# 1AC

## Overview (1:30)

#### [1] The role of the ballot is to vote for the debater who proves the truth or falsity of the resolution. Prefer:

#### [A] Textuality – “affirm” is defined as “to assert as valid or confirmed”[[1]](#footnote-1), and “negate” is “to deny the existence or truth of”[[2]](#footnote-2) which means A. The judge is only in their jurisdiction to vote on arguments that either affirm or negate the resolution. B. Even if you win another ROB is more pragmatic, it’s incoherent to change the rules of the activity in the middle of the round.

#### [B] Collapses – all statements collapse to truth value; saying “I am hungry” is the same as saying “it is true that I am hungry.” – which means you think it is true we should use your role of the ballot which concedes ours.

#### [C] Safety – other ROB open up the lives of personal debaters by taking pre-fiat factors into account – only truth testing solves by being grounded in a textual analysis of the resolution which outweighs under accessibility.

#### [2] Aff gets 1AR theory – It’s key to check neg abuse, no 1AR theory means neg can be infinitely abusive without theoretical recourse. Drop the debater, the aff can’t split the 2AR between both theory and substance. No neg RVIs since the neg can dump on the shell for 6 minutes and make the 2AR impossible. Competing interpretations, the 2N can create infinite reasonability arguments the aff can’t get through. And, the neg must not contest the aff gets 1AR theory, drop the debater, and competing interps, otherwise it justifies infinite neg abuse since the aff can’t check it back in the 1AR.

#### [3] No 2N theory arguments and paradigm issues – A. All the paradigm issues were in the aff which means any 2n argument is new and can’t be evaluated B. 6-3 skew means you’ll always overwhelm the 2AR. AFF fairness issues come prior to NC arguments A. The 1AR can’t engage on multiple layers if there is a skew since the speech is already time-crunched B. Sets up an invincible 2N since there are a million of unfair things to which you collapse win every round.

#### [4] Interpretation – The negative must grant the aff presumption or permissibility. A violation would be reading both or contesting one in the 2n. Prefer – A. Strat skew – otherwise it incentivizes the 1n to read multiple NIBs and frontload the 1n with presumption and permissibility offense which is particularly bad since there isn’t a substantive truth to either side B. Topic ed – spamming presumption and permissibility incentivizes the neg to only read things like skep and a prioris to collapse the debate to those layers C. Timeskew – I have to invest major time in the 1ar winning both because 2n flexibility can collapse to either one with a hidden trigger, only having to answer one or do weighing saves me half that time.

#### [5] Interpretation – The negative must concede the affirmative framework or contention level offense. It’s preemptive, you violate by reading turns or defense to my offense and reading an alternative framework. Prefer – 1. Strat skew – A) It’s impossible for the 1AR to win both layers of framing and offense when you can frame me out and read a bunch of turns to the aff making the round impossible in 4min – especially since the 2n can collapse on either the framework or the contention for 6 minutes B) Neg reactivity advantage, aff disclosure, and 1n time allocation means they can craft a perfect 1nc – conceding one layer of substance solves since it gives me weighing recourse and strategic 1ar maneuvers without having to brute force both. 2. Depth of Clash – We pick and choose whether to debate offense or framework and when, which means we have more discussion of each one every round. Depth o/w since reading 1 page of 100 different books is useless and superficial. Breadth is solved across multiple rounds when people choose a different layer in each. And, hijacks solve all your offense since they contest both the framework and the offense, while maintaining the 1ar ability to win substance.

## Framework (2:00)

#### I value morality. The metaethic is moral non-naturalism. Goodness cannot be reduced to an empirical property.

#### [1] The naturalistic fallacy – examples of goodness fail to define the ultimate good. Moore

[Moore, G. E. “Principia Ethica” <http://fair-use.org/g-e-moore/principia-ethica/>. Published 1903] SHS ZS

Good, then, if we mean by it that quality which we assert to belong to a thing, when we say that the thing is **good**, **is incapable of any definition**, in the most important sense of that word. The most important sense of definition is that in which a definition states what are the parts which invariably compose a certain whole; and in this sense **good has no definition because it** is simple and **has no parts**. **It is** one of those innumerable objects of thought which are themselves **incapable of definition**, because they are the ultimate terms of reference to which whatever is capable of definition must be defined. That there must be an indefinite number of such terms is obvious, on reflection; since we cannot define anything except by an analysis, which, when carried as far as it will go, refers us to something, which is simply different from anything else, and which by that ultimate difference explains the peculiarity of the whole which we are defining: for every whole contains some parts which are common to other wholes also. There is, therefore, no intrinsic difficulty in the contention that **good denotes a simple and indefinable quality**. There are many other instances of such qualities. **Consider yellow**, for example. **We may** try to **define it**, **by** describing its physical equivalent; we may state what kind of **light-vibrations** must stimulate the normal eye, in order that we may perceive it. **But** a moment’s reflection is sufficient to shew that those light-vibrations are not themselves what we mean by yellow. **They are not what we perceive**. Indeed, we should never have been able to discover their existence, unless we had first been struck by the patent difference of quality between the different colours. The most we can be entitled to say of those vibrations is that they are what corresponds in space to the yellow which we actually perceive. Yet **a mistake of this** simple **kind has** commonly **been made about good**. **It may be true that all things which are good are also something else**, just as it is true that all things which are yellow produce a certain kind of vibration in the light. And it is a fact, that Ethics aims at discovering what are those other properties belonging to all things which are good. **But** far **too many philosophers have thought that when they named those other properties they were actually defining good**; that these properties, in fact, were simply not other, but absolutely and entirely the same with goodness. This view I propose to call the naturalistic fallacy and of it I shall now endeavour to dispose.

#### [2] The is-ought fallacy – Naturalistic frameworks fail to derive an imperative to act. That is, even if you win pleasure biologically valuable, your framework doesn’t answer why we have a moral obligation to follow biology without appealing to a higher-order framework.

#### [3] The open question argument – Suppose X represents a natural property like pleasure. If X is analytically equivalent to good, then the question “Is it true X is good” becomes “Is it true good is good.” This either means A) Naturalistic frameworks result in a tautology of “Good is good” or b) X is not the same as good in which case non-naturalism is true.

#### And, only intuitions are consistent with non-naturalism. Lacewing.

[Michael Lacewing, Director of Research and Senior Lecturer in Philosophy at Heythrop College, University of London, Ethical non-naturalism, No Date, <http://s3-euw1-ap-pe-ws4-cws-documents.ri-prod.s3.amazonaws.com/9781138793934/A22014/ethical_language/Ethical%20non-naturalism.pdf> ///AHS PB] SHS ZS

**If moral properties are not natural** properties, then how do we discover them? How do we know what is good? In Mill’s ‘proof’ of utilitarianism, he claims that we cannot prove what is good or not. To prove a claim is to deduce it from some other claim that we have already established. Moore agrees. But unlike Mill, he does not think that we can argue inductively from evidence either. **All we can do is consider the truth of the claim**, such as ‘pleasure is good’, itself. **Moore calls such claims ‘intuitions’**. What does this mean? The claim that **some truths can be known by rational ‘intuition’ is made by rationalism.** But what is an intuition, and how can we tell if it is true? Are we supposed to have some special faculty of moral intuition? Moore leaves these questions open: ‘when I call such propositions **Intuitions**, I mean merely to assert that they **are incapable of proof**; I imply nothing whatever as to the manner or origin of our cognition of them’. However, he has already said more than this. He has argued that **these claims are not analytically true**. And he has argued that **we cannot know them through empirical investigation**. So **they must be some variety of synthetic a priori knowledge**. He claims that **we know claims about what is good to be true** (or false) **by considering the claim itself**. **Intuitions are ‘self-evident’** propositions. A self-evident judgement rests on the ‘evidence’ of its own plausibility, which is grasped directly. This doesn’t necessarily mean that everyone can immediately see that it is true. ‘**Self-evident’ is not the same as ‘obvious’**. **Our ability to make a** self-evident **judgement needs to develop first**, **and we need to consider the** **issue** very **carefully** and clearly. Because moral intuitions are not known through the senses, **the self-evidence of a moral intuition will be more like the self-evidence of a necessary truth**, such as mathematics or claims about what is logically possible, than the self-evidence of a perceptual truth, such as the claim that there is a table in front of me. So, **intuitionism does not need to claim that we have a faculty of intuition that ‘detects’ whether something is good or not,** a bit like a supernatural sense. **Intuitionism is simply a form of ethical non-naturalism that claims that some of our moral judgements are synthetic yet self-evident.**

#### Thus, the standard is consistency with intuitionism.

#### Prefer:

#### [1] Motivation – Political obligations can only be derived from general duties to be moral – only intuitions solve. Jindall 99.

