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Drones: breakthrough or threat?

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INTRODUCTION

The military use of drones and their use in acts of war

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With this issue, the ICIP magazine begins a new phase, with longer articles and an explicit desire to contribute to current debates in the world of peacebuilding and conflict transformation. We will try to select subjects demanding multidimensional approaches that promote long-term interventions in the fields of both research and action.

It was easy to choose the monograph of this new stage: the military use of unmanned aerial vehicles (commonly known as drones ¹) in war operations, in the battlefield, in counter-insurgency operations or against groups considered terrorist. We address this subject through an editorial and five articles, written by experts in strategic studies, international law, analysts of specific operations such as those in Pakistan, or researchers connected to campaigns in favor of the regulation of the military use of drones, and an interview with the UN Special Rapporteur on extrajudicial executions. They all provide data, arguments and a wide range of reasoned opinions to focus the debate on what needs to be investigated and what needs to be done – in the short, medium and long term – with respect to the development and use of unmanned aircraft. They all point to a major problem from the outset: the regulation of something that is not, per se, always a weapon.

In addition, ICIP has included the issue in the new Strategic Plan (2014-2017), and has thus commissioned several reports and organized research seminars and a future symposium on the matter. This allows us to clearly state a few reflections, or starting points, about the military use of drones: First of all, it is important to avoid the catastrophic sensationalism associated with campaigns focusing on "robotization" or fear of technology. Despite the progress made in artificial intelligence, we are very far from autonomous "robots." In the short term, no drone could pass the tests developed by Turing in 1950 to distinguish between a machine and a human being. What is relevant for research and action is what they already do now: kill, not always selectively, commanded or guided by human beings. We know that the United States uses them in Afghanistan, Yemen, Iraq, Pakistan and Somalia, and that purchases of drones or research to obtain them is steadily on the rise. In fact, between 30 and 76 states already possess drone technology. ²

Secondly, it is important to properly contextualize the phenomenon, which is not as recent as it seems. It is part of the trend of the "automation of the battlefield," which, since the Vietnam War, has led research and scientific development efforts as strategic doctrines on the changing nature of war and the ways it is waged, in the framework of the "revolution in military affairs." Furthermore, the military use of drones dates back to the reactions to the 9/11 attacks, specifically to October 2002, with a huge increase during the Obama administrations.

Thirdly, we need a precise and well-focused conceptualization. We cannot confuse drones with missiles and other issues related to the automation of the battlefield, and we must especially avoid considering them weapons since, per se, they are not, nor are they necessarily illegal. Defining, delimiting and specifying the various uses will be crucial when analyzing the challenges to international humanitarian law, establishing a moratorium that allows for research, and proposing ways of regulating them. If it is done right, an old arms control convention could be used: the Convention on Certain Conventional Weapons. Known during the Cold War as the "Inhumane Weapons Convention," it focused on conventional weapons deemed to have indiscriminate effects, ³ and an additional protocol on the use of drones could be added.

Fourthly, we propose opting for a multidisciplinary and multidimensional approach to the subjects that are the focus of our study and of our action. The topic is complex and multifaceted, which requires rejecting unilateral visions. It is necessary to work with representatives and visions of strategic studies and peace research, aeronautic specialists, experts in artificial intelligence and technologists specialized in miniaturization and automation, philosophers and ethicists, jurists, political scientists and internationalists, mathematicians and specialists in game theory, without overlooking members of the military and, for certain studies of effectiveness and efficiency, economists.

Fifthly, we must strongly support research, of specific data as well as of possible solutions and models, given the complexity of the subject and its evolution. We need to know much more. For instance, we do not have enough data on the use of drones in targeted killings, due to a lack of transparency, but also due to a lack of a global approach. Moreover, the debate reveals a void in subjects such as legality, factors that explain the proliferation of a policy of acquisitions and development, accountability and transparency systems, scope, options and control modalities of both existing and new instruments, actual usefulness of the devices, etc.

Sixthly, in the field of action, we should now support arms control: restricting the use of drones rather than eliminating them as a type of weapon. Therefore, we need to prioritize campaigns that focus on what is urgent (moratoriums, the use of existing instruments with eventual added potentials) and, at the same time, "scalable" or expandable, depending on new research.

And in seventh and last place, we propose opting, strategically, for broad alliances, including members of the military and strategic experts who, without denying the technological advances that drones may entail, are very skeptical about their rapid and unlimited proliferation.

It is necessary to find very diverse allies because the road will be long and full of obstacles and, as we say in Catalan: A *camí llarg*, *passa curta*! (A long road requires short steps.)

1. There are other descriptive names (I will not pass judgment on them): "unmanned aircraft," "unmanned aerial vehicle," "remotely piloted vehicle," "remote-controlled airplane," among others. Even the size of the device is important since it affects a hobby that has been popular for decades: aeromodelling, the building and flying of small, unmanned model planes for leisure purposes. It is also important not to confuse drones, which can be reused, with missiles. 2. The lowest figure corresponds to vehicles for military use and the highest includes dual technology, civil and military, at the end of 2012.

3. The Convention entered into force in 1983 and, since then, various protocols have been added. The fifth and last protocol, on the clearance of explosive remnants of war, was adopted at the beginning of 2000. Following the Second Review Conference of the States parties to the Convention (2001), Article 1 was amended to address the fact that most conflicts today are not international. Since May 2004 the Amendment to Article 1 allows the Convention to be applied to situations of non-international armed conflict.

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Drones: who wants what and why?

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Drones, needless to say, have become what is known as a Trending Topic, but behind their apparent novelty, there are some aspects that really aren't that novel. Who wants them and to do what? This is the all-important question, and to answer it, we must first take a look at what drones are and what they are not and at the cruxes of the debates revolving around this technologic phenomenon. Thus, 10 quick considerations.

1.- What is a drone? It is in fact an aerial vehicle, an engine that flies without any human being flying it (as in physically inside the device). This is why it is technically named as "unmanned aerial vehicle". But there is no doubt, as of today, that someone is controlling it, in charge of it. Ah, some people say, it can be controlled by a computer program! Nonetheless, this program was also made by someone, and so on. The first point is important: no matter how much technology is used in drones -regardless of the degree of malice- ultimately, today, a key factor remains when deciding how to use them: the human factor. That is, someone is taking a series of decisions, and, as will be seen later down the line, someone (individuals, not only legal bodies or 'technology parks'), whether he or she likes it or not, is responsible. This triggers, inter alia, highly important legal consequences.

2.- To clarify what a drone is and what it is not, we must remember that it is not only or exclusively a weapon of war. It is simply a flying thing without anyone on board that is controlled according to instructions and parameters that someone is managing from the ground. There are drones not used for military purposes which serve a civil function, such as monitoring traffic or crops or giving support to sports broadcasts on television or other media. They can also be just another gadget: rumour has it that a company selling books, DVDs and other things online intends to deliver products using drones. Aspects including cost and air safety issues will need to be examined. 3.- But even in their non-military uses, it is true that the use of drones by those in government (that are not military) must take into account a wide range of potential uses (some of which are mentioned here, but there are more) that require legal clarifications: for example, how can all this affect certain fundamental rights like the right to privacy and the right to intimacy and self-image? And it's not enough to say, 'But privacy is over! It's naïve to press the issue, etc.'. This debate should in no way be over. However, it is true that recent years have brought some crucial security challenges to our democratic societies. And this is not only referring to 9/11, Atocha 2004, London 2005, etc., but to the fight against organised crime, drug trafficking and human trafficking (mafias responsible for migratory flows with tragic consequences in Malta, Lampedusa and other places).

4.- Hence, in this regard, drones (used for non-military purposes) do not raise a radically new issue, but rather readdress an issue on a qualitatively new and more complicated scale, even though it is just another scenario of the delicate balance between fundamental rights and policies on security, public order, etc. Some think that we shouldn't expect great new ideas in this realm, because this issue has already been addressed in society with the installation of surveillance cameras in public thoroughfares, airports, and railway and metro stations. A balance that must be finetuned which involves lawmakers, pro-fundamental-rights movements, the media and other social and political players. But under no circumstances should the debate boil down to positions that are as radical as they are simplistic: from the 'total security' championed by the NSA and many governments to the 'no control of any kind, ever, of citizens'. Everyone needs to assume their responsibility in this debate.

" Drones are not as new as they're presented, but they seem like it, because that's what suits politicians, the military and powerful private corporate industry." 5.- That said, we can now move on to the specific case of drones used for military purposes. It should also be noted here that there are two kinds, which in summary are: drones as an explicit weapon of attack and drones with complementary or "secondary" military uses. The latter case is easier to address, as it has to do with aerial vehicles used for surveillance, image capture, and reconnaissance. Undoubtedly, the data collected and transmitted can later be used for military action, but to the same extent as that collected by aircraft used for the same purposes, such as AWACS and others. Instead, we must focus a bit on the use of drones as a weapon of war in the strictest sense, which puts them on a par with bomber, fighter and attack aircraft and with the use of missiles or different artillery. In other words, a weapon that kills, period.

