EDITORIAL: A CAUTIOUSLY OPTIMISTIC FIRST DAY
Beatrice Fihn | Reaching Critical Will of WILPF

The first day of the CCW’s Meeting of Experts saw over 30 governments take the floor to deliver statements on autonomous weapons, in addition to representatives of international organisations including the Director-General of the UN Office in Geneva, the International Committee of the Red Cross, and UN Institute for Disarmament Research, as well as the Campaign to Stop Killer Robots and eight of its member organisations.

Expert presentations on autonomous technologies provided a solid foundation for the rest of the week’s discussions. The central theme was an examination of autonomy, how it’s used today, and the notion of “meaningful human control”. Two roboticists, Ronald Arkin and Noel Sharkey, took part in a debate on the possible advantages and disadvantages of autonomous weapon systems.

A number of key themes emerged. Most speakers raised concerns about whether these weapons would be able to comply with international humanitarian law, in particular the principles of distinction and proportionality. There was widespread recognition of the fundamental ethical and moral objections to these weapons and cautions over the potential impact of this new type of warfare on international peace and security.

Canada’s response was that the existing legal framework of IHL is currently sufficient to regulate the use of fully autonomous weapons while the United States suggested, “it is premature to determine where these discussions might lead”. Others, like Switzerland, wanted this meeting to bring greater clarity on whether a policy response, legal or political, is needed or not, and some governments were already convinced of the way forward, including Pakistan which called for the CCW to negotiate a new protocol that would preemptively prohibit these weapons.

Civil society speakers outlined a clear response to the issue of fully autonomous weapons. The Campaign to Stop Killer Robots urged governments to establish new international law on this topic, and Article 36 clarified that it wanted the “development of an explicit prohibition, under international humanitarian law, of weapons systems operating without meaningful human control over individual attacks.” In response to arguments such as Canada’s assertion that “existing IHL is adequate”, Human Rights Watch countered that “if existing IHL is sufficient to address all problematic weapons, there would be no need for the CCW to exist.” HRW further noted that when the very nature of a weapon is objectionable, then additional and specific international law is warranted.

Day one of this meeting was a clear indication that the question of fully autonomous weapons is one that raises significant concerns amongst governments, international organisations and civil society. However, most governments still appeared hesitant to go into too much detail on

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On Tuesday, the Campaign to Stop Killer Robot held its first lunchtime side event. The meeting was chaired by Sarah Knuckey of New York University and focused on legal aspects of the debate around autonomous weapons systems.

Bonnie Docherty, senior researcher at Human Rights Watch and Lecturer at Harvard Law School, highlighted concerns raised by fully autonomous weapons under international humanitarian law (IHL). One of these is the impossibility of programming machines to deal in an adequate manner with unforeseen situations and to make the kinds of assessments that are required under IHL. Such assessments include whether an attack would result in harm to civilians that would be excessive compared to the direct and concrete military advantage expected from the attack. The most effective way of addressing legal and other concerns would be a preemptive and comprehensive ban on fully autonomous weapons systems, she argued.

Brian Wood of Amnesty International stressed that states should look beyond the use of autonomous weapons in situations governed by IHL to consider challenges such weapons raise from a human rights law (HRL) perspective. He warned that decreasing effective human control over the use of force would make unlawful killings and the infliction of unwarranted injury more likely. Based on experience with existing weapon technologies, he argued that the use of fully autonomous weapons systems in policing situations—typically complex and dynamic—would be unlikely to comply with the strict HRL standards on the use of force for law enforcement purposes.

Drawing on his experience as a member of the Office of the Prosecutor at the International Criminal Tribunals for the former Yugoslavia and for Rwanda, David Akerson explained how difficult it is, in practice, to hold political or military leaders responsible under international criminal law. In particular, he noted that articulating what constitutes a disproportionate attack is extremely difficult in the best of circumstances. The use of autonomous weapons systems, he argued, would only increase the challenges we already face in terms of ensuring individual criminal accountability for violations of IHL or HRL.

