

Prohibiting Autonomous Weapons: Put Human Dignity First

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Abstract

In addition to its successful mobilization in stigmatization and norm-setting processes on anti-personnel landmines and cluster munitions, the principle of distinction as enshrined in International Humanitarian Law also figures prominently in the debate on lethal autonomous weapons systems (LAWS). Proponents of a ban on LAWS frame these as indiscriminate, that is, unable to distinguish between civilians and combatants, and thus as inherently unlawful. The flip side of this particular legal argument is, however, that LAWS become acceptable when considered capable of distinguishing between combatants and civilians. We thus argue, first, that this particular legal basis for the call for a ban on LAWS might be rendered obsolete by technological progress increasing discriminatory weapon capabilities. Second, we argue that the argument is normatively troubling as it suggests that, as long as civilians remain unharmed, attacking combatants with LAWS is acceptable. Consequently, we find that the legal principle of distinction is not the overall strongest argument to mobilize when trying to stigmatize and ban LAWS. A more fundamental, ethical argument within the debate about LAWS – and one less susceptible to ‘technological fixes’ – should be emphasized instead, namely that life and death decisions on the battlefield should always and in principle be made by humans only.

Lethal autonomous weapons systems: a threat to human dignity

Numerous arguments motivate the current call for an international, legally binding ban on so-called lethal autonomous weapons systems (LAWS).¹ Strategic concerns include proliferation, arms races and escalation risks (Altmann and Sauer, 2017; Rickli, 2018). Military concerns include the incompatibility of LAWS with a traditional chain of command or the potential for operational failures cascading at machine speed (Bode and Huelss, 2018; Scharre, 2016). Ethical concerns include the fear that LAWS might further increase the dehumanization and abstractness of war (and thus its propensity), as well as its cruelty if warfare is delegated to machines incapable of empathy or of navigating in dilemmatic situations (Krishnan, 2009; Sauer and Schörnig, 2012; Sparrow, 2015; Sparrow et al., 2019; Wagner, 2014). Legal concerns include difficulties of attribution, accountability gaps, and limits to the fulfillment of obligatory precautionary measures (Brehm, 2017; Chengeta, 2017; Docherty, 2015). But the most prominent concern, focalizing some elements of the concerns just mentioned, is the danger these weapons pose to civilians. This argument’s legal underpinning is the principle of distinction – undoubtedly one of the central principles of International Humanitarian Law (IHL), if not *the* central principle (Dill, 2015).

As multifaceted and complex as the debate on military applications of autonomy is now, what has been articulated

at its very beginning (Altmann and Gubrud, 2004; Sharkey, 2007) and consistently since then is that LAWS would violate IHL due to their inability to distinguish between combatants and civilians. This image of LAWS as a threat to civilians is echoed routinely and placed first by all major ban supporters (we substantiate this claim in the following section). That LAWS would be incapable of making this crucial distinction – and thus have to be considered indiscriminate – is assumed because ‘civilian-ness’ is an under-defined, complex and heavily context-dependent concept that is not translatable into software (regardless of whether the software is based on rules or on machine learning). Recognizing and applying this concept on the battlefield not only requires value-based judgments but also a degree of situational awareness as well as an understanding of social context that current and foreseeable computing technology does not possess.

We unequivocally share this view as well as these concerns. And yet, in this article, we propose to de-emphasize the indiscriminateness frame in favor of a deeper ethical assertion, namely that the use of LAWS would infringe on human dignity. The minimum requirement for upholding human dignity, even in conflicts, is that life and death decisions on the battlefield should always and in principle be made by humans (Asaro, 2012; Gubrud, 2012). Not the risk of (potential) civilian harm, but rather retaining meaningful human control to preserve human dignity should be at the core of the message against LAWS.²

Our proposal rests on normative considerations and strategic communication choices. In the remainder of this article, we elaborate on two basic lines of our argument, namely the IHL principle of distinction and the concept of human dignity, provide insights into how and why they have been mobilized in the global debate on LAWS, and discuss the benefits and challenges of putting our proposal into practice.