6.- Some sources date the military use of drones as weapons directly for attack to 2001, to the war in Afghanistan, and it is estimated that some 40 states now have drones or have decided to get them in the short term (and they are able to do so financially and technically). This decade, and this may define one of the changes in the new century and in the new millennium, will be the decade of trying to keep doing the same old thing wars with new or relatively new means in order to enhance the effectiveness of one's own actions and weaken those of the opponent. Other experts can specify the data, but here we could take the opportunity to point out that, with respect to the United States, although drones went hand in hand with the two terms of George Bush Jr. (particularly in Afghanistan and its eastern border), with Barack Obama drone use has risen substantially (in terms of quantity, of the number of civilian casualties caused, etc.) and has been extended to other scenarios (Pakistan, Yemen and even Somalia). As a result, from 2004 to 2013, drones killed 3,460 people in Pakistan alone, at least 35% of which can only be described as 'innocent civilians', according to Pakistani sources (which have their own criteria for these cases on who is and who is not "civilian").

7.- This happens for several reasons in this logic of doing the same old thing in an innovative or supposedly innovative way. As for the military reasons, the logic is rooted in two ideas. The first is that, according to the above-mentioned cases (Afghanistan, Pakistan, Yemen and Somalia), drones are theoretically used so that troops do not have to be put on the ground to enter and occupy the land and search for and pursue the enemy, with results that are in theory more efficient. But there is a simple equation behind it: fewer casualties of one's own (zero casualties if possible) and maximisation of enemy casualties. It would be unfair to say that the United States is the sole protagonist of this strategy. Some time ago, in fact before the United States made them part of its strategy, Israel's armed and security forces already integrated these many uses of drones: especially to watch, follow, identify and conduct (or help to conduct) deadly attacks with other means like air-to-ground missiles in places like Gaza and areas of the West Bank.

The second idea behind the military logic is complementary. It's about selling the idea that the more technology involved, the 'cleaner' the war. This 'clean war' theory does not only suit the military (after all, they simply do what they're told and moreover assume the consequences much more directly). It also aims to ensure that the enlistment military rate doesn't fall, because countries that have to be a 'world power' need large armed forces, but they no longer have 'compulsory military service' or "draft" and recruitment is a serious problem. In the Korean and Vietnam wars, the United States lost tens of thousands of soldiers (nearly 60,000 in Vietnam alone!), but at the time of the wars of the 21st century (Iraq and Afghanistan essentially), 1,000 casualties is a socially unacceptable figure, as polls suggest. This 'clean war' logic is used to make war more socially acceptable, to give members of the armed forces a heightened sense of security and to prevent the 'combat fatigue' caused by battle in a long war (remember the case of Vietnam, for instance).

" The use of drones responds to a simple equation: fewer casualties of one's own soldiers and maximisation of enemy casualties. And it's also about selling the idea that the more technology involved, the 'cleaner' the war. "

8.- Here the line of responsibility is clearly shifted to another level, from decision makers to public institutions is the political class, the politicians. In this sense, the arguments in the preceding paragraph grow exponentially in importance. The

governments that engage in armed conflicts and respond to the logic of the rule of law (with all the disadvantages you can think of) have to do so under strong constraints typical of the 'opinion society': elections, polls, the weight of the media, social networks, etc. All this causes 'the decision' to be highly conditioned by heterogeneous factors that are neither compatible nor rational. And in this regard, politicians take decisions that respond to a wide range of reasons, but we mustn't confuse this with the *discourse of legitimisation* that accompanies everything and seeks to justify to the public things that often make no sense. It is the famous dictatorship of the storyboard or, in other words, the dictatorship of media advisors, public policy makers or PR staff.

9.- An added complication, and the case of the United States is astounding in this sense, is that sometimes those who take decisions (or play an important role in the process) don't have and have never had military experience, let alone combat experience. This means that sometimes the highest ranking officers have looked with suspicion (or direct contempt) upon great 'desktop warriors' like Rumsfeld and Wolfowitz whose 'strategic decisions' caused disasters of well-known proportions. And that, in the end, makes it so the military cedes or is dragged into any new 'doctrine' which, to some extent well accompanied by the right technological discourse, makes the decision to go to war less costly for them and for their soldiers. The issue is that simple and unsophisticated.

" From 2004 to 2013, drones killed 3,460 people in Pakistan alone, at least 35% of which can only be described as 'innocent civilians', according to Pakistani sources."

10.- In conclusion, drones are not in fact that new, even though some authors present them as if they were an authentic 'revolution in military affairs'. But they seem like it and they will continue to seem like it, because that's what suits politicians, the military and, especially, the powerful private corporate industry that depends on it and which, in a more rustic version, was denounced by General Eisenhower in the fifties... You will also hear I in fact things have already been published in this regard that drones will soon programme themselves, they will be 'self' controlled (Without software? Impossible! And if there's software, who makes it?), they will choose targets, blah blah blah... and we'll be in the age of 'robots that kill' without any human element involved. Call me stupid, but I don't believe it, nor do I see it in any plausible future. Moreover, while we're at it, this argument seems to play in favour of this idea: 'Cheer up, we'll soon have a generation of drones and other devices that will finally and definitely allow us to avoid without a shadow of a doubt any type of criminal liability related to the law of war and to international humanitarian law!'. And here's where it would land us.

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Implications of the use of drones in international law

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Drones are unmanned aerial vehicles, controlled remotely and in real time by human operators. They are called drones because of the constant buzzing noise that some of these vehicles make in flight. There is a wide variety of models and types of drones with respect to size, weight, cost, range and capabilities: from the tiny vehicles of under two kilos, similar to model airplanes, to out-and-out fighter planes weighing several tons, capable of being equipped with heavy weaponry and with a flight range of thousands of kilometers. Around fifty countries have or are developing drones, though only the United States (and perhaps the United Kingdom and Israel) use them as armed vehicles.

With this diversity in mind, drones can be used, strategically and militarily, in three different ways: first of all, when ground troops attack or are attacked, drones are called in to use bombs and missiles like any other military plane; secondly, there are drones that patrol the skies over certain countries observing living patterns 24 hours a day; and thirdly, drones are used on missions planned to kill terrorist suspects, in what have become known as "targeted killings" in the context of the "war on terror."

The first use raises few questions from the point of view of international law, beyond those raised by any other weapon, whether or not it is aerial or manned: vigilance is needed to ensure that the use of the weapon is in accordance with international humanitarian law. The use of drones for surveillance does not have much relevance either from the point of view of international humanitarian law though it can affect airspace sovereignty or the privacy of individuals, among other things. Finally, the third use mentioned seems to have become the raison d'être of this technology and, in any case, has been the focus of the debate on its legality. Obviously, killing someone is legal or not (usually it is not) regardless of the means used to do so; but the fact that armed drones make it so easy to kill individuals in remote areas has generated a very close link between drone technology and targeted killings, a link that has clearly affected both international humanitarian law and, in peacetime, international human rights law.

We can therefore limit the controversy surrounding drones to the issue of airspace sovereignty, respect for the "right of war" and the compliance of international human rights law. In the first case, beyond national jurisdiction, remotely piloted aircraft, whether civilian or military, can only fly over sovereign airspace with the clear and explicit consent of the territory's state. Now, if that consent exists, as seems to be the case in Afghanistan, but not in Pakistan, the national government could also be held responsible for the possible human rights or humanitarian law violations committed by the state that sends the vehicles. On the other hand, apart from consent, armed drones can be used in the context of the right to self-defense, like any other legal weapon, but only if the conditions of this right exist, that is, an immediate, proportioned and necessary response to a previous or imminent armed attack attributable to a state requirements that the so-called "war on terror," in theaters of operations such as Afghanistan, Pakistan, Somalia or Yemen, do not meet at all.

" The fact that armed drones make it so easy to kill individuals in remote areas has generated a very close link between drone technology and targeted killings "

If armed drones are used in the context of military conflict, it is obvious that their operators must respect the principle of distinction and other rules of ius in bello. Nothing more and nothing less: in this regard, the combat drone is not a weapon of "indiscriminate nature" or that necessarily causes "superfluous harm or unnecessary suffering" (Article 36 of Additional Protocol I to the Geneva Conventions) and therefore, it is difficult to argue that, apart from possible specific international regulations, it can be an intrinsically illegal weapon according to international humanitarian law.

The problem arises when the targets of armed drones are civilians and we find ourselves in a situation that can be halfway between a non-international armed conflict and mere internal unrest, including terrorist situations. According to the International Committee of the Red Cross (ICRC), if a civilian is involved in "continuous combat functions" in a non-international armed conflict, he becomes a legitimate target at all times, even outside the theater of operations. These are the famous "personality strikes" that others prefer to call "targeted killings." In any case, the argument is only applicable when the baseline scenario can be described as an armed conflict, as could be the case of Afghanistan; but not when there is a situation of misgovernment, civil unrest or terrorist attacks, which are more suited to police repression under the rule of law, and judicial and police cooperation, including extradition. This is the case of Pakistan, where there is no internal armed conflict, and where 80% of the drone attacks launched by the US have been occurring over the last ten years. In this context, it must be clearly stated that drones cannot, in a premeditated way, target and kill alleged terrorists because, according to international human rights law, it is always illegal to fire at individuals merely because they are suspected of having committed a crime in the past or susceptible to doing so in the future: it is a violation of the right to life and the right to a fair trial.

