CCW REPORT

Civil society perspectives on the CCW meeting of experts on autonomous weapon systems
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Reaching Critical Will

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The *CCW Report* is produced by the Reaching Critical Will programme of the Women's International League for Peace and Freedom (WILPF), a member of the Campaign to Stop Killer Robots.

EDITORIAL: OUT FROM THE SHADOWS - LAW, ETHICS, AND THE PROHIBITION OF AUTONOMOUS WEAPONS

Ray Acheson | Reaching Critical Will of WILPF

"When we act from afar and from the shadows, we do much more harm than good." A retired Captain from the US Air Force Reserve, writing a letter to The New Yorker this week, critiqued "automated warfare" for its false sense of precision and separation of body from battlefield. These concerns, as others raised at this CCW meeting, have serious ethical, moral, and human rights implications when it comes to increasing autonomy in weapon systems. Thursday's plenary meetings featured discussions on many of these implications, as well as the risks for global and regional destabilisation. The compelling solution to these challenges remains a prohibition on weapon systems operating without meaningful human control.

Human rights

Christof Heyns, UN special rapporteur for extrajudicial, summary, or arbitrary executions, argued that weapons operating without meaningful human control pose a range of human rights concerns. In particular, he noted, such autonomous weapon systems (AWS) risk undermining the right to life, which is essential for protecting human beings from the use of force.

Several states and civil society groups have expressed concern that AWS risk lowering the threshold for the use of force. Pablo Kalmanovitz of Universidad de los Andes, Colombia, agreed AWS risk lowering the threshold to go to war, because of the perception of minimised risk to the deploying force, but also that AWS risk lowering the use of violence within war, arguing that more attacks might be made during a conflict for the same reason. Heyns also noted that even where AWS might be employed in capture rather than kill operations, this is still a use of force and would be subject to the same concerns if done without meaningful human control over the weapon system.

Chile and Amnesty International also highlighted what Chile's delegation described as the "terrible impact" AWS would have on human rights. Amnesty International argued that without effective and meaningful human control, AWS threaten the right to life, right to security of person, right to human dignity, and possibly the right to freedom of peaceful assembly and should be banned. This last element was also recently addressed by Heyns, along with the UN special rapporteur on the rights to freedom of peaceful assembly and of association, in a report on the "proper management of assemblies." The report recommends that, "where advanced technology is employed, law enforcement officials must, at all times, remain personally in control of the actual delivery or release of force."

Human dignity

The threat to the right to human dignity has been repeatedly highlighted by lawyers, ethicists, and others participating in these discussions over the past three years. Heyns again reiterated that targeting by AWS reduces human beings to zeroes and ones in a computer, with serious consequences for human dignity. Further, Heyns argued, if dignity is understood also to entail assuming responsibility for one's action, then the use of AWS can challenge this in various ways. Humans deploying AWS are not necessarily the authors of actual actions that take place—if they do not have meaningful control over the machine, this affects their ability to make "responsible decisions".

This of course also has implications for accountability and liability. Heyns argued that control and accountability are two sides of the same coin. If one does not have control, one cannot be accountable. This lack of accountability, he suggested, in itself constitutes a violation of human rights.

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CAMPAIGN TO STOP KILLER ROBOTS

Editorial, continued

The US delegation on Thursday argued that "adherence to ethical and moral norms will depend less on the inherent nature of a technology and more on its potential use by humans." But as many have pointed out over the past three years, it is the inherent nature of AWS that has serious implications for human rights and ethics, not merely "misuse" of such weapons. This is the basic idea behind the fundamental principle of IHL that the choice of methods and means of warfare is not unlimited. It is the affront to human dignity posed by AWS that drives many ethical and societal objections to their development and deployment. The idea of machines killing humans on the basis of software and algorithms alone is, as WILPF has noted, cynically abhorrent, or, as Kalmanovitz said, a nightmare for civilians.

Transfer of risk

Indeed, Kalmanovitz noted that while AWS may minimise risks to the deploying force's soldiers, it can amplify risks to civilians. He warned that programming in AWS may incorporate preferences of militarily advanced countries to shift risks away from their own forces. Greater damage to civilians could come to be treated as proportional because preferences of the deploying force are programmed in at the expense of civilian protection.

This is a risk, Heyns and Amnesty International argue, not only for civilians living under situations of armed conflict, but also in law enforcement contexts. Heyns and

Eliav Lieblich, of the Radzyner Law School in Israel, both expressed concerns about what might happen if an AWS programmed for use in armed conflict is used in a law enforcement situation. Law enforcement officials have a responsibility to protect the public, argued Heyns, but this obligation is not as strong in armed conflict.