[Jindal, Bobby. Louisiana Law Review, 1999. Web. <http://digitalcommons.law.lsu.edu/cgi/viewcontent.cgi?article=5780&context=lalrev>.] SHS ZS

Modem political **philosophers** ranging from Robert Nozick to John Rawls **have attempted to discern** the **principles** of justice **that** should **guide societal arrangements**. **This project** is of vital importance since it **informs society of its obligations to its weakest** and most vulnerable **members**. Yet, the question of why one should be just is an intelligible one to ask and deserves some response. This paper argues that **the political**-legal **obligation to be just is** **derivative from [our] man's more general duty to be moral**, a commitment grounded in **intuitions** which **are themselves based on transcendental values**, i.e., values that exist apart from a particular society. Those **political theories that lack a transcendental notion of morality lack binding force**; the theorist who persuades without asserting truth is helpless to convince or judge those committed to different principles. Modem **liberalism**, with its explicit commitment to neutrality, **has nothing to say to individuals who do not share its values**; similarly, communitarianism, with its cultural relativism, cannot critique an unjust society from the outside. **Many liberals** and communitarians underpin principles of justice, which **require an individual to sacrifice his interests to secure the welfare of others**, with that justification available to convince one that his preference for vanilla ice cream is mistaken; yet, justice, unlike ice cream, is not merely a matter of taste. **Principles of justice not based on objective moral principles are arbitrary at best** and prejudicial at worst, without binding authority or persuasive moral force. Though Rawls claims the "conception of justice is a practical social task rather than an epistemological or metaphysical problem,"1 **there must be some a priori, non-subjective commitment to justice**, as well as positive laws, that compels individuals to sacrifice their self-interest. **Transcendental morality alone provides a substantial answer** to those-anarchists, narcissists, libertarians, individualists, racists, isolationists, and others-who question the obligation to serve the common good, i.e., sacrifice one's interests for others. Merely discerning the claims of justice is not enough; these **claims must be legitimized**. The gap between "is" and "ought" reflects the distance between factual claims and moral ones, between truth and motivation, between description and obligation. Even if rationality informs man of political obligations to his fellow citizens, **only moral intuitions can motivate [agents] him to act accordingly.**

#### [2] Intuitions are a side constraint on all frameworks – we only adopt a moral framework is when it draws a conclusion consistent with our intuitions. For instance, we reject skep and other morally repugnant frameworks because they aren’t consistent with intuitions about acting properly. This also means we use intuitions to determine whether objections to the framework are true, so responses concede the validity of the framework.

#### [3] Regress – Moral frameworks can be infinitely questioned to infinite regress since we can always ask why to follow a particular syllogistic premise of the framework, which ultimately terminates in an agent’s intuition to A. determine whether a belief is justified and B. resolve skepticism.

#### [4] Moral internalism is true – ethical principles exist internal to agents which is why agents all operate under their own index of the good. That justifies the framework – intuitions are the only internal guide to action. Markovitz

[Markovits 14, Markovits, Julia. Moral reason. https://philpapers.org/rec/ROCJMM Oxford University Press, 2014.//Scopa] SHS ZS

Relatedly, internalism about reasons seems less presumptive than externalism. **We should not assume** that **some of us have** special **epistemic access to what matters**, **especially in the absence of any criterion for making such a judgment**. **It’s better to start from the assumption**, as internalism does, **that everyone’s ends are equally worthy of pursuit** – **and correct this assumption** only **by appealing to standards that are** as **uncontroversial** as possible. **According to externalism** about reasons, **what matters normatively** – that is, what we have reason to do or pursue or protect or respect or promote – **does not depend in** any fundamental way on **what** in fact **matters to us** – that is, what we do do and pursue and protect and respect and promote. **Some of us happen to be motivated by what actually matters**, **and some** of us **are “wrongly” motivated**. **But externalists** can **offer no explanation for this supposed difference** in how well we respond to reasons – **no explanation of why some of us have the right motivations and some of us the wrong ones** – **that doesn’t** itself **appeal to the views about what matters** that they’re trying to justify. (They can explain why some people have the right motivations by saying, e.g., that they’re good people, but that assumes the truth of the normative views that are at issue.22) **A comparison to the epistemic case** helps **bring out what is unsatisfactory** in the externalist position. **We sometimes attribute greater epistemic powers to some people than** to **others** **despite not being able to explain why they’re more likely to be right** in their beliefs about a certain topic. **Chicken-sexing is a popular example** of this among philosophers. **We think some people are more likely to form true beliefs about the sex of chickens than others even though we can’t explain why they are better at judging the sex of chickens.** But in the case of chicken-sexing, **we have independent means of determining the truth, and so we have independent verification that chicken-sexers usually get things right**. **Externalism seems to tell[s] us that some of us are better reasons- sensors than others**, but **without providing the independent means of determining** which of us are in fact more reliably motivated by genuine normative reasons (or even that some of us are).

[5] Theoretically prefer intuitions – 1. Critical thinking – Intuitions merely require the use of arguments for initial intellectual appearances which forces debaters to actually engage in the process of the framework as they think of how to respond to it, proves strongest IL to phil ed 2. Small schools – It only requires analytic arguments which prevents an advantage for large programs 3. Ground – All other frameworks substantively provide an advantage to either side but you can argue anything can be intuitive and weigh between consequences and intents which means its most reciprocal and allows for the maximum amount of ground.

#### Impact calc: There is a distinction between procedural and substantive intuitions – procedural always comes first since A. Internal link – If it’s impossible to engage in the framework it’s impossible to generate a substantive ethical conclusion from it B. Magnitude – Being incapable of generating ethical principles is an intrinsic wrong that infinitely violates all the ethical decisions you would have made under the framework. Winning that substantive intuition is incoherent affirms since it’s impossible to condemn any particular intuition which makes the aff a legitimate one.

## Offense (2:15)

### Background (0:25)

#### I defend the resolution, Resolved: States ought to ban lethal autonomous weapons.

#### LAWs defined by CRS.

[Congressional Research Service. “Defense Primer: U.S. Policy on Lethal Autonomous Weapon Systems.” Published 25 June 2020] SHS ZS

#### Lethal autonomous weapon systems (LAWS) are a special class of weapon systems that use sensor suites and computer algorithms to independently identify a target and employ an onboard weapon system to engage and destroy the target without manual human control of the system. Although these systems generally do not yet exist, it is believed they would enable military operations

#### The plan allows for a legally binding treaty that prevents arms racing. Docherty 20.

[Bonnie Docherty, senior researcher in the Arms Division at Human Rights Watch, is an expert on arms and the protection of civilians during armed conflicts, “The Need for and Elements of a New Treaty on Fully Autonomous Weapons”, https://www.hrw.org/news/2020/06/01/need-and-elements-new-treaty-fully-autonomous-weapons, 2020|NK] SHS ZS