" Armed drones have become the current weapon of choice in the US fight against international jihadist terrorism basing on the false premise that there is a global war on terrorism "

Even more serious are two practices that have been denounced by NGOs and acknowledged by the US government: "signature strikes," which involve CIA operatives following and firing at individuals who have a "pattern of life" that is considered typical of a terrorist profile; and "follow-up strikes," in which armed drones bomb the people who assist the victim of a first attack or who attend his funeral, with the absurd idea that, if they offer assistance or they mourn, they must also be terrorists. We are undoubtedly referring to attacks that, during a period of armed conflict, constitute war crimes and, in peacetime, crimes against humanity.

Armed drones have become the current weapon of choice in the US fight against international jihadist terrorism based on the false premise that there is a global war on terrorism, but without drawing all of the logical conclusions from this argument: if "legitimate defense" is admissible against transnational terrorist groups, then that would mean that these groups have launched an "armed attack" within the meaning of Article 51 of the UN Charter and therefore are groups susceptible to employing "armed force" legitimately. This would in turn imply that international humanitarian law would be applicable and that captured terrorists would have to be considered "prisoners of war," and not criminals. And of course, if there is a "war" (in the legal sense) against terrorism, then the CIA drone operators, even if they are civilian personnel, are legitimate targets insofar as persons who directly participate in the hostilities; and they are considered legitimate targets at any time, not only during "office hours," but also on their way home.

It seems unlikely that any of the former implications of a coherent interpretation of the contemporary legal argumentation of the military use of drones would satisfy any of the powers that possess this technology. Therefore, it would be in their own interest to restrict the use of military combat drones to the factual framework of authentic armed conflicts and hostilities, against legitimate enemy combatants, and with full respect of the basic principles of international law.

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Killer Robots: the threat we are creating

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Throughout the history of war we have witnessed the birth of numerous game changing weapons and technologies. From the sword in the Middle Ages to guns in the European Renaissance. And from the aircrafts and tanks during World War I to nuclear weapons. More recently, remote controlled systems (so called drones) have become part of modern weapon arsenals. We may think we have seen it all, but in the past decade technology, particularly in the field of computing and electronics, has become increasingly advanced. This has resulted in efforts to develop fully autonomous weapons, so called killer robots. Whereas drones still have a human operator, killer robots would search and engage targets without any meaningful human intervention. This means life and death decisions would no longer be made by humans, but, instead, would be made by machines. This is a game-changing technology that would not only change the way how war is fought, but changes for the first time in history the very identity of who fights it.

As with many revolutionary military technologies little is known about the potential risks these robotic weapons pose to humans. Nuclear weapons and drones have already triggered a great deal of discussion, but only after they were developed and used. Although some precursors of killer robots (mostly fixed base autonomous defensive weapons) are already being used, the discussion about the potential risks these weapon systems pose is still in the preliminary stages. In May 2011 IKV Pax Christi published a report on drones that also covered the issue of fully autonomous weapons. ¹ In November 2012 Human Rights Watch and Harvard Law School issued the report 'Losing Humanity' that fueled the global discussion. ² Just weeks after 'Losing Humanity' came out the U.S. Defence Department published a policy on autonomous

weapon systems. ³ Even though the policy stated that autonomous weapons will only be used to deliver non-lethal force, this policy does not completely rule out the development and use of autonomous weapons in the future.

Campaign to Stop Killer Robots

Many NGOs recognized the problem fully autonomous weapons pose and shared their concerns during a meeting in New York in October 2011. Consequently, they decided to work together to start an international campaign to stop the development, production and use of fully autonomous weapons. In April 2013, the international coalition of NGOs officially launched the <u>Campaign to Stop Killer Robots</u> in London. In May 2013 UN Special Rapporteur Christof Heyns presented his report on Lethal Autonomous Robotics (LARs) to the Human Rights Council in Geneva. ⁴ The Campaign calls on all states to implement the recommendations of this report and to start national and international talks about the issue. As a result, an impressive number of states has already spoken out in the Human Rights Council in Geneva and the UN First Committee in New York, but also in national fora the discussions have started. ⁵ Generally, all states recognize the pressing concerns and all states seem open to further negotiations.

" These weapons raise various ethical, moral and legal questions. Do we want to delegate the power over life and death to machines? "

Objections and Concerns

Proponents of killer robots generally emphasize that by deploying fully autonomous weapons we save military lives and we reduce the human workload required to operate systems and thereby reduce costs. Proponents seem to focus mostly on the anticipated military advantage, thereby failing to acknowledge the dangers these weapon systems could pose to civilians. We believe however that these weapons raise various ethical, moral and legal questions. Most importantly, we believe we should ask ourselves an ethical question: do we want to delegate the power over life and death to machines? UN Special Rapporteur Christof Heyns stipulates the urgency of this question in his report on LARs:

"Even if it is assumed that LARs [Lethal Autonomous Robotics] could comply with the requirements of IHL [international humanitarian law], and it can be proven that on average and in the aggregate they will save lives, the question has to be asked whether it is not inherently wrong to let autonomous machines decide who and when to kill. [...] If the answer is negative, no other consideration can justify the deployment of LARs, no matter the level of technical competence at which they operate."

According to the Campaign to Stop Killer Robots there should always be a human in the loop that exercises meaningful control over the decision to use force against a human target. Without this, it seems that no one can be held sufficiently accountable for violations of international law caused by the robot. It should thus not come as a surprise that killer robots are generally perceived as inherently abhorrent. Or as Peter Singer, political scientist and one of the world's leading experts on changes in 21st century warfare, points out: "It [War] is about human suffering, about loss of human lives and consequences for human beings". ⁷ Therefore, killing with machines is the ultimate demoralization of war. Even in the hell of war we find humanity, and that must remain so. ⁸

Besides ethical questions there are also legal questions that need urgent discussion. In order to protect civilians in armed conflicts, killer robots will need to be programmed to act accordingly international humanitarian law (hereinafter: IHL) and international human rights law (hereinafter IHRL). More specifically, fully autonomous weapons must, at least, be capable to discriminate between civilians and combatants and they must be able to weigh the harm done to civilians and civilian objects against the expected military gain. These rules are called the principle of distinction and the principle of proportionality and they must be assessed on a case-by-case basis time and time again. ⁹

Although some proponents, such as roboticist and Professor at the Georgia Institute of Technology Ronald Arkin, argue that machines may be as good as humans at discrimination within the next 20 years, the more general belief is that it will be highly unlikely that killer robots can be designed in a way that they would be able to comply with IHL and IHRL in the same way as humans can. However, these principles require a case-by-case approach and a thorough and complex analysis of the context, motives and intention of the actors. These principles, in particular the principle of proportionality, are perceived as the most difficult rules of international law to understand and apply. Particularly in contemporary warfare where it has become increasingly difficult to discriminate between civilians and combatants. Hence, it is difficult to imagine how to develop software coding in order to effectively frame the robot's behavior. According to the International Committee of the Red Cross developing an autonomous weapon system that can implement IHL represents a monumental programming challenge that may well prove impossible. ¹⁰ It is therefore that Noel Sharkey, Professor of Artificial Intelligence and Robotics at the University of Sheffield and co-founder of the International Committee for Robot Arms Control (ICRAC), stresses "It is humans, not machines, who devised the laws of war and it is humans, not machines, who will understand them and the rationale for applying them". ¹¹

" Debate on killer robots is necessary so that the international community can develop legislation to prevent these weapons from causing grave humanitarian suffering."

Not only could these weapons cause grave humanitarian suffering when deployed, but also in the preliminary stages of war these weapons will likely have profound effects on decision making. Killer robots will make it easier for leaders to go to war. On the one hand, killer robots might save military lives, but on the other hand, in so doing they will increase the distance between the public and the war because no loved ones will return from the battlefield in a body bag. This may sound cruel but body bags play a vital role in warfare. They are a major inhibitor as they can cost politicians their votes. By deploying killer robots the public will turn into passive observers, thereby giving politicians more space in deciding when and how to go to war. This could lead to an increase in duration and amount of conflicts around the globe.

Conclusion

The advantages of killer robots may seem quite logic and straightforward. Killer robots save military lives, they might be cheaper and they do not kill out of revenge or anger. Nevertheless, the lack of emotions in warfare is extremely dangerous and the low-cost of these robots makes them prone to worldwide proliferation. At some point, these weapons will also fight each other and with the wide variety of unknown algorithms the consequences will be unpredictable and devastating. In the above paragraphs we have given you a brief overview of some of the dangers these weapons may cause. Notably, this list is not exhaustive and only aims to give you an idea of the problem. Nonetheless, the message is clear: killer robots need to be discussed so the international community can develop legislation to prevent these weapons from causing grave humanitarian suffering. Fortunately, only seven months after the launch of the Campaign, the Convention on Conventional Weapons (CCW) adopted a mandate to discuss concerns related to "lethal autonomous weapon systems". Discussions on these weapon systems, also known as fully autonomous weapons or killer robots will be held in May 2014. The killer robots are on the agenda and they will not go away until there is a ban.