These challenges run counter to what Denise Garcia of Northeastern University described as a global norm for preventative regulations to protect civilians. The development and deployment of AWS, she argued, would jeopardise civilian protection, human rights laws, and the architecture and principles for sustainable peace, including disarmament and reduction of military spending. She highlighted that the development of AWS would divert resources away from peace and disarmament in violation of the UN Charter's article 26.

Deference to machines

Yet it appears that some states at CCW wish to leave the door open to the development of further autonomy in weapons. The US argued that "human-machine teaming in targeting has brought not only enhanced situational awareness to help reduce the immediate risk to soldiers, but also better discrimination and the ability to exercise tactical patience, where additional time can be taken to ensure accurate target identification and avoid civilian casualties."

However as Amnesty International points out in an article in this edition of the CCW Report, the "Drone Papers" recently published by The Intercept "paint an alarming picture of the lethal US drones programme. According to the documents, during one five-month stretch, 90% of people killed by US drone strikes were unintended targets." While the US argues that machines' participation in targeting can enable humans to "make better decisions," the actual deployment of such machines appears to have serious precision issues and risks undermining rules of proportionality and increasing the transfer of risk to civilians.

In this context, Heyns highlighted that because machines are faster at processing information and suggesting actions on that basis, we are becoming accustomed to deferring to machines and relying on their determinations. Thus even if humans could act fast enough to override an autonomous delivery of force, there might be an inclination to defer to the machine because the stakes are so high, he warned. We use machines as tools, explained Heyns, yet we sometimes think they might know better. This challenge suggests that human beings need to have meaningful human control not just over each individual attack but also over analysing and selecting targets. It also highlights a key problem with suggestions that AWS should have the "possibility of human control"—this seems to lack the effectiveness of the human being fully responsible for the operation of a weapon and the selection of and engagement with targets.

Prohibition

The need for meaningful human control over targeting and individual attacks is the basis for a prohibition on autonomous weapons systems. Calls for this prohibition are growing. The two special rapporteurs writing on the proper management of assemblies recommended that AWS without meaningful human control should be banned. Heyns reiterated this call during his presentation on Thursday, joining fourteen states, thousands of scientists and the Campaign to Stop Killer Robots in urging the negotiation of a treaty preventing the development, deployment, and use of AWS. Nearly all of the other panelists on Thursday supported a prohibition, reflecting the growing momentum for serious action on this issue. As Chile's delegation said Thursday, the disarmament and human rights community has a responsibility to be ahead of the curve on AWS and act now to prevent their introduction into our shared world. •

EVENT: A NORMATIVE PERSPECTIVE

Jessica Lawson | Reaching Critical Will of WILPF

The second side event hosted by the Campaign to Stop Killer Robots was moderated by Yukie Osa, from Association for Aid and Relief, Japan. The event focused on the legal, ethical, and technical approaches to defining lethal autonomous weapon systems (LAWS) from the perspective of the principle of meaningful human control. Bonnie Docherty from Human Rights Watch/Harvard Law School's International Human Rights Clinic, Ian Kerr from University of Ottawa and ICRAC, and Toby Walsh from University of New South Wales presented on the legal, ethical, and technical approaches respectively, followed by an engaging debate.

Regarding legal implications of defining LAWS through the principle of meaningful human control, Ms. Docherty argued that this principle is legally feasible. Meaningful human control increases compliance with international humanitarian law and international human rights law, in particular the right to life. Throughout the week, a large number of states have expressed a willingness to continue discussions and consider using meaningful human control as a framework for future deliberations.

Emphasising the importance of not getting too sidetracked with other considerations, such as weapons reviews and definitions, Mr. Kerr argued that if we do not deal with the ethical issues associated with LAWS, they will not go away. Ethical and human rights implications are central to this debate. In light of this, there is no down side to a preemptive ban.

Artificial intelligence (AI) is changing our lives in many ways and Mr. Walsh's presentation focused on the important role of scientists in informing the debate on LAWS because of their expertise in this area. He highlighted the inherent unpredictability of AI systems, as well as the difficulties involved with transparency and verifiability. Every system that has ever been built and every system that we build in the future will be hackable.

