work together. Elisabeth, I think today’s AI initiative is so great. I really liked the title, you know, “collaboration,” “cooperation” put in the title. So work together to make sure AI used for good, to make good for the society and the community. And we need to take action. Dialogue is the first step and to set up the mechanisms to facilitate the dialogue. And even debates would be very important. Let me finish here. And so, yeah, that’s all from me. Thank you.

#### NATO dialogue on AI improves its credibility – this is crucial for harmonization and interoperability

Trabucco and Stanley-Lockman, 2022 – prof of Political Science, University of Copenhagen and prof of Defense and Strategic Studies, Nanyang Technological University [Lena and Zoe, The Oxford Handbook of AI Governance, March, “NATO’s Role in Responsible AI Governance in Military Affairs” https://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780197579329.001.0001/oxfordhb-9780197579329-e-69 Acc 4/16/22 TA]

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.

#### Dialogue clarifies Legal Interoperability which is key to cohesive action

Hill and Marsan, 2018 - Director and Senior Assistant, NATO Office of Legal Affairs [Steven and Nadia, 7-18-18 “Artificial Intelligence and Accountability: A Multinational Legal Perspective” https://www.sto.nato.int/publications/STO%20Meeting%20Proceedings/STO-MP-IST-160/MP-IST-160-PP-4.pdf Acc 4/21/22 TA]

ABSTRACT This paper supports the specialist meeting on Big Data and Artificial Intelligence for Military Decision Making by exploring the legal implications of new technology on NATO decision making. The paper begins by presenting the concept of “legal interoperability,” one of the tools that legal advisers working in NATO seek to promote. It then introduces some of the current legal issues and debates surrounding the development and use of AI, including the difficulty in defining key concepts arising out of the increased use of AI such as “autonomy,” and questions pertaining to accountability. Finally, this paper examines how further dialogue among Allies and with NATO partners can contribute to the development of a reliable approach on accountability issues related to AI-enabled technology. The paper argues that given the rapidly evolving technology and the asymmetric approach and capabilities of nations, efforts within the Alliance should focus on ensuring NATO’s “legal preparedness” so that collective action is not thwarted by legal hurdles and mismatched legal approaches amongst Allies.

### NATO says Yes

#### Allies will follow US leadership on AI – they want defense cooperation

Kahn and Horowitz, 2021 – Research and Senior Fellows at the Council on Foreign Relations [Lauren and Michael, The Washington Quarterly 44:4 “Leading in Artificial Intelligence through Confidence Building Measures” [https://doi.org/10.1080/0163660X.2021.2018794 Acc 6/6/22](https://doi.org/10.1080/0163660X.2021.2018794%20Acc%206/6/22) TA]

An informal multilateral agreement could be proposed and opened for signature to all nations. If the United States leads, American allies and partners would be likely to sign on, both due to the impact of American leadership in shaping attitudes and the likely perception that following US-led principles would facilitate defense cooperation in this area. One might argue that US leadership in multilateral AI standards could create risks for the United States if it involves commitments that prevent the US deployment and use of militarily important AI-enabled systems. These risks, however, are minimal. The standards the United States would promote involve commitments to international humanitarian law and responsible behavior that the United States already follows when it comes to the development and use of military systems. Thus, it would not require changes in US behavior that might slow down responsible military AI adoption.

#### NATO would support the plan – they are looking for common ground on ethical principles

Sprenger, 2021 - Europe editor for Defense News [Sebastian, Apr 27, “NATO tees up negotiations on artificial intelligence in weapons” https://www.c4isrnet.com/artificial-intelligence/2021/04/27/nato-tees-up-negotiations-on-artificial-intelligence-in-weapons/ Acc 4/22/22 TA]

NATO is seeking common ground on artificial intelligence in defense applications ahead of a strategy document this summer. (MF3d/Getty Images) COLOGNE, Germany — NATO officials are kicking around a new set of questions for member states on artificial intelligence in defense applications, as the alliance seeks common ground ahead of a strategy document planned for this summer. The move comes amid a grand effort to sharpen NATO’s edge in what officials call emerging and disruptive technologies, or EDT. Autonomous and artificial intelligence-enabled weaponry is a key element in that push, aimed at ensuring tech leadership on a global scale. Exactly where the alliance falls on the spectrum between permitting AI-powered defense technology in some applications and disavowing it in others is expected to be a hotly debated topic in the run-up to the June 14 NATO summit. “We have agreed that we need principles of responsible use, but we’re also in the process of delineating specific technologies,” David van Weel, the alliance’s assistant secretary-general for emerging security challenges, said at a web event earlier this month organized by the Estonian Defence Ministry. Different rules could apply to different systems depending on their intended use and the level of autonomy involved, he said. For example, an algorithm sifting through data as part of a back-office operation at NATO headquarters in Brussels would be subjected to a different level of scrutiny than an autonomous weapon. In addition, rules are in the works for industry to understand the requirements involved in making systems adhere to a future NATO policy on artificial intelligence. The idea is to present a menu of quantifiable principles for companies to determine what their products can live up to, van Weel said. For now, alliance officials are teeing up questions to guide the upcoming discussion, he added. Those range from basic introspections about whether AI-enabled systems fall under NATO’s “legal mandates,” van Weel explained, to whether a given system is free of bias, meaning if its decision-making tilts in a particular direction.

#### NATO support is increasing – recent visits prove.

Lawrence and Cordey, 2020 – researchers for The Cyber Project at the Belfer Center for Science and International Affairs [Christie and Sean, August, The Cyber Project Paper “The Case for Increased Transatlantic Cooperation on Artificial Intelligence Edited by Lauren Zabierek and Julia Voo https://www.belfercenter.org/sites/default/files/2020-08/TransatlanticAI.pdf Acc. 4/21/22 TA]

In recent months, however, interests and political support for greater transatlantic coordination on AI seems to be increasing. This trend was notably demonstrated by a visit from Lt. Gen. Jack Shanahan—then Director of the US Department of Defense’s Joint Artificial Intelligence Center (JAIC)—to Brussels in January 2020 and a visit by the European Parliament’s delegation to Washington D.C in February 2020. Both visits included discussions on AI with a variety of key stakeholders, such as NATO, representatives from the US Congress, State Department, Federal Transit Administration (FTA), Federal Bureau of Investigation (FBI), and Privacy and Civil Liberties Oversight Board (PCLOB).34

#### Europe supports cooperation on ethics – EU actions prove

Lawrence and Cordey, 2020 – researchers for The Cyber Project at the Belfer Center for Science and International Affairs [Christie and Sean, August, The Cyber Project Paper “The Case for Increased Transatlantic Cooperation on Artificial Intelligence Edited by Lauren Zabierek and Julia Voo https://www.belfercenter.org/sites/default/files/2020-08/TransatlanticAI.pdf Acc. 4/21/22 TA]

European Union: The European Union, like the United States, intends to leverage AI’s potential as a strategic and transformative technology. 17 However, the EU has positioned itself as a leader in trustworthy, human-centric, ethical, and values-based AI,18 in comparison to the US government’s emphasis on the need for AI innovation to protect American values, civil liberties, and privacy. The EU recognizes that it trails behind the US and China in terms of volume of investment and maturity of its tech industry.19 Nonetheless, the EU believes it can capitalize on its underlying structural strengths (e.g., academic and innovation record) and on its values to compete globally and reaffirm its digital and technological sovereignty. 20 Starting with its 2018 Communication: Artificial Intelligence for Europe,21, 22 the European Commission (EC) has launched a coordinated effort promoting AI.23 Policies include increasing public and private investments from $5.6 billion to $22 billion annually;24 coordinating research and innovation across Europe; devising ethical guidelines; fostering digital skills in its workforce; and promoting public and private sector adoption of AI.25 To support and counsel these efforts, the EC has established the High-Level Expert Group on AI (AI HLEG) comprising 52 experts who advise the Commission on policy and regulatory changes.

### NATO is Key to Solvency

#### 1. Consultation - NATO is key because it has unique consultation mechanisms that include industry partners.

Allison, 2020 - has a degree in Cyber Security from Glasgow Caledonian University [George, Nov 2 UK Defence Journal “Cooperation on AI will ‘boost security’ say NATO” https://ukdefencejournal.org.uk/cooperation-on-ai-will-boost-security-say-nato/ Acc 4/22/22 TA]

“There are considerable benefits of setting up a transatlantic digital community cooperating on Artificial Intelligence (AI) and emerging and disruptive technologies, where NATO can play a key role as a facilitator for innovation and exchange”, said NATO Deputy Secretary General Mircea Geoană. On Wednesday he took part in a high-level virtual discussion on transatlantic cooperation in the era of AI, organised by the Atlantic Council’s Future Europe Initiative and GeoTech Center. Mircea Geoana, NATO DSG participated in a webstreamed meeting on artificial intelligence AI NATO say that Mr. Geoană engaged in this conversation alongside the Chair and Vice Chair of the National Security Commission on Artificial Intelligence (NSCAI), Dr. Eric Schmidt and Secretary Robert O. Work, and the Head of Cabinet of European Commission Executive Vice-President Margrethe Vestager, Ambassador Kim Jørgensen. They discussed what modern technologies mean for European and American defence and security stakeholders, why the United States and the European Union should cooperate on AI, and how best to promote shared values in the field. “NATO is a natural platform for transatlantic cooperation of AI,” the Deputy Secretary General underlined. “NATO offers its consultative mechanisms and unique networks for collaboration on defence and security questions. Bringing together Allies and partners, public and private sector, innovators and industry. We have great communities in areas like military capability development, science and technology, standardisation – and of course our Command Structure and military exercises. We also have new cross-cutting policy teams on Innovation Policy, who cover AI, and on Data Policy,” he pointed out.

#### NATO is key because it is best at facilitating coordination – that is its core function.

Trabucco and Stanley-Lockman, 2022 – prof of Political Science, University of Copenhagen and prof of Defense and Strategic Studies, Nanyang Technological University [Lena and Zoe, The Oxford Handbook of AI Governance, March, “NATO’s Role in Responsible AI Governance in Military Affairs” https://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780197579329.001.0001/oxfordhb-9780197579329-e-69 Acc 4/16/22 TA]

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.

#### 2. Rules of Engagement - NATO is Key because it establishes Rules of Engagement which are essential for ethical AI use.

Vestner, 2021 - Head of Security and Law Programme at Geneva Centre for Security Policy [Tobias, July 8 “Warfare and Artificial Intelligence” in Robin Geiß and Henning Lahmann (eds), Research Handbook on Warfare and Artificial Intelligence -forthcoming https://www.gcsp.ch/publications/military-operations-and-artificial-intelligenceGCSP Acc 5/27/22 TA]

ROE are appropriate tools to determine how to use AI under which conditions for specific contexts and missions. ROE – or related rules of behaviour – may set the parameters for diverse military applications of AI, thereby translating given political, military, legal, and ethical considerations and limitations of documents at a higher echelon, such as doctrine or international legal obligations, into concrete instructions. This can represent a framework for action to be programmed into the AI system. For example, ROE could determine a geographical zone or a certain list of potential tasks for which systems are authorized to take action. Outside those limits, they would not act on the processed information. Time checks or other limits, such as pre-set permission to (not) engage specific targets, may also be fixed by ROE.100 Similarly, ROE can foresee that a system needs to flag unexpected events or issues. In this context, some have suggested that AI may be able to choose which ROE to apply based on the environment or its programmed mission.101 ROE can also define the interaction between humans and AI systems for specific missions. In particular, ROE can establish how a commander or operator needs to monitor and control the system during deployment. As the need for human control may vary according to the specific task attributed to an AI system and the respective context and operation, ROE for AI can define the level of autonomy for certain types of operations or phases thereof.102 ROE can further address or refer to other sources, such as manuals and directives, on how to implement various forms of human control, such as direct, share, or supervisory control.103 Importantly, ROE may limit commanders’ or operators’ authority, which may force them to refer up in the chain of command. This can be a significant role of ROE for the human-machine teaming in military operations, notably when confronted with unanticipated situations or issues for which the system or its use had not been previously authorized. ROE are particularly relevant when AI is used for or in relation to targeting as this implies harming persons and objects. Notably if considered that AI cannot incorporate ethical or contextual assessments into its decision process,104 human control and judgment should be meaningful in the context of decisions regarding the use of lethal force.105 While most publicly available policies establish this principle, as described above, they do not specify its precise meaning. ROE and directives can fill this gap. To this end, a code of conduct for operators of AI systems related to targeting or a model of ROE for such systems could be established.106

#### 3. Military Doctrine - NATO is key because it establishes Military Doctrine, which is essential for AI standards.

Vestner, 2021 - Head of Security and Law Programme at Geneva Centre for Security Policy [Tobias, July 8 “Warfare and Artificial Intelligence” in Robin Geiß and Henning Lahmann (eds), Research Handbook on Warfare and Artificial Intelligence -forthcoming https://www.gcsp.ch/publications/military-operations-and-artificial-intelligenceGCSP Acc 5/27/22 TA]

To conclude, it is unlikely that AI will have a substantial function for establishing military doctrine since it serves to define and regulate military organizational issues and aspects of military operations which strongly relate to beliefs, values, and identity. Yet because of this function, doctrine has an important role to define armed forces’ fundamental relation to AI. In particular, doctrine is appropriate for establishing in general terms for what tasks AI will (not) be used, how AI will (not) be used, and how the organization and its members perceive and value AI. Most importantly given AI’s characteristics, doctrine can establish how humans can and should interact with AI and what organizational culture should reign in this regard. This can set the normative framework for further military directives and military procedures. States’ emerging ethical guidelines may serve as a basis and be incorporated into military doctrines. Produced in accordance with the respective military doctrine, military operation or action plans are concepts and instructions to achieve military objectives in line with the available means. Plans reflect the commander’s intent and oftentimes include different courses of action (COA). A variety of military planning and decision-making models exist. NATO’s Comprehensive Operations Planning Directive (COPD) provides a good overview and synthesis of various Western models.69 The Canadian Armed Forces, for instance, follow six steps, namely initiation, orientation, concept development, decision plan development, and plan review.70 According to a general description, planning consists of ‘[p]lanning and scheduling the detailed tasks required to accomplish the specified COA; [a]llocating tasks to the diverse forces […]; [a]ssigning suitable locations and routes; [e]stimating friendly and enemy battle losses (attrition); [and p]redicting enemy actions or reactions.’71

#### Military Doctrine is essential for AI standards – it is necessary to operationalize human control.

Vestner, 2021 - Head of Security and Law Programme at Geneva Centre for Security Policy [Tobias, July 8 “Warfare and Artificial Intelligence” in Robin Geiß and Henning Lahmann (eds), Research Handbook on Warfare and Artificial Intelligence -forthcoming https://www.gcsp.ch/publications/military-operations-and-artificial-intelligenceGCSP Acc 5/27/22 TA]

Similarly, doctrine is the appropriate tool to define ethical standards for the development, acquisition, and use of AI systems. As military doctrines are drafted in accordance with international law and generally call upon members of armed forces to respect international law, doctrine can also define the modalities for AI systems and operators’ compliance with international law. As such, doctrine is an important tool to impose constraints regarding AI and human-machine teaming which apply across services to all members of the armed forces. This can imply the general need for meaningful human control of AI systems or the prohibition of the delegation of certain functions to AI systems. More specifically, doctrine can set the principles and parameters for the integration of AI into organizational processes. For example, AI systems working on the consolidation, prioritization, and framing of data are likely to require revised military doctrine and guidelines on armed forces’ use and collection of information.52 While systems whose tasks are limited to observation would require limited doctrinal adjustments, systems that have more ‘active’ tasks will likely necessitate more specific guidelines on elements such as safeguards, degree of autonomy, and communication with the operator as well as on their interaction with human forces, including human-machine teaming.53 Furthermore, it has been argued that tactical applications generally make rule-based decisions, whereas operational and strategic decisions are often value-based. In this case, what type of decision-making process is preferred at each level, and whether it should be standardized among all systems are questions that should be explored at the doctrinal level.54

#### 4. Existing Agreements - NATO is key to harmonization because of existing standardization agreements

Stanley-Lockman, 2021 - Center for Security and Emerging Technology [Zoe CSET Issue Brief August “Responsible and Ethical Military AI Allies and Allied Perspectives” https://cset.georgetown.edu/publication/responsible-and-ethical-military-ai/ Acc. 4/21/22 TA]

While the issuance of principles and commitment to uphold shared values through responsible use are undoubtedly important, it is worth noting that NATO does have different considerations from nations (and militaries) as a supranational, non-regulatory body. Its more unique contribution could be standardization, as already incorporated into standardization agreements and training publications—the latter of which could focus on responsible AI in training. In anticipation of forthcoming guidelines or standards for industry, it is worth noting that NATO operational standardization also encompasses work implementing the Law of Armed Conflict into operational practice.160 For NATO, building on General Mercier’s remarks that ethics and interoperability are linked, standardization on safe and ethical AI can likewise link to interoperability at the technical and procedural levels.161

#### NATO is key – it best translates principles into action

Gilli, 2020 - Senior Researcher at the NATO Defense College [Andrea, NDC Research Paper No.15 – December ““NATO-Mation”: Strategies for Leading in the Age of Artificial Intelligence” https://www.ndc.nato.int/news/news.php?icode=1514 Acc 4/21/22 TA]

Implementation and execution. The transition from principles to action is critical in any activity. Ethics is no exception, and while issuing comprehensive principles is difficult in any organisation, ensuring their implementation is an even greater challenge so as to strike the fine line between ethics washing and ethics “bashing”.113 Indeed, governance is an important factor in ensuring that technology is used responsibly and in line with the Alliance’s desired outcomes.114 In this respect, NATO may have a relevant role in supporting its Allies. A dedicated organization, such as an Artificial Intelligence Integration & Implementation-Enabling Centre (next chapter), could prove particularly useful, not least because it could help Allies share concerns, considerations, solutions and best practices as well as support them with ad hoc training activities.115 Similarly, aligned principles may eventually be translated into standards – and related measures such as benchmarks and annotations – an aspect which will be discussed towards the end of this Research Paper.

#### 5. Transparency - NATO is best positioned to encourage cooperation on ethical principles because of its transparency and accountability .

Trabucco and Stanley-Lockman, 2022 – prof of Political Science, University of Copenhagen and prof of Defense and Strategic Studies, Nanyang Technological University [Lena and Zoe, The Oxford Handbook of AI Governance, March, “NATO’s Role in Responsible AI Governance in Military Affairs” https://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780197579329.001.0001/oxfordhb-9780197579329-e-69 Acc 4/16/22 TA]

NATO’s influence in the functioning of joint operations and multinational military operations situates the Alliance to coordinate between how Allies implement ethical principles in their own national AI development. Specifically, NATO is well-situated to advocate for transparency, accountability, and data governance, which are also adoption factors that can translate into operational benefits, among other values.69 For example, these factors can promote coordination among Allies on ethical guidelines on the development and use of AI, as this will be a necessary foundation in any future joint operation that uses this technology. “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 remains the organization that can bring these two (U.S. and EU) together and establishes the ethical bottom line.”70 The issues of transparency and accountability will define the scope of future implementation.

#### 6. Legal Interoperability - NATO is key to solvency because only it can ensure that military operations follow all member states laws.

Trabucco and Stanley-Lockman, 2022 – prof of Political Science, University of Copenhagen and prof of Defense and Strategic Studies, Nanyang Technological University [Lena and Zoe, The Oxford Handbook of AI Governance, March, “NATO’s Role in Responsible AI Governance in Military Affairs” https://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780197579329.001.0001/oxfordhb-9780197579329-e-69 Acc 4/16/22 TA]

One vital and unique contribution for NATO is facilitating legal interoperability among the Allies to resolve some of the most pressing legal barriers for AI implementation in future Allied operations. Legal interoperability, a subset of larger coalition interoperability, refers to the operational coordination around partner legal obligations and interpretations.75 It ensures “that within a military alliance, military operations can be conducted effectively consistent with the legal obligations of each nation.”76 Legal interoperability is a critical component of multilateral operations that has thus far been under-examined, despite its centrality to successful military operations. This is largely because “legal factors have a bearing on everything in alliances and coalition operations—from determining basic ‘troop-to-task’ considerations to decisions regarding the targets to be engaged—and the types of ordinances that may be used.”77 To enhance legal interoperability, NATO can exert its influence on how Allies can develop and deploy AI consistent with their legal obligations through its unique standardization capacities. Historically, NATO has taken significant steps to bridge the legal gap between Allies on critical procedures that bridge responsible state behavior with such “troop-to-task” considerations. One instructive example from past operations is detention policies in non-international armed conflicts.78 The promulgation of detention standards illustrates the operational significance of NATO’s common legal procedures, even for coalitions of the willing that formally operate outside NATO structures. By way of background, the U.S.-led coalition in Afghanistan had internal debates regarding the 96-hour security detention time period.79 The United States advocated extending the 96-hour rule, where coalition partners insisted adhering to the NATO standard, even though it was not a NATO operation.80 Generally the detention example illustrates NATO legal standards providing clarity to non-NATO operations; in some cases, Allies adopt NATO standards as accepted thresholds that continue to inform coalition policies beyond NATO structures and operations. Implementing AI in future military operations will almost certainly complicate legal interoperability as there is a lack of uniform standards, as in the detention example. Even some of the more basic implementation measures will garner legal uncertainty and Allies will inevitably navigate with minimal legal clarity and no standard procedures. Despite the roots of the legal debate stemming from the question of lethality, the most pressing (and urgent) legal issues will address the integration of necessary AI-enablers, such as data gathering and sharing.