1. IKV Pax Christi, Cor Oudes i Wim Zwijnenburg, Does Unmanned Make Unacceptable?, 2011.

2. Human Rights Watch i Harvard Law School International Human Rights Clinic, Losing Humanity – the Case Against Killer Robots, 2012.

3. "Directive 3000.09", accessed December 9, 2013, <u>Available here.</u>

4. For more information on the report and Heyns' recommendations see: "Report of the Special Rapporteur on extrajudicial summary or arbitrary executions, Christof Heyns", available here. accessed December 9, 2013.

5. Since the topic was first debated at the Human Rights Council on 30 May 2013, a total of 44 countries have spoken publicly on fully autonomous weapons. <u>See the link.</u>

6. "Report of the Special Rapporteur on extrajudicial summary or arbitrary executions, Christof Heyns."

7. Peter W. Singer, "Interview with Peter W. Singer", International Review of the Red Cross 94, 886 (2012), p. 476.

8. IKV Pax Christi will publish another report on the eight most pressing concerns caused by the development, production and potential use of killer robots. See: Merel Ekelhof and Miriam Struyk, Outsourcing Morality: 8 objections against killer robots, to be published January 2014.

9. According to article 48, 51 and 52 of the Additional Protocol I to the Geneva Conventions all parties to a conflict shall at all times distinguish between civilians and combatants as well as between civilian objects and military objectives and, accordingly, only direct their operations against military objectives. The principle of proportionality is codified in article 51 (5) (b) of Additional Protocol I and repeated in article 57 and basically means that harm to civilians and civilian objects must not be excessive relative to the expected military gain.

10. "International Humanitarian Law and the challenges of contemporary armed conflicts." International Committee of the Red Cross , accessed December 9, 2013, p.40. Available here.

11. Noel Sharkey, "The Evitability of Autonomous Robot Warfare". International Review of the Red Cross 94, 886 (2012), p. 796.

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Losing control of our humanity

Noel Sharkey / Maya Brehm

Chairman of the International Committee for Robot Arms Control and Emeritus Professor of Robotics and Artificial Intelligence, University of Sheffield, UK. / Geneva Consultant for the UK NGO, Article 36.

One of the greatest emerging challenges to world security in the 21st century is the development of autonomous weapons also called 'fully autonomous weapons', 'killer robots', 'lethal autonomous robots' or 'lethal autonomous weapons systems'. These are weapon systems that once activated, select targets and attack them without further human intervention.

It is becoming progressively more difficult to find any new technological artefact that is not controlled by computer chips. The technologies of violence are no exception: computer devices are becoming ubiquitous for most modern weapons and guidance control systems. Currently almost all of these weapons are under 'supervisory control', where human control is simply mediated by a computer program.

Some states already use a number of weapon systems that intercept high-speed inanimate objects such as incoming missiles, artillery shells, mortar grenades or saturation attacks automatically. Examples include C-RAM, Phalanx, NBS Mantis and Iron Dome. These systems complete their detection, evaluation and response process within a matter of seconds and thus render it extremely difficult for human operators to exercise meaningful supervisory control other than switch them on and off. So far, such systems have been deployed in relatively uncluttered environments, devoid of civilians.

But there is an ever-increasing push by several states to develop distance weapons that could move outside the reach of human supervisory control. The US has conducted advanced testing on a number of autonomous weapons platforms such as X-47b – a fast subsonic autonomous jet that can now take off and land on aircraft carriers, the Crusher – a 7 ton autonomous ground robot, and an autonomous hunting submarine. The Chinese are working on the Anjain supersonic autonomous air-to-air combat vehicle. The Russians are developing an autonomous Skat jet fighter. Israel has the autonomous Guardium ground robot and the UK is in advanced testing of the Mantis – a fully autonomous intercontinental combat aircraft.

Crude target recognition

A major problem with autonomous weapons is that identifying and selecting targets requires well-defined target recognition software. Yet current automatic target recognition methods used by the military are not fit for purpose except in narrowly restricted and highly uncluttered environments. Currently three main methods are used:

1 – Shape detection makes it possible to recognise a tank in an uncluttered environment, such as a sandy desert plain. Despite decades of research, it has proved extremely difficult to distinguish between a truck and a tank or any vehicle amongst clutter, such as trees.

2 – Thermal imaging detects heat radiating from an object and shows its movement. But it would be difficult with this method to distinguish a tank from a school bus.

3 – Radar detection is used by loitering munitions to detect enemy radar signals and bomb them. It is assumed that the target is an anti-aircraft installation, otherwise radar detection doesn't determine its legitimacy.

The targeting limitations of these methods are severe, even after decades of research. Thus the idea of developing autonomous weapons, outside of narrow restrictions, that could comply with the legal requirements on the use of lethal force under international human rights law and international humanitarian law is speculative and cannot be guaranteed. The technical problems may or may not be solved by some future discovery. Importantly, though, even an improved ability to recognise targets does not allow machines to assess whether a target is legitimate and whether the attack as a whole is permissible. The appropriateness and legality of an attack is context-dependent and tends to be assessed on a case-by-case basis. Letting states carry on with developments in the hope that it will all work out poses a grave risk that autonomous weapons will be deployed irrespective of whether they are legally compliant or not. The only redress is a comprehensive, pre-emptive prohibition on the development, production and use of such systems.

" Even an improved ability to recognise targets does not allow machines to assess whether a target is a legitimate target of attack and whether the attack as a whole is permissible "

Taking action

In April 2013, an international civil society Campaign to Stop Killer Robots was launched calling for a pre-emptive ban on the development production and use of fully autonomous weapon systems. The campaign does not seek to ban autonomous vehicles or robots of any kind. Its scope is clearly focused on preventing the automation of the kill decision.

A month later, Christof Heyns, UN special rapporteur on extrajudicial, summary or arbitrary executions, called for a global moratorium on the use and development of lethal autonomous robots; a breathing space for nations to consider the implications of the development of such weapons. He concluded: "If used, they could have far-reaching effects on societal values, including fundamentally on the protection and the value of life and on international stability and security." Like many, Heyns believes that delegating the decision to kill to machines may cross a fundamental moral line.

Following growing pressure from civil society to address the challenges raised by autonomous weapons systems, in November 2013, France put forward a proposal to the 117 states parties to the Convention on Certain Conventional Weapons for an expert discussion meeting. The mandate was adopted and will take place in May 2014.

These expert discussions provide an impetus for states to formulate urgently needed national positions on this matter. So far, only the USA has published an official policy statement. DoD Directive 3000.09 provides guidelines on autonomous weapons. While pushing their further development, it requires that a human be 'in-the-loop', for the time being, when decisions are made about lethal force. The UK government has also asserted that all weapons under current policy will remain 'under human control'.

Despite these affirmations, it remains unclear what exactly is meant by 'human control' or 'in-the-loop'. It could mean something as simple as pressing a button to initiate an attack or even programming a weapon for a mission. Clearly, that would be very different from the kind of human control considered appropriate in relation to existing weapons systems.

" There can be no guarantee to predict that LAWS can be used in compliance with international law. "

Engaged human control

An examination of scientific research on human supervisory control allows us to develop a classification consisting of five types of control:

- 1. Human engages with and selects a target and initiates any attack
- 2. Program suggests alternative targets and human chooses which to attack
- 3. Program selects target and human must approve before attack.
- 4. Program selects target and human has restricted time to veto
- 5. Program selects target and initiates attack without human involvement

For level 1 control it is critically important to understand that there are a strict requirements for *engaged human control*: a human commander (or operator) has full contextual and situational awareness of the target area at the time of a specific attack and is able to perceive and react to any change or unanticipated situations that may have arisen since planning the attack. There must be active cognitive participation in the attack and sufficient time for deliberation on the nature of the target, its significance in terms of the necessity and appropriateness of attack, and likely incidental and possible accidental effects of the attack. There must also be a means for the rapid suspension or abortion of the attack.

Level 2 control might be acceptable if shown to meet the requirement of engaged human control. A human in control of the attack would have to be in a position to assess whether an attack is necessary and appropriate, whether all (or indeed any) of the suggested alternatives are permissible objects of attack, and to select the target which may be expected to cause the least civilian harm.

Level 3 is unacceptable. This type of control has been experimentally shown to create what is known as *automation bias* in which human operators come to accept computer generated solutions as correct and disregard or don't search for contradictory information.

Level 4 is also unacceptable. It does not promote target identification and a short time to veto would reinforce automation bias and leave no room for doubt or deliberation. As the attack will take place *unless* a human intervenes, this undermines well-established presumptions under international humanitarian law in favour of civilian character and status.

In the case of level 5 control there is no human involvement in the target selection and attack. As argued above, such weapons systems could not comply with international law.

Conclusion

There can be no guarantee that autonomous weapons can be used predictably in compliance with international law. It is impossible to predict how complex software will

react in all circumstances. Conflict regions are notoriously replete with unanticipated and changing events and the technology can be 'gamed', jammed, hacked or spoofed by an adaptive enemy. Clearly, therefore, there are strong moral, legal and security reasons for the pre-emptive prohibition, under international law of the development, production and use of autonomous weapons.