The Need for a Legally Binding Instrument **The unacceptable risks posed by fully autonomous weapons necessitate** creation of **a new legally binding instrument**. It could take[s] **the form of a stand-alone treaty or a protocol to the Convention on Conventional Weapons**. Existing international law, including international humanitarian law, is insufficient in this context because its fundamental rules were designed to be implemented by humans not machines. At the time states negotiated the additional protocols to the Geneva Conventions, they could not have envisioned full autonomy in technology. Therefore, while CCW states parties have agreed that international humanitarian law applies to this new technology, there are debates about how it does.[12] **A new treaty would clarify and strengthen existing international humanitarian law.** It would **establish clear international rules to address the specific problem of weapons systems that operate outside of meaningful human control**. In so doing, **the instrument would** fill the legal gap highlighted by the Martens Clause, help **eliminate disputes about interpretation**, **promote consistency of interpretation and implementation, and facilitate compliance and enforcement**.[13] The treaty could also go beyond the scope of current international humanitarian law. While the relevant provisions of international humanitarian law focus on the use of weapons, **a new treaty could address development**, **production, and use**. In addition, **it could apply to the use of fully autonomous weapons in both law enforcement operations as well as situations of armed conflict**.[14] A legally binding instrument is preferable to the “normative and operational framework” that the CCW states parties agreed to develop in 2020 and 2021.[15] The phrase “normative and operational framework” is intentionally vague, and thus has created uncertainty about what states should be working toward. While the term could encompass a legally binding CCW protocol, **it could also refer to political commitments or voluntary best practices**, which would be not be enough to preempt what has been called the “third revolution in warfare.”[16] Whether adopted under the auspices of CCW or in another forum, **a legally binding instrument would bind states parties to clear obligations.** Past experience shows that **the stigma it would create could also influence states not party and non-state armed groups**. The Elements of a New Treaty CCW states parties have discussed the problems of fully autonomous weapons and the adequacy of international humanitarian law since 2014. It is now time to move forward and determine the specifics of an effective response. This chapter will lay out key elements of a proposed treaty, which were drafted by the International Human Rights Clinic at Harvard Law School and adopted by the Campaign to Stop Killer Robots in 2019.[17] The proposal outlined below does not constitute specific treaty language. **States will determine the details of content and language over the course of formal negotiations**. Instead, the proposal highlights elements that a final treaty should contain in order to effectively address concerns that many states, international organizations, and civil society have identified. The elements include the treaty’s scope, the underlying concept of meaningful human control, and core obligations. Scope The proposal for a new treaty recommends a broad scope of application. **The treaty should apply to any weapon system that selects and engages targets based on sensor processing**, **rather than human input**.[18] The breadth of scope aims to ensure that **all systems in that category—whether current or future—are assessed**, and that problematic systems do not escape regulation. The prohibitions and restrictions, which are detailed below, however, are future looking and focus on fully autonomous weapons. Meaningful Human Control **The concept of meaningful human control** is crucial to the new treaty because the moral, legal, and accountability problems associated with fully autonomous weapons are largely attributable to the lack of such control.[19] Recognizing these risks, most states have embraced the principle that humans must play a role in the use of force.[20] While they have used different terminology, many states and experts prefer the term “meaningful human control.” “Control” is stronger than alternatives such as “intervention” and “judgment” and is broad enough to encompass both of them; it is also a familiar concept in international law.[21] “Meaningful” ensures that control rises to a significant level.[22] States, international organizations, nongovernmental organizations, and independent experts have identified numerous components of meaningful human control.[23] This chapter distills those components into three categories: Decision-making components give humans the information and ability to make decisions about whether the use of force complies with law and ethics. For example, a human operator should have: an understanding of the operational environment; an understanding of how the system functions, such as what it might identify as target; and sufficient time for deliberation. Technological components are embedded features of a weapon system that enhance meaningful human control. Technological components include, for example, predictability and reliability, the ability of the system to relay information to a human operator, and the ability of a human to intervene after activation of the system. Operational components limit when and where a weapon system can operate and what it can target. Factors that could be constrained include the time between a human’s legal assessment and a system’s application of force, the duration of a system’s operation, and the nature and size of the geographic area of operation.[24] None of these components are independently sufficient, but they each increase the meaningfulness of control, and they often work in tandem. The above list may not be exhaustive; further analysis of existing and emerging technologies may reveal others. Regardless, **a new legally binding instrument should incorporate such components as prerequisites for meaningful human control**. Core Obligations The heart of a legally binding instrument on fully autonomous weapons should consist of a general obligation combined with prohibitions and positive obligations.[25] **General Obligation The treaty should include a general obligation for states to maintain meaningful human control over the use of force.** This obligation establishes a principle to guide interpretation of the rest of the treaty. Its generality is designed **to avoid loopholes that could arise in the other, more specific obligations**. The focus on conduct (“use of force”) rather than specific technology future proofs the treaty’s obligations because it is impossible to envision all technology that could prove problematic. The reference to use of force also allows for application to both situations of armed conflict and law enforcement operations. Prohibitions The second category of obligations is prohibitions on weapons systems that select and engage targets and by their nature—rather than by the manner of their use—pose fundamental moral or legal problems. **The new treaty should prohibit the development, production, and use of systems that are inherently unacceptable.** The clarity of such **prohibitions facilitates monitoring, compliance, and enforcement**. Their absolute nature increases stigma, which can in turn influence states not party and non-state actors. **The proposed treaty contains two subcategories of prohibitions**. First, the prohibitions cover systems that always select and engage targets without meaningful human control. **Such systems might operate, for example, through machine learning and thus be too complex for humans to understand and control**. **Second, the prohibitions could extend to other systems that select and engage targets and are by their nature problematic:** specifically, systems that use certain types of data—such as weight, heat, or sound—to represent people, regardless of whether they are combatants. Killing or injuring humans based on such data would undermine human dignity and dehumanize violence. In addition, whether by design or due to algorithmic bias, they may rely on discriminatory indicators to choose targets.[26] Positive Obligations The third category of obligations encompasses positive obligations to ensure meaningful human control is maintained over all other systems that select and engage targets. These systems may not be prohibited under the treaty as inherently problematic, but they might have the potential to be used without meaningful human control. The positive obligations apply to all systems that select and engage targets based on sensor processing, and they establish requirements to ensure that human control over these systems is meaningful. The components of meaningful human control discussed above can help determine the criteria necessary to ensure systems are used only with such control.

### Contention 1 is Intuitions (0:50)

#### [1] LAWs cannot have moral intuitions which makes it impossible for them to make ethical decisions – that’s a procedural violation of the framework. IHRC 14.

[International Human Rights Clinic, “Advancing the Debate on Killer Robots: 12 key arguments for a preemptive ban on fully autonomous weapons”, 2014, <https://www.hrw.org/sites/default/files/related_material/Advancing%20the%20Debate_8May2014_Final.pdf>, LHP AM] SHS ZS

#### Critics argue that fully autonomous weapons’ lack of human emotions could have military and humanitarian benefits. The weapons would be immune from factors, such as fear, anger, pain, and hunger, that can cloud judgment, distract humans from their military missions, or lead to attacks on civilians.25 While such observations have some merit, the role in warfare of other human emotions can in fact advance humanitarian protection in armed conflict. Humans possess empathy and compassion and are generally reluctant to take the life of another human. A retired US Army Ranger who has done extensive research on killing during war has 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.”26 Another author writes, One of the greatest restraints for the cruelty in war has always been the natural inhibition of humans not to kill or hurt fellow human beings. The natural inhibition is, in fact, so strong that most people would rather die than kill somebody.27 Studies of soldiers’ conduct in past conflicts provide evidence to support these conclusions.28 Human emotions are thus an important inhibitor to killing people unlawfully or needlessly. Studies have focused largely on troops’ reluctance to kill enemy combatants, but it is reasonable to assume that soldiers feel even greater reluctance to kill the bystanders of war, including civilians or those hors de combat, such as surrendering or wounded soldiers. Fully autonomous weapons, unlike humans, would lack such emotional and moral inhibitions, which, while not required by international law, help protect individuals who are not lawful targets in an armed conflict. One expert writes, “Taking away the inhibition to kill by using robots for the job could weaken the most powerful psychological and ethical restraint in war. War would be inhumanely efficient and would no longer be constrained by the natural urge of soldiers not to kill.”29 Due to their lack of emotion, fully autonomous weapons could be the perfect tools for leaders who seek to oppress their own people or to attack civilians in enemy countries. Even the most hardened troops can eventually turn on their leader if ordered to fire on their own people or to commit war crimes. An abusive leader who can resort to fully autonomous weapons would be free of the fear that armed forces would resist being deployed against certain targets. For all the reasons outlined above, rather than being understood as irrational influences and obstacles to reason, emotions should instead be viewed as central to restraint in war.