Following the expert presentations, the audience took the opportunity to ask questions, among other things, about states’ responsibility for the use of autonomous weapons, how we should orient toward existing weapons systems in our discussion, and how the CCW can contribute to addressing the legal and other concerns raised by autonomous weapons systems.

This was the first of four side events organized by the Campaign to Stop Killer Robots during this informal meeting of experts. All side events will be held in Conference Room XXII and start at 13:00 with a sandwich lunch.

REPORT: THE NEED FOR NEW INTERNATIONAL LAW
Maya Brehm | Article 36

these weapon systems and chose to focus instead on promoting the need for a thorough discussion of this issue, welcoming the CCW as an appropriate forum in which to do so. China and Russia, the two delegations that seemed the most hesitant about the decision last November to convene this meeting, did not reveal much about their approach to the issue. China did not speak during the general debate and Russia raised more questions than it answered.

It remains to be seen whether the thematic sessions and expert presentations will bring out more detailed thinking from government representatives during the remainder of the week, and if it can lead to a discussion on where it goes from here.
NEWS IN BRIEF
Mia Gandenberger, Gabriella Irsten, Ray Acheson, and Beatrice Fihn | Reaching Critical Will of WILPF

General debate
Meaningful human control
- Holy See, Germany, Ireland, Netherlands, Norway, ICRC, and civil society organizations called for meaningful human control over weapons.
- Acting Director-General of the UN Office at Geneva, Mr. Michael Møller, stressed that states must ensure that the use of weapons remains firmly under human control.
- Pakistan cautioned that without a human “in the loop,” war could become inhumane.
- Germany stressed the need for human control over the decision to kill human beings, as we cannot be made simple objects of machine action.
- Holy See stressed that meaningful human intervention over kill decisions must always be there and human qualities are neither replaceable of programmable.
- Ireland stressed the need for control to be effective and not merely nominal.
- South Africa expressed concern with the lack of human intervention in autonomous weapons.
- The ICRC, Article 36, and WILPF underlined the need for more clarity on what is “meaningful human control.”

Ban/prohibit
- Pakistan, Egypt, and Mexico called for a preemptive ban on autonomous weapons (AWs).
- Pakistan stressed that states should place an immediate moratorium on use, development, and production of AWs.
- Spain thought it premature for a moratorium.
- US thought more discussion is needed before discussing a ban.

IHL/IHRL
- Brazil thought it critical to ensure that all new and emerging technologies are employed in the military field in conformity with HR and IHL.
- Austria noted serious doubt that AWs could be programmed to guarantee compliance with IHL.
- Germany questioned whether AWs could apply IHL principles adequately.
- Australia stressed that AWs could only ever be used in accordance to IHL and IHRL.
- Netherlands called on states to remain within boundaries of international law.
- Switzerland questioned whether a machine without intuition would ever be able to acquire a sufficient degree of “situational awareness” and could assess risks or conduct the qualitative assessments required by IHL.
- Mexico stressed that states have the obligation to defend the human right to life.
- Canada said existing international law is currently sufficient to regulate the use of AWs.
- Ecuador questioned how/if AWs could distinguish between combatants and civilians.
- South Africa expressed concern whether these new technologies of warfare would be compliant with the rules of IHL, including those of distinction, proportionality, and military necessity, as well as their potential impact on human rights.
- Norway questioned whether an AW could be programmed to adequately make the proportionality calculations before launching an attack.

Marten’s clause
- Brazil recalled the Martens Clause and highlighted the principles of humanity and the dictates of public conscience.
- The ICRC questioned whether AWs would be compatible with the principles and the dictates of public conscience.

Morality/ethics
- Austria said the fundamental ethical question is how much of a role for robots in human society are we ready to accept, taking as a measure the security and well-being of humankind?
- Brazil noted some experts argue AWs will result in dehumanization of warfare.
- Switzerland said no one wants a future battlefield with machines entrusted with the power to decide who lives and who dies and argued that selecting and engaging targets without meaningful human control would raise ethical concerns.
- Ecuador questioned how AWs could replace human combatants that feel compassion and can make calculations of proportionality.