When states declare that there will always be 'human control' or a 'human in-the-loop' for automated weapons systems, we need to ask whether that control meets the requirements for engaged human control. We should also expect states to explain how they ensure that this requirement is met in their weapons review processes.

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IN DEPTH

The US drone strikes and on-the-ground consequences in Pakistan

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The US drone strikes in Pakistan have been the topic of much discussion in international security circles. Some debates have centered upon the efficacy and appropriateness of these strikes. Other analyses have looked at the use of drones from value-neutral perspectives, such as evaluating their significance in changing counterinsurgency efforts. However, these and other evaluations have neglected to look at on-the-ground consequences of the use of drones on the state and society in Pakistan.

This article will aim to bridge that gap by highlighting some of the seriously harmful effects of drones on the well-being of the Pakistani public and the state. First, it will examine the dispersal of suspected terrorists across Pakistan in order to escape drones. Many suspected militants being hunted by American predator and reaper aircrafts have relocated from FATA, moving to other parts of Pakistan. This relocation has come with serious, and often lethal, consequences for their new host populations. Next, it will look at the way drone strikes have had a radicalizing impact on public opinion in Pakistan, with negative consequences on various fronts. Finally, it will look at the impact of drones on Pakistan's democratic set-up, which has been struggling to move on from a history of dictatorship. ¹ The conclusion will sum up the discussion.

Drones and the dispersal of militants across Pakistan

American drone strikes in Pakistan's Federally Administered Tribal Areas (FATA) started in 2004. The tribal areas have a distinct political status in Pakistan and the country's standard laws do not apply there. These areas became the new homes of various Al Qaeda and Taliban militants after the American invasion of Afghanistan in December 2001. Soon afterwards, it became clear to Americans that due to the remoteness of the tribal areas, they had little chance to track down these individuals in the absence of active Pakistani cooperation. Hence drone strikes seemed to provide a perfect answer for the problem. As a result, around 370 strikes have been conducted in the tribal areas of Pakistan so far with only 4 strikes targeting areas outside FATA.²

" The dispersal of suspected terrorists across Pakistan in order to escape drones has come with serious consequences for their new host populations "

Given this situation, suspected terrorists have been leaving FATA to relocate to other parts of the country. A number of them have moved to Karachi, Lahore and those parts of FATA that have not been heavily targeted by drones. The move, however, has not changed the basic agenda of these individuals, which is to wage a jihad against those they consider infidels. In FATA, they used their tribal hideouts to target American forces in Afghanistan, but after their relocation, they have been targeting Pakistani civilians to continue their holy war. Pakistani civilians and members of the country's security forces are legitimate targets for these individuals as the state is an official ally of the United States. Though their target has changed, their mission remains the same. Proponents of drones have been highlighting their success in decreasing the number of attacks on Western forces in Afghanistan. However, the approximately 50,000 Pakistani civilian victims of terrorism rarely get mentioned in such assessments, and a large number of these have been the target of terrorists who have moved from FATA to escape drones. ³

After their relocation, these individuals do not consign themselves to religious violence. They also actively participate in kidnapping for ransom, drugs and arms smuggling, and land grabbing in cities like the southern port city of Karachi. ⁴ Much of the revenue generated through their participation in such activities goes back to fund militant activities in the country's northwest. This under-studied consequence of the use of drones will have significant implications for the regional security in South Asia, long after the departure of American forces from the region in 2014.

The radicalizing impact of drones

The drone strikes have had a serious radicalizing impact on public opinion in the country, with a serious shift to the right in the last few years. The cricketer turned politician, Imran Khan, has used these attacks as examples of American hubris, blaming them for massive collateral damage and death of innocent civilians. Khan believes that the use of American unmanned aerial vehicles has not been very effective, as the situation in Afghanistan and Pakistan is far worse than it was when the strikes were initially employed in 2004.

Imran Khan has massive appeal amongst the country's youth and his rhetoric has played a key role in turning the youth against the West, leading them to believe that there is a massive international conspiracy to weaken Pakistan and drones are just one part of that 'grand strategy.' Khan has successfully portrayed himself as the spokesperson of the political right in Pakistan. This radicalizing impact of drones has been detrimental to conducting a fair and impartial assessment of America's role in helping build Pakistan's democratic institutions and supporting the people of the country through its numerous development projects.

Pakistan's democracy and issues of legitimacy

It is an open secret that Pakistani security and government officials often collude with the US in facilitating the targeting of suspected terrorists in FATA. However, officially, the government of Pakistan opposes the use of drones on its territory. The National Assembly of Pakistan has repeatedly passed resolutions asking Washington to halt the attacks as they violate Pakistani sovereignty. However, that has had a limited effect on American policy thus far. This situation contributes to undermining the legitimacy of the Pakistani Parliament and the country's democratic setup, which is already struggling to emerge from the shadow of dictatorship.

" The policy of drones strikes in Pakistan serves to undermine the legitimacy of the democratic system the US says it would like to support "

The Obama administration has admitted that Washington was mistaken in supporting various military rules in the country and from now on it would work to strengthen the democratic institutions there. There has been an acute realization that Pakistan's many ills can be attributed to the lack of a stable democratic system and not only the country but many other nations across the world have had to suffer for that reason. However, that support has not been more than lip service. Pakistan's democratic institutions suffer from a lack of legitimacy as their control over the country's destiny has been limited since the country's creation in 1947. Traditionally, Pakistan's army has been the main decider of the state's foreign policy. Pakistan's foreign allies have also chosen to work directly with the army, bypassing the civilian leadership even when democracy existed in Pakistan. Though there has been much focus in American policy statements towards strengthening the democratic setup, the policy of drone strikes flies in the face of that approach. They serve to undermine the legitimacy of the democratic system the US says it would like to support. It is often said that only a stable democratic setup will solve Pakistan's internal problems including sectarian and religious terrorism in the country.

The way forward

This article has looked at the on-the-ground consequences of American drone strikes in Pakistan. The debates on the efficacy and appropriateness of drone strikes rarely take into consideration these consequences. These clear shortcomings of the policy of using drones have to be addressed if Washington would like to conduct a fair and impartial assessment of the efficacy and appropriateness of the employment of this tool to counter the terrorist threat in Pakistan and other parts of the world. Furthermore, there is a need to view the use of drones as a short-term tactic with limited value in the longrun. They cannot serve as a replacement for the comprehensive strategy which would be

required to deal with the type of challenges Washington is trying to tackle through the use of drones.

1. Pakistan has been ruled by military dictators for nearly half of its existence.

2. The statistics are based on the data compiled by the New America Foundation. See their website for details here, the site was accessed on 31 December 2013.

3. See Shaun Waterman, 'Pakistan says war on terror has cost nearly 50,000 lives since 9/11,' The Washington Times, 27 March 2013.

4. See Imtiaz Ali, 'Karachi becoming a Taliban safe haven,' Combating Terrorism Centre at West Point, 13 January 2010. <u>Available here.</u>

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RECOMANEM

Materials and resources recommended by the ICIP

Project "Covert Drone War"

<u>The Bureau of Investigative Journalism</u> is a British NGO with the firm belief that journalism must act in benefit of society. On this basis, they have a project called <u>"Covert Drone War"</u> dedicated to researching US drone attacks in Pakistan, Yemen and Somalia. On their website, the organization compiles news related to drone strikes in these countries, as well as the personal stories of victims and witnesses of these attacks.

The project has a specific section with a full dataset of all the drone strikes launched in these countries, the number of casualties (total, civilians, children) and the number of people injured. According to this NGO's data, between 2004 and 2013, and only in Pakistan, the US launched 381 strikes (almost all under the presidency of Barack Obama) with the following consequences: between 2,500 and 3,600 casualties, of which nearly a thousand were civilians and, of these, 200 were children. Between 1,100 and 1,500 people are believed to have been injured.

In Yemen, between 2002 and 2013, the United States has confirmed nearly 70 strikes, but The Bureau of Investigative Journalism estimates that there could have been a hundred more, with hundreds of deaths and injuries. Finally, the data regarding Somalia cover the period between 2007 and 2013. In this country, according to the same source, there have been around ten strikes which could have killed up to thirty people. This dataset is clearly useful in order to assess the magnitude of the threat posed by drones, given the current lack of transparency regarding their use – and the consequences of their use – under the premise of the global war on terrorism.

Documentary Drone Wars

<u>"Drone Wars"</u> is a series of three documentaries about the implications of this weapon of war, produced by Alternate Focus, an independent, nonprofit media group dedicated to promoting a view of Middle East issues that is "different" from the coverage offered to US public opinion by mainstream media.

The first part of the documentary, called "The Drone Landscape," offers an overview of the deployment by the US of these unmanned aerial vehicles in various countries, especially in Pakistan, and more specifically in the Waziristan area. Through interviews with academics, activists or members of the US Congress, the documentary reflects on the objective of the drone attacks and their consequences.

The second part, "The Drone Economy," focuses on the economic implications of drone warfare. The documentary visits the town of Poway, near San Diego, California, where 4,000 people are employed at General Atomics, the contractor that manufactures Predator drones, and looks at the ties between the US defense industry and politicians.