Following the presentations, some issues raised during the general discussion include resisting the premise that AI is advancing rapidly to achieve a human-like capability and the need to demystify this assumption by being more specific about where it is advancing. Mr. Walsh responded that we are a long way away from developing systems that come close to the human mind, and the evolution of complex systems is impossible to predict.

By highlighting the legal, ethical, and technical implications of considering meaningful human control in defining LAWS, this presentation again demonstrated the imperative for a preemptive ban on this dangerous emerging technology. •

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The final edition of the
CCW report
from the
third CCW Meeting of Experts
on
lethal autonomous weapon
systems
will be published on
Monday, 18 April 2016.

NEWS IN BRIEF

Mia Gandenberger | Reaching Critical Will of WILPF

The News in Brief is not a comprehensive summary of all statements. It highlights positions on a few criti- cal issues covered during plenary discussions.

Human rights and ethical issues

- Christof Heyns, UN special rapporteur for extrajudicial, summary, or arbitrary executions, suggested the term autonomous use of force against human beings is a good formulation to capture all aspects of what the CCW talks about regarding LAWS or AWS. He reiterated that human rights (HR) not only are relevant to the time of armed conflict, but also in situations outside. Therefore, implications for the right to life and dignity should also be considered.
- C. Heyns argued that treating humans as mere targets turns them into objects, which undermines human dignity. Further, control and accountability are two sides of same coin, therefore if control cannot be exercised, the individual cannot be held accountable and this lack of accountability in itself constitutes violation of right to life.
- In closing C. Henys called for AWS without meaningful human control (MHC) to be banned.
- Eliav Lieblich, Radzyner Law School, Israel, reviewed how AWS would limit human discretion and decision-making. He underlined that extending IHL to govern AWS would require sufficient knowledge, and the ability to distinguish between culpable and non-culpable ignorance.
- Daniele Bourcires, Centre national de la recherche scientifique, France, focused on programming aspects of AWS and decision-making. She explained autonomy is about AI, which is about programming expertise. However, human beings are the only agents that can ultimately exercise discretion and 'constant care' to meet IHL requirements and some programming limits exist.
- Pablo Kalmanovitz of the Universidad de los Andes, Colombia focused on the rule of proportionality and the risks of adapting/extending IHL to LAWS. They may minimise risks to deploying force's own soldiers, however, LAWS can amplify risks to civilians, especially foreign civilians. Proportionality requires a human commander to estimate the risk to civilians and protected persons by AWS may be programmed to preference protection of deploying force.
- He reminded states that those at most risk of suffering harm from AWS, e.g. foreign civilians, have no role in article 36 weapon reviews.
- Canada welcomed the arguments put forward from the perspective of the victim's perspective, yet wondered how the right to dignity of those on whose behalf LAWS would be used might be affected.
- C. Henys explained that the concept assumes the ability to take autonomous decisions and to resume authority for actions. For the use of LAWS in e.g. in unpredictable environments, it may mean that humans are not the authors of actions that take place.
- Canada also questioned if the understanding of war as governance would also apply to symmetrical wars and if an individual (human) soldier could be considered as an agent of executive discretion.
- India too thought not enough focus was put on symmetrical conflict.
- Lieblich explained that the concept of governance could still be applied to a symmetrical war, even if possibly in a weaker form. Further, he stressed that soldiers do exercises discretion and that IL negates or rejects superior order defenses, and explicitly requires all ranks that conduct attack have to take constant care during that process.
- Poland spoke on accountability, the use of anthropomorphic language, and possible confusion that may arise from the latter when addressing LAWS. Further it wondered if HC would be considered meaningful if it could be maintained over robotic action and executed in certain situation, rather than executing HC at all times.
- C. Heyns thought that mere overriding functions by human beings, even if there was time enough to intervene, have psychological implications of deferring to machines.
- P. Kalmanovitz expressed reluctance to this idea as control could not be adequately executed. Further, proportionality cannot be delegated to machines.
- Chile expressed support for a preemptive prohibition of LAWS and called for both disarmament and HR forums to be ahead of the curve of this development.
- Brazil stressed that HR in addition to the ethical considerations also embodied HRL that is part of IL and will apply both during and outside armed conflict.
- Cuba reiterated its call for a preemptive prohibition of LAWS.
- Cuba also asked how LAWS would implicate the different generations of HR, including the right to peace and the right to self determination.