#### [2] The best experts on LAWs have a strong intuition that a ban is a good idea. **Gibbs 17,** Samuel Gibbs, 8-1-2017, "Elon Musk leads 116 experts calling for outright ban of killer robots," Guardian, <https://www.theguardian.com/technology/2017/aug/20/elon-musk-killer-robots-experts-outright-ban-lethal-autonomous-weapons-war> Some of the world’s leading robotics and artificial intelligence pioneers are calling on the [United Nations](https://www.theguardian.com/world/unitednations) to ban the development and use of killer robots. Tesla’s [Elon Musk](https://www.theguardian.com/technology/elon-musk) and Alphabet’s Mustafa Suleyman are leading a group of 116 specialists from across 26 countries who are calling for the ban on autonomous weapons. The UN recently voted to begin formal discussions on such weapons which include drones, tanks and automated machine guns. Ahead of this, the group of founders of AI and robotics companies have sent an open letter to the UN calling for it to prevent the arms race that is currently under way for killer robots. In their letter, the founders warn the review conference of the convention on conventional weapons that this arms race threatens to usher in the “third revolution in warfare” after gunpowder and nuclear arms. The founders wrote: “Once developed, lethal autonomous weapons will permit armed conflict to be fought at a scale greater than ever, and at timescales faster than humans can comprehend. These can be weapons of terror, weapons that despots and terrorists use against innocent populations, and weapons hacked to behave in undesirable ways. “We do not have long to act. Once this Pandora’s box is opened, it will be hard to close.” [Facebook](https://www.facebook.com/dialog/share?app_id=180444840287&href=https%3A%2F%2Fwww.theguardian.com%2Fcommentisfree%2Fvideo%2F2016%2Fmar%2F16%2Fartificial-intelligence-we-should-be-more-afraid-of-computers-than-we-are-video&picture=)[Twitter](https://twitter.com/intent/tweet?text=We%20should%20be%20more%20afraid%20of%20computers%20than%20we%20are%20%E2%80%93%20video&url=https%3A%2F%2Fwww.theguardian.com%2Fcommentisfree%2Fvideo%2F2016%2Fmar%2F16%2Fartificial-intelligence-we-should-be-more-afraid-of-computers-than-we-are-video)[Pinterest](http://www.pinterest.com/pin/create/button/?description=We%20should%20be%20more%20afraid%20of%20computers%20than%20we%20are%20%E2%80%93%20video&url=https%3A%2F%2Fwww.theguardian.com%2Fcommentisfree%2Fvideo%2F2016%2Fmar%2F16%2Fartificial-intelligence-we-should-be-more-afraid-of-computers-than-we-are-video&media=) [In My Opinion: we should be more afraid of computers than we are](https://www.theguardian.com/commentisfree/video/2016/mar/16/artificial-intelligence-we-should-be-more-afraid-of-computers-than-we-are-video) Experts have previously warned that AI technology has reached a point where the deployment of autonomous weapons is feasible within years, rather than decades. While AI can be used to make the battlefield a safer place for military personnel, experts fear that offensive weapons that operate on their own would lower the threshold of going to battle and result in greater loss of human life. The letter, launching at the opening of the International Joint Conference on Artificial Intelligence (IJCAI) in Melbourne on Monday, has the backing of high-profile figures in the robotics field and strongly stresses the need for urgent action, after the UN was forced to delay a meeting that was due to start Monday to review the issue. The founders call for “morally wrong” lethal autonomous weapons systems to be added to the list of weapons banned under the UN’s convention on certain conventional weapons (CCW) brought into force in 1983, which includes chemical and intentionally blinding laser weapons. Toby Walsh, Scientia professor of artificial intelligence at the University of New South Wales in Sydney, said: “Nearly every technology can be used for good and bad, and artificial intelligence is no different. It can help tackle many of the pressing problems facing society today: inequality and poverty, the challenges posed by climate change and the ongoing global financial crisis. “However, the same technology can also be used in autonomous weapons to industrialise war. We need to make decisions today choosing which of these futures we want.” Musk, one of the signatories of the open letter, has repeatedly warned for the need for [pro-active regulation of AI](https://www.theguardian.com/technology/2017/jul/17/elon-musk-regulation-ai-combat-existential-threat-tesla-spacex-ceo), calling it humanity’s [biggest existential threat](https://www.theguardian.com/technology/2014/oct/27/elon-musk-artificial-intelligence-ai-biggest-existential-threat), but while AI’s destructive potential is considered by some to be vast it is also thought be distant. Ryan Gariepy, the founder of Clearpath Robotics said: “Unlike other potential manifestations of AI which still remain in the realm of science fiction, autonomous weapons systems are on the cusp of development right now and have a very real potential to cause significant harm to innocent people along with global instability.” This is not the first time the IJCAI, one of the world’s leading AI conferences, has been used as a platform to discuss lethal autonomous weapons systems. Two years ago the conference was used to [launch an open letter](https://www.theguardian.com/technology/2015/jul/27/musk-wozniak-hawking-ban-ai-autonomous-weapons) signed by thousands of AI and robotics researchers including Musk and Stephen Hawking similarly calling for a ban, which helped push the UN into formal talks on the technologies. The UK government [opposed such a ban on lethal autonomous weapons in 2015](https://www.theguardian.com/politics/2015/apr/13/uk-opposes-international-ban-on-developing-killer-robots), with the Foreign Office stating that “international humanitarian law already provides sufficient regulation for this area”. It said that the UK was not developing lethal autonomous weapons and that all weapons employed by UK armed forces would be “under human oversight and control”.

[3] Neuroscience proves we intuitively avoid violence. Alex 05, Mind Hacks. 2021. *Are we designed for violence?*. [online] Available at: <https://mindhacks.com/2005/05/27/are-we-designed-for-violence/>. //Scopa Anyone doubting that treating other people as more than instruments is founded in the brain would do well to look into developments in the study of self‚ Äìother mapping. This has provided stronger and stronger evidence that these relationships are hardwired into us, strikingly with the discovery of mirror neurons that fire in the same way for events that occur to you or to those you observe (Gallese and Goldman 1998). Many argue that empathy is an outcome of these representations (see e.g. Frith and Frith 1999). And recent research demonstrates appreciating someone else’s pain activates many of the same areas as experiencing it (Jackson, Meltzoff, & Decety 2004): good evidence for a VIM-like mechanism, and certainly a rebuttal to those who think our withdrawal from violence is unnatural. By making psychopaths into poster-boys for innate violence, we risk ignoring crucial aspects of their behaviour. The patients investigated by Blair and Cipolotti were reported as socially inappropriate in a variety of ways, and recent imaging work suggests that the areas crucial for regulating and preventing aggression also keep us within the bounds of socially acceptable behaviour (Berthoz, Armony, Blair, & Dolan, 2002). Rehabilitation would require addressing that big picture. Designed for violence? Really, the strongest conclusion that this work can give is that we sometimes are violent when it’s in our interests. We are not innately disposed to violence, or even indifferent to violence, we are neurologically bound away from violence. This understanding gives us a solid basis for treatment, and an honest beginning from which to address the continuing problem of violence in society.

We associate LAWs with violence.

**Carpenter 14,** Charli. “Who's afraid of killer robots? (and why).” *Washington Post*, **2014**, [*https://www.washingtonpost.com/news/monkey-cage/wp/2014/05/30/whos-afraid-of-killer-robots-and-why*.] Accessed 2/12/21 AHS//NPR I attended the conference as a consultant to a humanitarian disarmament NGO associated with the global coalition, Article36, to present remarks at a side event. As a social scientist, my goal was not to take a position in the debate about the value of the Martens Clause. Rather, I argued the to the extent it was said to be relevant, the “public conscience” could and should be operationalized and measured empirically – and that extent to which the public conscience is driven by “principles of humanity” could and should be treated as a testable hypothesis. To that end, I presented polling data collected last year as part of YouGov’s Omnibus survey. One thousand Americans were asked their opinions on the potential deployment of autonomous weapons. They were asked whether they would support such policy on a five-point scale. They were also asked to explain their answers in open-ended comments. As I described at the Experts’ Conference and have previously noted at Open Democracy, a majority of Americans across the political spectrum oppose such weapons, with “strong opposition” the largest single category. Many are unsure, but those who are unsure favor a precautionary principle against such technology. Both women and men are likely to oppose autonomous weapons, though women are likelier than men to say they don’t know what they think. Opposition to autonomous weapons is predicted by age, education and interest in news and public affairs. Members of the military and veterans, as well as their families, oppose autonomous weapons to an even greater extent than the US civilian population (though families of active duty service-persons are more likely to support autonomous weapons than are the service-personnel themselves). However, the most interesting part of the survey results for the Martens Clause debate is not the descriptive statistics but rather the open-ended comments. In short, on what basis did respondents support or oppose autonomous weapons? What moral principles, if any, underlay arguments for and against such weapons? In short, to what extent did the “dictates of the public conscience” rest on the “principles of humanity” rather than on self-interest, hyped up fears of a robot uprising, or other pedestrian concerns? And is principled reasoning equally distributed between supporters and opponents of such technology? The first item of note is that while both camps prioritize saving lives, humanitarian thinking per se is largely absent from explanations for opinions in favor of autonomous weapons. Rather, proponents of such weapons unflaggingly invoke national self-interest: the need to protect “our troops” from harm or “our national security” from robot arms races – arguments invoked as well by analysts and lawyers advocating such weapons. Only a small proportion of AWS proponents surveyed qualify this statement with concern for foreign civilians. And there is almost no sense among the U.S. public that autonomous weapons might actually be a viable means of reducing war crimes against foreign civilians – though this is a moral argument made by some proponents of AWS and, according to Zack Beauchamp, perhaps the most important question in the debate. Most arguments in favor of AWS by American voters are interest-based arguments based on the hope of saving American lives (though notably active-duty personnel in the survey did not agree with this thinking). Some opponents of autonomous weapons also make practical arguments based on self-interest or national security. For example they are worried about terrorists hacking into such weapons, the possibility that technology would malfunction or backfire, or the potential for them to be used against Americans by a future tyrannical government. A very small number also cite dystopian fears of a robot uprising. But the vast majority cite a range of complex and nuanced moral and humanitarian concerns as reasons to avoid outsourcing kill decisions to machines even if it were in states’ short-term self-interest. Three of the four most common tags for open-ended comments opposing autonomous weapons were “humanity,” “moral conscience,” “civilians.” Respondents opposing AWS repeatedly stated the principle that “a human must remain in the loop.” For example: “Humans can make decisions and think critically. Robots can’t understand what they’re doing.” “When human lives are in the cross-fire, people should never be taken out of the decision-making loop.” “The problems that arise require human reasoning.” The kind of “human nationalism” evident in these comments echoes campaigners’ narrative that human judgment is uniquely suited to making ethical decisions and that on principle these decisions should not be outsourced to machines. It also resonates with the global coalition’ emphasis on the concept of “meaningful human control.” According to respondents, the key human quality machines would presumably lack would be a moral conscience. Respondents repeatedly characterized judgment, empathy and moral reasoning as uniquely human traits. For example: “Killing should be subject to conscience which is an attribute machines lack.” “I do not believe in removing empathy or moral action in conflicts. A person knows they are hurting others.” “Robots cannot make moral decisions. Once in combat, robots will only make decisions based on what will promote victory. Sometimes in war it is better to lose ground but save one’s soul.” Like AWS proponents, critics of such technologies were concerned about the loss of life, but rather than focusing on protecting U.S. soldiers they focused on the potential harm to foreign non-combatants. This exemplifies the fears of NGOs that autonomous weapons could not comply with principles of discrimination and proportionality and could pose a risk to civilians. There is no evidence that Americans believe the reverse argument: that autonomous weapons might reduce war crimes by eliminating negative human emotions from the battlefield. Another key concern is moral accountability. One respondent wrote: “I feel that removing the human element is wrong. If you can’t have a person on the other end watching the damage and destruction you are basically washing your hands of the pain that you are causing real people.” Finally, a portion of responses evidenced what Professor Peter Asaro called in his remarks at the United Nations the “ugh factor”: a visceral sense that such a policy would be “just wrong.” This set of comments would seem to be indicators of what treaty drafters meant by a sense that the public conscience might be “shocked” at an idea. Many people stated that you “can’t trust machines.” Others expressed a sense of fear, terror, disgust or alarm at the idea. “The whole concept is terrifying.” Another said: “It’s creepy and inhumane.” “It’s sick.”