Accountability/responsibility
- Ecuador and Sierra Leone questioned who would be accountable for IHL violations.
- Pakistan and the Holy See cautioned that AWs created an accountability vacuum.
- Austria noted it is unclear to establish responsibility for a war crime if an autonomous decision by a machine is at the root of the crime.
- Norway cautioned that the lines of accountability could be blurred and as a result of the limited human role one could end with no one being responsible for violations of IHL.

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News in Brief, continued

Military value
- Australia said AWs could be deployed both for defense and offense.
- Switzerland called for discussion on the drivers behind military interest in such technology, the expected advantages, and the risks.

Research and development
- Japan said it may continue researching and developing non-lethal autonomous technology for defense purposes and emphasized the need to recognize the significance of the peaceful use of autonomous technology in the civilian field.
- Austria called for increased transparency and restraint in technological development.

Proliferation
- Pakistan cautioned against proliferation of AWs.
- Austria noted that once the technology exists, proliferation will become an inevitable risk.
- Holy See cautioned that proliferation of AWs would change the nature of warfare.

Forum of discussion
- The majority of speakers thought the CCW the appropriate forum for discussions on this issue.
- Brazil however stressed that this should not preclude discussions in other UN bodies such as Human Rights Council to take action on this matter.
- Austria called for further international discussion and public debate, explaining that the multi-stakeholder format has proven beneficial in other areas of major technological change with implications for society.
- New Zealand does not expect the CCW to be the only forum where such discussions on LAWs will take place given the broad range of questions these technologies raise and given the wide-ranging perspectives of relevance.

Heyns report
- Austria, Netherlands, and Canada recalled the report of the Special Rapporteur on extrajudicial, summary or arbitrary executions of the Human Rights Council of 2013.

Definitions
- Austria, ROK, Netherlands, Ireland, New Zealand, US, Japan, Spain, Russia, Switzerland, and South Africa highlighted the need for a common understanding on terminology and definitions.

Other concerns
- Austria noted that autonomous weapons remove restraint from the use of military force because soldiers’ lives are not at risk.
- Ireland and Amnesty International drew attention to risk of use and abuse of autonomous weapons beyond the battlefield, such as in law enforcement.
- Norway highlighted UNSCR 1325 and stressed that women play a crucial role also in this context and regretted that not more women will part of the expert panels.

Technical aspects part 1
Definitions
- Prof. Paul Scharre noted that autonomous weapons are defined in three different ways: level of human control, complexity, and task performed.
- Dr. Raja Chatila highlighted four basic concepts of autonomy: data collection through sensors, data interpretation, decision-making, and action execution. He added that all these capacities can be developed with various degrees of complexity.
- Dr. Raja Chatila defined autonomous weapons as having the capacity of a system to decide and act without the assistance of another agent.
- Canada stated that the definition of autonomy is difficult as autonomy is subjective depending on the system.
- Japan expressed that it wants to develop a common understanding of the definition, including the difference between autonomy and atomicity, as the first step.

Meaningful human control
- Prof. Scharre highlighted different level of autonomy exists for different tasks and that it’s also important to think about the military necessity when talking about human control.
- Prof. Sharkey stated that it is necessary to reframe autonomy in terms of human control, such as clarifying the role of the human in the killing chain, making the command and control structures more transparent, and make accountability and responsibility clearer.

Prohibition
- Prof. Scharre highlighted the need for states to develop “rules for the road” for appropriate use of autonomous weapons.
- Prof. Arkin believes that calling for a ban is premature, especially if this technology could be applied to saving lives, and instead called for restrictions on the technology and suggested that existing IHL may be adequate.
- Prof. Sharkey argued that IHL compliance with AWs cannot be guaranteed for the foreseeable future.