## On Case Responses

### AT DOD Solving now

#### Current DOD policy does Not require human control – that is a common misperception

Freedberg, 2019 – deputy editor for Breaking Defense [Sydney J “The frontline of a new age in defense Artificial Intelligence” https://cdn2.hubspot.net/hubfs/2097098/MCM120\_BreakingDefense\_AI\_ebookR1%20(1).pdf Acc 5/25/22 TA]

The revised solicitation for ATLAS adds a paragraph emphasizing the system will be “consistent with DoD legal and ethical standards,” especially Department of Defense Instruction 3000.09 on “Autonomy in Weapon Systems.” The final decision to fire will always be a human being’s job, the Army insists, in keeping with Pentagon policy. But policy is not law, and the Pentagon leadership can change it unilaterally. What’s more, even though the military’s AI policy is usually described as requiring a “human in the loop,” there’s actually an enormous loophole. “It authorizes the development of weapons that use autonomy...for defensive purposes like in Aegis or Active Protection Systems,” Scharre said. “For anything else, it creates a review process for senior leaders to make a determination.” “It’s not a red light,” Scharre told me. It’s a stop sign: You halt, you check out the situation — and then you can go.

#### US policy only considers LAWs, not the whole range of Military AI

Stanley-Lockman, 2021 - Center for Security and Emerging Technology [Zoe CSET Issue Brief August “Responsible and Ethical Military AI Allies and Allied Perspectives” https://cset.georgetown.edu/publication/responsible-and-ethical-military-ai/ Acc. 4/21/22 TA]

Executive Summary Since the U.S. Department of Defense adopted its five safe and ethical principles for AI in February 2020, the focus has shifted toward operationalizing them. Notably, implementation efforts led by the Joint Artificial Intelligence Center (JAIC) coalesce around “responsible AI” (RAI) as the framework for DOD, including for collaboration efforts with allies and partners.1 With a DOD RAI Strategy and Implementation Pathway in the making, the first step to leading global RAI in the military domain is understanding how other countries address such issues themselves. This report examines how key U.S. allies perceive AI ethics for defense. Defense collaboration in AI builds on the broader U.S. strategic consensus that allies and partners offer comparative advantages relative to China and Russia, which often act alone, and that securing AI leadership is critical to maintaining the U.S. strategic position and technological edge. Partnering with other democratic countries therefore has implications for successfully achieving these strategic goals. Yet the military aspects of responsible AI that go beyond debates on autonomous weapons systems are currently under-discussed.

#### The DOD has not backed up its principles with policy action

Freedberg, 2020 - deputy editor for Breaking Defense [Sydney, Sept 16 Breaking Defense “Military AI Coalition Of 13 Countries Meets On Ethics” https://breakingdefense.com/2020/09/13-nations-meet-on-ethics-for-military-ai/ Acc. 4/22/22 TA]

Defense Secretary Mark Esper officially adopted a set of AI ethics principles in February, although implementation is still nascent. He has also repeatedly denounced China and Russia for developing, deploying, and in some cases exporting AI systems that disrespected human rights or human control of lethal force.

#### Actions must back up words

Horowitz and Scharre, 2021 - Senior Fellows at the Technology and National Security Program at the Center for a New American Security [Michael and Paul, Jan 12, “AI and International Stability: Risks and Confidence-Building Measures” [https://www.cnas.org/publications/reports/ai-and-international-stability-risks-and-confidence-building-measures Acc 6/6/22](https://www.cnas.org/publications/reports/ai-and-international-stability-risks-and-confidence-building-measures%20Acc%206/6/22) TA]

One risk to such statements is that if they appear manifestly at odds with a state’s actions, they can ring hollow, undermine a state’s credibility, or undermine the norm itself. For example, loudly proclaiming the importance of AI ethics while using AI systems in a clearly unethical manner, such as for internal repression or without regard for civilian casualties, could not only undermine a state’s credibility but also undermine the value of the norm overall, especially if other states fail to highlight the disconnect. Following through with meaningful actions to show how a state puts these norms into practice is essential for them to have real value.

### AT JAIC Solves Now

#### The JAIC conference did not establish policies – the US is still out of step with NATO allies

Trabucco, 2020 - Research Assistant at the Centre for Military Studies at the University of Copenhagen [Lena, May 10 “AI Partnership for Defense is a Step in the Right Direction – But Will Face Challenges” http://opiniojuris.org/2020/10/05/ai-partnership-for-defense-is-a-step-in-the-right-direction-but-will-face-challenges/ Acc 4/17/22 TA]

Which brings me to the third challenge. The AI partnership symposium did not offer a coherent strategy for the partnership beyond advancing core values the participating nations find important to the AI pipeline. Peter Singer, New America Foundation fellow and strategist, noted that the US has not yet offered a coherent strategy to contrast its “near peers.” In one article, Singer said, “China has a fairly clear and robust vision of this [AI and its applications] and it is actively exporting that vision. There is absolutely no way the US can compete without offering a different and compelling vision and one that involves our friends and allies.”

#### The JAIC strategy lacks funding.

Freedberg, 2019 – deputy editor for Breaking Defense [Sydney J “The frontline of a new age in defense Artificial Intelligence” https://cdn2.hubspot.net/hubfs/2097098/MCM120\_BreakingDefense\_AI\_ebookR1%20(1).pdf Acc 5/25/22 TA]

Well, the Pentagon has released its AI strategy. There are virtually no mentions of increased funding in it. But it does make the stakes clear: “Failure to adopt AI will result in legacy systems irrelevant to the defense of our people, eroding cohesion among allies and partners, reduced access to markets that will contribute to a decline in our prosperity and standard of living, and growing challenges to societies that have been built upon individual freedoms.” It identifies the center of gravity for AI work in the military, the Joint Artificial Intelligence Center (JAIC). And it sets some priorities: “We will launch a set of initiatives to incorporate AI rapidly, iteratively, and responsibly to enhance military decision-making and operations across key mission areas. Examples include improving situational awareness and decision-making, increasing the safety of operating equipment, implementing predictive maintenance and supply, and streamlining business processes. We will prioritize the fielding of AI systems that augment the capabilities of our personnel by offloading tedious cognitive or physical tasks and introducing new ways of working.”

### AT Partnership for Defense Solves Now

#### The PfD did not resolve AI disagreements between participants and did not include some key nations.

Trabucco, 2020 - Research Assistant at the Centre for Military Studies at the University of Copenhagen [Lena, May 10 “AI Partnership for Defense is a Step in the Right Direction – But Will Face Challenges” http://opiniojuris.org/2020/10/05/ai-partnership-for-defense-is-a-step-in-the-right-direction-but-will-face-challenges/ Acc 4/17/22 TA]

Despite the many benefits and opportunities, the partnership will face challenges as it defines the boundaries and practices of the collaboration. I believe three challenges ought to be raised at the outset. DoD officials have discussed interoperability as a an explicit goal of the partnership – interoperability being an umbrella term referring to group integration in order to operate cohesively and share information effectively. Interoperability is a necessary yet difficult achievement in any kind of partnership, but the AI partnership has a unique challenge. Namely, one of legal interoperability. Legal interoperability is one subset of the broader partnership interoperability and refers to the pursuit of the partnership’s goals within the participating state’s diverse legal obligations and interpretations. The partnership must find a way to achieve their ultimate goal in a manner consistent with domestic and international legal obligations of the participating states. Differing regulatory frameworks and data strategies among participants could lead to inadvertent challenges to the AI partnership legal interoperability. This is particularly relevant for the European partners, which currently constitute over half of the AI partnership. The European Union has deliberately distinguished the European approach to AI from China and the US, instead situating itself as the global leader advancing responsible and trustworthy AI. As part of this strategy, the EU submitted substantial proposals for data regulation and restrictions. Public and private organizations in these states are subject to European data regulation and restriction. It is not yet clear how these differences may affect the AI partnership; largely because it is still in its infancy and the DoD has not offered many specifics about the partnership in practice. But the issue could become a major one as the partnership moves forward. If the US hopes to expand the partnership to include more European partners, then the different approaches to data sharing could become a legal hurdle that hinders the legal interoperability – and thus partnership interoperability – potentially requiring special agreements. The second challenge is about which states are – and which states are not – included in the partnership (so far). The larger trans-Atlantic implications of the partnership should not be neglected as the collaboration moves forward. Crucial European partners are missing, such as Germany and the Netherlands. Germany is the biggest economy in Europe and a readily acknowledges the economic possibilities of AI development. The Netherlands has yet to reach the AI development of some of its European counterparts, but the Dutch government has been explicit about investing into research initiatives to bolster the Netherlands in the AI landscape. Mark Beall, JAIC Chief of Strategy, expressed his hope that more states will join the AI partnership in the future; but the absence of some of Europe’s heavy hitters could signal a bigger issue for the partnership. Commentators have expressed concern of a trans-Atlantic divide, and an intra-European divide, on AI in the military domain. See, for example, here and here.

### AT CCW / UN Solve Now

#### CCW solutions are too slow due to Russian obstruction.

Sauer, 2021 - Senior Research Fellow at Bundeswehr University [Frank serves on the International Panel on the Regulation of Autonomous Weapons IRRC No. 913 March “Stepping back from the brink: Why multilateral regulation of autonomy in weapons systems is difficult, yet imperative and feasible” https://international-review.icrc.org/articles/stepping-back-from-brink-regulation-of-autonomous-weapons-systems-913 Acc 4/5/22 TA]

The United Nations (UN) Convention on Certain Conventional Weapons (CCW) is the epicentre of the global debate on autonomy in weapons systems. The CCW's purpose “is to ban or restrict the use of specific types of weapons that are considered to cause unnecessary or unjustifiable suffering to combatants or to affect civilians indiscriminately”.1 In CCW parlance, the weapon autonomy issue is called “emerging technologies in the area of lethal autonomous weapons systems” (LAWS). In November 2019, CCW States Parties decided to, once again, continue their deliberations on LAWS. For the first time, however, these talks, which had previously been conducted between 2014 and 2016 in informal meetings and since 2017 within the framework of an expert subsidiary body called a Group of Governmental Experts (GGE), were mandated to produce a specific outcome. For ten days in 2020 and for an as-yet unknown number of days in 2021 (when the CCW's next Review Conference is due), the GGE was and is tasked with debating and fleshing out “aspects of the normative and operational framework” on LAWS.2 In addition, in Annex III of their 2019 report, States Parties adopted eleven guiding principles to take into account going forward.3 After the first five-day meeting of 2020 was postponed and then conducted in a hybrid format due to the current global COVID-19 pandemic, the second meeting had to be shelved, and it is currently unclear when and how the talks can resume. While some States – most prominently Russia – have displayed no interest in producing new international law in the CCW, arguing that “concerns regarding LAWS can be addressed through faithful implementation of the existing international legal norms”,4 others – such as Germany – claim that nothing short of “an important milestone” has already been reached with the 2019 report cited above, even describing the adopted eleven guiding principles as a “politically binding regulation”.5 Meanwhile, the international Campaign to Stop Killer Robots (Killer Robots Campaign, KRC) is criticizing CCW diplomacy as “moving forward at a snail's pace”, with low ambitions and negligible outcomes despite widespread public opposition to LAWS and some thirty countries (twenty-six of which are CCW States Parties) calling for the immediate negotiation of a new, binding legal instrument rather than continuing talks on frameworks and principles, which the KRC tends to consider vague and redundant respectively.6

#### UN Solutions will fail because they only focus on LAWs, not other applications of AI – inflexibility limits potential solutions.

Kahn and Horowitz, 2021 – Research and Senior Fellows at the Council on Foreign Relations [Lauren and Michael, The Washington Quarterly 44:4 “Leading in Artificial Intelligence through Confidence Building Measures” [https://doi.org/10.1080/0163660X.2021.2018794 Acc 6/6/22](https://doi.org/10.1080/0163660X.2021.2018794%20Acc%206/6/22) TA]

One might argue that the United States should let others lead on AI, focusing instead on developing AI-enabled capabilities and not concerning itself with how other countries behave. But there is no substitute for American leadership and its ability to rally countries around the world to support shared standards. If promoting norms of responsible behavior with AI encourages other states to use military applications of AI in more responsible ways, it will create a more ethical and predictable security environment, likely benefiting the United States. Additionally, current international dialogue about military uses of AI focuses almost exclusively on lethal autonomous weapon systems (LAWS), the subject of a Group of Governmental Experts in the Convention on Certain Conventional Weapons.39 Currently, the international conversation has been largely been driven by NGOs such as the Campaign to Stop Killer Robots.40 While such conversations help bring attention to some of these issues, they oversimplify the risks and fixate on worst-case scenarios that are more likely outcomes of artificial general intelligence or human level machine intelligence rather than technology today. LAWS represent only a small fraction of the universe of potential issues surrounding military applications of AI. Broadening the international conversation about military uses of AI to incorporate the full scope of potential applications would generate better dialogue because it would include more of the real-world AI scenarios likely to confront militaries. Expanding the discussion would also allow states to pursue levels of control and regulation other than an all-or nothing ban and create a more calibrated and flexible range of approaches to different technologies with various levels and types of associated risks.

#### The CCW will not produce a treaty – it requires a consensus that the US and Russia are blocking.

Miller, 2021 - Flight Chief, US Air Force [Amanda, Dec 14 Air Force Magazine “UN Addresses Lethal Autonomous Weapons—aka ‘Killer Robots’—Amid Calls for a Treaty” https://www.airforcemag.com/un-addresses-lethal-autonomous-weapons-aka-killer-robots-amid-calls-for-a-treaty/ Acc. 4/5/22 TA]

The United Nations’ secretary-general advocated for new restrictions on autonomous weapons as a U.N. group that negotiates weapons protocols started a week of meetings, in part, to discuss the matter. Secretary-General Antonio Guterres addressed the Review Conference of the U.N.’s Convention on Certain Conventional Weapons. Taking place in Geneva, Switzerland, the Review Conference happens every five years. Guterres preceded the weeklong meeting with a Dec. 13 message encouraging conference members “to agree on an ambitious plan for the future to establish restrictions on the use of certain types of autonomous weapons.” He described autonomous weapons as those “that can choose targets and kill people without human interference.” The conference has identified artificial intelligence, for one, as an “increasingly autonomous” technology. The Air Force has experimented with autonomous weapons such as the Air Force Research Laboratory’s Golden Horde, which did not become a program of record but did succeed in getting Small Diameter Bombs to collaborate with each other after receiving and interpreting commands mid-flight. The experimental Perdix micro-drones, under the DOD’s Strategic Capabilities Office, rely on AI. And although the Defense Advanced Research Project Agency’s Gremlins drones don’t rely on AI yet, they’re designed to accommodate that level of computing. Some countries and international rights groups want the convention to negotiate a treaty that would ban what the U.N. calls lethal autonomous weapons systems—and what others call “killer robots”—but diplomats told Reuters that’s not likely to happen this week. It would require a consensus, and the U.S., for one, has already rejected the idea. Russia was expected to do the same.

#### CCW progress is limited by definitional debates

Sauer, 2021 - Senior Research Fellow at Bundeswehr University [Frank serves on the International Panel on the Regulation of Autonomous Weapons IRRC No. 913 March “Stepping back from the brink: Why multilateral regulation of autonomy in weapons systems is difficult, yet imperative and feasible” https://international-review.icrc.org/articles/stepping-back-from-brink-regulation-of-autonomous-weapons-systems-913 Acc 4/5/22 TA]

Why regulating weapon autonomy is difficult: Conceptual pitfalls and power politics From UN Secretary-General António Guterres to prominent members of the artificial intelligence (AI) and tech communities7 to most States Parties of the CCW, there is near unanimity that LAWS raise various legal, strategic and ethical questions and concerns.8 Even so, within the CCW States Parties, a consensus on new, binding international law is still a long way off. Regulating weapon autonomy through this multilateral forum is a particularly tough nut to crack. As I will argue in this section, this is due to two reasons. First, weapon autonomy as an issue is comparatively elusive and hard to conceptualize. Second, its perceived military value is exceptionally high, and the current geopolitical landscape is not conducive to new arms control breakthroughs. Any discussion of the conceptual challenges regarding weapon autonomy has to begin with pointing out a common misunderstanding: the lack of progress in the CCW cannot be attributed to States Parties not having arrived at a shared definition of LAWS yet.9 Quite to the contrary, it has much more to do with the fact that the attempt to define LAWS was misconceived from the very beginning. This warrants further elaboration. The first two to three years of the CCW process on LAWS were indeed plagued by confusion and definitional struggles. Considerable effort was required to delineate the LAWS debate from the disputes surrounding remotely piloted aerial vehicles (drones) as well as to avoid anthropomorphizing LAWS as a one-to-one replacement for human soldiers.10 All stakeholders were seeking – and quite a few lamenting the lack of – a “possible definition of LAWS”, sometimes deliberately so in order to justify political heel-dragging. The underlying rationale was that arms control always requires a precise categorization of the object in question, such as a landmine, before any regulative action can be taken.

### AT EU Solves Now

#### The EU is not implementing military AI policies now – they are focused on regulating civilian technology

Stanley-Lockman, 2021 - Center for Security and Emerging Technology [Zoe CSET Issue Brief August “Responsible and Ethical Military AI Allies and Allied Perspectives” https://cset.georgetown.edu/publication/responsible-and-ethical-military-ai/ Acc. 4/21/22 TA]

While the EU has adopted a bullish approach to trustworthy AI in the civilian realm, European institutions have been slower to define the implications for safe and ethical AI beyond the tip of the spear. Key civilian policies and regulations, like the General Data Protection Regulation and more recent legislation instituting the European approach to “trustworthy” AI, have clear carveouts for public safety, security, and defense. Still, the EU approach to civilian AI policy is relevant to transatlantic defense because the dual-use, general-purpose nature of AI means that military adoption of AI will depend on the ethical frameworks that dominate civilian development, regardless of carveouts. More directly, some European countries also choose to apply EU legislation like the General Data Protection Regulation to their own defense sectors, even though they are not required to do so.167 With this overlap in mind, Appendix VIII overviews the applicability of the EU trustworthy AI principles for the defense realm. In addition to examples such as Airbus’ application of the ALTAI methodology to FCAS, it is notable that several European defense efforts mention the European Commission-supported guidelines for trustworthy AI as a positive step toward ensuring military uses of AI adhere to ethical standards. For example, in their co-authored food-for-thought paper on AI in defense, Finland, Estonia, France, Germany, and the Netherlands made explicit reference to the Trustworthy AI Principles, recognizing that the EU could leverage its normative power because of the centrality of ethical standards in AI for defense.168 The focus on safety and security in EU AI policy also promotes “convergence between the AI community and the security community” to enhance robustness.169 In sum, the emphasis on safety, security, and risk in EU AI policy is not only a natural overlap, but also one that European defense stakeholders are seeking out. However, it remains to be seen which EU body will take control of the responsible and ethical military AI agenda. There are various actors within the EU institutions that are largely beyond the scope of this paper.170 Instead, there are only inklings of how the EU will approach responsible and ethical military AI at present. In the future, this topic could also feature in EU-U.S. security and defense dialogues. For now, it is the European Parliament that plays the most visible role advancing ethics in European military R&D funding. This was seen in mid-2018, in its attempt to ban all military AI research using EU funds because of concerns about LAWS. The agreed upon final version explicitly prohibits funding for LAWS at the European level—a deal-breaker without which the Parliament would never have agreed to allow for any defense funding.171 But the final result was narrower because the EU does not have jurisdiction over its member states’ armaments development unless they use EU funds. As such, while important, especially for dualuse and open-source systems, its jurisdiction on mandating ethical reviews is still limited and likely to not affect the majority of national, bilateral, or minilateral capability development programs. More recently, the Parliament-issued Guidelines for military and non-military use of Artificial Intelligence in January 2021 could indicate a stronger ethical bent than seen in the other institutions.172

#### Trade and policy disagreements block EU / US cooperation on AI now.

Lawrence and Cordey, 2020 – researchers for The Cyber Project at the Belfer Center for Science and International Affairs [Christie and Sean, August, The Cyber Project Paper “The Case for Increased Transatlantic Cooperation on Artificial Intelligence Edited by Lauren Zabierek and Julia Voo https://www.belfercenter.org/sites/default/files/2020-08/TransatlanticAI.pdf Acc. 4/21/22 TA]

Transatlantic Cooperation: Despite over 40 years of scientific relationships and projects between the United States and the European Union, AI-specific collaboration has been fraught with varying degrees of political and academic skepticism on both side of the Atlantic, notably within the European Commission and the governments of some Member States (e.g., France and Germany).31 Such a dynamic is aggravated, in part, by the ever-deteriorating transatlantic relationship spurred by policy and trade disagreements, public spats, and increasing American isolationism. Despite such explicit omissions and stand-offs at the highest levels, transatlantic collaboration for AI does happen, most notably in various multilateral forums working on standards (e.g., ISO, IEC, IEEE, G7, G20) or on ethics and norms (e.g., OECD, GPAI32).33

#### Too many obstacles to US / EU cooperation on AI

Lawrence and Cordey, 2020 – researchers for The Cyber Project at the Belfer Center for Science and International Affairs [Christie and Sean, August, The Cyber Project Paper “The Case for Increased Transatlantic Cooperation on Artificial Intelligence Edited by Lauren Zabierek and Julia Voo https://www.belfercenter.org/sites/default/files/2020-08/TransatlanticAI.pdf Acc. 4/21/22 TA]

Challenges to Collaboration & Recommendations Full US-EU collaboration faces five distinct, but interconnected obstacles (see Figure 1 below). At the highest level, the United States and European Union have some diverging geopolitical interests (section A) illustrated by: America’s increasing isolationism, the European Union’s rebalancing to become a third power, the European Union’s resistance to adversarial discourse about China, and domestic political demands to focus resources on COVID-19 responses. Flowing out of the geopolitical landscape and political interests are three overarching considerations that are bolstered by differing beliefs about the role and size of government and can fuel US-EU disagreements around AI. These US national interests and EU common priorities are (section B): AI’s impact on national security and economic interests, as well as the ethics and values that guide AI’s development and use. Finally, aspects of the AI operating environment (sections C, D, and E), such as regulation and governance (including standards and operationalizing principles), funding, data spaces, hardware, and computing resources, provide tactical areas for disagreement or misalignment.