### Contention 2 is Arms Racing (1:00)

#### U.S.-Russia tensions have hit rock bottom – Biden admin contributing to instability. Wijayadassa 3/23/21.

[Wijayadassa, Somar. “The US-Russia Relations Hit Rock Bottom.” In Depth News. https://www.indepthnews.net/index.php/the-world/russia/4320-the-us-russia-relations-hit-rock-bottom Published 23 March 2021.] SHS ZS

NEW YORK (IDN) — **The United States-Russia relations** that flourished for decades—even during the Cold War—and benefited both parties **have irreversibly damaged**. Tensions between the two superpowers escalated over allegations that range from the **Russian interference in US elections**, the **SolarWinds cyberattacks**, and **Washington's demands** that **Russia free** the jailed Kremlin critic Alexei **Navalny**. Russia vehemently denies all allegations and admonishes the US that Navalny’s case is purely an internal matter. The current diplomatic crisis arose when a journalist asked US President Joe **Biden** if he **believes** Russia’s President Vladimir **Putin**, who has been accused of ordering the poisoning of Navalny and other political opponents, **is a “killer**”. Biden said: “I do.” Russia promptly recalled its ambassador to the US for "consultations" to determine how to move forward with relations with the US. **Putin swiftly responded**, “**It takes one to know one**” arguing that judging other countries is often “like looking in a mirror”. Saying that the US was a murderous state with a list of shameful chapters in its history Putin argued that Biden’s remarks about him reflect the US’s own past and current problems—and pointed at America's past history of slaughtering Native Americans and slavery to the atomic bombs dropped on Hiroshima and Nagasaki that killed over 350,000 innocent people. “**Otherwise where would** the **Black Lives Matter** movement **come from,” he said**. Putin challenged Biden to a televised debate live online saying: “It seems to me that would be interesting for the people of Russia and for the people of the United States”. Many of **Russia’s leaders swiftly condemned Biden** for insulting Putin and for Biden’s reluctance to call Saudi prince Mohammed bin Salman “a killer” - for ordering to kill and dismember journalist Jamal Khashoggi. In 2017, a journalist posed the same question to then-President Donald Trump asking about Putin being a “killer”. Trump diplomatically responded, “There are a lot of killers”. What, do you think our country’s so innocent? Matters of mutual interest During the interview that sparked this controversy, Biden said that despite his thoughts about the Russian leader "there are places where it's in our mutual interest to work together”. “That's why I renewed the START agreement with him,” Biden said of the nuclear treaty. **Putin responded that Washington is “determined” to have a relationship** with Moscow, but **only on “issues that are of** **interest to the United States** itself”. Saying that the US will have to deal with a Moscow that will fight for and stand up for its own interests, Putin said “The US will have to reckon with this, despite their attempts to stop our development via sanctions and insults”. History speaks otherwise Diplomatic relations between the US and Russia were formally established in 1809 though relations were interrupted following the 1917 Russian Revolution until 1933. As the American Civil War unfolded in 1861, Tsar Alexander II pledged in a letter to President Abraham Lincoln that Russia supported the “maintenance of the American Union as one indivisible nation”. During the Russian Famine (1891-1893) Americans sent aid to Russia. Franklin Roosevelt recognized the Union of Soviet Socialist Republics (USSR) in 1933. In 1941, Stalin (USSR) joined the Atlantic Charter (the anti-Hitler coalition) proposed by Churchill and Roosevelt; that was followed by the Crimean agreements in Yalta (the “troika” of leaders—Stalin, Roosevelt, Churchill) on the creation of the UN in 1945 and the post-war structure of the world. In 1962, the Cuban Missile Crisis was resolved thanks to the cool-headed diplomacy of Presidents Nikita Khrushchev and John Kennedy. In 1967, US President Dwight Eisenhower and Khrushchev signed the Outer Space Treaty prohibiting the militarization of outer space. These leaders did not think of one-upmanship but had a heart for doing good for all mankind. Unparalleled bilateral collaboration Even during the hostile Cold War era, the two countries engaged in many noteworthy projects on global issues, scientific advancements, and to promote foreign investment and trade—that were mutually beneficial to both nations. At that time, the Soviet Union was a proud nation with a thriving economy, marvels of industrialization, advances in science, technology and medicine, escapades into outer space (ahead of the United States), and basking in the glory of a Superpower. For example: US-Soviet efforts in the Limited Test-Ban Treaty (1963); the Strategic Arms Limitation Treaty and the Anti-Ballistic Missile Treaty (1972), the Biological Weapons Convention (1972), the Helsinki Accords on cooperation and security in Europe (1975); the joint Apollo-Soyuz project in orbit (1975); the Intermediate-Range Nuclear Forces Treaty (INF) (1987); the first joint US-Russia space shuttle mission (1994); the US space shuttle Atlantis docked with Russian space station Mir in outer space forming the largest spacecraft ever in orbit (1995); and the two countries reduced their nuclear weapons from 70,000 warheads to current 13,800. These momentous endeavours facilitated cultural, sports, scientific, and educational exchanges that kept the lines of communication open. In 2015, referring to the Iran Nuclear Deal, former President Barak Obama stated at the UN General Assembly “how international cooperation —including with Russia—was key in leading to a lasting, comprehensive deal with Tehran on its nuclear program”. That crowning diplomatic achievement—though abrogated by Trump—would not have been achieved without the support of President Putin. The downward spiral Russia’s humiliating era of Presidents Mikhail Gorbachev and Boris Yeltsin—with Ronald Reagan’s resonating phrases “tear down that Berlin Wall”, “dismantle the evil empire”—ended with the dissolution of the Soviet Union. When Boris Yeltsin came to power in 1991, the US and Europe had high hopes of getting their fingers inside Russia. With tens of billions of dollars in economic assistance from the IMF, World Bank, and other donors, the US sent political and economic advisers to work with Yeltsin’s officials in the nascent private sector to promote democracy and a market economy. That miserably failed ending in absolute chaos, enriching a few and impoverishing many—a colossal financial loss, embarrassment and disappointment for the US. Vladimir Putin came to power in 2000 inheriting a run-down military, a literally bankrupt Russia in a deep recession and in absolute disarray. It was so chaotic that Gorbachev admitted that **Putin inherited “political chaos,** military chaos, chaos every-where”. A disgraced Russia was in shambles. **Putin single-handedly developed the economy with new industries** and investments; revitalized its devastated military, decreased poverty by boosting agricultural production and construction; and increased workers' salaries and granted better pensions to poor pensioners who silently suffered for decades. Russia soon realized that foreign-funded NGO’s were fomenting subversion of domestic politics. In 2008, Putin ousted several foreign NGO’s including USAID and adopted new NGO legislation saying “I object categorically to foreign funding of political activity in the Russian Federation … not a single self-respecting country allows that and neither will we”. Obviously, these actions did not go well with the US. As an avid observer of Russian politics and a frequent visitor to Russia since 1962, I am confident that the **US-Russia relations began to sour when the US and EU realized that Putin cannot be manipulated.** Putin abhors orders, especially if the West's demands are contrary to the best interests of Russia. Over the years, Putin has reiterated: "US prefers diktat rather than dialogue”, “America does not need allies, it needs vassals”. Therein lies the problem. Frustrated with Putin's inflexible steadfastness, the West began to demonize him. In the aftermath of the Ukrainian crisis in 2014, the US and the European Union imposed a barrage of sanctions targeting Russia's defence, intelligence, mining, shipping and railway industries, and restricting dealings with Russian banks and energy companies. Historically, **sanctions**—often used as an ulterior motive for “regime change”—**have brought disastrous consequences**. Such a devious practice has nothing to do with protecting human rights and promoting democracy and freedom. In most countries, sanctions deteriorated their economic, social and healthcare systems while those in power thrived and the poor suffered. If the anti-Russia sanctions intended to destabilize the Russian economy hoping the Russians would revolt and cause a regime change, then it was a gross miscalculation of the will power of the Russian people. Russians are educated, disciplined and knowledgeable and above all, they love Russia. Russians don't need an external influence to make decisions. **Russians have voted for Putin over and over again** for the significant improvements he made in uplifting the living standards of Russians, re-establishing its military might, for protecting Russia’s sovereignty, and for reclaiming Russia’s recognition and respect as a world power. Make no mistake: Putin would not change his foreign policy to please the United States or Western countries. He advocates a multi-polar world and a bigger role of the United Nations to enhance global security. He has often said “we do not want confrontation: we want to engage in dialogue but a dialogue that acknowledges the equality of both parties’ interests”. This could be the premise for the United States and the European Union to stop demonizing Russia other, establish better relations with Russia, and strike the right balance between cooperation and competition. [IDN-InDepthNews – 23 March 2021]