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News in brief, continued

- In this context, C. Heyns pointed out that those with high technical advancements already might acquire AWS which might further impact the balance of power.
- The US acknowledged it was important for the CCW to consider moral and ethical aspects, however it was important to differentiate between moral considerations and legal obligations, otherwise, one might risk confusion.
- With regard to human-machine teaming and targeting the US thought it resulted in better discrimination and situational awareness. For the use of LAWS, all necessary steps should be taken to ensure LAWS are not subject to misuse, by ensuring appropriate levels of human judgement.
- C. Heyns recalled that HR incorporates ethical considerations as well as law, which applies both during armed conflicts and law enforcement setting. Technology per se is neither wrong nor right and if used by humans could alleviate suffering. However, an AWS ban would not apply to civilian technical developments.
- P. Kalmanovitz stressed that the ethical discussion is unavoidable, in particular where there is no clear law and states are faced with the challenge to extend the law.
- Sierra Leone and Ireland highlighted the Martens Clause.
- India agreed it should be respected, but wondered if public consciousness could serve as an adequate filter and asked, where has public consciousness actually stopped wars?
- C. Heyns agreed that this was exactly the situation the Martens Clause was created for.
- E. Lieblich agreed, but highlighted that the Martens Clause only constituted a shell that would have to be filled and enhanced with substance.
- P. Kalmanovitz agreed and stressed that ethical considerations have to enter in this shell.
- France asked if the coding of AWS could respect existing laws and if/how ethical reasoning could be translated into the coding.
- E. Lieblich thought that the possibility to include ethical considerations into the code of AWS very distant and therefore it should not inform discussion now.
- D. Bourcier said that it might be possible to codify legal rules into AWS, as even for ethical considerations rules exists.
- Ireland expressed concern about the risk that the development of LAWS could lead to asymmetrical warfare and the threshold of going to war may be lowered.
- India also expressed concern with an even more "sanitised" war between machines, with a lowered threshold to use force.
- C. Heyns agreed with these concerns and pointed to the risk of a lower threshold to use force and the de-personalisation of the use of force.
- Russia sought clarification on the process of automated court decisions and how that might relate to LAWS.
- Algeria wondered about citizens' reactions to the automation of legal decisions.
- D. Bourcier explained that there are an increasing number of systems that e.g. automatically determine certain fines automatically. However awareness among citizens is low in many countries. Yet, in some cases citizens and judges have spoken out against these systems, as judges have to be independent and if they are assisted by technologies, they are no longer independent. Also standardised decisions are not adapted to individual cases.
- India recognised that the CCW provides a fairly broad framework for addressing these issues and while others might want to take it elsewhere, the CCW need not take a position on where that should be.
- C. Henys thought that while the CCW is an appropriate forum to address the issue he stressed that autonomous use of force should stay on the agenda of other forums as well due to their cross-cutting nature and implications also for law enforcement.
- China saw the need for the CCW to to preemptively ban "certain evil weapons".
- Amnesty International highlighted the IHRL and law enforcement concerns of AWS.
- In responding to a question by Norway, E. Lieblich expressed concern with the militarisation of law enforcement, and states would therefore have to consider how military developments, such as LAWS, would trickle down to law enforcement.
- P. Kalmanovitz thought the morally decent choice is a ban on AWS.

Security issues

- Jayanat Dhanapala, Pugwash Conferences on Science and World Affairs, reviewed possibly destablising effects LAWS might have on international security. Their introduction may lead to

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News in brief, continued

an escalation of the pace of warfare, foster arms races, and the consequences of potential system failures may be uncontrollable.