#### The EU is not cooperating with the US on AI now.

Lawrence and Cordey, 2020 – researchers for The Cyber Project at the Belfer Center for Science and International Affairs [Christie and Sean, August, The Cyber Project Paper “The Case for Increased Transatlantic Cooperation on Artificial Intelligence Edited by Lauren Zabierek and Julia Voo https://www.belfercenter.org/sites/default/files/2020-08/TransatlanticAI.pdf Acc. 4/21/22 TA]

Although the US consistently sounds the alarm bells around China’s AI aspirations and the EU urges international efforts against AI that violates fundamental rights, increasingly noting China’s actions with concern,8 little concrete international action has taken place. The United States and the European Union’s ongoing reassessment of their respective AI strategies and legislation9 provides a window of opportunity to align and collaborate. Transatlantic AI cooperation is at a critical juncture and the United States and the European Union should seize this opportunity to take concrete actions. The Current State The United States and the European Union are separately assessing and updating their AI strategies. However, it is a myth to assume they are not collaborating at all to advance their AI-related goals. Transatlantic cooperation on AI norms, standards, research and development, and data sharing should increase, but the United States and the European Union can build upon an existing foundation for a stronger alliance.

### AT NATO solves now

#### NATO has not implemented its AI principles yet – they need to move from words to actions

van Weel, 2021 – Assistant Secretary General for Emerging Security Challenges, NATO [David, Dec 7, “Artificial intelligence: Can we go from chaos to cooperation?” AEI Panel Discussion - Moderator: Elisabeth Braw https://www.aei.org/events/artificial-intelligence-can-we-go-fromchaos-to-cooperation/ Acc 5/11/22 TA]

So we’ve adopted six principles of responsible use. I’ll just read them out here. They’re lawfulness, responsibility and accountability, “explainability” and traceability, reliability, governability, and bias mitigation. So all 30 NATO nations have signed up — including the US, I would say to Jonathan — to having any use of AI in the defense or security purpose adhere to these six principles. And principles are nice, but they need to be verifiable as well, and they need to be baked in from the moment of the first conception of an idea up until the delivery. And that’s where we will have a new initiative launched, where we have test centers across the alliance, based alongside universities — existing test centers with knowledge, where allies that are thinking about codeveloping AI for use in the defense sector can come in and verify with protocols, with certain standards that we’re setting, that this AI is actually verified. It’s not real standard yet. But if the 30 nations, Western democracies, start out by shaping industry to adhere by these standards, then I feel that we are making an impact — at least in the development of AI, and hopefully, also, in the larger world — setting standards. So we’re trying to contribute to a better world, but we need to be part of the game in order to be able to do so.

#### NATO’s AI strategy is fragmented now.

Warrell, 2021 - Assistant Editor Financial Times [Helen, June 7, Financial Times “Nato allies need to speed up AI defence co-operation” [https://www.ft.com/content/61c1945c-d153-4d58-b9c5-dffd99a6919e Acc 6/4/22](https://www.ft.com/content/61c1945c-d153-4d58-b9c5-dffd99a6919e%20Acc%206/4/22) TA]

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 . . . and then shared with the civilian sector. Now, it goes the other way around “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.

### AT No Definition of AI

#### Even if there is no Legal definition of AI, existing ones can provide guidance to policy makers

Hill and Marsan, 2018 - Director and Senior Assistant, NATO Office of Legal Affairs [Steven and Nadia, 7-18-18 “Artificial Intelligence and Accountability: A Multinational Legal Perspective” https://www.sto.nato.int/publications/STO%20Meeting%20Proceedings/STO-MP-IST-160/MP-IST-160-PP-4.pdf Acc 4/21/22 TA]

2.0 DEFINITIONS The first issue that arises in the context of AI which highlights the difficulty in setting a clear conceptual scope and applicable legal parameters, is a definitional one. There are no internationally agreed legal definitions for the core concept of AI. The lack of agreed legal definitions can hinder and stall discussions in part because Nations may rightfully be hesitant to commit to the regulation of a new technology when the scope and the evolution of that technology is not clear. While there might not be agreed legal definitions of AI, broader discussions on AI have identified a number of elements that can nevertheless provide some preliminary guidance. The first suggested definition of AI is, “the capability of a computer system to perform tasks that normally require human intelligence, such as visual perception, speech recognition and decision-making.”6 The second definition of AI which is useful here is, “technologies that enable machine learning, natural language processing, deduction through vast data-computational power, and ultimately, automated decision-making in robotics or software that can substitute for tasks once performed exclusively by human action and judgement”. 7 Another term that is important to define is “autonomy”. The concept of autonomy is key to AI because it is precisely the technological edge provided by AI that enables autonomy or, expressed another way, enables the independent action of a machine. Autonomy itself can be defined as “the ability of a system, platform or software to complete a task without human intervention, using behaviours resulting from the interaction of computer programming with the external environment”.8 Although beyond the scope of this paper, other definitions incorporate key concepts in the military use and development of AI.9 These preliminary definitions suggest that AI is about replicating human perception, cognition and decision-making as well as introducing a certain element of independence to these systems. Although the modelling of human intelligence provides opportunities from a security perspective, these are also fraught with challenges that are only beginning to be understood: “there is now a broad consensus that AI research is progressing steadily, and that its impact on society is likely to increase. The potential benefits are huge, since everything that civilization has to offer is a product of human intelligence; we cannot predict what we might achieve when this intelligence is magnified by the tools AI may provide, but the eradication of disease and poverty are not unfathomable. Because of the great potential of AI, it is important to research how to reap its benefits while avoiding potential pitfalls”. 10 3.0 LEGAL IMPLICATIONS ARISING FROM SPECIFIC USES OF AI There are already applications of AI that are of interest to a multilateral security organisation such as NATO. Acknowledging the absence of a clear consensus on the legal definition of AI, it is useful to highlight some concrete areas where AI has been and is currently being used with effects, both positive and negative, on Allied security.11 Three areas of AI-enabled technologies are worth mentioning here: intelligence, surveillance and reconnaissance; the manipulation of personal data; and, disinformation.

#### Focusing on Human Control avoids the trap of trying to precisely define weapons

Sprenger, 2021 - Europe editor for Defense News [Sebastian, Apr 27, “NATO tees up negotiations on artificial intelligence in weapons” https://www.c4isrnet.com/artificial-intelligence/2021/04/27/nato-tees-up-negotiations-on-artificial-intelligence-in-weapons/ Acc 4/22/22 TA]

Accountability and transparency are two more buzzwords expected to loom large in the debate. Accidents with autonomous vehicles, for example, will the raise the question of who is responsible — manufacturers or operators. The level of visibility into of how systems make decisions also will be crucial, according to van Weel. “Can you explain to me as an operator what your autonomous vehicle does, and why it does certain things? And if it does things that we didn’t expect, can we then turn it off?” he asked. NATO’s effort to hammer out common ground on artificial intelligence follows a push by the European Union to do the same, albeit without considering military applications. In addition, the United Nations has long been a forum for discussing the implications of weaponizing AI. Some of those organizations have essentially reinvented the wheel every time, according to Frank Sauer, a researcher at the Bundeswehr University in Munich. Regulators tend to focus too much on slicing and dicing through various definitions of autonomy and pairing them with potential use cases, he said. “You have to think about this in a technology-agnostic way,” Sauer argued, suggesting that officials place greater emphasis on the precise mechanics of human control. “Let’s just assume the machine can do everything it wants — what role are humans supposed to play?”

#### Even without a universal definition, there are many useful ones.

Shah, 2019 - Research Assistant at the Center for International Strategic Studies [Syed Sadam CISS Insight Vol.VII, No.2 “The Perils of AI for Nuclear Deterrence” https://journal.ciss.org.pk/index.php/ciss-insight/article/download/10/9 Acc 5/25/22 TA]

Defining artificial intelligence (AI) There are many definitions of AI given by researchers. However, it is essential first to differentiate between three overlapping concepts Machine Learning (ML), Deep Learning (DL), and Artificial Intelligence (AI). Although these concepts overlap in some domains, they are not the same. DL is a subset of ML, and ML is a subset of AI.3 ML can simply be defined as the algorithms that empower computers to learn by themselves based on the available data. DL is the next level of development of ML. It works like a human brain. Deep learning algorithms can be taught to do the same tasks for computers, which the human brain does for humans.4 However, the goal of AI is to make computers and machines learn from experience, think like a human brain and reason on their own. For this purpose, artificial neural networks use math and algorithms (computer programs) to impersonate the processes of the human brain to reason independently.5 There is not a single agreed definition of AI among researchers, but few definitions offer a better explanation. For instance, the US companion bill defined AI as “Any artificial system that performs tasks under varying and unpredictable circumstances, without significant human oversight, or that can learn from their experience and improve their performance...”6 William A. Carter from CSIS defines Machine Intelligence (MI) as “MI refers to machines’ ability to perform tasks that would normally require human intelligence. Computer scientists and mathematicians develop MI systems by imparting the ability to find patterns in large data sets to computers (machine learning).”7 Stanford’s Researcher, John McCarthy defines AI, as “Artificial Intelligence is the science and engineering of making intelligent machines, especially intelligent computer programs. Artificial Intelligence is related to the task of using computers to understand human intelligence, but AI does not have to confine itself to methods that are biologically observable.”8

#### Dialogue can clarify the definition of AI which facilitates solutions

Allen, 2022 - Director, AI Governance Project, Strategic Technologies Program at CSIS [Gregory C. June 6 “DOD Is Updating Its Decade-Old Autonomous Weapons Policy, but Confusion Remains Widespread” [https://www.csis.org/analysis/dod-updating-its-decade-old-autonomous-weapons-policy-confusion-remains-widespread Acc 6/6/22](https://www.csis.org/analysis/dod-updating-its-decade-old-autonomous-weapons-policy-confusion-remains-widespread%20Acc%206/6/22) TA]

As it updates the policy, there are at least four key issues that DOD needs to address. The first two will require actual changes to the policy, while the latter two can be addressed simply by providing additional clarification and guidance, perhaps through publication of a policy handbook. Define how a system’s “AI-enabled” status does or does not affect the policy’s requirements. Define how retraining machine learning models will be handled in the senior review process. Clarify the specific features that formally define an autonomous weapon system. Clarify the types of weapons that are and are not required to go through the autonomous weapon senior review process. While the final word on these issues must come directly from DOD, the sections below attempt to shed some initial light. Define how a system’s “AI-enabled” status does or does not affect the policy’s requirements. The debate over what constitutes AI as opposed to mere mechanical computation and automation goes back at least as far as the 1830s, when Ada Lovelace worked with Charles Babbage to design and program the first mechanical computers. In recent decades, computer systems that in their heyday were routinely called “AI,” such as IBM’s chess-playing Deep Blue system in 1997, have higher-performing successors today that are merely called “software” or “apps.” Machine learning, a subfield of AI that has been responsible for extraordinary research and commercialization progress since 2012, is more often than not used as a synonym for AI—so much so that some argue that any system that does not use machine learning should not be referred to as AI. It is important to know whether a system claiming to be AI-enabled is using machine learning. Machine learning works differently from traditional software. It is better at some things, worse at others, requires different factors to enable success, and has different failure modes and risks that need to be addressed. When the U.S. military says that a given system is AI-enabled or that a given project is an “AI project,” it almost always means machine learning. While describing a military system as AI-enabled or machine learning-enabled provides useful information, it often remains unclear just what functionality is being provided by AI and how central AI is to the system overall. Suppose, hypothetically, that the F-35 Joint Strike Fighter Program Office decided that it should use machine learning to improve the performance on one of the aircraft’s many different types of sensors. Does that mean that the entire F-35 program, with its more than $8.5 billion in annual spending, is building AI-enabled weapon systems? The DODD 3000.09 update is a good opportunity to formally define “AI-enabled” in DOD policy and to specify how using machine learning does or does not affect the autonomous weapon senior review process. Confusingly, common usage of these terms differs significantly in other countries. For example, Russian weapons manufacturers routinely refer to their automated and robotic military systems as using AI even if the system does not use machine learning, and they rarely make it clear when it does. Varied definitions complicate international diplomacy on these subjects.

### AT No Definition of Human Dignity

#### Being “Hard to Define” does not make human dignity irrelevant – most international norms are operationally defined

Sauer, 2021 - Senior Research Fellow at Bundeswehr University [Frank serves on the International Panel on the Regulation of Autonomous Weapons IRRC No. 913 March “Stepping back from the brink: Why multilateral regulation of autonomy in weapons systems is difficult, yet imperative and feasible” https://international-review.icrc.org/articles/stepping-back-from-brink-regulation-of-autonomous-weapons-systems-913 Acc 4/5/22 TA]

Universal human dignity That the use of LAWS would be a violation of human dignity has been argued by various scholars of moral philosophy and technology.82 The notion was picked up by the KRC83 and lately has also been reiterated by the ICRC.84 Opposing weapon autonomy on grounds of human dignity has drawn some scrutiny,85 and the supposed “awkwardness”86 of this stance is commonly substantiated by pointing out that several meanings of dignity exist and that there is no commonly agreed-upon definition of dignity. However, being hard to define but relevant and even crucially important is a characteristic of many normative concepts, including many legally codified ones. Cornerstones of IHL such as civilian-ness, which is defined only ex negativo, or proportionality, which is not quantifiable and is assessable only on a case-by-case basis, are examples.87 Human dignity, too, is contained in various international legal documents. The Universal Declaration of Human Rights refers to it in its preamble, as does the UN Charter. It is also invoked in national bodies of law, as well as court decisions. The key example here is Germany's basic law Article 1(1), which states human dignity's inviolability and prohibits the treatment of humans as objects or means to an end, being referenced in a 2006 landmark decision by the German Constitutional Court. The judges struck down a federal law that would have allowed the German air force to shoot down a hijacked aeroplane that the hijackers may have intended to use as a weapon to kill people on the ground. The Court deemed it unconstitutional to use the aeroplane passengers as mere instruments to try to achieve another, albeit worthy, goal.88

#### Non–Unique - Most legal and philosophical values lack agreed upon definitions.

Rosert, 2019 - Professor for International Relations at Universität Hamburg [Elvira, with Frank Sauer Researcher at Bundeswehr, Global Policy, July 5 “Prohibiting Autonomous Weapons: Put Human Dignity First” https://doi.org/10.1111/1758-5899.12691 Acc 12/27/20 TA]

From a strategic communication point of view, adjusting the message toward the infringement on human dignity would have the general benefit of dampening the overall level of contention. After all, while the suggestion to rest the case against LAWS more firmly on human dignity has drawn some scrutiny itself (see the overview in Sharkey, 2018), the supposed ‘awkwardness’ (Baker, 2018) of this proposal is commonly substantiated by pointing out that several meanings of dignity exist and that there is no agreed‐upon definition of dignity. Yet, being vague but relevant and even crucially important is a characteristic of many normative and even legally codified concepts. The concepts of civilian‐ness, of proportionality, or of unnecessary suffering – cornerstones of IHL despite all their ambiguities – are just three examples. Moreover, what we argue specifically is that mobilizing human dignity would strengthen the stance against LAWS by making it more resilient against consequentialist challenges, at least when compared to legal claims. After all, the legal claim that LAWS are indiscriminate weapons violating the principle of distinction might, in fact, prove vulnerable due to (unlikely but not impossible) technological progress that increases their discriminatory capabilities and even equips them with the (equivalent of) ‘common sense’ and battlefield awareness that human commanders possess (Amoroso et al., 2018, p. 33). In fact, this exact point is already being invoked by opponents of a prohibition on LAWS, and it keeps forcing its proponents into (rather pointless) hypothetic legal and technological debates. In addition, the emphasis on the protection of civilians from LAWS might jeopardize the call for a comprehensive ban and instead end in mere restrictions on the use of LAWS (e.g. in pre‐specified ‘kill boxes’ or domains like the high seas where the presence of civilians is considered unlikely) (Anderson and Waxman, 2013; Schmitt and Thurnher, 2013; Schmitt, 2013; HRW, 2016).

#### It’s not impossible - There are minimum standards of human dignity defined by the Universal Declaration of Human Rights.

Johnson and Axinn, 2013 - Prof of Philosophy at the Univ of South Florida and PhD Candidate in Engineering at Penn [Aaron and Sidney, Journal of Military Ethics, Volume 12, Issue 2, August “The Morality of Autonomous Robots” www.tandfonline.com/10.1080/15027570.2013.818399 Acc 12/27/20 TA]

The concept of human dignity is complicated and explained variously. As a minimum, although not without controversy, we may take the statement of the Universal Declaration of Human Rights (1949), “All human beings are born free and equal in dignity and rights” (article 1). Dignity is often taken as the property that makes humans eligible for the human rights listed in the Universal Declaration. Put another way, in Kant’s phrase, dignity means that the individual has “an intrinsic worth,” and has “no equivalent.” (1959: p. 435). This is to say that each human must be respected for his or her unique inherent or intrinsic value. It is widely accepted that all humans have a certain kind of equality, they are judged morally by the same rule. The American Declaration of Independence puts the attitude toward all humans in a vivid way. Near the end we find the statement, we hold our British brethren ‘as we hold the rest of mankind, Enemies in War, in Peace Friends.’ All humans are potentially our friends, and they all deserve to have us respect their inherent dignity. Is there a loss of dignity when a human fights with a machine, compared to fighting with another human? As a non-lethal game it is acceptable,9 but in a fight to the death the matter is different and far from trivial. To give a programmed machine the ability to ‘decide’ to kill a human is to abandon the concept of human dignity. Humans are sometimes accidentally killed by machines, but for an autonomous robot/drone to be programmed to kill a human is to treat a rational being as if it were merely an object.

### AT No Definition of Human Control

#### Human control can be defined as “*situational understanding and options for intervention enabled both by design and in use*.”

International Panel on the Regulation of Autonomous Weapons, 2021 [(iPRAW) coordinated by: German Institute for International and Security Affairs, July “Building Blocks for a Regulation on LAWS and Human Control Updated Recommendations to the GGE on LAWS” https://www.readkong.com/page/building-blocks-for-a-regulation-on-laws-and-human-control-8617434 Acc 2/27/22 TA]

Block II – Human Control: The challenges discussed above are mostly caused by a lack of human control in the use of force. Accordingly, a regulation of LAWS should focus on that. iPRAW defines human control as situational understanding and options for intervention enabled both by design and in use. To account for the context- dependency of human control, a future regulation of LAWS (e.g. a CCW Protocol) will probably have to consist of rather abstract stipulations regarding the concept of human control. The supplementary adoption of further agreements – legally or politically binding – could be useful to delineate human control in further detail.