#### LAWs increase threat of nuclear retaliation – four warrants. Laird 20.

Decrease time for decision-making creating fear of attacks, prevent leaders from handling crises in time, incentivize Russia to retaliate with nukes while it has chance, and causes automatic escalation.

[Laird, Burgess. “The Risks of Autonomous Weapons Systems for Crisis Stability and Conflict Escalation in Future U.S.-Russia Confrontations.” The Rand Blog. <https://www.rand.org/blog/2020/06/the-risks-of-autonomous-weapons-systems-for-crisis.html>. Published 3 June 2020] SHS ZS

Motivations and General Aims Driving AWS Development Efforts **The Pentagon views AI** and robotics, along with several other emerging technologies including hypersonics and directed-energy, **as key to offsetting** the anti-access and area-denial **capabilities** and concepts developed **by China and Russia** over the past two decades, thereby **regaining** and sustaining **U.S. conventional deterrence** overmatch. Meanwhile, **China's** People's Liberation Army **anticipates** that **AI could** [**fundamentally change the character of warfare**](https://www.cnas.org/publications/reports/battlefield-singularity-artificial-intelligence-military-revolution-and-chinas-future-military-power) even as it fears the emergence of a generational gap between its capabilities and that of the U.S. military. **It** thus **seeks to develop AI** and other “strategic front-line” **technologies** **in** future military **competition with the United States**. Nominally at least, **Russia's vision** regarding the aims of exploiting AI for military purposes **are not dissimilar** from those of the United States and China. It [supports research (PDF)](https://fas.org/sgp/crs/natsec/R45178.pdf) in a number of AI application areas; in just the past three years**, the Kremlin has declared its intent to establish** six **new national initiatives dedicated to AI research** and development, including the Advanced Research Foundation (ARF), Russia's analogue to the U.S. Defense Department's Defense Advanced Research Projects Agency (DARPA). As recently as April 21, [ARF's deputy director boasted](https://www.forbes.com/sites/kelseyatherton/2020/04/30/robots-will-replace-soldiers-in-combat-says-russia/#296e2ef03c71) to RIA Novosti that as a result of the foundation's research, “Living fighters will gradually begin to be replaced by their robotic 'brothers' who can act faster, more accurately and more selectively than people.” Despite what Putin's bold assertion might otherwise seem to suggest, Western experts [generally agree](https://www.sipri.org/publications/2017/other-publications/mapping-development-autonomy-weapon-systems) that Russian AI development significantly lags behind that of the United States and China. However, in stark contrast to U.S. AWS development efforts, if only marginally less so than China's, **Russia places great emphasis on the development of AI for information warfare** aimed, as a [recent comprehensive report](https://www.rand.org/pubs/research_reports/RR2713.html) by my RAND colleagues documents, at causing political and societal damage to the target state. As argued below, instead of seeking to gain military operational advantages by competing to match U.S. AWS developments, Russia is much more likely to emphasize and invest in two other military capability areas. Operational Advantages of AWS U.S. **military planners believe AWS** promise to **provide a number of significant operational advantages on the future battlefield**. Less dependent on human control and decisionmaking, **AWS are anticipated to be** far **faster and more agile than today's manned weapons systems** undertaking thousands of complex and highly coordinated decisions at machine speeds. Today's remotely piloted drones [rely on communications links](https://www.rand.org/pubs/research_reports/RR626.html) to distant command and control and information analysis centers, which can result in inevitable communications delays and leave them vulnerable to jamming or denial through electronic warfare techniques. **AWS**, on the other hand, **will be designed to operate on their own**, if necessary, [in such information contested environments (PDF)](https://www.airuniversity.af.edu/Portals/10/SSQ/documents/Volume-12_Issue-1/Leys.pdf), **conferring degrees of stealth**, **decisional agility**, **persistence and survivability** not enjoyed since the earliest days of stealth aircraft, if then. **AWS are expected to operate in large** **swarms** comprising hundreds, or even thousands **of** small, relatively **low-cost and expendable vehicles with networked sensors and on-board computing**. Fighting in swarms, AWS hold the promise, as [Paul Scharre notes](https://www.amazon.com/Army-None-Autonomous-Weapons-Future/dp/0393608980), of effectively returning mass to the battlefield as they will be capable of rapidly and autonomously coordinating their own tactical movement in response to enemy actions. As a consequence, **AWS are expected to provide the capability of synchronized attack or defense** that enables one to fight inside the enemy's decision cycle or [OODA loop](https://urldefense.proofpoint.com/v2/url?u=https-3A__www.amazon.com_Science-2DStrategy-2DWar-2DStrategic-2DHistory-2Debook_dp_B00BMU6M40&d=DwMGaQ&c=WO-RGvefibhHBZq3fL85hQ&r=xW7kRb0-CZImzPPkjM09YIrJnla_5wT7orUgNoqzFm4&m=uE8PJ_jyYrFBfCPF5zaompoFeFhEAdvdiLZ5-3_jqo4&s=QXTSeCSyzVn1AYMnojDsg7s6Lr9ccnUbKyJwb2NjUB0&e=)**,** [**overwhelming and defeating (PDF)**](https://www.files.ethz.ch/isn/184587/CNAS_TheComingSwarm_Scharre.pdf) the **enemy's abilities through mass, intelligence, coordination and speed**. In conflicts against opponents lacking similar capabilities, U.S. military planners maintain that the combination of such characteristics will provide decisive operational advantage. Finally, like today's drones, AWS will reduce the numbers of casualties and body bags in conflict. But, in contrast to current drones, AWS are expected to lead to cost savings as the frequently overlooked [need for large rotating teams (PDF)](https://fas.org/sgp/crs/natsec/R42136.pdf) of remotely located and highly trained pilots and operators would be eliminated. Such cost-savings could be substantial if realized not only from the advent of AWS, but from the diffusion of AI and autonomy to other military functions such as logistics and transportation, battlefield healthcare, cybersecurity and combat simulation and training—a benefit that would reduce the demand for personnel and could lead to smaller militaries. Russia Unlikely to Seek to Match U.S. AWS Developments The economic outlook for Russia, which remains dependent on [exports of oil and gas](https://www.russiamatters.org/node/11300) for much of its revenues, is grim at least in the short-term. [COVID-19](https://www.economist.com/briefing/2020/04/08/an-unprecedented-plunge-in-oil-demand-will-turn-the-industry-upside-down) forced Russia to agree to a deal with OPEC to significantly cut production and exports, which it initially rejected in March, and sent oil prices down in what is bound to reduce budget revenues and cause economic contraction. Russia is now forecast to experience a GDP contraction of 5.5. percent and an increase in unemployment from 2.5 million to 8 million workers this year. Moreover, continued dependence on exports of commodities whose prices Russia cannot control, [depopulation (PDF)](https://www.bruegel.org/wp-content/uploads/2020/01/Marek-Dabrowki-RUJEC-Factors-deteremining-Russias-long-term-growth-rate.pdf), and a host of other structural factors indicates that the economic outlook for Russia will remain bleak in the longer term, too, in absence of deep reforms. As a result, for the foreseeable future, Russia's federal budget is likely to be constrained. If for no other reason than that, the Kremlin will be unlikely to respond to U.S. AWS advancements by substantially increasing investments in the area, at least in comparison to two other capabilities it is more likely to prioritize well ahead of AWS as discussed immediately below. But there is yet another reason. In brief, such **symmetrical responses to capability** differences **have seldom been part of Russia's playbook** in the post–Cold War era. In this respect, it is too early to identify just where Russia may be heading in terms of the character of AWS ground, air, or naval capabilities it is likely to field, let alone to discern any associated operational concepts. The time doing so is likely to prove time misspent. Instead, **Moscow is much more likely to look to two other capability areas in search of comparative military operational advantage with respect to the United States** and NATO. First, the Kremlin can be counted upon to continue with **its customary strategy of underscoring and even increasing its reliance upon nuclear weapons both for deterrence and possibly even warfighting**, a cost-effective strategy, comparatively speaking, that Vasily Kashin and Michael Raska economically refer to as [“countering the Third Offset Strategy with the First Offset Strategy (PDF).”](https://www.rsis.edu.sg/wp-content/uploads/2017/01/PR170124_Countering-the-U.S.-Third-Offset-Strategy.pdf) In this regard**,** [**Putin's unveiling of the five nuclear “superweapons”**](https://www.nytimes.com/2018/03/01/world/europe/russia-putin-speech.html) in his March 2018 nationally televised speech to the Russian Federal Assembly **can be seen as exhibit one of this strategy**. Still, Moscow's continued reliance on nuclear weapons by no means suggests that it will be willing to cede leadership in emerging disruptive technologies entirely to the United States. In fact, **the second military capability** area Russia is likely to emphasize **is** that of **hypersonic missiles**, one of the few weapons realms, outside of nuclear weapons, in which it is building a track-record for both developing and fielding apparently functioning, sophisticated 21st century weapons systems. In just a few short years, it has developed and deployed two hypersonic missile systems, and is currently testing a third. Deployment of the Avangard hypersonic glide vehicle has [already begun](https://www.nytimes.com/2019/12/27/us/politics/russia-hypersonic-weapon.html), as Russian officials announced in late December 2019 that one missile regiment on the border with Kazakhstan was armed with the hypersonic glide vehicle. The Kh-47M2 Kinzhal air-launched ballistic missile appears slated to be deployed [by 2024](https://jamestown.org/program/russias-aerospace-forces-prepare-training-for-kinzhal-hypersonic-missiles/) by a MiG-31K regiment operating from the VKS base in the Siberian city of Kansk. While a deployment date for the 3M-22 Tsirkon anti-ship hypersonic cruise missile is still uncertain, a Russian navy frigate fired the weapon from the Barents Sea against a ground target in a [purportedly successful test](https://www.navalnews.com/naval-news/2020/02/russian-navy-test-launched-tsirkon-hypersonic-missile-for-the-1st-time/) in January of this year. Implications for Crisis Stability and Conflict Escalation in U.S.