- While recognising that decisions on political issues require debate, J. Dhanapala stressed the collective responsibility to ensure that IL protects humankind and cautioned that the disarmament community had a delaying problem.
- Vadim Kozyulin, PIR Center, raised concerns with the possibility of global superiority, increased military spending, and a new arms race.
- Denise Garcia, Northeastern University, presented the results of her research of reviewing various disarmament and arms control treaties and agreements. To protect civilians is a significant global norm for disarmament and preventative regulations. AWS will lower threshold for use of force and decrease inhibitions to go to war. Therefore, AWS would seriously jeopardise current global norms – they would undermine civilian protection, IHRL, and the international architecture for sustainable peace. States now have the opportunity to promote a better future for humanity. Prevention brings stability. A treaty banning autonomous weapons would be the CCW's greatest achievement.
- Eneken Tikk-Ringas, International Institute for Strategic Studies, argued that a technology's attractiveness results from its perceived effects. For regulating states behaviour she thought incentives for good behaviour are more effective than prohibitions.
- ICRAC warned of rapid proliferation, the possibility of an arms race, and swarm warfare if AWS are not stopped.
- China wondered if there is no meaningful action taken on LAWS if the history of biological weapons and chemical weapons would be repeated and what impact that would have to nuclear disarmament or general and complete disarmament.
- D. Garcia explained that the Chemical Weapons Convention had scored highly on her preventive security governance scale. For AWS she suggested a preventive ban as the right way forward.
- J. Dhanapala also thought that the lesson of history has been that a preemptive ban was preferable to a post-facto ban.
- China further asked how panelists would classify LAWS.
- V. Kozyulin thought AWS to be a category of weapons of their own, as they could carry any type of payload. He deemed them more dangerous than any other weapon.
- Finally, China wondered if states had an absolute or unlimited right to use their scientific and technological advancements.
- E. Tikk-Ringas stressed that state action is bound by IL and while that has some holes, she suggested to make the best use of what rules and regulations exist today.
- Pakistan questioned if security issues had received enough attention and wondered if there are other avenues aside from the CCW to pursue.
- D. Garcia recalled the developments of the past few years on AWS and hoped the CCW was up for the challenge. Another possibility would be a process through the UNGA, as was recently successfully done for the Arms Trade Treaty. •

CALENDAR OF EVENTS

When	What	Where	Who
10:00-12:00	Security issues	Conference Room XVIII	
12:00-13:00	Concluding session	Conference Room XVIII	
13.15-14.50	Views on the Process to Address Fully Autonomous Weapons	Conference Room XXIV	Campaign to Stop Killer Robots
15:00-18:00	Concluding session	Conference Room XVIII	

TEN REASONS WHY IT'S TIME TO GET SERIOUS ABOUT BANNING 'KILLER ROBOTS'

Rasha Abdul Rahim | Amnesty International

1. "Killer Robots" will not be a thing of science fiction for long

"Killer robots," are weapons systems that, once activated, can select, attack, kill, and injure human targets without a person in control. Once the stuff of dystopian science fiction, these weapons—also known as "autonomous weapon systems" (AWS)—will soon become fact.

Many precursors to this technology already exist. The Vanguard Defense Industries' ShadowHawk drone, for example, can be armed with a grenade launcher, a shotgun with laser designator, or less-lethal weapons such as a Taser or bean-bag round launcher. In 2011 the office of the Sheriff in Montgomery County, Texas, purchased an unarmed ShadowHawk with a grant from the Department of Homeland Security. In August 2015 North Dakota became the first US state to legalize the use of drones that can be used remotely to incapacitate people with high-voltage electric-shocks.

2. They will be openly used for repression by unaccountable governments

Some governments argue that AWS could reduce the risks of deploying soldiers to the battlefield, or police on dangerous law enforcement operations. Their use would therefore make it easier for governments to enter new armed conflicts and use force in, for example, policing of protests. Though soldiers and police might be safer, this lowered threshold could lead to more conflict and use of force and, consequently, more risk to civilians.

Proponents of AWS also argue that their lack of emotion would eliminate negative human qualities such as fear, vengeance, rage, and human error. However, human emotions can sometimes act as an important check on killing or injuring civilians, and robots could easily be programmed to carry out indiscriminate or arbitrary attacks on humans, even on a mass scale. AWS would be incapable of refusing orders, which at times can save lives.

3. They would not comply with human rights law and international policing standards

International policing standards prohibit the use of firearms except in defence against an imminent threat of death or serious injury, and force can only be used to the minimum extent necessary. It is very difficult to imagine a machine substituting human judgment where there is an immediate and direct risk that a person is about to kill another person, and then using appropriate force to the minimum extent necessary to stop the attack. Yet such a judgement is critically important to any decision by an officer to use a weapon. In most situations police are required by UN standards to first use non-violent means, such as persuasion, negotiation, and de-escalation, before resorting to any form of force.

Effective policing is much more than just using force; it requires the uniquely human skills of empathy and negation, and an ability to assess and respond to often dynamic and unpredictable situations. These skills cannot be boiled down to mere algorithms. They require assessments of ever-evolving situations and of how best to lawfully protect the right to life and physical integrity that machines are simply incapable of. Decisions by law enforcement officers to use minimum force in specific situations require direct human judgement about the nature of the threat and meaningful control over any weapon. Put simply, such life and death decisions must never be delegated to machines.

4. They would not comply with the rules of war

Distinction, proportionality, and precaution are the three pillars of international humanitarian law, the laws of war. Armed forces must distinguish between combatants and non-combatants; civilian causalities and damage to civilian buildings must not be excessive in relation to the expected military gain; and all sides must take reasonable precautions to protect civilians.