#### Human Control has to be operationally defined in the context of specific applications.

International Panel on the Regulation of Autonomous Weapons, 2021 [(iPRAW) coordinated by: German Institute for International and Security Affairs, July “Building Blocks for a Regulation on LAWS and Human Control Updated Recommendations to the GGE on LAWS” https://www.readkong.com/page/building-blocks-for-a-regulation-on-laws-and-human-control-8617434 Acc 2/27/22 TA]

While it is possible to develop abstract minimum requirements for human control in the use of force, the appropriate level or implementation of human control depends on the details of the operational context. A ‘one-size- fits-all’ control solution that addresses all concerns raised by the use of LAWS will most likely not be achievable because it cannot account for the multitude of combinations of environmental factors, operational requirements, and weapons capabilities. Instead a regulation would be more useful if it included general approximations to be specified in each case along the lines of existing IHL considerations. iPRAW encourages CCW States Parties to develop and share specific examples of how control by design and control in use can be implemented in weapon systems used in different operational contexts.

#### Abstract requirements for human control will be specified in specific contexts when implemented.

International Panel on the Regulation of Autonomous Weapons, 2021 [(iPRAW) coordinated by: German Institute for International and Security Affairs, July “Building Blocks for a Regulation on LAWS and Human Control Updated Recommendations to the GGE on LAWS” https://www.readkong.com/page/building-blocks-for-a-regulation-on-laws-and-human-control-8617434 Acc 2/27/22 TA]

Implications for a regulation: The requirements presented above remain quite abstract. The exact implementation of these factors depends primarily on the specific context of a military operation. Translated into a regulation, this calls for rather wide- ranging rules addressing human control in more general terms, ideally supplemented by a set of more specific documents to elucidate and further expound the concept of human control and to operationalize it.

### AT Countries won’t agree on Specifics

#### Ethical principles for human control will leave room for flexibility on implementation by different nations

Stanley-Lockman, 2021 - Center for Security and Emerging Technology [Zoe CSET Issue Brief August “Responsible and Ethical Military AI Allies and Allied Perspectives” https://cset.georgetown.edu/publication/responsible-and-ethical-military-ai/ Acc. 4/21/22 TA]

This legal and human-centric framing informs allies’ views on key questions related not only to responsibility, but also explainability, trust, and related concepts. These commonalities should be seen as a baseline for responsible democratic governance of military AI, which leaves room for nuance in how each country interprets and prioritizes these types of principles. These nuances are important because defense stakeholders in allied countries do not necessarily emphasize the same principles in their evolving approaches to military AI.

#### NATO will work hard to get allies to adapt to emerging security concerns.

Trabucco and Stanley-Lockman, 2022 – prof of Political Science, University of Copenhagen and prof of Defense and Strategic Studies, Nanyang Technological University [Lena and Zoe, The Oxford Handbook of AI Governance, March, “NATO’s Role in Responsible AI Governance in Military Affairs” https://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780197579329.001.0001/oxfordhb-9780197579329-e-69 Acc 4/16/22 TA]

In this chapter, we explore a role for the North Atlantic Treaty Organization (NATO) in the emerging military AI governance architecture. NATO (or the Alliance) is a military and political alliance among 30 contributing member states that are committed to collective security. Much of NATO’s original purpose and current core tasks arguably leave the Alliance’s role uncertain in international governance regimes contending with the impact of emerging technology on international politics.1 As global powers compete for the economic and military capabilities that AI can offer, the Alliance has the enormously challenging task of navigating varying political realities and capabilities of Allies, all while effectively recalibrating strategic relationships in the coming years. Recognizing technological change as a key variable, NATO has begun to adapt its organizational composition and strategic footing to increase the Alliance’s capacity to meet emerging security challenges for military capability development trends of both its own members and those of competitors or adversaries.

### AT Europe Blocks Plan

#### European nations agree on the minimal principle of Human Control.

Nadibaidze, 2021 - Ph.D. Student at the University of Southern Denmark [Anna Entry submitted for the Second OSCE-IFSH Essay Competition “Commitment to Control over Weaponised Artificial Intelligence: A Step Forward for the OSCE and European Security” https://www.osce.org/files/f/documents/8/3/507341.pdf Acc. 4/21/22 TA]

Second, the discourses surrounding weaponised AI – the ways that OSCE participating States talk about LAWS – also have considerable impact on European security. Both a common definition of LAWS and an agreement on the appropriate level of human control over weapons systems are lacking, which gives way for misinterpretation and increases security risks. Let us examine the discourses of three major players in European security: France, the Russian Federation, and the United Kingdom. Their official positions converge on the importance of retaining human control. The Minister of the French Armed Forces, Florence Parly, said that “France refuses to entrust the decision of life or death to a machine that would act in a completely autonomous manner and would be beyond any human control” (Ministère des Armées 2019). Russia said it “is committed to the need to maintain human control over LAWS, no matter how ‘advanced’ these systems may be” (Russian Federation 2021, 3). The UK Ministry of Defence noted in January 2021, “the operation of our weapon systems will always be under human control and no UK weapons systems will be capable of attacking targets without this” (Ministry of Defence 2021). Nevertheless, autonomy and the concept of appropriate human control over weapons systems are perceived differently by these States. The Russian side remains opposed to a legally binding treaty that would ban LAWS, arguing that the definition of LAWS should “strike a balance between humanitarian concerns and legitimate defence interests of States” (Russian Federation 2021, 3). France has suggested a division between “fully” and “partially” lethal autonomous weapon systems and adopting different types of measures for these two categories. In the French perspective, only the “fully” autonomous weapons should be prohibited (French Republic 2021). Meanwhile, the UK has stated that “an autonomous system is capable of understanding higher-level intent and direction”, a definition that is more precise and constraining than those of other States (Ministry of Defence 2017, 13). A UK House of Lords Select Committee report said this definition is “clearly out of step with the definitions used by most other governments” and also “hamstrings attempts to arrive at an internationally agreed definition”(Select Committee on Artificial Intelligence 2018, 105). As a common denominator, these States agree on the principle that weapons systems should not function completely autonomously. However, the differences in their perceptions hinder the progress on understanding and preventing the security risks related to the use of weaponised AI. They create misperceptions about the uses of AI, specifically between the leaders in this sphere, who are all carefully watching each other’s technological developments. The NSCAI, for instance, warned the US government that “competitors are actively developing AI concepts and technologies for military use,” specifically focusing on China and Russia (2021, 22). The discrepancies in definitions and discourses create risks of misunderstanding when, for instance, one participating State is developing a certain weapons system considered to be LAWS by another State. Such communication issues can lead to a security dilemma in which “one state’s pursuit of greater automation and faster reaction times undermines other states’ security and leads them to similarly pursue more automation just to keep up,” and encourgages experts to speak of an ‘AI arms race’ (Scharre 2021).

#### US and European leaders have converged on AI ethical principles – current guidelines prove.

Lawrence and Cordey, 2020 – researchers for The Cyber Project at the Belfer Center for Science and International Affairs [Christie and Sean, August, The Cyber Project Paper “The Case for Increased Transatlantic Cooperation on Artificial Intelligence Edited by Lauren Zabierek and Julia Voo https://www.belfercenter.org/sites/default/files/2020-08/TransatlanticAI.pdf Acc. 4/21/22 TA]

Advancing AI Founded on Shared Values The US and EU should collaborate to ensure their shared values set AI norms that ripple throughout the global AI ecosystem. Although ethics is mentioned as a potential source of divergence, we believe, as do Nand Mulchandani, Acting Director of the U.S. Department of Defense Joint Artificial Intelligence Center (JAIC) and Ryan Budish, Assistant Research Director at the Berkman Klein Center for Internet and Society at Harvard University, that US and EU policymakers, academics, and industry experts are fundamentally aligned on ethical priorities and the importance of privacy, human rights and the rule of law.105 AI ethical principles and draft regulatory guidelines published by the European Commission, US Office of Management and Budget, and US Department of Defense all recognize the need for: AI systems to protect human rights and privacy; algorithms to be fair, transparent, safe, secure, and governable; and policymakers and AI developers to be responsible and accountable to the technologies (See Figure 2 below for an overview of common language found in US and EU policy documents). Furthermore, according to Acting Director Mulchandani and Andrea Renda, Head of Global Governance, Regulation, Innovation and the Digital Economy at the Centre for European Policy Studies, US policymakers have recognized the importance of an ethical, human-centered approach to AI for their European counterparts and endeavored to communicate alignment on AI principles.106 Differences could manifest in the implementation and operationalization of these values, but these discrepancies can be mitigated. The EU has positioned itself as a leader in trustworthy and human-centric AI107 while the US108 highlights the need for AI innovation to protect American values, civil liberties, and privacy.

### AT France blocks the plan

#### France has released an AI strategy which supports human responsibility for action

Stanley-Lockman, 2021 - Center for Security and Emerging Technology [Zoe CSET Issue Brief August “Responsible and Ethical Military AI Allies and Allied Perspectives” https://cset.georgetown.edu/publication/responsible-and-ethical-military-ai/ Acc. 4/21/22 TA]

The French Ministry of Armed Forces has been studying AI associated risks since 2019.37 That September, France became the first (and, still at the time of writing, only) European ally to publicly issue a dedicated military AI strategy.38 Ethics and responsibility appear throughout the strategy, most notably as aspects of “controlled AI” and in the announcement to establish a ministerial Defence Ethics Committee.39 Subsequently, as described below, the advisory opinions of the Defence Ethics Committee also lend insights into French views on responsibility and other concepts. Each of these building blocks is indicative of French thought and implementation pathways for ethical and responsible military AI, even if not in the form of adopted principles. The French military AI strategy, called Artificial Intelligence in Support of Defence, describes “controlled AI” as the overarching framework for Ministry guidelines on AI adoption, including aspects that relate to ethics.40 Notably, control (maîtrise) in this context refers to harnessing and governing AI, and is not synonymous with human control (see Appendix II).41 In addition to adoption priorities like the imperative to maintain freedom of action and interoperability with allies, the guidelines see “trustworthy, controlled, and responsible AI” as interlinked concepts under the headline “guidelines for controlled defence AI.” These three concepts come to light in the need for the Ministry to “have robust and secure systems which can be trusted to assist service personnel and commanders, dispelling any ‘black-box’ effect, while retaining human responsibility for action.”42 The rest of the section unpacks what trustworthiness, control, and responsibility mean, as gleaned from both the French military AI strategy and the Defence Ethics Committee advisory opinions on other technologies.43

#### Collaboration creates the environment to overcome obstacles - the US will compromise to accommodate digital sovereignty and supply chain concerns

Stanley-Lockman, 2021 - Center for Security and Emerging Technology [Zoe CSET Issue Brief August “Responsible and Ethical Military AI Allies and Allied Perspectives” https://cset.georgetown.edu/publication/responsible-and-ethical-military-ai/ Acc. 4/21/22 TA]

Other principles and equivalent topics, such as controlled AI and feedback mechanisms for societal input, are also more explicitly laid out in allies’ approaches to AI ethics. Here again, this is not to say that the United States does not share sovereignty concerns, but rather that these concerns are not as explicit in DOD’s ethical AI principles as in allies’ documents. Seeing national sovereignty as part of responsibility could come to be in tension with cooperation—as well as procurement decisions that breed dependence on the United States. It is notable that DOD is just beginning to insert supply chain considerations into its publicly available documentation on RAI. Meanwhile, it has been part of the French approach since they began considering ethical risks of AI in defense, and is also included in the Australian Method. As countries navigate this nexus, the extent to which sovereignty concerns fuel tensions between democratic allies will depend on other forms of cooperation.186 Nevertheless, because of the overlap between security and assurance of control over the lifecycle of an AI system, responsible AI implementation pathways in the United States may come to incorporate supply chain risks.187 In this way, it would be similar to traceability and auditability concerns that countries such as France and Australia mention in their approaches to sovereignty in AI.

### AT Britain blocks the plan

#### Britain would support the plan – their Integrated Review Command Paper proves they support ethics regulations for AI

Stanley-Lockman, 2021 - Center for Security and Emerging Technology [Zoe CSET Issue Brief August “Responsible and Ethical Military AI Allies and Allied Perspectives” https://cset.georgetown.edu/publication/responsible-and-ethical-military-ai/ Acc. 4/21/22 TA]

In the U.K., ethical and normative aspects of AI feature in recent strategic documents, including the government’s Integrated Review of national security and international policy, and in the Ministry of Defence’s accompanying Command Paper published a week later in March 2021. The Integrated Review names “supporting the effective and ethical adoption of AI and data technologies” and “identifying international opportunities to collaborate on AI R&D, ethics and regulation” as aspects that can help build public trust and early adoption of military AI.94 This is consistent with the Ministry of Defence’s contributions to achieving the British strategic interest of “the ethical development and deployment of technology based on democratic values,” as reaffirmed in the Command Paper.95 One area of daylight between the two documents, however, is the Integrated Review’s concern about the gap between the pace of global governance and the development of standards and norms, in contrast to the Command Paper’s stated need for “standards and norms for the responsible and ethical adoption of these new technologies.”96 How exactly the U.K. Ministry of Defence will approach these interrelated military governance challenges is due to become clearer in the near future. More specifically, the U.K. plans to establish a new Defence AI Centre in order to centralize its AI developments.97 Further, the U.K. Ministry of Defence is planning to publish a Defence AI Strategy that will incorporate ethical adoption considerations.98 A ministerial AI ethics committee is also currently analyzing AI in defense, including issues related to trust.99 In terms of oversight, both the new Defence AI Centre and this committee are important developments to bridge ethical AI endeavors at the working level with a higher degree of political and strategic attention. The U.K. approach to military AI adoption includes a process for developing guidelines on ethical AI, which includes public-facing aspects led by the Defence Science and Technology Laboratory (Dstl).100 Dstl established an AI Lab in 2018, which has made it the natural home for technical questions related to ethics, risk, and safety concerns.101 While few details of the ministerial AI ethics committee are available at the time of writing, Dstl’s activities advancing AI ethics in defense provide an indication of the U.K. approach. For instance, Dstl sponsors an ethics fellow at the Turing Institute to focus on “improving robustness, resilience, and responses of systems that support logistical, tactical and strategic operations, as well as wider applications in urban analytics, cybersecurity and social data science.”102 Furthermore, in 2020, they also hosted a conference that focused on safety, robustness, trustworthiness—which is part of the process on creating ethical guidelines for military adoption of AI.103

### AT Lack of Trained Workforce

#### NATO collaboration will increase recruitment of an AI workforce because it pools resources

Gilli, 2020 - Senior Researcher at the NATO Defense College [Andrea, NDC Research Paper No.15 – December ““NATO-Mation”: Strategies for Leading in the Age of Artificial Intelligence” https://www.ndc.nato.int/news/news.php?icode=1514 Acc 4/21/22 TA]

Access to talent and recruitment. As “NATO-mation” accelerates, and NATO Allies integrate enterprise-level AI into their armed forces, recruitment challenges will grow more acute: the faster the pace, the more acute the challenge. The essence of strategy, however, is to dictate the pace of change so as not to have it determined by material constraints Alliance coordination, as discussed above, can prove an important enabler in this respect. On the one hand, the Alliance can design pooling or scaling mechanisms for some types of AI tasks or missions: for instance, 80 to 90 percent of data science will entail manual vetting of data, including labelling and structuring. There is enormous potential for plugging in different contributions to the overall effort from different corners of the Alliance, and thus reducing individual Allies’ manpower needs. Similarly, by coordinating and cooperating on the development of common solutions, Allies can share their talent pool and thus more easily achieve their end goals. The economics of software affords an advantage in this respect. In terms of human capital, the entry barriers for software development are high: it takes time, resources and institution to develop a talented software workforce. However once developed, software can be reproduced at basically no cost. NATO Allies thus have an incentive to work together with joint teams for the development of solutions. Finally, through an organization like a potential A3IC, NATO could provide an important source of support for individual Allies: for instance, it could assist the creation of digital corps or digital reserves as well as in revisiting recruitment procedures for machine learning exerts.190

#### NATO Cooperation is key to luring AI Talent

Stanley-Lockman, 2021 - Center for Security and Emerging Technology [Zoe CSET Issue Brief August “Responsible and Ethical Military AI Allies and Allied Perspectives” https://cset.georgetown.edu/publication/responsible-and-ethical-military-ai/ Acc. 4/21/22 TA]

Executive Summary Since the U.S. Department of Defense adopted its five safe and ethical principles for AI in February 2020, the focus has shifted toward operationalizing them. Notably, implementation efforts led by the Joint Artificial Intelligence Center (JAIC) coalesce around “responsible AI” (RAI) as the framework for DOD, including for collaboration efforts with allies and partners.1 With a DOD RAI Strategy and Implementation Pathway in the making, the first step to leading global RAI in the military domain is understanding how other countries address such issues themselves. This report examines how key U.S. allies perceive AI ethics for defense. Defense collaboration in AI builds on the broader U.S. strategic consensus that allies and partners offer comparative advantages relative to China and Russia, which often act alone, and that securing AI leadership is critical to maintaining the U.S. strategic position and technological edge. Partnering with other democratic countries therefore has implications for successfully achieving these strategic goals. Yet the military aspects of responsible AI that go beyond debates on autonomous weapons systems are currently under-discussed.

### AT Russia and China won’t Follow

#### Plan increases Russia and China’s incentive to follow ethical norms, and increases pressure on them if they do not follow

Kahn and Horowitz, 2021 – Research and Senior Fellows at the Council on Foreign Relations [Lauren and Michael, The Washington Quarterly 44:4 “Leading in Artificial Intelligence through Confidence Building Measures” [https://doi.org/10.1080/0163660X.2021.2018794 Acc 6/6/22](https://doi.org/10.1080/0163660X.2021.2018794%20Acc%206/6/22) TA]

China and Russia might also have good reasons to sign onto standards that would commit to enhanced military AI safety. Neither country would like to be perceived as not following international standards on military AI safety, because it could undermine support within their AI research communities and ability to keep those researchers. Moreover, if China and Russia did not sign, it would help the United States build international credibility as a responsible AI actor, increasing its attractiveness in the global competition for AI talent.24 Thus, whether China or Russia sign or not, the United States would benefit. Overall, standardization would help to promote best practices concerning safety and ethics in the development and adoption of these technologies, and would help to alleviate some pressure and remove some sources of error during use.

#### Ethical principles will lure AI developers from Russia and China – innovators would prefer to work on responsible AI

Trabucco, 2020 - Research Assistant at the Centre for Military Studies at the University of Copenhagen [Lena, May 10 “AI Partnership for Defense is a Step in the Right Direction – But Will Face Challenges” http://opiniojuris.org/2020/10/05/ai-partnership-for-defense-is-a-step-in-the-right-direction-but-will-face-challenges/ Acc 4/17/22 TA]

In February, we became the first military in the world to adopt ethical principles for the use of AI, based on core values of transparency, reliability, and governability. These principles make clear to the American people – and the world – that the United States will once again lead the way in the responsible development and application of emerging technologies, reinforcing our role as the global security partner of choice. The US created the partnership in an effort to maintain healthy lead and competitive advantage over China and Russia, or “near-peer rivals,” in AI military innovation and development. The DoD hopes the AI partnership will maintain that competitive edge by offering opportunities for players in the AI space to engage with security partners committed to ethical and responsible AI development and application. The idea is the partnership could attract developers and innovators with a reliable alternative to Chinese and Russian working relationships.

### AT Reclassification Circumvention

#### A lack of international norms legitimizes hiding autonomous weapons – the plan establishes those legal and ethical norms.

Nadibaidze, 2021 - Ph.D. Student at the University of Southern Denmark [Anna Entry submitted for the Second OSCE-IFSH Essay Competition “Commitment to Control over Weaponised Artificial Intelligence: A Step Forward for the OSCE and European Security” https://www.osce.org/files/f/documents/8/3/507341.pdf Acc. 4/21/22 TA]

The 2020 Nagorno-Karabakh conflict demonstrates the types of risks coming from the uses of weaponised AI. Unmanned aerial vehicles (UAVs) were used by both Azerbaijan and Armenia, and several IHL violations were recorded on both sides (Kozyulin 2021). While these weapons systems are not officially classified as LAWS, their use has been deemed an efficient way of conducting warfare and could even contribute to other States’ pursuit of unmanned vehicles (Cooper 2021). The issue is that there is no way of verifying the level of human control over these weapons systems, which allows for operational practices to continue silently changing norms of war and legitimize the use of weaponised AI. In a possible future armed conflict in Eurasia, there is potential for more IHL violations and further diminishing role of human control over warfare. In other words, “the operational trend towards developing AI-enabled weapons systems continues and is on track to becoming established as ‘the new normal’ in warfare” (Bode and Huelss 2021, 224). While there are no legal norms of a responsible use of weaponised AI, the ways that States use this technology will continue to shape the way that warfare is conducted, while increasing risks to European security and stability.