Finally, the third part of the documentary, "The Drone Morality," raises the question of who bears ethical and legal responsibility for drone strikes, and puts forward the debate of how these weapons can change the perception and manner of waging war.

Book

A short history of nuclear folly

Herzog, Rudolph. A short history of nuclear folly. Mad scientists dithering nazis, lost nukes, and catastrophic cover-ups. Melville House 2012.

This is a book which warns us about the nuclear perils without needing to mention Hiroshima, Nagasaki or Chernobyl; nor the crisis of the Cuban missiles or the more recent Fukushima accident. And, despite all this, it still causes our hair to stand on end.
Each chapter focuses on inexplicably little known insane facts as, for example, the fate and further professional careers of the German scientists who had worked on nuclear projects and who, after WWII, refused to construct an atomic bomb, despite having the capacity to do it. Among the creepiest are, without any doubt, the ideas to adapt the nuclear weapons to civil engineering, such as the construction of a second Panama Canal by means of 300 nuclear bombs. Many nuclear tests have been carried out in the name of these projects... Does anyone know the origins of the word "bikini"?

Accidents like the Palomares one in Spain, among others, are also detailed in the book. Also, difficult-to-explain situations such as the fact that many of the people who worked in a particular movie died of cancer at an early age- one of them being John Wayne, aged 46. And, how shocking to learn that 40 nuclear weapons "got lost" during the Cold War or that a nuclear reactor which was installed on the Himalayas is still on unknown whereabouts. The book also accounts for a nuclear reactor built in Congo by a shrewd missioner and which has been stolen its combustible, based on uranium; or the story of an astute surgeon who implanted plutonium inside the heart of his patients.

Nuclear weapons continue to exist nowadays, despite the current international campaign for their ban, and continue to proliferate around the world. However, the most worrying thing about the book is that it seems to be just the tip of the iceberg. How many more chapters are still to be written?

Documentary

<u> "Aquí nos vamos a quedar" ("We're staying here")</u>

Peasants affected by genetically modified soybean farming in Argentina or by mining in Ciudad Bolívar, Colombia; an entire town – Temacapulín, in Mexico – threatened by flooding as a result of water abstraction by an important Spanish construction company; Tibetan nomads harassed by the Chinese government in order to force them to abandon their land and livestock; or communities in conflict over the exploitation of the Tana River Delta in Kenya... These are all examples of environmental injustice, with victims of an unequal distribution of natural resources, and the subject of the documentary Aquí nos vamos a quedar ("We're staying here"), produced by the Media Lab of Environmental Conflicts of the Institute of Environmental Science and Technology (ICTA).

Through direct testimonies and the voice of activists and academics, the documentary explains what environmental justice is – equity in the reasonable use of natural resources – and points out its four essential aspects: an equitable distribution of natural resources, recognition of local communities, their participation in decisionmaking, and the ability to mobilize and make one's voice heard.

Aquí nos vamos a quedar does a good job in exposing injustice, based on specific experiences, and also in defending social struggle, since it reminds us that through the mobilization of civil society many important battles have been won, such as the one of the peasants of Páramo El Almorzadero, in Colombia, or the inhabitants of Temacapulín, in Mexico. These are examples that should give hope to other communities threatened by economic interests that are difficult to defend.

TRIBUNA

The truth of women

Elena Grau International Catalan Institute for Peace

La verdad de las mujeres. Víctimas del conflicto armado en Colombia ("The Truth of Women. Victims of the Armed Conflict in Colombia") is the title of the final report of the Colombian Women's Truth and Memory Commission (CVMMC), which was recently presented in Bogotá. This report contains the voices of over a thousand women who gave testimony in order to expose their experience in a war that has been going on for more than fifty years, and to help create a collective truth narrated by women and shared by the Colombian society it is addressed to.

In 2010, the Ruta Pacífica de las Mujeres Colombianas launched a project that seemed very difficult to carry out: to compile the memory and truth of Colombian women who had been victims of human rights violations in the context of an armed conflict. The challenges were, first of all, to carry out this project in a country that is still at war, and secondly, to do so with the means available to a social grassroots movement.

The Ruta Pacífica is a network made up of 389 groups of women associated with the movement for feminism, peace and human rights, or at the community level. It was created in 1996 following marches in support of women in the areas most affected by the violence of the armed actors. Since its inception it has worked for a negotiated end to the armed conflict in Colombia and to put an end to the impunity of those who perpetrate violence against women. The Ruta Pacífica is a grassroots movement that is present in nine Colombian regions and is characterized by its commitment to giving support to women who contact them, as well as its capacity to mobilize its bases of support and make political proposals based on the experience of women. Additionally, the Ruta's marches are known for the richness of the symbolic language they use and

for their creativity.

The two challenges mentioned above have been transformed into elements that make the project unique. The experience gained as a women's movement has given the Ruta Pacífica the ability to protect itself, and to protect and accompany the women who testified in a country where human rights are not guaranteed. This means not putting them at risk during the interviews and assisting them with counseling and psychosocial support, when needed, throughout the process. Furthermore, the mobilized human resources have always been internal; in other words, women of the Ruta Pacífica themselves have documented, transcribed and codified the testimonies, and written the final report, with occasional external advice and support. This has led to an innovative project of Investigation – Action – Participation which offers food for thought to future Commissions that may consider working with the truth and memory of women.

"Women have become military targets in the armed conflict in Colombia because of their capacity for resistance, their persistence in building and rebuilding conditions of humanity, and their tenacity in the defense of loved ones"

The work of the CVMMC has benefited from the organizational capacity and the efforts to learn and participate in training of the women of the Ruta Pacífica. Over eighty people have participated in the development of the project: among others, 36 documenters, 10 digitizers, 7 codifiers and systematizers, and 8 researchers (i).

The work was carried out in several stages: the initial training workshops for the women who had to take testimony from other women; the coordination of planning by regions, the conduct of around 100 interviews – which resulted in a voice recording and a file – and their transcription; the subsequent centralization of all the information in order to codify it with the ATLAS.ti program and process it statistically; and the final task of writing the report based on the compiled testimonies.

A key factor that has made the CVMMC possible has been the trust present at every stage and area of the project: trust among the women who accepted the challenge of carrying out this project; trust in the Ruta Pacífica on the part of the women who gave their testimony; and trust created during the interviews, which made it possible for the words of women who had been silenced for so long to finally emerge.

Another equally important aspect has been the commitment to support all the women involved and provide them with tools to deal with the traumas experienced while working on various phases of the process with testimonies. This healing work has been carried out in each region and in a large gathering held to develop and reflect on the work done and the experience of carrying it out.

" Colombian women demand Truth and Justice, an end to impunity. They also demand the demilitarization of life and territories and access to education, health care and jobs: the best antidote to violence "

The CVMMC has generated two documents: *Memoria para la vida* ("Memory for Life"), about the methodology used; and the report *La verdad de las Mujeres*. *Víctimas del conflicto armado en Colombia* ("The Truth of Women. Victims of the Armed Conflict in Colombia"), published in two volumes. Following an introductory chapter outlining the general framework of the study, the first volume contains the testimonies, analyzed both quantitatively and qualitatively, and organized in large sections that refer to the consequences that the acts of violence had on the lives of the women interviewed and the traumas they experienced. Apart from the dimension and depth of the harm received, the report contains the women's accounts of how they confronted these events; what they did to survive and overcome serious human rights violations. The second volume presents the acts of violence related by the women, the nine group cases, and compiles their demands for reparation.

The report therefore offers a factual truth and a narrative truth. The factual truth has to do with what happened, to whom, where, when, how and who was involved. This truth that attempts to capture the contexts, the causes, the patterns and the impacts of the violence drives home the nature and magnitude of the events, and also sustains complaint procedures. The narrative truth, on the other hand, has to do with the subjective experience and the meanings we attribute to it. This experiential truth provides knowledge about personal stories, about beliefs and values, about the impact and resistance of women.

It is clear from the testimonies that women have become military targets in the Colombian armed conflict; a conflict that revolves around the control of territory and natural resources, which has resulted in the militarization of people's lives or their expulsion. Because of their capacity for resistance, their persistence in building and rebuilding conditions of humanity, and their tenacity in the defense of loved ones, women become an obstacle for the armed actors. Violence against women in this context takes on very different forms, from threats (49.46%), psychological torture (54.40%) or physical torture (15%), to forced displacement (76.20%) or sexual violence (13.20%).

However, the testimonies also allude to prior violence in settings outside the conflict, which refers us to the existence of a continuum of violence in the life and experience of women. Sexual violence is an example: while 13.20% of women state they were subjected to sexual violence in the context of war, 15.20% declare they were victims within their own family or community. The report therefore confirms that, for a woman, violence isn't over when the war is over because the origin of violence against women has to do with the dominant relationship of men over women in the patriarchy that normalizes it in every area and at every moment.

While the report confirms the scope and seriousness of violence against women, it also provides in-depth knowledge of its impact on the lives and bodies of the women interviewed, underlining the unity and corporeality of the feminine experience. In other words, the traumatic effects of direct violence, of losses and of the disruption of their own lives circulate and connect to one another giving rise to illnesses, altered perceptions of their own bodies, sexual distortions, and disturbed personal and community relationships.