All of this, clearly, requires human judgement. Robots lack the ability to analyse the intentions behind people's actions, or make complex decisions about the proportionality or necessity of an attack. Not to mention the need for compassion and empathy for civilians caught up in war.

5. There would be a huge accountability gap for their use

If a robot did act unlawfully how could it be brought to justice? Those involved in its programming, manufacture, and deployment, as well as superior officers and political leaders could be held accountable. However, it would be impossible for any of these actors to reasonably foresee how an AWS would react in any given circumstance, potentially creating an accountability vacuum.

Already, investigations into unlawful killings through drone strikes are rare, and accountability even rarer. In its report on US drone strikes in Pakistan, Amnesty International exposed the secrecy surrounding the US administration's use of drones to kill people and its refusal to explain the international legal basis for individual attacks, raising concerns that strikes in Pakistani Tribal Areas may have also violated human rights.

Ensuring accountability for drone strikes has proven difficult enough, but with the extra layer of distance in both the targeting and killing decisions that AWS would involve, we are only likely to see an increase in unlawful killings and injuries, both on the battlefield and in policing operations.

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Ten reasons, continued

6. The development of "Killer Robots" will spark another arms race

China, Israel, Russia, South Korea, the UK, and the USA, are among several states currently developing systems to give machines greater autonomy in combat. Companies in a number of countries have already developed semi-autonomous robotic weapons that can fire tear gas, rubber bullets and electric-shock stun darts in law enforcement operations.

The past history of weapons development suggests it is only a matter of time before this could spark another hi-tech arms race, with states seeking to develop and acquire these systems, causing them to proliferate widely. They would eventually end up in the hands of non-state actors, including armed opposition groups and criminal gangs.

7. Allowing machines to kill or use force is an assault on human dignity

Allowing robots to have power over life-and-death decisions crosses a fundamental moral line. They lack emotion, empathy and compassion, and their use would violate the human rights to life and dignity. Using machines to kill humans is the ultimate indignity.

8. If "Killer Robots" are ever deployed, it would be near impossible to stop them

As the increasing and unchecked use of drones has demonstrated, once weapons systems enter into use, it is incredibly difficult or near impossible to regulate or even curb their use.

The "Drone Papers" recently published by The Intercept, if confirmed, paint an alarming picture of the lethal US drones programme. According to the documents, during one five-month stretch, 90% of people killed by US drone strikes were unintended targets, underscoring the US administration's long-standing failure to bring transparency to the drones programme.

It appears too late to abolish the use of weaponized drones, yet their use must be drastically restricted to save civilian lives. AWS would greatly amplify the risk of unlawful killings. That is why such robots must be pre-emptively banned. Taking a "wait and see" approach could lead to further investment in the development and rapid proliferation of these systems.

9. Thousands of robotics experts have called for "Killer Robots" to be banned

In July 2015, some of the world's leading artificial intelligence researchers, scientists, and related professionals signed an open letter calling for an outright ban on AWS.

So far, the letter has gathered 20,806 signatures, including more than 14 current and past presidents of artificial intelligence and robotics organizations and professional associations. Notable signatories include Google DeepMind chief executive Demis Hassabis, Tesla CEO Elon Musk, Apple co-founder Steve Wozniak, Skype co-founder Jaan Tallin, and Professor Stephen Hawking.

If thousands of scientific and legal experts are so concerned about the development and potential use of AWS and agree with the Campaign to Stop Killer Robots that they need to be banned, what are governments waiting for?

10. There has been a lot of talk but little progress in three years

Ever since the problems posed by AWS were first brought to light in April 2013, the only substantial international discussions on this issue have been three week-long informal experts meetings at the CCW. It is disappointing that so little time has been devoted to so serious an issue, and so far little progress has been made.

The Campaign to Stop Killer Robots is calling on states to establish a Group of Governmental Experts or "GGE" that can begin formal negotiations in 2017 on a new CCW protocol on lethal autonomous weapons systems. A more substantive and outcome-oriented mandate would demonstrate progress and the relevance of the CCW in responding to increasing concerns.

For Amnesty International and its partners in the Campaign to Stop Killer Robots, a pre-emptive prohibition on the development, deployment, and use of autonomous weapon systems is the only real solution.

The world cannot wait any longer to take action against such a serious global threat. It's time to get serious about banning AWS once and for all. •