### AT Industry Circumvention

#### Industries want to follow ethical principles – they have asked governments for clear guidelines

Bolton, 2021 - professor of political science at Pace University [Matthew with Matilda Byrne, Ryan Gariepy, Emilia Javorsky, Volker Lehmann, and Laura Nolan, January “Addressing The Threat Of Autonomous Weapons Maintaining Meaningful Human Control” http://library.fes.de/pdf-files/iez/17215.pdf Acc 5/27/22 TA]

Further progress toward stigmatization of LAWS will require engaging with multiple stakeholders, including industry, academia and civil society. However, inclusion of a broad range of stakeholders should not distract from the onus of responsibility for action remaining on states. Expecting the private sector to establish and maintain voluntary guidelines or codes of conduct on meaningful human control is unrealistic, given that states are the customers of weapons contracts and stipulate their expectations to the private sector. In fact, technology companies themselves have stressed the need for clear guidelines from states to help engineers, designers and technology workers make moral, ethical, and legal judgements about the systems they build.11

#### Establishing Responsible AI norms signals to private industry that ethical concerns are important.

Stanley-Lockman, 2021 - Center for Security and Emerging Technology [Zoe CSET Issue Brief August “Responsible and Ethical Military AI Allies and Allied Perspectives” https://cset.georgetown.edu/publication/responsible-and-ethical-military-ai/ Acc. 4/21/22 TA]

This is important not only for accountability, including to citizenries, but also because dedicating attention to responsible AI is a critical way to signal to industry, civil society, academia, and the research community that appropriate measures are not just boxes to tick, but are fundamentally embedded in the development of systems. In other words, responsible AI is important not just for public opinion, but also to strengthen relationships with the expert community that is rightfully concerned about the ethical implications of current AI advancement.

## Off Case Responses

### AT NATO Military Readiness DA

#### Turn – Reputation – ethical norms attract top AI developers and improves the reliability of the weapons – this improves NATO’s technological superiority. It also prevents accidental wars.

Kahn and Horowitz, 2021 – Research and Senior Fellows at the Council on Foreign Relations [Lauren and Michael, The Washington Quarterly 44:4 “Leading in Artificial Intelligence through Confidence Building Measures” [https://doi.org/10.1080/0163660X.2021.2018794 Acc 6/6/22](https://doi.org/10.1080/0163660X.2021.2018794%20Acc%206/6/22) TA]

Leadership in standard-setting and confidence-building measures will also enhance US military capability, rather than constraining the US military, assisting the United States in strategic competition. Unsafe AI systems do not just risk unintentional conflict and inadvertent escalation—they are less likely to be effective systems. Committing to lead the world in AI safety could create a ripple effect in the US defense enterprise and the private sector about putting a premium on safe and ethical AI, in turn making it more likely that military (and civilian) uses of algorithms are reliable, improving their utility for the military. Such signaling will also likely improve the reputation of the US military with Silicon Valley and AI/ML researchers, whose concerns about military uses of AI have loomed large since a protest halted Google’s renewal of its Project Maven contract in 2018. While concerns about Silicon Valley’s opposition to the Department of Defense are overstated according to some survey research,37 other surveys of AI/ML professionals show that increasing the emphasis on safety is a high priority.38 A public commitment to safety will thus help the Department of Defense improve at attracting top STEM talent, including AI/ ML talent, increasing its ability to keep the American military ahead. One might argue that the United States should let others lead on AI, focusing instead on developing AI-enabled capabilities and not concerning itself with how other countries behave. But there is no substitute for American leadership and its ability to rally countries around the world to support shared standards. If promoting norms of responsible behavior with AI encourages other states to use military applications of AI in more responsible ways, it will create a more ethical and predictable security environment, likely benefiting the United States. Additionally, current international dialogue about military uses of AI focuses almost exclusively on lethal autonomous weapon systems (LAWS), the subject of a Group of Governmental Experts in the Convention on Certain Conventional Weapons.39 Currently, the international conversation has been largely been driven by NGOs such as the Campaign to Stop Killer Robots.40 While such conversations help bring attention to some of these issues, they oversimplify the risks and fixate on worst-case scenarios that are more likely outcomes of artificial general intelligence or human level machine intelligence rather than technology today. LAWS represent only a small fraction of the universe of potential issues surrounding military applications of AI. Broadening the international conversation about military uses of AI to incorporate the full scope of potential applications would generate better dialogue because it would include more of the real-world AI scenarios likely to confront militaries. Expanding the discussion would also allow states to pursue levels of control and regulation other than an all-or nothing ban and create a more calibrated and flexible range of approaches to different technologies with various levels and types of associated risks. Finally, one might argue that due to the military importance of integrating advances in AI, the United States should not do anything that could limit American behavior or flexibility with AI. However, the strategy above, in addition to decreasing the risk of unintentional conflict, would not constrain the United States in developing or integrating advances in AI for military purposes.

#### No Link - Plan does not undermine NATO’s military advantage - Military ethics and military effectiveness do not trade off, because ethics are a precondition for battlefield effectiveness.

Trabucco and Stanley-Lockman, 2022 – prof of Political Science, University of Copenhagen and prof of Defense and Strategic Studies, Nanyang Technological University [Lena and Zoe, The Oxford Handbook of AI Governance, March, “NATO’s Role in Responsible AI Governance in Military Affairs” https://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780197579329.001.0001/oxfordhb-9780197579329-e-69 Acc 4/16/22 TA]

Additionally, infusing AI development with certain ethical principles and values can have operational advantages and benefits, and NATO can, in particular, promote the ethical principles as operational standards for the Allies. A common critique within the ethics debate is that approaching new technology with an ethical or democratic values-driven perspective translates into comparative military disadvantage. Essentially, if your adversary develops technology without the constraints of ethical principles then there will be diminished effectiveness on the battlefield.56 We find this critique unfounded because it assumes there is a false trade-off between ethics and effectiveness; instead, we argue ethical foundations are built into the architecture of modern warfare.57 As such, ethics is a background condition for battlefield effectiveness, which is already infused in military decision-making and helping to guide the boundaries of international humanitarian law. As such, ethical guidelines do not have to detract from a military’s capacity or competency to devise means and methods of warfare that will serve their national or coalition interest.58 If anything, a first-mover advantage can incentivize an ethical and values-driven AI to establish the threshold of technological standards globally.59

#### Turn – Operator Trust – ethical use policies increase a soldier’s Trust in their weapons, which is essential to their effective use. It doesn’t matter how good your AI weapons are if the military won’t use them.

Gilli, 2020 - Senior Researcher at the NATO Defense College [Andrea, NDC Research Paper No.15 – December ““NATO-Mation”: Strategies for Leading in the Age of Artificial Intelligence” https://www.ndc.nato.int/news/news.php?icode=1514 Acc 4/21/22 TA]

This is important because AI is data-intensive, unpredictable and brittle.98 While a system may work well in the context in which it was trained, it may break in an unfamiliar setting. The reliance on BD in the current second wave of ML also creates fallibilities,99 given that the algorithms can scale up harm if the data over- or under-represents certain groups.100 For neural networks in particular, it may be impossible to explain or interpret results. Some refer to this as the “black-box” problem, meaning that the outcomes of these complex AI systems are opaque to humans that either want to reproduce the good, or prevent the bad from recurring. While traditional software can be debugged to solve a performance issue, the lack of linear causality between a programmer’s inputs and the AI system’s outputs means that it is difficult to track bias and reliability. Creating organizational processes to minimize these concerns across the AI lifecycle is critical to responsible use of the technology. Considering AI ethics also means developing trust in systems. Organizations developing AI applications should think deeply about user expectations related to transparency and disclosure. Ultimately, these norms will change the distinction between human, AI-assisted and AI interactions.101 “Calibrating” trust is especially important for AI-assisted decision making,102 a concept whose value will only increase given the emphasis on human-machine teaming in Allied militaries.103 In many cases, the unethical or unacceptable outcomes of AI systems pertain not to moral dilemmas, but to the reliability and robustness of the systems at hand. As such, building trust is fundamentally tied to building safe and secure systems.104 The problem of bias in AI illustrates the overlap between AI safety and AI ethics: bias is morally problematic, because it can unfairly harm or systematically discriminate against specific groups105 – and it can also be seen as a failure mode that reduces the reliability of a given algorithm in a given context.106 For NATO, this relates to the safety of enterprise tools and weapons systems alike. In deployments, these safety measures would be critical to ensure that AI-enabled weapons systems are used in a manner consistent with the principles of international humanitarian law. As explained in greater detail below, this may also feed into the eventual standardization process.

#### Solvency Outweighs their Link - Irresponsible spread of autonomous AI weapons causes international instability which is more important than the impact plan has on deployment

Sauer, 2021 - Senior Research Fellow at Bundeswehr University [Frank serves on the International Panel on the Regulation of Autonomous Weapons IRRC No. 913 March “Stepping back from the brink: Why multilateral regulation of autonomy in weapons systems is difficult, yet imperative and feasible” https://international-review.icrc.org/articles/stepping-back-from-brink-regulation-of-autonomous-weapons-systems-913 Acc 4/5/22 TA]

Nevertheless, regulating weapon autonomy in a manner that curbs autonomy in the critical functions and keeps them under human control is sorely needed. After all, the consequences of inaction would be dire because the mid- and long-term strategic and ethical risks of unshackled weapon autonomy far outweigh the desired short-term military gains highlighted above. I will argue this in two steps below, by first focusing on a number of operational and strategic implications and subsequently evaluating the ethical implications of weapon autonomy in regard to human dignity. Why regulating weapon autonomy is imperative: Strategic implications The potential impact of unregulated weapon autonomy on military operations, as well as on global peace and strategic stability as a whole, has drawn scholarly attention for quite a while.38 This body of literature suggests that the implications of regulatory inaction and an ensuing rapid diffusion of weaponized autonomy-enabling technology range from new military vulnerabilities to increased risks of instability and escalation at both the operational and the strategic level.39 Hence it is in fact especially the great powers that should see it as being not only their responsibility but also in their genuine self-interest40 to curb this destabilizing chain of effects.

#### Turn - Global Relevance - NATO standards for AI help improve the international image of NATO as a credible alliance

Trabucco and Stanley-Lockman, 2022 – prof of Political Science, University of Copenhagen and prof of Defense and Strategic Studies, Nanyang Technological University [Lena and Zoe, The Oxford Handbook of AI Governance, March, “NATO’s Role in Responsible AI Governance in Military Affairs” https://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780197579329.001.0001/oxfordhb-9780197579329-e-69 Acc 4/16/22 TA]

New power distributions around AI and adjacent dual-use technologies are among the motivating factors causing the Alliance to reconsider whether its technological superiority may be threatened in the years ahead, as reflected in the 2019 Emerging and Disruptive Technologies (EDTs) Roadmap2 and, more recently, the NATO 2030 process.3 NATO navigates these changes and then approaches AI-accelerated changes to the international security environment in a highly political context. Notably, in 2019, French President Emmanuel Macron surprised many European counterparts by declaring NATO “brain-dead,” a warning wrapped in an even larger warning of trans-Atlantic security divisions.4 The critique that NATO is a “brain-dead” or “irrelevant” institution has existed in some form since the end of the Cold War.5 As NATO combats global perceptions of organizational irrelevance, there is a reason to push for bureaucratic adaptation to better manage technology-driven changes in the future. As such, despite some warnings to the contrary, Allies have an incentive to keep NATO a relevant military institution and ensure that it adapts to emerging threats and for future military contexts. The comment from President Macron helped prompt the NATO 2030 agenda, which is currently taking shape to increase the Alliance’s role as a political actor and as an organization with a greater focus on EDTs.6 As NATO bodies and Allies prepare for the impact of AI on future military operations, the Alliance has its own responsibility to steward AI in ways that, inter alia, promote cohesion between democratic countries, prevent risks, shore up interoperability, project deterrence, and ensure stability.7 To achieve these aims, cooperation and alignment are critical for the Alliance to maintain a competitive edge and promote further innovation in alignment with shared values.

#### Case Outweighs - Military effectiveness does not justify the use of immoral weapons

Johnson and Axinn, 2013 - Prof of Philosophy at the Univ of South Florida and PhD Candidate in Engineering at Penn [Aaron and Sidney, Journal of Military Ethics, Volume 12, Issue 2, August “The Morality of Autonomous Robots” www.tandfonline.com/10.1080/15027570.2013.818399 Acc 12/27/20 TA]

Proponents of autonomous technology cite their potential tactical benefits and argue that they reduce the risk of human harm (at least on one side of the battle), and we are therefore morally compelled to use them if available and efficacious (Strawser 2010). There is little doubt that an autonomous robot could help an army, just as in the past nations have sometimes used other contentious weapons to their advantage. Any time a new weapon is developed that allows you to more easily kill or hurt your enemy without being killed yourself there is a tactical benefit to using the weapon – for example the U.S. deployment of atomic weapons at the end of WWII had tactical benefits that is said to have led to the Japanese surrender. But as clearly established in the precedents of atomic/nuclear weapons, chemical weapons, anti-personnel land mines, barbed spears, etc, the efficacy of a weapon is not justification for its use.

#### Turn – Friendly Fire - Safety and Reliability are key parts of ethical principles – accountability is necessary to maintain public support by reducing friendly fire.

Trabucco and Stanley-Lockman, 2022 – prof of Political Science, University of Copenhagen and prof of Defense and Strategic Studies, Nanyang Technological University [Lena and Zoe, The Oxford Handbook of AI Governance, March, “NATO’s Role in Responsible AI Governance in Military Affairs” https://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780197579329.001.0001/oxfordhb-9780197579329-e-69 Acc 4/16/22 TA]

Safety and security For humans to meet ethical and legal commitments when developing and deploying AI, the systems themselves must be safe, secure, and reliable. More simply put, if humans and institutions interacting with AI do not have confidence that the systems will perform as expected, then they cannot assure that its development and deployment are responsible. This makes safety and security a key pillar of responsible AI governance for any actor.82 As this section explores for NATO in particular, safety and security are indispensable to the Alliance’s stated goals to focus its approach to EDTs in the areas of “deterrence and defense, capability development, legal and ethical norms, and arms control aspects.”83 Politically, democratic militaries using AI cannot be accountable to their citizenries nor their coalition partners if they lack mechanisms to trace and explain how their systems are reliable. Accidents and interference with AI systems could likewise create political risks for the Alliance. For example, if deepfakes and micro-targeted information attacks compromise confidence in the integrity of information used to build a common operating picture, then the operational difficulties could also erode political trust between Allies in a few key ways. In the North Atlantic Council, disagreement about the integrity of information could slow the decision-making body’s ability to react to fast-changing operational realities.84 Further, compromised AI systems may not only make it harder for forces to prevent harm to non-combatants, but also to prevent friendly fire. In this way, coalition forces arguably face even higher obligations to coordinate on the reliability of their systems, relative to adversaries and near-peer competitors that tend to operate alone. As such, responsible AI governance is not purely technical; policy alignment and strategic planning are likewise necessary to draw attention to risk management above the tactical level.

#### NATO cooperation on ethical principles will not undermine our technological superiority

Trabucco and Stanley-Lockman, 2022 – prof of Political Science, University of Copenhagen and prof of Defense and Strategic Studies, Nanyang Technological University [Lena and Zoe, The Oxford Handbook of AI Governance, March, “NATO’s Role in Responsible AI Governance in Military Affairs” https://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780197579329.001.0001/oxfordhb-9780197579329-e-69 Acc 4/16/22 TA]

This chapter explores a role for the North Atlantic Treaty Organization (NATO) in the emerging military artificial intelligence (AI) governance architecture. As global powers compete for capabilities that AI can offer, NATO has the challenging task of recalibrating strategic relationships in the coming years. NATO has begun to recognize technological change as a necessary variable and, in turn, adapt its organizational composition and strategy to increase the Alliance’s capacity to meet emerging security challenges. As NATO bodies and Allies prepare for the impact of AI on future military operations, NATO has its own responsibility to steward AI in ways that promote harmonization among Allies and advance the NATO mission. Toward this effort, the chapter highlights two governance mechanisms within NATO’s competency—strategic and policy planning, and standards and certification—as practices that exemplify NATO’s power to shape the trajectory of technological development. We operationalize these governance tools by examining the three pillars that are particularly challenging for AI governance: ethics and values, legal norms, and safety and security. Within each pillar, we examine NATO’s facilitation of strategic policy planning and standards and certification to emerge as a leader in establishing responsible technological development and, ultimately, a more secure international security environment. This chapter finds there is space for NATO to pursue its agenda to maintain technological superiority not just to protect and defend its way of life, but to build on AI governance pillars to steward military innovation on a responsible trajectory.

#### NATO leadership on responsible AI use will allow it to set global norms and maintain our military advantage

Trabucco and Stanley-Lockman, 2022 – prof of Political Science, University of Copenhagen and prof of Defense and Strategic Studies, Nanyang Technological University [Lena and Zoe, The Oxford Handbook of AI Governance, March, “NATO’s Role in Responsible AI Governance in Military Affairs” https://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780197579329.001.0001/oxfordhb-9780197579329-e-69 Acc 4/16/22 TA]

At the core, this chapter argues that NATO is well positioned to steward the development of military AI and institute governance mechanisms towards coalition inclusion of responsible AI while simultaneously maintaining incentives for comparative advantage. Using the three pillars—ethics and values, legal norms, and safety and security—as issue areas which present AI governance challenges, we show that NATO has space to emerge as a leader in AI governance and contribute to responsible adoption of EDTs in the international security environment. This builds on foundations that derive NATO’s responsibilities to govern AI according to its values, legal obligations, and institutional interests. These foundations from both STS and military innovation studies offer ways that the Alliance can activate its existing governance mechanisms to exert influence in new ways. Not only is this influence important for the Alliance to bolster its institutional relevance in an evolving international security architecture, but it also dovetails with its capacity to shore up military effectiveness and interoperability as Allies modernize their arsenals and associated concepts into the frontier of AI.

### AT Industry Innovation DA

#### Turn - NATO collaboration will increase recruitment of an AI workforce because it pools resources

Gilli, 2020 - Senior Researcher at the NATO Defense College [Andrea, NDC Research Paper No.15 – December ““NATO-Mation”: Strategies for Leading in the Age of Artificial Intelligence” https://www.ndc.nato.int/news/news.php?icode=1514 Acc 4/21/22 TA]

Access to talent and recruitment. As “NATO-mation” accelerates, and NATO Allies integrate enterprise-level AI into their armed forces, recruitment challenges will grow more acute: the faster the pace, the more acute the challenge. The essence of strategy, however, is to dictate the pace of change so as not to have it determined by material constraints Alliance coordination, as discussed above, can prove an important enabler in this respect. On the one hand, the Alliance can design pooling or scaling mechanisms for some types of AI tasks or missions: for instance, 80 to 90 percent of data science will entail manual vetting of data, including labelling and structuring. There is enormous potential for plugging in different contributions to the overall effort from different corners of the Alliance, and thus reducing individual Allies’ manpower needs. Similarly, by coordinating and cooperating on the development of common solutions, Allies can share their talent pool and thus more easily achieve their end goals. The economics of software affords an advantage in this respect. In terms of human capital, the entry barriers for software development are high: it takes time, resources and institution to develop a talented software workforce. However once developed, software can be reproduced at basically no cost. NATO Allies thus have an incentive to work together with joint teams for the development of solutions. Finally, through an organization like a potential A3IC, NATO could provide an important source of support for individual Allies: for instance, it could assist the creation of digital corps or digital reserves as well as in revisiting recruitment procedures for machine learning exerts.190

#### AI Regulation will not undermine industry innovation – empirical examples of technology prove.

Heikkilä, 2021 - Politico’s AI Correspondent in London [Melissa, Politico March 31 “AI Decoded: NATO on AI warfare — AI treaty consultation — Unions call for more AI protections” https://www.politico.eu/newsletter/ai-decoded/politico-ai-decoded-nato-on-ai-warfare-ai-treaty-consultation-unions-call-for-more-ai-protections/ Acc 4/9/22 TA]

AI LAWS WHY REGULATION WON’T KILL INNOVATION: The Council of Europe, the Strasbourg-based human rights organization, is hard at work on a draft proposal on artificial intelligence. If ratified, the treaty could become national law in the group’s 47 member countries. AI: Decoded rang up Gregor Strojin, the chair of the group’s committee, called CAHAI, that’s drawing up the rules to hear the latest developments. The goal: CAHAI is working on an AI treaty with additional rules for specific sectors, such as social affairs and justice systems, and problems, like the discrimination of minorities. The plan is to have a draft ready by the end of they year, after which the Committee of Ministers — national representatives to the Council of Europe — will debate it. “In the past, there have been examples of treaties that were adopted in a matter of months. But sometimes it can take years. Sometimes it can be never. But I think we’re making a pretty strong point that in this case, delaying it could lead to irreparable damage,” Strojin said. “We are seeing increasing use of technologies that’s being imported from other parts of the world, without any risk assessment, without any impact assessment in a way that’s actually dumping the technology on certain countries,” he continued. Been there done that: Strojin also pushed back against industry jeremiads that regulation would “hamper innovation.” He said that AI regulators can actually learn a lot from past negotiations around pharmaceuticals and bioethics as an example of how regulation can help innovation. In 1964, the Council of Europe adopted the European Pharmacopoeia, which is the official standard and scientific basis for the quality control of pharmaceuticals. “Before that medical products and also services were like snake oil. There was no common assessment of what are the ingredients [or] what are the side effects of drugs,” Strojin said. (Sound familiar?) “I don’t think we have a problem with the lack of innovation in the pharmaceutical sector at this point,” Strojin said.