Nevertheless, the women interviewed have survived violence and their testimonies also relate how they coped with the traumatic events and learned to live with the losses and damages. In their narratives, they explain that the driving force behind their resistance and ability to pull together were the bonds with loved ones, mainly their children. In the name of these bonds, they confronted the armed actors, designed protection strategies and were willing to lose everything in the displacement or escape in order to save their lives and those of others. The responsibility they had assumed for people who depended on them also helped sustain their determination to build and rebuild conditions of humanity in order to live a dignified life.

Regarding demands for reparations, what is heard most often in the testimonies is the feeling of irreparability of the damage suffered, but at the same time, the need to look ahead to the future in the name of personal dreams and, once again, of their children. The women demand Truth and Justice; they want an end to impunity. They also especially demand the demilitarization of life and territories, and access to education, health care and jobs. For them, these opportunities to improve people's lives are the best antidote to violence.

In other words, the Colombian women who gave their testimony to the CVMMC demand the construction of a positive peace which is not limited to the end of the armed struggle, but also makes progress in terms of a greater justice for the people who are to experience it.

Photo: Diana Duque Muñoz .

TRIBUNA

Information and Communication Technologies for Peace

Ana Barrero

Head of Communication and Projects for the Foundation for a Culture of Peace

Information and communication technologies (ICTs) are among the most important technological advances in recent years. The Internet in particular has become not only a major source of information and means of communication but also a fundamental tool for activism.

The Internet, mobile technology and social networks represent a real revolution in information and communication, giving rise to a new paradigm of digital socialization and as a result, the appearance of a new type of "empowered global citizenry" that is more active, participative, democratic and actively committed to creating a more just, equal and peaceful world.

The global connection created by ICTs is bringing together the diverse, different and distant, and generating knowledge and understanding of distinct realities and situations. This is creating friendship and alliances between people and groups who are communicating and interacting around the world, establishing important links of solidarity and cooperation that translate into responsibility, commitment and support for specific situations, causes and actions.

A clear example of the impact of these technologies and their capacity to mobilize can be seen in the popular uprisings that began in 2011 in the Middle East and North Africa (the Arab Spring), in the 15 May movement in Spain, and in other movements, which led not only to a reaction within their own societies but also among "netizens" around the world, who through different information platforms and tools, supported and spread their cause, giving technical advice and condemning attacks on and violations of human rights.

" ICTs cannot be considered a right nor an end in themselves, but a means by which we can obtain and enjoy fundamental rights. They can be effective when they have a practical and strategic application "

ICTs offer new avenues for sharing information, communicating and participating, which allow people to engage with the world and work toward change in new ways.

Beyond the issue of inequality in their distribution, these data highlight the growing social presence of ICTs worldwide, which makes them a tool with enormous potential to promote peace.

Information and communications technologies in themselves do not offer direct benefits (conflict resolution, food, water, work, health, etc.). But the effective use of these technological tools and the appropriate management of the information they provide can help to avoid and resolve conflicts, assist in the cultivation of the land, generate economic resources through employment, and prevent diseases and epidemics.

ICTs cannot be considered a right nor an end in themselves, but a means by which we can obtain and enjoy fundamental rights. They can be effective when they have a practical and strategic application and when they have been developed with a welldefined purpose to satisfy people's needs.

We must, therefore, understand ICTs as a means to achieve an end.

This 'means' is a powerful tool to promote and build peace as it can help in communicating, in accessing and processing information, in developing and spreading

resources to build awareness, in providing support for decision-making, in mobilizing and getting people involved politically, in defending human rights and condemning their violation and in promoting common knowledge and mutual understanding, which is essential to prevent conflicts and support reconciliation.

The uses of ICTs for promoting peace can be grouped based on three fundamental objectives:

• **Communicating/reporting** about social problems and conflicts – at the local and global levels – through research and experimentation.

• **Training and education** in values that lead to a change in attitudes and the development of competencies that help to bring about active participation in peace building.

• **Transforming** social reality by putting into practice strategies for action and involvement that aim to solve problems.

" Information and Communication Technologies are a powerful tool to promote and build peace. They also have enormous potential to encourage the creation of a worldwide movement for peace.

Undoubtedly, these technologies offer infinite possibilities to promote peace. We can find countless and original initiatives: audiovisual resources, web pages, blogs and interactive games to raise awareness; a Facebook group calling for demonstrations against violent groups; young people from two regions in conflict who meet to exchange opinions and perspectives in a Facebook group, or have inter-cultural dialogues on Skype ; promoting contact and tolerance between groups in conflict in a particular zone using mobile telephones; mapping a conflict through the analysis and representation of data; finding alternative spaces for diplomacy and mediation through the creation of videos and spreading them on YouTube to launch messages of peace , etc.

Unlike in other spheres, such as government or the private sector, which adapted rapidly to the opportunities offered by ICTs, the peace sector has lagged behind in this growing trend to use these technologies to achieve important goals. However, peace organizations are now incorporating these technologies into their activities and projects; every day we find new and interesting initiatives to promote peace and resolve conflicts.

These technologies are not a panacea, but they certainly make new, more powerful and accessible instruments available to help organizations carry out their work more effectively and efficiently and in ways that would otherwise not be possible. They also have enormous potential to encourage the creation of a worldwide movement for peace: A movement in which each person – individually or as part of a group – can, through different technological tools, become an authentic agent of change, involved and able to launch campaigns to promote peace and be a spokesperson for social justice.

Peace organizations must be able to channel this growing creative capacity for mobilization among the world's citizens and incorporate it into the struggle for peace.

As stated in the Prague Declaration, "Towards an information literate society", access to information and the effective use of ICTs play a very important role in reducing inequalities and promoting tolerance, understanding and mutual respect among different races, cultures and religions.

1. "Data and figures related to ICTs: The world in 2013, International Telecommunication Union (2013), 20 December, 2013. <u>Available here.</u>

2. Barrero Tiscar, Ana D. "Alfabetización en información para una cultura de paz: objetivos, programas y modelos" (Thesis Project, Universidad Carlos III de Madrid, 2010)

3. <u>Peace in Facebook</u> publishes friendship trends that are being created every day on Facebook between people from different religions and political groups, who are on the opposite sides in conflicts. 4. An example of the use of technologies in this sense is the campaign, "Israel loves Iran", launched by Ronny Edry, an Israeli designer who posted on his Facebook wall a photograph of himself with his daughter with a sign that said "Iranians, we will never bomb your country. We love you". The message became very popular around the world, creating an online community seeking to build bridges among people in the MIddle East and make peace go viral. <u>Video.</u>

5. "The "Declaration of Prague: Towards an information literate society". Meeting of information literacy experts (Prague, Czech Republic, 20-23 September, 2003). Available here.

Photo: Collin Anderson. Modified. Link to license.

INTERVIEW

Interview with Christof Heyns, UN Special Rapporteur and Professor of Human Rights Law

Xavier Alcalde and Eugènia Riera International Catalan Institute for Peace

Christof Heyns, UN Special Rapporteur on extrajudicial, summary and arbitrary executions and Professor of Human Rights Law at the University of Pretoria.

As a United Nations-based expert, Christof Heyns has on many occasions demonstrated concern on the growing number of drone attacks in countries such as Pakistan, Somalia and Yemen, and has warned of the dangers that the proliferation of these vehicles weakens international security and the protection of human life. In this interview, he talks about the challenges that drones pose, and the urgent necessity to stop the proliferation of 'killer robots' to preserve the world order.

As an expert in international law, do you believe that there is any possible use of armed drones compatible with international humanitarian law?

I do not think that drones are inherently illegal weapons. They are being used in Afghanistan in the context of an established armed conflict, and I do not particularly see a big difference whether there is somebody on board and pushes the button at 16000 feet and does not see the ground, or whether they push that button somewhere on the ground where they have got a screen and are able to see exactly where they are targeting. However, their use creates a lot of challenges, and that is what we need to study. In your latest reports, you have stated that 'a world where multiple States use armed drones in secrecy is a less secure world' and have called for more transparency from state actors. Which measures must be adopted for this to happen?

Currently in the United States, there is a draft bill in which they look at disclosing the number of civilian casualties when there has been a drone strike and that is a first step. Ideally, the identities should be revealed and not just the numbers. One must have clarity on the facts, the law surrounding drones, and who exactly is potentially a target; for example the issue of members of organized armed groups. Who exactly can be targeted? Is it any member or certain members of the armed group? One must also have clarity on the policies in what cases are drones used and what are the policies concerning employing this form of warfare. Those are the three areas where I am looking for transparency and visibility.

What about non-state armed groups? Do you believe that the acquisition of drones by such groups is a possibility?

In order to send a drone half way around the world, you need to be in possession of some advanced telecommunications, and even state actors often do not have that kind of telecommunications. They could probably only use them within a short range. However, it is a danger that they could be hacked and fall into the hands of non-state actors.

" Clarity on the facts, the law surrounding drones, and who exactly is potentially a target. Those are the three areas where I am looking for transparency and visibility "

In order to deal with all these challenges, do you think that the international community and public opinion must play a bigger role?