-Russia Confrontations While holding out the promise of significant operational advantages, **AWS simultaneously could increase the potential for undermining crisis stability and fueling conflict escalation** in contests **between the United States and Russia**. Defined as “the degree to which mutual deterrence between dangerous adversaries can hold in a confrontation,” as my RAND colleague [Forrest Morgan explains](https://books.google.com/books?id=RwJNAgAAQBAJ&pg=PR13&lpg=PR13&dq=the+degree+to+which+mutual+deterrence+between+dangerous+adversaries+can+hold+in+a+confrontation+forrest+morgan&source=bl&ots=oX-XHORX0L&sig=ACfU3U2GNyloEUMb3p4ALgIy0ZG0BZRNqQ&hl=en&sa=X&ved=2ahUKEwj457TypuPpAhWwoHIEHR_2BPYQ6AEwAHoECAoQAQ#v=onepage&q=the%20degree%20to%20which%20mutual%20deterrence%20between%20dangerous%20adversaries%20can%20hold%20in%20a%20confrontation%20forrest%20morgan&f=false), **crisis stability and the ways to achieve it are not about warfighting, but** about “**building and posturing forces** in ways **that allow a state, if confronted, to avoid war without backing down**” on important political or military interests. Thus, the **military capabilities developed by nuclear-armed states like the United States and Russia and how they posture** them are key determinants of whether crises between them will remain stable or devolve into conventional armed conflict, **as well as the extent to which such conflict might escalate** in intensity and scope, **including to the level of nuclear use**. **AWS could foster crisis instability and conflict escalation in contests between the United States and Russia in a number of ways**; in this short essay I will highlight only four. While holding out the promise of significant operational advantages, AWS simultaneously could increase the potential for undermining crisis stability and fueling conflict escalation. [Share on Twitter](https://twitter.com/intent/tweet?url=https%3A%2F%2Fwww.rand.org%2Fblog%2F2020%2F06%2Fthe-risks-of-autonomous-weapons-systems-for-crisis&text=While+holding+out+the+promise+of+significant+operational+advantages%2C+AWS+simultaneously+could+increase+the+potential+for+undermining+crisis+stability+and+fueling+conflict+escalation.&via=RANDCorporation) **First, a state facing an adversary with AWS** capable of making decisions at machine speeds **is likely to fear the threat of sudden and potent attack**, a threat **that would compress the amount of time for strategic decisionmaking**. **The posturing of AWS** during a crisis **would** likely **create fears that one's forces could suffer significant, if not decisive, strikes**. **These fears in turn could translate into pressures to strike first**—**to preempt**—**for fear of having to strike second from a greatly weakened position**. Similarly, within conflict, **the fear of losing at machine speeds would be likely to cause a state to escalate the intensity of the conflict possibly even to the level of nuclear use**. **Second**, **as the speed of military action** in a conflict involving the use of AWS as well as hypersonic weapons and other advanced military capabilities **begins to surpass the speed of political decisionmaking**, **leaders** could **lose the ability to manage the crisis and** with it the ability to **control escalation**. With tactical and operational action taking place at speeds driven by machines, **the time for exchanging signals and communications** and for assessing diplomatic options and offramps **will be significantly foreclosed**. However, the advantages of operating inside the OODA loop of a state adversary like Iraq or Serbia is one thing, while operating inside the OODA loop of a nuclear-armed adversary is another. As the renowned scholar [Alexander George emphasized (PDF)](https://www.tandfonline.com/doi/pdf/10.1080/00396338408442197?needAccess=true), especially in contests between nuclear armed competitors, **there is a fundamental tension between the operational effectiveness** sought by military commanders **and the requirements for political leaders to retain control of events** before major escalation takes place. **Third**, and perhaps of greatest concern to policymakers should be the likelihood that, from the vantage point of Russia's leaders, **in U.S. hands the operational advantages of AWS are** likely to be understood as an increased U.S. capability for what Georgetown professor Caitlin Talmadge refers to as [**“conventional counterforce”**](https://books.google.com/books?id=Ceo4DwAAQBAJ&pg=PA197&lpg=PA197&dq=Caitlin+Talmadge,+Too+Much+of+a+Good+Thing&source=bl&ots=t_zNkztyLE&sig=ACfU3U1o63lQ_o8tf3TF3Az9SLRELc6y7g&hl=en&sa=X&ved=2ahUKEwiC9rGc5cDpAhVOCTQIHTJiAGAQ6AEwAHoECAoQAQ#v=onepage&q=Caitlin%20Talmadge%2C%20Too%20Much%20of%20a%20Good%20Thing&f=false) **operations.** In brief, in crises and conflicts, **Moscow is likely to see the United States as confronting it with an array of advanced conventional capabilities** backstopped by an interconnected shield of theater and homeland missile defenses. **Russia will perceive such capabilities as posing both a conventional war-winning threat and a** [**conventional counterforce threat (PDF)**](https://cpb-us-e1.wpmucdn.com/blogs.gwu.edu/dist/b/1590/files/2018/07/Preventing-Nuclear-Escalation-in-U.S.%E2%80%93China-Conflict-1551hdt.pdf) poised **to degrade** the use of **its strategic nuclear forces**. The likelihood that Russia will see them this way is reinforced by the fact that it currently sees U.S. conventional precision capabilities [precisely in this manner](https://rusemb.org.uk/press/2029). As a qualitatively new capability that promises new operational advantages, **the addition of AWS to U.S. conventional capabilities could further cement Moscow's view and** in doing so **increase the potential for crisis instability and escalation in confrontations** with U.S. forces. In other words, **the fielding of U.S. AWS could augment** what Moscow already sees as a formidable **U.S. ability to threaten a range of important targets** including its command and control networks, air defenses, and early warning radars, **all of which are** unquestionably **critical components of Russian conventional forces**. In many cases, however, **they also serve as critical components of Russia's nuclear force operations**. [As Talmadge argues](https://books.google.com/books?id=Ceo4DwAAQBAJ&pg=PA197&lpg=PA197&dq=Caitlin+Talmadge,+Too+Much+of+a+Good+Thing&source=bl&ots=t_zNkztyLE&sig=ACfU3U1o63lQ_o8tf3TF3Az9SLRELc6y7g&hl=en&sa=X&ved=2ahUKEwiC9rGc5cDpAhVOCTQIHTJiAGAQ6AEwAHoECAoQAQ#v=onepage&q=Caitlin%20Talmadge%2C%20Too%20Much%20of%20a%20Good%20Thing&f=false), **attacks on such targets**, even if intended solely to weaken Russian conventional capabilities, **will** likely **raise Russian fears that the U.S. conventional campaign is in fact a counterforce campaign aimed at neutering Russia's nuclear capabilities**. Take for example, a hypothetical scenario set in the Baltics in the 2030 timeframe which finds NATO forces employing swarming AWS to suppress Russian air defense networks and key command and control nodes in Kaliningrad as part of a larger strategy of expelling a Russian invasion force. What to NATO is a logical part of a conventional campaign could well appear to Moscow as initial moves of a larger plan designed to degrade the integrated air defense and command and control networks upon which Russia's strategic nuclear arsenal relies. In turn**, such fears could feed pressures for Moscow to escalate to nuclear use while it still has the ability to do so**. Finally, even if the employment of AWS does not drive an increase in the speed and momentum of action that forecloses the time for exchanging signals, a future conflict in which AWS are ubiquitous will likely prove to be a poor venue both for signaling and interpreting signals. In such a conflict, instead of interpreting a downward modulation in an adversary's operations as a possible signal of restraint or perhaps as signaling a willingness to pause in an effort to open up space for diplomatic negotiations, **AWS programmed to exploit every tactical opportunity might read the modulation as an opportunity to escalate offensive operations and thus gain tactical advantage**. Such AWS could also misunderstand adversary attempts to signal resolve solely as adversary preparations for imminent attack. Of course**,** [**correctly interpreting**](https://books.google.com/books?id=3QlsDQAAQBAJ&printsec=frontcover#v=onepage&q&f=false) **signals sent in crisis** and conflict **is vexing enough** when humans are making all the decisions**, but in future confrontations** in which decisionmaking has willingly or unwillingly been ceded to machines, **the problem is likely only to be magnified**. Concluding Thoughts Much attention has been paid to the operational advantages to be gained from the development of AWS. By contrast, much less attention has been paid to the risks AWS potentially raise. There are times in which the fundamental tensions between the search for military effectiveness and the requirements of ensuring that crises between major nuclear weapons states remain stable and escalation does not ensue are pronounced and too consequential to ignore. The development of AWS may well be increasing the likelihood that one day the United States and Russia could find themselves in just such a time. Now, while AWS are still in their early development stages, it is worth the time of policymakers to carefully consider whether the putative operational advantages from AWS are worth the potential risks of instability and escalation they may raise.