#### Turn – High Technology businesses are Opposed to autonomous AI systems – many refuse to make them.

Docherty, 2018 - senior researcher in the Arms Division of Human Rights Watch [Bonnie August 21, “Heed the Call A Moral and Legal Imperative to Ban Killer Robots” [https://www.hrw.org/report/2018/08/21/heed-call/moral-and-legal-imperative-ban-killer-robots#](https://www.hrw.org/report/2018/08/21/heed-call/moral-and-legal-imperative-ban-killer-robots) Acc 12/27/20 TA]

Industry High-profile technology companies and their representatives have criticized fully autonomous weapons on various grounds. A Canadian robotics manufacturer, Clearpath Robotics, became the first company publicly to refuse to manufacture “weaponized robots that remove humans from the loop.”[132] In 2014, it pledged to “value ethics over potential future revenue.”[133] In a letter to the public, the company stated that it was motivated by its belief that “that the development of killer robots is unwise, unethical, and should be banned on an international scale.” Clearpath continued: [W]ould a robot have the morality, sense, or emotional understanding to intervene against orders that are wrong or inhumane? No. Would computers be able to make the kinds of subjective decisions required for checking the legitimacy of targets and ensuring the proportionate use of force in the foreseeable future? No. Could this technology lead those who possess it to value human life less? Quite frankly, we believe this will be the case.[134] The letter shows that fully autonomous weapons raise problems under both the principles of humanity and dictates of public conscience. In August 2017, the founders and chief executive officers (CEOs) of 116 AI and robotics companies published a letter calling for CCW states parties to take action on autonomous weapons.[135] The letter opens by stating, “As companies building the technologies in Artificial Intelligence and Robotics that may be repurposed to develop autonomous weapons, we feel especially responsible in raising this alarm.”[136] The letter goes on to highlight the dangers to civilians, risk of an arms race, and possibility of destabilizing effects. It warns that “[o]nce this Pandora’s box is opened, it will be hard to close.”[137] In a similar vein in 2018, Scott Phoenix, CEO of Vicarious, a prominent AI development company, described developing autonomous weapons as among the “world’s worst ideas” because of the likelihood of defects in their codes and vulnerability to hacking.[138]

#### Industries want to follow ethical principles – they have asked governments for clear guidelines

Bolton, 2021 - professor of political science at Pace University [Matthew with Matilda Byrne, Ryan Gariepy, Emilia Javorsky, Volker Lehmann, and Laura Nolan, January “Addressing The Threat Of Autonomous Weapons Maintaining Meaningful Human Control” http://library.fes.de/pdf-files/iez/17215.pdf Acc 5/27/22 TA]

Further progress toward stigmatization of LAWS will require engaging with multiple stakeholders, including industry, academia and civil society. However, inclusion of a broad range of stakeholders should not distract from the onus of responsibility for action remaining on states. Expecting the private sector to establish and maintain voluntary guidelines or codes of conduct on meaningful human control is unrealistic, given that states are the customers of weapons contracts and stipulate their expectations to the private sector. In fact, technology companies themselves have stressed the need for clear guidelines from states to help engineers, designers and technology workers make moral, ethical, and legal judgements about the systems they build.11

#### No Link – Human control will not slow technological development

Bolton, 2021 - professor of political science at Pace University [Matthew with Matilda Byrne, Ryan Gariepy, Emilia Javorsky, Volker Lehmann, and Laura Nolan, January “Addressing The Threat Of Autonomous Weapons Maintaining Meaningful Human Control” http://library.fes.de/pdf-files/iez/17215.pdf Acc 5/27/22 TA]

Improving communication between policymakers and scientific and technical experts is crucial given the dual-use nature of artificial intelligence. Indeed, a prohibition on weapons outside of human control would not be counterproductive to technological development. Rather, there is a need to fully harness technological progress while maintaining and advancing international law that safeguards humanitarian protections, human rights and international peace and security.

Therefore, in September and October 2020, the Friedrich-

**AT Soldiers Lives DA**

#### Removing human emotion from killing Increases the violence of war – we become detached from it.

Johnson and Axinn, 2013 - Prof of Philosophy at the Univ of South Florida and PhD Candidate in Engineering at Penn [Aaron and Sidney, Journal of Military Ethics, Volume 12, Issue 2, August “The Morality of Autonomous Robots” www.tandfonline.com/10.1080/15027570.2013.818399 Acc 12/27/20 TA]

Healthy Emotions Arguments have been offered holding that robots/drones may do a better job than humans in making target decisions because they have no revenge motive (Arkin 2010). They are not enraged, as humans may be, by the killing of their buddies. But having no emotions, they do not have the attitude toward people that ‘healthy’ humans are expected to have. They do not realize the enormity of an error in killing the ‘wrong’ person. Why is killing with emotions morally superior to killing without emotions? As noted above, honor requires the willingness to risk sacrifice, which in turn requires intention and feeling—emotion. Since morality requires respect for duty rather than following selfish goals, that respect also requires a certain intention or feeling/emotion. The need for human emotion in warfare is cited by at least some authors writing about drones in the general press, for example John Sifton says, ‘The unique technology allows the mundane and regular violence of military force to be separated further from human emotion. Drones foreshadow the idea that brutality could become detached from humanity—and yield violence that is, as it were, unconscious.’ (Sifton 2012).

#### An Arms Race forces AI to be deployed before it is safe.

Docherty, 2014 - senior researcher in the Arms Division of Human Rights Watch [Bonnie “Shaking the Foundations The Human Rights Implications of Killer Robots” Human Rights Watch http://www.hrw.org/sites/default/files/reports/ arms0514\_ForUpload\_0.pdf Acc 12/27/20 TA]

The human rights implications of fully autonomous weapons compound the many other concerns about use of the weapons. As Human Rights Watch and IHRC have detailed in other documents, the weapons would face difficulties in meeting the requirements of international humanitarian law, such as upholding the principles of distinction and proportionality, in situations of armed conflict. In addition, even if technological hurdles could be overcome in the future, failure to prohibit them now could lead to the deployment of models before their artificial intelligence was perfected and spark an international robotic arms race. Finally, many critics of fully autonomous weapons have expressed moral outrage at the prospect of humans ceding to machines control over decisions to use lethal force. In this context, the human rights concerns bolster the argument for an international ban on fully autonomous weapons.

#### AI cannot deescalate situations – opponents don’t know How to surrender to a robot, and the robot will see that as threatening.

Docherty, 2014 - senior researcher in the Arms Division of Human Rights Watch [Bonnie “Shaking the Foundations The Human Rights Implications of Killer Robots” Human Rights Watch http://www.hrw.org/sites/default/files/reports/ arms0514\_ForUpload\_0.pdf Acc 12/27/20 TA]

In addition, the deployment of fully autonomous weapons in law enforcement situations could affect the actions of the individual posing a potential threat. He or she might not know how to behave when confronted with a machine rather than a human law enforcement officer. The individual might respond differently to a robot than to a human and as a result unintentionally appear threatening. A robot’s misinterpretation of the necessity of force could trigger an arbitrary killing in violation of the right to life.

**AT Civilian Deaths DA**

#### AI is not more accurate in Combat Zones – AWS only make better decisions than humans under ideal conditions. Combat is too complex and unpredictable for programming

Docherty, 2018 - senior researcher in the Arms Division of Human Rights Watch [Bonnie August 21, “Heed the Call A Moral and Legal Imperative to Ban Killer Robots” [https://www.hrw.org/report/2018/08/21/heed-call/moral-and-legal-imperative-ban-killer-robots#](https://www.hrw.org/report/2018/08/21/heed-call/moral-and-legal-imperative-ban-killer-robots) Acc 12/27/20 TA]

Robots would also not possess the legal and ethical judgment necessary to minimize harm on a case-by-case basis.[65] Situations involving use of force, particularly in armed conflict, are often complex and unpredictable and can change quickly. Fully autonomous weapons would therefore encounter significant obstacles to making appropriate decisions regarding humane treatment. After examining numerous studies in which researchers attempted to program ethics into robots, Sharkey found that robots exhibiting behavior that could be described as “ethical” or “minimally ethical” could operate only in constrained environments. Sharkey concluded that robots have limited moral capabilities and therefore should not be used in circumstances that “demand moral competence and an understanding of the surrounding social situation.”[66] Complying with international law frequently requires subjective decision-making in complex situations. Fully autonomous weapons would have limited ability to interpret the nuances of human behavior, understand the political, socioeconomic, and environmental dynamics of the situation, and comprehend the humanitarian risks of the use of force in a particular context.[67] These limitations would compromise the weapons’ ability to ensure the humane treatment of civilians and combatants and comply with the first principle of humanity.

#### AI experts disagree – they are calling for a preventive ban because they don’t think that technology will improve enough.

Docherty, 2014 - senior researcher in the Arms Division of Human Rights Watch [Bonnie “Shaking the Foundations The Human Rights Implications of Killer Robots” Human Rights Watch http://www.hrw.org/sites/default/files/reports/ arms0514\_ForUpload\_0.pdf Acc 12/27/20 TA]

Fully autonomous weapons threaten to contravene foundational elements of human rights law. They could violate the right to life, a prerequisite for all other rights. Deficiencies in judgment, compassion, and capacity to identify with human beings could lead to arbitrary killing of civilians during law enforcement or armed conflict operations. Fully autonomous weapons could also cause harm for which individuals could not be held accountable, thus undermining the right to a remedy. Robots could not be punished, and superior officers, programmers, and manufacturers would all be likely to escape liability. Finally, as machines, fully autonomous weapons could not comprehend or respect the inherent dignity of human beings. The inability to uphold this underlying principle of human rights raises serious moral questions about the prospect of allowing a robot to take a human life. Proponents of fully autonomous weapons might argue that technology could eventually help address the problems identified in this report, and it is impossible to know where science will lead.85 In a 2013 public letter, however, more than 270 roboticists, artificial intelligence experts, and other scientists expressed their skepticism that adequate developments would be possible.86 Given this uncertainty, the potential of fully autonomous weapons to violate human rights law, combined with other ethical, legal, policy, and scientific concerns, demands a precautionary approach. The precautionary principle of international law states that “[w]here there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing costeffective measures.”87 When applied to fully autonomous weapons, this principle calls for preventive action to be taken now.

#### Autonomous AI systems still deny dignity – the dignity of opposing soldiers

Docherty, 2018 - senior researcher in the Arms Division of Human Rights Watch [Bonnie August 21, “Heed the Call A Moral and Legal Imperative to Ban Killer Robots” [https://www.hrw.org/report/2018/08/21/heed-call/moral-and-legal-imperative-ban-killer-robots#](https://www.hrw.org/report/2018/08/21/heed-call/moral-and-legal-imperative-ban-killer-robots) Acc 12/27/20 TA]

There is no way to regulate fully autonomous weapons short of a ban that would ensure compliance with the principles of humanity. Fully autonomous weapons would lack the compassion and legal and ethical judgment that facilitate humane treatment of humans. They would face significant challenges in respecting human life. Even if they could comply with legal rules of protection, they would not have the capacity to respect human dignity. Limiting the use of fully autonomous weapons to certain locations, such as those where civilians are rare, would not sufficiently address these problems. “Harm to others,” which the principle of humane treatment seeks to avoid, encompasses harm to civilian objects, which might be present where civilians themselves are not. The requirement to respect human dignity applies to combatants as well as civilians, so the weapons should not be permitted where enemy troops are positioned. Furthermore, allowing fully autonomous weapons to be developed and to enter national arsenals would raise the possibility of their misuse. They would likely proliferate to actors with no regard for human suffering and no respect for human life or dignity. The 2017 letter from technology company CEOs warned that the weapons could be “weapons of terror, weapons that despots and terrorists use against innocent populations, and weapons hacked to behave in undesirable ways.”[178] Regulation that allowed for the existence of fully autonomous weapons would open the door to violations of the principles of humanity.

#### Even if the technology improves, it will never reach the point of being able to distinguish appropriate targets.

Docherty, 2014 - senior researcher in the Arms Division of Human Rights Watch [Bonnie “Shaking the Foundations The Human Rights Implications of Killer Robots” Human Rights Watch http://www.hrw.org/sites/default/files/reports/ arms0514\_ForUpload\_0.pdf Acc 12/27/20 TA]

Although the ability of fully autonomous weapons to process complex information might improve in the future, it seems implausible that they could ever be identical to humans. As a result, these weapons would find it difficult to meet the three criteria for use of force in law enforcement or comply with the rules of distinction and proportionality in armed conflict. Fully autonomous weapons would have the potential to kill arbitrarily and thus violate the right that underlies all others, the right to life.

#### The question isn’t “Can it be used morally?” – it is “Is there a possibility it will be abused?”

Heyns, 2016 - Professor of Human Rights Law, University of Pretoria [Christof, Human Rights Quarterly 38 (2016) 350–378 “ Human Rights and the use of Autonomous Weapons Systems (AWS) During Domestic Law Enforcement”<https://www.academia.edu/37475669/Human_Rights_and_the_use_of_Autonomous_Weapons_Systems_AWS_During_Domestic_Law_Enforcement> Acc 12/27/20 TA]

It should also be kept in mind that the answer to the question of whether particular weapons should be banned does not merely depend on whether they can within a limited range of conceivable circumstances and will be used in conformity with the applicable legal regime, be it under international human rights law or IHL. Many of the weapons that are banned today can, in fact, be used in a closely controlled environment in ways that comply with the law. At some point, a practical decision needs to be made whether the weapon in question poses an unacceptably high risk of not being used in such a way.

### AT OSCE CP

#### Solvency Deficit – the OSCE lacks credibility – it is irrelevant compared to NATO

Sánchez-Cobaleda, 2020 - prof of Public International Law at the University of Barcelona [Ana 2020-11-30 “Case study of the European Security Architecture: NATO and OSCE” <https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwjz8v2g46j4AhWlIUQIHWIVDCgQFnoFCLICEAE&url=https%3A%2F%2Fwww.globe-project.eu%2Fcase-study-of-the-european-security-architecture-nato-and-osce_11317.pdf&usg=AOvVaw2AE86i3ZUkPrll4AK6-Y-y> Acc 6/22/22 TA]

Despite its brief prominence in the early 1990s and its significant daily work both on the diplomatic front and through its 16 field operations,72 the OSCE has been, and indeed continues to be, largely unknown to the general public (Dominguez, 2014, pp. 17–27; Mosser, 2015a, p. 590) and lacking in credibility (Trenin, 2003, p. 11; Webber et al., 2004, p. 19). The most inclusive security organisation in Europe has been rapidly losing relevance after the enlargements of NATO and the EU, and its geographical exclusivity has been reduced to Russia, the Caucasus and Central Asia. Its secondary role in the European security architecture implies that experts and observers question its relevance (Azintov, 2012, pp. 19–22; Fernandes, 2015, p. 92; Stewart, 2008, p. 268; Zellner, 2005, p. 391) especially when compared to NATO or the EU (Aybet, 2000; Møller, 2008) and particularly on relevant dates for the organisation such as 2020, which marks the 45th anniversary of its creation.

#### No Solvency – the OSCE does not address military concerns directly – that is exclusively NATO’s role

Sánchez-Cobaleda, 2020 - prof of Public International Law at the University of Barcelona [Ana 2020-11-30 “Case study of the European Security Architecture: NATO and OSCE” <https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwjz8v2g46j4AhWlIUQIHWIVDCgQFnoFCLICEAE&url=https%3A%2F%2Fwww.globe-project.eu%2Fcase-study-of-the-european-security-architecture-nato-and-osce_11317.pdf&usg=AOvVaw2AE86i3ZUkPrll4AK6-Y-y> Acc 6/22/22 TA]

NATO, the OSCE and the EU all strive to maintain peace and security in their member states. The way they work to achieve this, however, differs. While NATO has traditionally focused on direct territorial defence, the EU has pursued this goal more indirectly, carrying out missions beyond its borders to ensure stability in its neighbourhood. And it is precisely in the area of the EU’s eastern neighbourhood where the OSCE is working most actively to also guarantee peace and security – in its specific way, namely through the advancement of democracy and human rights throughout the territory of its 57 participating states. Nonetheless, “maintaining peace and security” is too general an idea. Instead of condensing the objectives of these actors to such a high degree, it is useful to assess in greater detail which objectives coincide and where functional overlap is occurring. NATO defends the peace and security of its members in two ways: directly, through its collective defence objective (centred mainly on the eastern flank of the Alliance and consisting of the maintenance of peace and security on its eastern border), and indirectly, through the projection of stability in other territories (especially, but not only, in the region bordering the south of the Alliance). In the collective defence field NATO retains, for now, exclusivity. The relationship between the EU and NATO in this area is clearly defined by role specialisation and division of labour. The Alliance provides what the EU lacks insofar as NATO's raison d'être is collective defence and its comparative advantage remains its military power. Thus, they are “interlocking” institutions that cooperate in an architecture based on comparative advantage and effective multilateralism to address challenges both in Europe and beyond. However, it is important to stress the transitory nature of this situation. If the EU continues to develop its cooperation in defence (as seems to be the case), it could well result in a functional overlap in matters of defence not seen until now. Stronger defence cooperation is indeed one of the EU’s current objectives, and one that is already regarded with suspicion by some of the member states of both NATO and the EU itself. These member states do not welcome the overlap for fear of possible rivalry.115 Beyond pure defence objectives, both the EU and NATO are engaged in crisis management. It is important to subdivide this in two different dimensions, as the organizations’ levels of involvement differ when it comes to (a) the deployment of troops to monitor an agreement or a ceasefire and (b) political and diplomatic efforts in crisis prevention or post-conflict reconstruction. In the first dimension, field-level overlap can exist, but this is not always the case, as it depends on the configuration of missions and the organisations’ mandates. While the EU’s legal framework establishes that territorial defence remains NATO’s responsibility, Page 64 from 109 the EU’s capacity to act independently from NATO’s assets in external crisis management continues to grow.116 In fact, the EU’s goal of obtaining full strategic autonomy has placed the EU on a similar footing with NATO. It is in the second, more civilian and political dimension, however, where the level of functional overlap is the largest. NATO’s and the EU’s missions and operations focus on preventive measures, training and, most of all, security sector reform in partner countries. The convergence in this area that was traditionally occupied by the EU has occurred since NATO progressively expanded its agenda to become more than just a military Alliance. In conclusion, the trend of greater regime complexity in the field of European security has accelerated over the last decade, partly as a result of the expansion of NATO's strategic concept and, potentially soon, as a consequence of the still ongoing development of a stronger security and defence component by the EU. The OSCE, for its part, does not have and neither does it foresee creating a defence component or a military crisis management goal. Instead, the OSCE continues its efforts to enhance cooperative security through arms control agreements. Through this objective, it complements the EU’s efforts to maintain peace and stability in its neighbouring areas. In addition, if the OSCE achieves its goals in this area, NATO would also benefit from respect for arms control treaties and the reduction of arsenals. Thus, while the OSCE does not focus on territorial defence nor military crisis management, its cooperative security mandate can be understood within that same division of labour framework.

#### The OSCE is collapsing - it played little role in the Ukraine crisis and Russia is a member.

Zięba, 2018 – prof at University of Warsaw [Ryszard April “The Marginalization of the OSCE” In book: The Euro-Atlantic Security System in the 21st Century (pp.213-224) [https://www.researchgate.net/publication/324765097\_The\_Marginalization\_of\_the\_OSCE Acc 6/2/22](https://www.researchgate.net/publication/324765097_The_Marginalization_of_the_OSCE%20Acc%206/2/22) TA]

The eighth chapter briefly describes the decline of the OSCE—the largest security organization in the Euro-Atlantic area, encompassing 57 states, and disposing of unique, so-called soft security ensuring instruments. This process was due to the dominant position in the entire system of NATO, an institution with hard security guarantees. Attempts to revive the OSCE were undertaken in 2010 at the Astana Summit, and then during the Ukraine crisis, in which the OSCE, as the sole multilateral institution, played a modest role in the monitoring of the cease-fire agreements concluded in Minsk in 2014 and 2015. The OSCE still has a chance of playing a greater role in the shaping of the Euro-Atlantic security system, but this would require an agreement between its principal participants, especially the western countries and Russia.