The international community must express itself on robots. It is already happening in the General Assembly of the United Nations; it is important the kind of discussion we had some months ago in New York with 193 states, where states expressed themselves on a number of issues, including the European Union saying that the established international legal system must be used, its norms must not be opened, and there should be transparency. The Convention on Certain Conventional Weapons (CCW) is also looking into this, and the Secretary General of the UN has also been advised to begin a process.

In a previous report by Special Rapporteur Philip Alston, in 2010, he expressed his concern about the use of drones to carry out targeted killings and he already mentioned that there is an urgent need to study the implications of fully autonomous weapons. Are we already late on lethal robots?

I do not think it is too late. It is in a way unusual to address problems with weapons systems in advance; it is often after it is used that problems are addressed, but I think that it will be very difficult if robots are used to get rid of them. I think there is urgency but it is not too late. The main states that have this technology are at least aware that there is a concern. We have a window of opportunity to act but within a few months we will probably lose that.

You suggested, in your report, a moratorium on robots. Should it be a first step towards the future prohibition?

The important thing to mention about the moratorium is that it is a temporary situation on an item or a procedure which in practice is not used. The international community understands well enough that these robots should be banned; my proposal was not to use them for the time being. This could lead to a ban or to higher regulation, or it can potentially lead to the international community deciding that it can deal with robots. I don't think the last option would be a realistic possibility, so I foresee either a ban or some kind of regulation.

"One concern is whether it is at all acceptable whether machines could take decisions over life and death of human beings. The second concern is that of accountability. How do you regulate the situation if we do not know who eventually is responsible? "

Is it possible to impose a moratorium on the research into these weapons?

That is impossible. The technology used for these robots is the same that is used for the Google car and for many other applications. What I am calling for is a moratorium on the building, use and development of these weapons- and on weapon platforms too, because these robots simply carry other weapons. I am simply asking for domestic moratoria, so that states themselves say that they should not use this. It is difficult to monitor this internationally; my main point is that we are too uncertain at the moment about the implications of these weapons so states for the time being should commit not to use them.

What are the biggest concerns about the use of robots?

One concern is whether it is at all acceptable whether machines could take decisions over life and death of human beings. Even if they could comply 100% with international law, it is a problem with regards to human dignity, that we can be killed by machines. The second concern is that of accountability. Even theoretically if these robs can comply with international humanitarian law (IHL), how do you regulate the situation if we do not know who eventually is responsible? The person who develops the software, the politicians, the commander? These machines will have been programmed years in advance before there is even a war, and can this person be tried for a war crime? There is a lot of uncertainty about accountability and where IHL cannot be policed as we do not know who can be held accountable. This issue has been discussed at the Convention on Certain Conventional Weapons (CCW) and some countries have raised the issue. Do you think that if not enough progress is made, this could lead to a fast-track process, such as the cluster munitions ban process?

Many people are critical about the CCW, because many weapons such as cluster munitions or landmines were dealt with by them but eventually solutions were found elsewhere. People are sometimes critical of the CCW saying that they have not achieved many concrete results in the past few years, but there seems to be a new energy; there is a French chair of the state party group (Jean-Hughes Simon-Michel) who I have met with, and they are committed to employ CCW procedures too. There is reason to be cautiously optimistic about this to take the agenda further.

There seems to be a momentum on humanitarian disarmament internationally. Certainly this is something positive but could it also have a negative side? Are there too many issues competing for public space in the agenda?

There is a danger that one focuses only on autonomous robots and at the same time new technology is being developed and are not attended to. I do not think it is a bad thing that a lot of attention is being paid to different technologies, but I think that people must be realistic about it as well. We have to think about how to regulate the use of drones, and in that case, it is not a question of whether they should be banned. With robots it is a different matter; we should channel our energy in asking whether they should be banned. Then there are all kinds of bio and Nano-technology that are being developed. Those things need to be focused on and so I think that it is a good thing that there is a wide spread of attention.

How do you imagine armed conflicts will develop in the future?

It is clear already that we are moving away from inter-state wars. It is mostly noninternational conflict between states and non-state actors and war gets very complicated. There will be an increased incentive to use technology for the states that have this technology so that is why I am worried about autonomy as well, because one day it could go too far and push over the edge, and becomes something that dehumanizes the very idea of humanity. But I think states with the technology will increasingly use that and that is a concern. For them the incentive is significant, especially with unmanned systems, because they do not lose their own troops.

And probably as you say in your report, there will be more conflicts, in the sense that actors will have less to lose.

And that is my concern; with war, there is a typical timeframe. Usually, there is a time for war, then peace follows; war comes to an end, and then comes recovery and healing. However, if states have access to technology that they can use to pinpoint a particular target and a particular state, more low intensity conflict where a state tries to target its enemies in many different states will become common. It would mean that the established rhythm of war and peace would be blurred, and an ongoing low intensity armed conflict would prevail.

SOBRE L'ICIP

News, upcoming activities and new publications about the ICIP

ICIP

International Catalan Institute for Peace

Alfons Banda, vicepresident and promoter of ICIP, dies

Alfons Banda i Tarradelles, vicepresident of ICIP and one of the drivers of the creation of the Institute in 2007, passed away last January 30th. Banda was also director of the ICIP book collection "Classics of Peace and Nonviolence", coedited by ICIP and Angle Editorial.

Born in Girona in 1944 and chemist by profession, Alfons Banda was the founder of Fundació per la Pau (now FundiPau), and was its President until 2011. Constant fighter for peace, great disseminator of the culture of peace and defender of the key role of public opinion in the fight for justice, Banda has left his long career of commitment and peaceful struggle as his legacy.

The ICIP Board of Governors, the President, the Director and the rest of the team are really sorry for this terrible loss and commit to continue working for peace and to honor his legacy.

1. New publications

Two new books have been published in ICIP's book series at the beginning of the year. First of all, the book *Lluís Companys: contra la guerra*, edited by Josep Maria de Figueres, in the series "Classics of Peace and Nonviolence" (ICIP and Angle Editorial). The book is a compilation of written documents and parliamentary speeches by the ex-president of the Generalitat, Lluís Companys, against the Spanish military presence and intervention in Morocco, in a clear demonstration of his antimilitarist activism and his courageous stand against war.

Secondly, the book *Construcció de pau reflexiva*, by John Paul Lederach, Reina Neufeldt and Hal Culbertson; a planning, monitoring and learning toolkit, intended for professionals, with the aim of fostering learning about peacebuilding programs. This book is part of the "Tools for Peace, Security and Justice" series (ICIP and Líniazero Edicions), which is published exclusively in digital format, in PDF and in ePub.

2. New ICIP Research series

ICIP has recently launched a new book series called ICIP Research, which compiles the results of the activities organized by the Institute related to research for peace and nonviolence. The objective of this new series, aimed mainly at academic circles and peacebuilders, is to disseminate texts that can be useful for reflection and training.

The first book published is:

- Companies in conflicte situations. Building a research network on business, conflicts and human rights , ICIP Research 01 (published in English).

3. Latest ICIP Working Papers

The following essays have been recently published in the ICIP Working Papers series:

– New quantitative estimates on long-term military spending in Spain (1850-2009), by Oriol Sabaté Domingo (in English and Catalan)

– La transición geográfica de Asia Central en el nuevo contexto geopolítico , by Elvira Sánchez Mateos, Aurèlia Mañé Estrada, Carmen de la Cámara and Laura Huici Sancho (in Spanish and English)

- L'est del Congo: arribarà mai el final de la guerra? , by Gérard Prunier (in Catalan and Spanish)

4. ICIP Peace in Progress Award Ceremony

The 2013 ICIP Peace in Progress Award Ceremony will take place on March 17 at the Parliament of Catalonia. The award will be presented to Jovan Divjak "for his courage, as a member of the armed forces, in disobeying the orders of the Yugoslav People's Army and defending Sarajevo during the siege that took place during the Bosnian War, and afterwards, for his extensive civic work, with various initiatives in favor of the war's victims."

The president of the Parliament, Núria de Gispert, ICIP president, Rafael Grasa, and the recipient of the award will be attending the ceremony.

The ICIP Peace in Progress Award aims to publicly recognize individuals, entities or institutions that, in an outstanding and extensive manner, have worked and contributed to the promotion and building of peace. The award is annual and consists of public recognition, a sculpture created by the Nobel Peace Prize winner, artist and activist, Adolfo Pérez Esquivel, called Porta del Sol, and 4,000 euros.

5. ICIP collaborates with Colombian institutions

With the objective of supporting peacebuilding and conflict transformation activities in Colombia – and at a key moment for the country with peace negotiations underway – ICIP has signed a collaboration agreement with the Bogotá Chamber of Commerce and two collaboration protocols with the Medellin City Council and the Colombian Federation of Municipalities. These agreements will make it possible to work together on site and to closely monitor the Colombian peacebuilding process after decades of armed conflict.

At the same time, ICIP is organizing an international seminar on post-conflict scenarios in Colombia, which will take place in Barcelona in May. The objective of this seminar is to work on the opportunities and agenda items of a post-conflict Colombia.