#### Extinction. Starr 15.

[Steven Starr, xx-xx-xxxx, "Nuclear War, Nuclear Winter, and Human Extinction," Federation Of American Scientists, <https://fas.org/pir-pubs/nuclear-war-nuclear-winter-and-human-extinction/>. Published 134 October 2015.] SHS ZS

While it is impossible to precisely predict all the human impacts that would result from a nuclear winter, it is relatively simple to predict those which would be most profound. That is, **a nuclear winter would cause most humans and large animals to die from nuclear famine in a mass extinction event** similar to the one that wiped out the dinosaurs. Following the detonation (in conflict) of US and/or Russian launch-ready strategic nuclear weapons, **nuclear firestorms would burn simultaneously over a total land surface area of many thousands or tens of thousands of square miles**. These mass **fires**, many of which **would rage over large cities and industrial areas, would release many tens of millions of tons of black carbon soot and smoke** (up to [180 million tons](http://climate.envsci.rutgers.edu/pdf/ToonRobockTurcoPhysicsToday.pdf), according to peer-reviewed studies), which would rise rapidly above cloud level and into the stratosphere. [For an explanation of the calculation of smoke emissions, see [Atmospheric effects & societal consequences of regional scale nuclear conflicts](http://climate.envsci.rutgers.edu/pdf/acp-7-1973-2007.pdf).] The scientists who completed the most recent peer-reviewed studies on nuclear winter discovered that the **sunlight would heat the smoke, producing a self-lofting effect that would not only aid the rise of the smoke into the stratosphere** (above cloud level, where it could not be rained out), **but act to keep the smoke in the stratosphere for 10 years or more**. The longevity of the smoke layer would act to greatly increase the severity of its effects upon the biosphere. **Once in the stratosphere, the smoke** (predicted to be produced by a range of strategic nuclear wars) wo**uld rapidly engulf the Earth and form a** [**dense stratospheric smoke layer**](http://www.nucleardarkness.org/warconsequences/hundredfiftytonessmoke/). **The smoke from a war fought with** strategic **nuclear weapons would quickly prevent up to 70% of sunlight from reaching the surface of the Northern Hemisphere** and 35% of sunlight from reaching the surface of the Southern Hemisphere. Such an enormous loss of warming sunlight would **produce Ice Age weather conditions on Earth in a matter of weeks**. For a period of 1-3 years following the war, temperatures would fall below freezing every day in the central agricultural zones of North America and Eurasia. [For an explanation of nuclear winter, see [Nuclear winter revisited with a modern climate model and current nuclear arsenals: Still catastrophic consequences](http://climate.envsci.rutgers.edu/pdf/RobockNW2006JD008235.pdf).] **Nuclear winter would cause average global surface temperatures to become colder than they were at the height of the last Ice Age.** Such extreme cold would eliminate growing seasons for many years, probably for a decade or longer. Can you imagine a winter that lasts for ten years? The results of such a scenario are obvious. **Temperatures would be much too cold to grow food, and they would remain this way long enough to cause most humans and animals to starve to death.** Global nuclear famine would ensue in a setting in which the infrastructure of the combatant nations has been totally destroyed, resulting in massive amounts of chemical and radioactive toxins being released into the biosphere. We don’t need a sophisticated study to tell us that no food and Ice Age temperatures for a decade would kill most people and animals on the planet. Would the few remaining survivors be able to survive in a radioactive, toxic environment? It is, of course, debatable whether or not nuclear winter could cause human extinction. There is essentially no way to truly “know” without fighting a strategic nuclear war. Yet while it is crucial that we all understand the mortal peril that we face, it is not necessary to engage in an unwinnable academic debate as to whether any humans will survive. What is of the utmost importance is that this entire subject –the catastrophic environmental consequences of nuclear war – has been effectively dropped from the global discussion of nuclear weaponry. The focus is instead upon “nuclear terrorism”, a subject that fits official narratives and centers upon the danger of [one nuclear weapon](https://www.whitehouse.gov/the-press-office/remarks-president-barack-obama-prague-delivered) being detonated – yet the scientifically predicted consequences of nuclear war are never publically acknowledged or discussed. Why has the existential threat of nuclear war been effectively omitted from public debate? Perhaps the leaders of the nuclear weapon states do not want the public to understand that **their nuclear arsenals represent a self-destruct mechanism for the human race**? Such an understanding could lead to a demand that nuclear weapons be [banned](http://www.icanw.org/pledge/) and abolished. Consequently, **the nuclear weapon states continue to maintain and modernize their nuclear arsenals, as their leaders remain silent about the ultimate threat that nuclear war poses to the human species.**

1. https://www.merriam-webster.com/dictionary/affirm [↑](#footnote-ref-1)
2. https://www.merriam-webster.com/dictionary/negate [↑](#footnote-ref-2)