#### The OSCE fails – nations do not trust each other and lack the political will to enforce OSCE policies. Russian tensions threaten the OSCE’s survival.

Sánchez-Cobaleda, 2020 - prof of Public International Law at the University of Barcelona [Ana 2020-11-30 “Case study of the European Security Architecture: NATO and OSCE” <https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwjz8v2g46j4AhWlIUQIHWIVDCgQFnoFCLICEAE&url=https%3A%2F%2Fwww.globe-project.eu%2Fcase-study-of-the-european-security-architecture-nato-and-osce_11317.pdf&usg=AOvVaw2AE86i3ZUkPrll4AK6-Y-y> Acc 6/22/22 TA]

The lack of trust between participating states, particularly the situation of growing tension between Russia and the other participating states is not only an internal and political challenge for the OSCE, but also directly related to its survival. This tension, which can be felt at various levels,73 makes collaboration and decision-making within the OSCE very difficult. Russia continues to exert great influence in the region and it has proved to be willing to use its military force against sovereign states to pursue political goals (Baqués Quesada, 2018, pp. 16–17). The climate created by the conflicts in Georgia in 2008 and in Ukraine in 2014 – both OSCE Member States – as well as the military developments in Crimea and the Donbass, question the foundations laid down in the 1975 Helsinki Final Act, and call into question the effectiveness of the CBMs set out in the Vienna Documents. Restoring the trust among participants would also involve restoring the trust in the measures aimed at guaranteeing transparency in the OSCE's acquis that has existed in Europe for 20 years (De Salazar Serantes, 2016, p. 367). Currently, building back trust, re-establishing a “security community” and restoring the OSCE's original function as one of the leading forums for mutually beneficial dialogue and collective consensual decisions on European security issues (Azintov, 2012, pp. 19–22) are both objectives and challenges. Paradoxically, Ukraine's crisis, which is one of the main current difficulties for the OSCE, has also been an opportunity for the organisation to demonstrate its worth and relevance (Smolnik, 2019, p. 5; Zannier, 2018, pp. 35–36). Moreover, the conflict in Ukraine underscores the need – and difficulty – to adapt the arms-control regime in Europe due to the importance of military transparency like the one achieved with the CFE, the Vienna Documents or the Open Skies Treaty (Bieri & Nünlist, 2018, pp. 407–423). However, these and other OSCE instruments become useless in the absence of political will on the part of one, several or all the parties involved. Being an intergovernmental forum, the weight and influence of some participants, the historical relations between states, and the lack of trust in general (worsened in the last decade) make decision-making difficult, even leading the OSCE to be somewhat paralysed in taking forceful and avant-garde decisions (Bieri & Nünlist, 2018). There seems to be an excess of tepidity. This difficulty stems from the very nature of the institution, whose informality determines the limits of its ability to act, insofar it cannot impose itself on the will of governments, whose trust in each other is greatly weakened. Although improbable, it would be desirable for the OSCE to increase its influence on individual participating states. Political differences among OSCE's participating states, apart from constantly delaying the adoption of budgets, have also caused mistrust and the discontinuation of the organisation’s work.

#### Permutation – NATO can focus on the plan to change military doctrines and deter Russia, while the OSCE can work to increase transparency of the plan.

Burns and Lute, 2019 - Prof of International Relations at the Harvard Kennedy School and former Representative to the North Atlantic Council [Nicholas and Douglas, February “NATO at Seventy: An Alliance in Crisis” [https://www.belfercenter.org/publication/nato-seventy-alliance-crisis Acc 6/2/22](https://www.belfercenter.org/publication/nato-seventy-alliance-crisis%20Acc%206/2/22) TA]

Allies must continue bolstering deterrence by ensuring consequences for Russian actions. Recent examples include sustaining U.S.-Canadian-EU economic sanctions five years after Russian aggression in Ukraine, the Netherlands’ public commitment to holding Russia accountable for its role in the shooting down of Malaysia Airlines Flight 17 in 2014 and the responses after the Novichok chemical agent attacks in the U.K. 66 Going forward, the U.S. and the EU together must never recognize the illegal annexation of Crimea and reaffirm economic sanctions will stay on Moscow for as long as it occupies Ukrainian territory. These measures, however, have not changed Russian behavior. Even less impressive are the reactions to Russian interference in elections and recent aggression in the Black Sea and denial of Ukrainian access to the Sea of Azov.67 While confronting Russian aggression and bolstering deterrence, NATO must remain open to dialogue with Russia when it is in the West’s interest. Russia is a major European power that must be taken into account.68 First, dialogue is fundamental to deterrence, as Russia must clearly understand NATO’s intent and the consequences of aggression. Second, even in a period of increased tensions, there are topics for dialogue that serve common interests. The NATO-Russia Council should continue to meet regularly to address risk reduction measures, provide transparency on military exercises and exchange views on priority political issues, including the conflict in Ukraine. Allies should press the Organization for Security and Cooperation in Europe (OSCE) to update the Vienna Document to improve predictability and transparency of conventional forces in the region.69 Russia should return an ambassador to NATO and NATO should re-open military-military contacts below the four-star level. It is not in NATO’s interest that the Russian military liaison cell at Allied Command Operations’ SHAPE remains closed. Third, balancing deterrence and dialogue is essential to sustaining political cohesion among allies some of whom have differing perspectives on the nature of the Russian threat and the best responses to it.70 NATO should not return to “business as usual” with Russia as before 2014, but restricting dialogue is not an effective form of punishment. In periods of increased tension, the risk of accident and unintended consequences increases—dialogue can mitigate some of that risk. In short, sustaining and even expanding dialogue with Russia is in NATO’s interest.

### AT CCW CP

#### Solvency deficit – the UN focuses on diplomatic channels – ethical AI requires action by defense departments and ministries, which are tied to NATO

Stanley-Lockman, 2021 - Center for Security and Emerging Technology [Zoe CSET Issue Brief August “Responsible and Ethical Military AI Allies and Allied Perspectives” https://cset.georgetown.edu/publication/responsible-and-ethical-military-ai/ Acc. 4/21/22 TA]

Another reason the analysis focuses on AI and not autonomy in weapons systems is that the topic is already well covered in other literature.14 The United Nations Convention on Certain Conventional Weapons has focused on lethal autonomous weapon systems (LAWS) since 2013, and this has been the primary format for technical expertise, civil society engagement, and diplomatic engagement to converge.15 As a result, questions about ethics and legality of autonomy in weapons, and specifically LAWS, often involve diplomatic actors at the fore of domestic government approaches. Concerns about the ethics of intelligent systems, on the other hand, currently receive less attention in military debates. To maintain a stricter focus on AI rather than autonomy in weapons systems, this study focuses more on technical and policy approaches in defense ministries, which have more agency in ethical and responsible AI policy.

#### UN Solutions will fail because they only focus on LAWs, not other applications of AI – inflexibility limits potential solutions.

Kahn and Horowitz, 2021 – Research and Senior Fellows at the Council on Foreign Relations [Lauren and Michael, The Washington Quarterly 44:4 “Leading in Artificial Intelligence through Confidence Building Measures” [https://doi.org/10.1080/0163660X.2021.2018794 Acc 6/6/22](https://doi.org/10.1080/0163660X.2021.2018794%20Acc%206/6/22) TA]

One might argue that the United States should let others lead on AI, focusing instead on developing AI-enabled capabilities and not concerning itself with how other countries behave. But there is no substitute for American leadership and its ability to rally countries around the world to support shared standards. If promoting norms of responsible behavior with AI encourages other states to use military applications of AI in more responsible ways, it will create a more ethical and predictable security environment, likely benefiting the United States. Additionally, current international dialogue about military uses of AI focuses almost exclusively on lethal autonomous weapon systems (LAWS), the subject of a Group of Governmental Experts in the Convention on Certain Conventional Weapons.39 Currently, the international conversation has been largely been driven by NGOs such as the Campaign to Stop Killer Robots.40 While such conversations help bring attention to some of these issues, they oversimplify the risks and fixate on worst-case scenarios that are more likely outcomes of artificial general intelligence or human level machine intelligence rather than technology today. LAWS represent only a small fraction of the universe of potential issues surrounding military applications of AI. Broadening the international conversation about military uses of AI to incorporate the full scope of potential applications would generate better dialogue because it would include more of the real-world AI scenarios likely to confront militaries. Expanding the discussion would also allow states to pursue levels of control and regulation other than an all-or nothing ban and create a more calibrated and flexible range of approaches to different technologies with various levels and types of associated risks.

#### The CCW fails because it gives Veto Power to participants.

Bolton, 2021 - professor of political science at Pace University [Matthew with Matilda Byrne, Ryan Gariepy, Emilia Javorsky, Volker Lehmann, and Laura Nolan, January “Addressing The Threat Of Autonomous Weapons Maintaining Meaningful Human Control” http://library.fes.de/pdf-files/iez/17215.pdf Acc 5/27/22 TA]

Effective control of the humanitarian, human rights and security risks posed by LAWS will require legally-binding obligations on states negotiated in a multilateral forum. To date, the most likely venue for negotiating such a mandate would be within the CCW, in the form of negotiating a new protocol. However, the CCW’s consensus rules of procedure have been interpreted as requiring agreement of all states – effectively granting a veto to the most intransigent and often resulting in lowest common denominator decisions. Given this context, more ambitious states and other actors may in time consider other potential avenues, including a UN General Assembly-mandated process or one analogous to the Ottawa and Oslo processes on landmine and cluster munitions.

#### No Solvency – CCW Protocols don’t apply in peacetime, or to nuclear and cyber weapons.

International Panel on the Regulation of Autonomous Weapons, 2021 [(iPRAW) coordinated by: German Institute for International and Security Affairs, July “Building Blocks for a Regulation on LAWS and Human Control Updated Recommendations to the GGE on LAWS” https://www.readkong.com/page/building-blocks-for-a-regulation-on-laws-and-human-control-8617434 Acc 2/27/22 TA]

Scope of application: Since human control is to be understood as a feature of the design as well as use, the regulation would cover the development and deployment of weapons – effectively prohibiting the development of weapons without sufficient options for human control, i.e. LAWS. Nevertheless, it is important to bear in mind that the CCW and the Protocols related thereto merely apply in armed conflict and not in peacetime. This would also hold true in case another Protocol within the CCW framework was adopted, regulating LAWS. Thus, the use of LAWS in policing scenarios would not be covered by a future Protocol. However, human rights law and other (international) legal regimes would still be applicable. Furthermore, a CCW regulation would only apply to conventional weapons and would not cover autonomous cyber or nuclear capabilities.

### AT EU CP

#### Solvency deficits – The EU is fragmented and cannot harmonize markets; EU action creates Brain Drain to the US and UK; and their regulatory system slows implementation

Lawrence and Cordey, 2020 – researchers for The Cyber Project at the Belfer Center for Science and International Affairs [Christie and Sean, August, The Cyber Project Paper “The Case for Increased Transatlantic Cooperation on Artificial Intelligence Edited by Lauren Zabierek and Julia Voo https://www.belfercenter.org/sites/default/files/2020-08/TransatlanticAI.pdf Acc. 4/21/22 TA]

Challenges Due to the socio-technical transformative power of AI, governing and harnessing its benefits is a complex affair. There are three fundamental issues the EU needs to overcome: A fragmented market and landscape: This patchwork landscape results from the EU’s political configuration of 27 different Member States, all of which have different levels of maturity and competitiveness with regard to its AI ecosystem. Some, like France or Germany, are major players in their own right, but the majority of EU Member States carry little weight on their own.248 This disparity in capability drives the EU to pool its resources together. The UK’s decision to leave the EU constituted a serious blow to the EU’s standing, as it deprived it of one of its most mature, rich and innovative AI environments.249 In addition, European AI assets (e.g., talent, education, expertise, research, start-ups, and capital) are highly fragmented and decentralized.250 As Professor of Theoretical Philosophy Thomas Metzinger pointed out, this makes effective coordination of all the different stakeholders complex but highly important. One example where coordination could be improved is research funding both within the existing EU research frameworks and between the EU government, academia, industry, and the Member States.251 Europe is also fragmented along market and cultural lines. Indeed, compared to the US or China, the EU’s AI market is not yet consolidated nor harmonized. In addition, some major sectors of the economy such as automotive, agriculture, energy, as well as the public sector, present varying degrees of AI maturity, penetration, and integration.252 According to a McKinsey study,253 in 2017 only 25% of EU large enterprises and 10% of small and medium enterprises used big data analytics.254 This slow uptake of AI relates, in part, to the lack of trust of the general public and companies around issues of algorithmic transparency and biases. Meanwhile, the EU’s AI governance must also be able to navigate and transcend potentially divisive differences that come from the cultural, historical, strategic, and institutional differences that characterize each and every Member State.255 Underlying structural factors impede its development and competitiveness: Europe lacks tech giants that characterize the US and Chinese tech landscape. As a result, European start-ups and tech companies compete against peers that have not only considerably larger investment capabilities, which enable them to acquire the latest technologies and companies, but also provide ample access to data and a greater ability to attract and retain a skilled workforce.256 The lack of easily available data, which impedes innovation, has emerged as a key issue for the EU and its private sector companies.257 These concerns are additionally fueled by the relatively more restrictive European privacy laws—and maybe soon mandatory ethical guidelines.258 “Brain drain,” meanwhile, poses a unique challenge to the EU as promising European researchers often choose to move to the US, Canada, or the UK for academic opportunities. Regarding the former for instance, 19% of Europe’s undergraduates move to the US to study, while 14% of European graduates move to the US to work. Overall, 11% of the US’s top tier AI workforce—which represent 59% of the global workforce— comes from Europe.259 In some cases, AI talent also moves to the US to work at larger international companies that acquire their start-ups.260 Examples include the French Moodstock (acquired by Google) and the UK’s Magic Pony Technology (acquired by Twitter).261 A strong but slow regulatory process: While the policy process regarding AI has, under the impetus of the EC, accelerated over the last few years, the overall regulatory process cannot be as easily accelerated and might take years. According to the EC’s calendar (see Figure 8), the AI-related regulatory process will begin at the end of this year (2020), but the actual drafting and passage of the associated legislation is likely to take several years. As such, the EU runs the risk of not keeping up with the pace of technological evolution in AI as well as further politicization of regulation similar to the process of passing GDPR. Finally, as with most democracies, the EU will also face the challenge of operationalizing related regulations and principles, carefully and skillfully, balancing private and public sector interests throughout the process.

#### The EU does not trust the US to cooperate on AI – they see the US as focused on competition

Lawrence and Cordey, 2020 – researchers for The Cyber Project at the Belfer Center for Science and International Affairs [Christie and Sean, August, The Cyber Project Paper “The Case for Increased Transatlantic Cooperation on Artificial Intelligence Edited by Lauren Zabierek and Julia Voo https://www.belfercenter.org/sites/default/files/2020-08/TransatlanticAI.pdf Acc. 4/21/22 TA]

Both in the US and in the EU there seems to be political appetite for international collaboration on AI; however policymakers view specific US-EU cooperation with some degree of skepticism. At the European level for instance, the EU’s AI strategy underlines that addressing risks generated by AI should be a global effort. Accordingly, the EC mentions “strengthening cooperation with like-minded partners such as Japan, Canada or Singapore,” particularly on ethical norms.266 The US, however, is not specifically mentioned. The US is instead depicted as a competitor with greater capacity, resources, and ability to attract skilled researchers and funding. At first blush, it seems the US has also failed to treat US-EU cooperation with the prioritization one would expect given the prominence placed in the American AI Initiative on international cooperation to achieve a global environment aligned with American values—values Europe largely shares.

#### Permutation – the EU and NATO should cooperate on the plan.

Stanley-Lockman, 2021 - Center for Security and Emerging Technology [Zoe CSET Issue Brief August “Responsible and Ethical Military AI Allies and Allied Perspectives” https://cset.georgetown.edu/publication/responsible-and-ethical-military-ai/ Acc. 4/21/22 TA]

Other Opportunities for Multilateral Collaboration on Responsible and Ethical AI in Defense: the European Union (EU) and Five Eyes Working with a number of multilateral institutions is critical to the United States’ stewardship of AI aligned with democratic values and interests.164 In addition to NATO and the PfD, the EU and Five Eyes are highlighted as relevant formats for cooperation on ethical and responsible military AI. European Union Of course, the EU is not an alliance—and the United States is not a member. But the EU’s potential contributions to responsible military AI are worth discussing here because of the implications of supranational EU policy on allies’ own approaches to ethical and responsible AI in defense, as well as on EU-NATO cooperation.165

#### The permutation helps German Credibility – they are key to fostering NATO/EU cooperation

Stanley-Lockman, 2021 - Center for Security and Emerging Technology [Zoe CSET Issue Brief August “Responsible and Ethical Military AI Allies and Allied Perspectives” https://cset.georgetown.edu/publication/responsible-and-ethical-military-ai/ Acc. 4/21/22 TA]

What this means is that the Federal Ministry of Defence is left with a backseat role.124 This also heightens the stakes of multilateral efforts on responsible and ethical military AI, including for assessments of ethical risk stemming from issues like explainability or reliability. Indeed, Germany may be more active in these formats, especially in facilitating coordination between the EU and NATO given its longstanding interest in encouraging and facilitating EU NATO cooperation.125 Cooperation is already visible in other efforts related to technology and ethics—most notably in that the German Bundeswehr Defence Policy Office came up with views on future implications of human augmentation in collaboration with the U.K. Development, Concepts and Doctrine Centre.126 The two countries share views on the future of operations, which may be productively channeled through activities related to policy alignment or, potentially, standardization.127 Rather than going it alone, the German preference to cooperate—in bilateral and especially multilateral formats—may be seen as one way to focus on these issues with less domestic political pressure, and to substantiate contributions to defense partnerships.

#### Brexit undermines US / EU cooperation – they are our closest ally in Europe.

Lawrence and Cordey, 2020 – researchers for The Cyber Project at the Belfer Center for Science and International Affairs [Christie and Sean, August, The Cyber Project Paper “The Case for Increased Transatlantic Cooperation on Artificial Intelligence Edited by Lauren Zabierek and Julia Voo https://www.belfercenter.org/sites/default/files/2020-08/TransatlanticAI.pdf Acc. 4/21/22 TA]

340 The European Union is not completely unified on its position regarding European defense capabilities or the application of AI in this realm. Ulrike Esther Franke, Policy Fellow at European Council on Foreign Relations, has noted that France tends to lead conversations about the use of AI in the military, while other countries like Germany and Austria are concerned about the use of AI to create autonomous weapons systems (“killer robots”). Additionally, the exit of the UK from the EU hinders US military cooperation with the EU as the UK had a strong military and intelligence relationship with the US, particularly given its place in Five Eyes.

#### EU IP rules undermine cooperation – US firms are excluded from EU projects.

Lawrence and Cordey, 2020 – researchers for The Cyber Project at the Belfer Center for Science and International Affairs [Christie and Sean, August, The Cyber Project Paper “The Case for Increased Transatlantic Cooperation on Artificial Intelligence Edited by Lauren Zabierek and Julia Voo https://www.belfercenter.org/sites/default/files/2020-08/TransatlanticAI.pdf Acc. 4/21/22 TA]

355 EDF’s IP rules state that only EU-based entities can own IP from projects and US firms are excluded from receiving defense funds. Some worry these rules may lead to the exclusion of US firms from EDF and PESCO, negatively impacting military interoperability and joint R&D (See Christian Larsen, EU Should Remain Open to US Defense Industry, National Defense (December 13, 2019).) While others like Ulrike Franke believe EDF and PESCO are primarily European collaboration vehicles and should not be the main avenue for transatlantic cooperation.

### AT Ban LAWs CP

#### Turn – The counterplan undermines interoperability and cohesion – the US would not join, putting them at odds with their allies

Stanley-Lockman, 2021 - Center for Security and Emerging Technology [Zoe CSET Issue Brief August “Responsible and Ethical Military AI Allies and Allied Perspectives” https://cset.georgetown.edu/publication/responsible-and-ethical-military-ai/ Acc. 4/21/22 TA]

7 This point has also been made in relation to the difficulties of a prematurely prohibitive ban on lethal autonomous weapon systems. Although autonomy is beyond the scope of the study, NSCAI Executive Director Yll Bajraktari makes a similar point on the relationship between ethics and interoperability: “The effects of a prohibition agreement likely would run counter to the U.S. strategic interests as commitments from states such as Russia and China are likely to be empty ones. So, the primary impact of an agreement would be to increase pressure on those countries that abide by international law, including the United States and its democratic allies and partners. If U.S. allies joined an agreement while the United States did not, the diversion would likely hinder allied military interoperability. That would be something really difficult for us and our allies. For these reasons, we believe that practical and strategic problems with a prohibition treaty outweigh the potential benefits for the United States and its allies and partners.” Craig Smith and Yll Bajraktari, “Episode #071: AI and Center for Security and Emerging Technology | 72 National Security: US vs China,” Eye on AI, May 5, 2021, transcript available at: <https://www.eye-on.ai/podcast-071>.

#### Solvency Deficit – the UN focuses on LAWs, but AI is moving toward autonomous Non-lethal weapons – the counterplan does not cover them.

Freedberg, 2019 – deputy editor for Breaking Defense [Sydney J “The frontline of a new age in defense Artificial Intelligence” https://cdn2.hubspot.net/hubfs/2097098/MCM120\_BreakingDefense\_AI\_ebookR1%20(1).pdf Acc 5/25/22 TA]

What happens when Artificial Intelligence produces a war strategy too complex for human brains to understand? Do you trust the computer to guide your moves, like a traveler blindly following GPS? Or do you reject the plan and, with it, the potential for a strategy so smart it’s literally superhuman? The Pentagon wants AI to assist human combatants, not replace them. The issue is what happens once humans start taking military advice — or even orders — from machines. The reality is this happens already, to some extent. Every time someone looks at a radar or sonar display, for example, they’re counting on complicated software to correctly interpret a host of signals no human can see. The Aegis air and missile defense system on dozens of Navy warships recommends which targets to shoot down with which weapons, and if the human operators are overwhelmed, they can put Aegis on automatic and let it fire the interceptors itself. This mode is meant to stop massive salvos of incoming missiles but it could also shoot down manned aircraft. Now, Aegis isn’t artificial intelligence. It rigidly executes pre-written algorithms, without machine learning’s ability to improve itself. But it is a long-standing example of the kind of complex automation that is going to become more common as technology improves. While the US military won’t let a computer pull the trigger, it is developing target-recognition AI to go on everything from recon drones to tank gun sights to infantry goggles. The armed services are exploring predictive maintenance algorithms that warn mechanics to fix failing components before mere human senses can detect that something’s wrong, cognitive electronic warfare systems that figure out the best way to jam enemy radar, airspace management systems that converge strike fighters, helicopters, and artillery shells on the same target without fratricidal collisions. Future “decision aids” might automate staff work, turning a commander’s general plan of attack into detailed timetables of which combat units and supply convoys have to move where, when. And since these systems, unlike Aegis, do use machine learning, they can learn from experience — which means they continually rewrite their own programming in ways no human mind can follow.

#### Turn - Banning LAWs undermines the US Leadership that would be necessary to make Responsible AI norms work.

Del Re, 2017 – US Army Major [Amanda “Lethal Autonomous Weapons: Take the Human Out of the Loop A paper submitted to the Faculty of the US Naval War College in partial satisfaction of the requirements for the Ethics of Emerging Military Technology Graduate Certificate. 16 June 2017 https://apps.dtic.mil/sti/citations/AD1041804 Acc 12/27/20 TA]

In conclusion, the US should lead the effort to employ Lethal Autonomous Weapons in warfare. As other nations are already employing LAWS, the US needs to utilize them so that they are fully understood. This understanding and experiencing is necessary to establish international norms and treaties. As a superpower, it is the United States’ burden to set the example in employing new technology in accordance with international norms. Finally, LAWS should be employed in warfare because they will save money and most importantly, lives.

#### Banning LAWs fails because it relies on a static definition of weapons, and AI is dynamic – weapons can be autonomous by the flip of a switch.

Sauer, 2021 - Senior Research Fellow at Bundeswehr University [Frank serves on the International Panel on the Regulation of Autonomous Weapons IRRC No. 913 March “Stepping back from the brink: Why multilateral regulation of autonomy in weapons systems is difficult, yet imperative and feasible” https://international-review.icrc.org/articles/stepping-back-from-brink-regulation-of-autonomous-weapons-systems-913 Acc 4/5/22 TA]

In the case of LAWS, however, the old pattern of defining and then regulating a discrete category of military hardware is not applicable.11 After all, almost any current and future weapons system can conceivably be endowed with autonomous functions, and no one will be able to tell what any given system's level of dependence on human input is by merely inspecting it from the outside. In the past, bilateral nuclear arms control between the United States and the Soviet Union, later Russia, implemented quantitative arms control by developing precisely defined, shared understandings of counting rules and employing them in verification regimes.12 Similarly, in the realm of multilateral conventional arms control, the now defunct Treaty on Conventional Armed Forces in Europe relied heavily on defining and counting military hardware items.13 The challenge regarding LAWS, however, is not met by trying to define a category of weapons system – “LAWS”, as separated with a list of specific criteria from “non-LAWS” – and then counting and capping its numbers. In fact, in a modern military's system-of-systems architecture, “some AWS [autonomous weapons system] components are intangible and can be geographically distributed, [so] it is far from clear … where and when an AWS begins and ends”.14 Hence, the challenge, broadly speaking, lies in developing a new norm in order to adjust the relationship between humans and machines in twenty-first-century warfighting. A qualitative rather than quantitative approach is required, which, in turn, requires new diplomatic language to grasp the underlying technological developments, something that neither States Parties nor civil society are well versed in yet.

#### NATO is more effective because it addresses the range and context of weapons and because it is more likely to foster cooperation.

Trabucco and Stanley-Lockman, 2022 – prof of Political Science, University of Copenhagen and prof of Defense and Strategic Studies, Nanyang Technological University [Lena and Zoe, The Oxford Handbook of AI Governance, March, “NATO’s Role in Responsible AI Governance in Military Affairs” https://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780197579329.001.0001/oxfordhb-9780197579329-e-69 Acc 4/16/22 TA]

Lawyers, researchers, and civil society grapple with existing legal regimes relevant to military operations and the uncertainty and ambiguity surrounding automated decision-making, particularly in lethal decision-making. Thus far, the legal dialogue has been heavily anchored in the applicability of international humanitarian law (IHL), and other relevant legal regimes, to lethal autonomous weapons systems.72 IHL, also known as the laws of war or the laws of armed conflict, regulate the means and methods of warfare and, as such, is pivotal to the emergence of military technology and how existing legal structures are disrupted. The legal debate often revolves around the prospect of a “treaty ban” of LAWS.73 But the legal debate is much more nuanced than the likelihood of international treaties banning any particular weapon system. Especially because NATO is not a regulatory body, it cannot institute measures to regulate emerging technology for the Allies. Instead, NATO’s function in the legal domain may be more effective outside the traditional legal debates around emerging military technology and more embedded in fostering cooperation and coordination among military partners. Other avenues of legal regulation may fall short of an international convention or prohibition, but nevertheless factor significantly in regulating and/or delineating state policies. Additionally, non-lethal applications of AI, as well as applications of AI that do not figure into autonomous systems, also raise important legal questions under international law. Arguably, norms around non-lethal applications are more urgent as their development is more advanced, harder to define, and less controversial in integration.74 Ultimately, NATO’s facilitative power can help ensure that integration of EDTs like AI into military capabilities and into multinational coalition operations is consistent with member states’ legal obligations.

#### Turn – a ban assumes LAWs in the future, which distracts from autonomous systems that already exist. It is better to establish norms for their ethical use.

Nadibaidze, 2021 - Ph.D. Student at the University of Southern Denmark [Anna Entry submitted for the Second OSCE-IFSH Essay Competition “Commitment to Control over Weaponised Artificial Intelligence: A Step Forward for the OSCE and European Security” https://www.osce.org/files/f/documents/8/3/507341.pdf Acc. 4/21/22 TA]

In response to the risks outlined in this section, several states, scholars and civil society organisations have been arguing for a ban on LAWS. Since 2013, this issue has been discussed within the framework of the UN Convention on Certain Conventional Weapons (CCW). A Group of Governmental Experts (GGE) on emerging technologies in the area of LAWS was established in 2016 to pursue the debate in a more formal setting. However, the discussions are often framed in a futuristic way, focusing on ‘killer robots’ and their potential to operate with full autonomy and without human oversight. As this section has demonstrated, this perspective misses the fact that existing weapons systems with increasingly autonomous features already have the potential to affect security and stability.

#### Banning LAWs is impossible – the ban would be easy to circumvent and the weapons are already available.

Thornton, 2019 - Senior Lecturer in the Centre for Defence Education Research and Analysis, King’s College [Rod, “One to ponder: the UK’s ethical stance on the use of Artificial Intelligence in weapons systems https://defenceindepth.co/2019/06/17/one-to-ponder-the-uks-ethical-stance-on-the-use-of-artificial-intelligence-in-weapons-systems/ Acc 4/16/22 TA]

Given its declared position, it might seem logical for the UK to push for an international ban on the use of LAWS. Trying to level the playing field so that no other state possessed them would seemingly work to the UK’s advantage. A ban is also the favoured UN option. UN Secretary General António Guterres has, for instance, described LAWS as ‘morally repugnant’. Within the UN, however, the UK is part of a group of states (alongside Australia, Israel, Russia and US) that has collectively stated that currently they do not want to see any regulation that forbids the use of LAWS. To explain the UK’s position, an MOD spokesperson said that, ‘We believe a pre-emptive ban is premature as there is still no international agreement on the characteristics of lethal autonomous weapons systems’. We are thus back to the thorny problem of definitions. If we do not know what something is then how can it be banned? The question here, though, is why is the UK trying to prevent a ban on a weapon it has ‘no intention’ of developing itself? This does not look very ethical or, indeed, sensible. It seems to be giving licence to potential adversaries to continue with their own development of LAWS while the UK sits on its AI hands. Whatever the UK’s position, it seems that LAWS will prove impossible to ban anyway. Firstly, because the world’s major states will be seeing the benefits of LAWS there will probably (and maybe conveniently?) never be an internationally agreed definition on them, which would then allow any ban to accrue. Secondly, the technology that underpins any ‘killer robot’ will come to be developed anyway in the civilian sector – with systems designed, for instance, to deliver parcels or to tackle forest fires. Any military organisation could simply buy such systems off the shelf and convert them readily into LAWS. The genie will thus be out of the bottle on LAWS fairly soon anyway and can never be put back in. It will therefore, and unfortunately, be very hard for the UK to maintain a credible stance as a ‘pioneer in ethical AI’.

#### Focusing on banning LAWs diverts attention from cooperation on Responsible AI use.

Trabucco and Stanley-Lockman, 2022 – prof of Political Science, University of Copenhagen and prof of Defense and Strategic Studies, Nanyang Technological University [Lena and Zoe, The Oxford Handbook of AI Governance, March, “NATO’s Role in Responsible AI Governance in Military Affairs” https://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780197579329.001.0001/oxfordhb-9780197579329-e-69 Acc 4/16/22 TA]

The second pillar examines legal norms as a domain wherein legal uncertainty regarding AI has tangible implications for Allied legal interoperability, a subset of larger coalition interoperability. Thus far, the legal debate regarding AI has been largely fixed on the issue of a treaty banning the use of LAWS. In this section, we advocate for a more nuanced legal picture in which NATO can facilitate legal coordination and tackle some of the foundational legal issues which will prevent successful legal interoperability in future operations. The third pillar identifies safety and security of AI systems as prerequisite to trustworthy and responsible AI in any context, but especially so for the conduct of military activity. At the NATO level, Allied forces must ensure their systems interoperate safely and predictably both to ensure effective command and control (C2) internally, and to prevent disruptions from attacks. It is a foundational facet of coordination that shows the overlap between NATO interests in military effectiveness and incentivization for responsible innovation.

### AT Cybernetics K

#### Prioritizing Humanist justifications for plan are essential to build political will for change

Sauer, 2021 - Senior Research Fellow at Bundeswehr University [Frank serves on the International Panel on the Regulation of Autonomous Weapons IRRC No. 913 March “Stepping back from the brink: Why multilateral regulation of autonomy in weapons systems is difficult, yet imperative and feasible” https://international-review.icrc.org/articles/stepping-back-from-brink-regulation-of-autonomous-weapons-systems-913 Acc 4/5/22 TA]

How regulating weapon autonomy is feasible: Fostering a human control norm The United States and China are demonstrating awareness of the strategic risks of unmitigated weapon autonomy. The US directive on weapon autonomy,95 albeit attempting to square the circle of using autonomy while not inviting the accompanying risks, can be interpreted this way. China has coined the term “battlefield singularity”, a dreaded situation in which war waged at machine speed is too fast for human cognition to keep up.96 Nevertheless, the current great power rivalry between the United States, China and Russia, all racing for dominance in the field of military AI, is clearly not conducive to regulation of weapon autonomy. With presidents Trump, Xi and Putin in power, a breakthrough is not to be expected any time soon. But political will for regulation can also be generated from the ground up. Growing political will from the grassroots Surveys consistently show publics from all over the world rejecting LAWS. Opposition globally increased from 56% in 2016 to 61% in 2018, according to KRC survey data.97 This conforms with earlier online polling conducted by the Open Roboethics Initiative98 as well as Heather Roff via IPSOS.99 Opposition in the United States, China and Russia is at 52%, 59% and 60% respectively.100 In Europe, the numbers range from 60% in Finland up to 81% in Ireland.101 Survey data also suggest that the public's opposition is primarily fueled not by legal concerns or worries about unwanted escalation or crisis instability but by the notion that delegating decisions over life and death on the battlefield crosses a bright red moral line.102 So while there is certainly an interesting philosophical debate to be had about the cultural pervasiveness of human dignity as a concept and its relevance to the LAWS issue from utilitarian versus deontological viewpoints, the concern as presented in the preceding section quite clearly resonates with the general public. The notion that there is something fundamentally wrong with having humans killed by mindless machines is thus well suited to creating grassroots pressure on governments in order to muster more political will on the issue. This point is granted even by sceptics of the human dignity argument as a whole: “There could be some campaigning advantages. Saying that something is against human dignity evokes a strong visceral response.”103

#### Prioritizing Representations of Human Control ensures that we have an ethical compass to ensure that plan works as described.

Kewley, 2021 – Cohead of the Tech Group at Clifford Chance LLP [Jonathan, Dec 7, “Artificial intelligence: Can we go from chaos to cooperation?” AEI Panel Discussion - Moderator: Elisabeth Braw https://www.aei.org/events/artificial-intelligence-can-we-go-fromchaos-to-cooperation/ Acc 5/11/22 TA]

Jonathan Kewley: I suppose my closing point is about making this all human centered. And what does that fix mean? It means putting the human at the heart of technology. And what we’ve seen in other areas so far — and we’ve got good precedence — is that if you take the human out and you just go over a profit motive or in the defense sector, kind of a kill motive, then you’ve got a real issue. So, putting morality, human beings at the heart of this will ensure that we don’t have chaos, because that moral compass will be there. And we all have a part to play in this. And finally, I would say that multilateralism is so important. We can’t have this debate on our own in Europe and not include China and not include the US. It needs to be a big conversation, a global conversation and a nonexclusive one.

### AT Security K

#### The affirmative recognizes the Security Dilemma that AI creates, and attempts to act within that understanding. Our approach does not engage in zero sum competition – ethical use respects the human security of all combatants.

Scharre, 2021 - Director of Studies at Center for New American Security [Paul, Texas National Security Review Vol 4, Iss 3 Summer “Debunking the AI Arms Race Theory” https://tnsr.org/2021/06/debunking-the-ai-arms-race-theory/Artificial Intelligence Acc 5/27/22 TA]

AI Competition and the Security Dilemma Even if military AI spending does not rise to the level of an “arms race,” many nations are nevertheless engaged in a security competition in the adoption of military AI, a competition that does pose risks. The situation that states find themselves in with regard to AI competition is much more accurately described as a security dilemma,16 a more generalized competitive dynamic between states than the more narrowly defined “arms race.” In his 1978 article, “Cooperation Under the Security Dilemma,” Robert Jervis defined the security dilemma as follows: “[M]any of the means by which a state tries to increase its security decrease the security of others.”17 As Charles Glaser has pointed out, it is not obvious from this definition why it would be intrinsically bad for an increase in one state’s security to come at the expense of another’s security.18 In fact, decreasing the security of other states could have beneficial effects in enhancing deterrence and reducing the risks of aggression or achieving a favorable balance of power in a region, which could lead to greater political influence. The problem comes in the second- and third-order effects that could develop when another state reacts to having its security reduced. Responses could include counterbalancing with a net effect of no change in security (or worsening security). Glaser argues that there are some situations in which security competition is a rational strategy for a state to pursue even if competitors will arm in response. In other situations, arming may be a suboptimal strategy for a state, which would be better served by restraint or pursuing arms control.19 Security competition could even leave both states worse off than before. This can occur during a traditional arms race if nations expend vast sums of money in an unsuccessful attempt to gain an advantage over one another, with the result that both nations divert funds from non-defense expenditures. If the outcome of a security competition is the same relative military balance as before, the balance of power may not have meaningfully changed, but both nations could face diminished economic and social well-being at home relative to if they had avoided a security competition. Even absent this “guns vs. butter” tradeoff, however, there are other ways in which security competition can lead to a net negative outcome for both states. One way this could occur is if military innovation and the development of new capabilities alter the character of warfare in a manner that is more harmful, more destructive, less stable, or otherwise less desirable than before. In his 1997 article, “The Security Dilemma Revisited,” Glaser gave the example of military capabilities that shifted warfare to a more offense-dominant regime.20 There are other ways in which warfare could evolve in a net negative direction as well. For example, in World War I, Germany’s interest in developing and deploying chemical weapons was spurred in part due to fears about France’s developments in poison gas.21 The result was the introduction of a weapon that increased combatant suffering on both sides, without delivering a significant military advantage to either. The same could occur with AI: It could alter the character of warfare in a way that would be a net negative for all participants.

#### Recognizing the constructions of security is not enough – scenario planning is necessary to advance the conversation about military AI.

Horowitz and Scharre, 2021 - Senior Fellows at the Technology and National Security Program at the Center for a New American Security [Michael and Paul, Jan 12, “AI and International Stability: Risks and Confidence-Building Measures” [https://www.cnas.org/publications/reports/ai-and-international-stability-risks-and-confidence-building-measures Acc 6/6/22](https://www.cnas.org/publications/reports/ai-and-international-stability-risks-and-confidence-building-measures%20Acc%206/6/22) TA]

The Role of Confidence-Building Measures AI potentially generates risks for international security due to ways AI could change the character of warfare, the limitations of AI technology today, and the use of AI for specific military missions such as nuclear operations. Especially given the uncertain technological trajectory of advances in AI, what are options to reduce the risks that military applications of AI can pose to international stability? To advance the conversation about ensuring that military AI adoption happens in the safest and most responsible way possible, this paper outlines a series of potential confidence-building measures aimed at mitigating risks from military uses of AI.39 We introduce these ideas as preliminary concepts for future research, discussion, and examination, rather than to specifically advocate for any of these options. But progress in mitigating the risks from military AI competition requires moving beyond the recognition that risk mitigation is important to the hard work of suggesting, evaluating, and examining the benefits and drawbacks of specific mechanisms.40

#### We recognize the technological determinism embedded in AI discussions – this is the most important starting point for the discussion.

International Panel on the Regulation of Autonomous Weapons, 2021 [(iPRAW) coordinated by: German Institute for International and Security Affairs, July “Building Blocks for a Regulation on LAWS and Human Control Updated Recommendations to the GGE on LAWS” https://www.readkong.com/page/building-blocks-for-a-regulation-on-laws-and-human-control-8617434 Acc 2/27/22 TA]

2 BUILDING BLOCK I: UNDERSTANDING THE CHALLENGES In order to establish a normative and operational framework aimed at tackling the challenges posed by LAWS, it is imperative to understand the technological, military, legal, ethical, and security aspects. In fact, a profound grasp of the technological aspects, especially with regard to computational methods, like artificial intelligence (AI) and machine learning, is the starting point of any discussion on a regulatory framework on LAWS. By the same token, it is of pivotal importance to bear military considerations in mind and to comprehend the nature and structure of military operations, in particular the targeting cycle. The same holds true for legal considerations. International law, especially international humanitarian law (IHL) constitutes the fulcrum of the debate on LAWS. Furthermore, human dignity needs to be taken into account properly, as emerging technologies in the military realm threaten to touch upon or even violate human rights. Last but not least, security aspects should be considered thoroughly. The increased resort to autonomous functions in combat operations will have repercussions on conflict escalation and international stability and may even lead to an AI arms race, potentially having devastating consequences.