LAWS and the principle of distinction

Modern IHL identifies three different categories of persons: combatants, non-combatants, and civilians. Those members of the armed forces who directly participate in hostilities count as combatants; those members who do not directly participate (e.g. military clergy) count as non-combatants; and persons who do not belong to the armed forces count as civilians (Aldrich, 2000; Ipsen, 2008). These distinctions bring into being one major principle for the conduct of hostilities: Only members of the armed forces constitute legitimate targets, whereas civilians must never be deliberately made a target of attack (Best, 1991).

With regard to the use of certain means and methods of combat, the prohibition of indiscriminate attacks implies a prohibition of indiscriminate weapons. Weapons may be deemed indiscriminate if they cannot be targeted at specific and discrete military objects, if they produce effects which cannot be confined to military objects during or after the use of the weapon, or if they are *typically* not targeted at specific objects despite being capable of precise targeting *in principle* (Baxter, 1973; Blix, 1974).

This general principle has surfaced in several weapon prohibitions. First, indiscriminateness is a constitutive feature of the entire category of weapons of mass destruction (WMD). As of recently, each of these weapons – biological, chemical, and nuclear weapons – have been explicitly prohibited by a separate treaty.³ Second, several conventional weapons have been restricted or prohibited due to their indiscriminate effects, the treaties prohibiting anti-personnel (AP) landmines (1997) and cluster munitions (2008) being the two most recent and most prominent examples.

The processes resulting in these two prohibitions function as procedural and substantial precedents for the ongoing norm-setting efforts on LAWS. In procedural terms, all three processes share their formal institutional origins in the United Nations (UN) Convention on Certain Conventional Weapons (CCW), and all were championed by NGO coalitions. In the cases of AP landmines and cluster munitions, the CCW's failure to reach an agreement provoked eventually successful processes conducted by like-minded states outside the UN framework. The issue of LAWS initially gained traction within the UN framework in the Human Rights Council (HRC); it then moved to the CCW, where it has been debated since 2014, first in informal talks, and, since 2016, in a group of governmental experts (GGE), which used to spend 2 weeks' time on the issue but has reduced the allotted time to 7 days in 2019. Yet, due to the lack of progress and the more or less open resistance to any regulation

attempt by some major states, leaving the CCW is yet again being discussed.

What is of more interest to us, though, is the substantial impact of previous ban campaigns on the framing of LAWS. The campaign against AP landmines succeeded in achieving the first complete ban on a conventional weapon by coining the image of AP landmines as 'indiscriminate, delayed-action weapons that cannot distinguish between a soldier and an innocent civilian' (Price, 1998, p. 628). Some years later, the ban on cluster bombs was grafted onto this existing stigma by drawing an analogy between landmines and unexploded submunitions killing civilians long after the end of conflicts (Petrova, 2016; Rosert, 2019).

As mentioned at the outset of this article, the legal argument against LAWS is more complex and also involves issues such as accountability and precautions in attack. Nevertheless, the frame of 'indiscriminateness', which has worked out well twice in the past, has been salient since the earliest warnings against LAWS and remains a focal point of the ongoing pro-ban discourse, especially in communication from the international Campaign to Stop Killer Robots. Shortly after its formation in 2009, the International Committee for Robot Arms Control (ICRAC)⁴ announced in the first sentence of its foundational 'Berlin Statement' that such weapons systems 'pose [pressing dangers] to peace and international security and to civilians'.⁵ When Human Rights Watch (HRW) embarked on the issue in 2011, the question most interesting to them was whether LAWS were 'inherently indiscriminate'; when Article36 – an NGO advocating humanitarian disarmament, with civilian protection at its core – became another champion of a ban, the link between LAWS and civilian harm was further strengthened (Carpenter, 2014). The then UN Special Rapporteur on extrajudicial, summary, or arbitrary executions, Christof Heyns, emphasized the 'specific importance' of the 'rules of distinction and proportionality', and pointed out that the ability of LAWS to 'operate according to these rules' will likely be impeded (Heyns, 2013, pp. 12–13). Launched in fall 2012, the Campaign to Stop Killer Robots coordinated by HRW also placed special emphasis on the protection of civilians from the very beginning: 'The rules of distinction, proportionality, and military necessity are especially important tools for protecting civilians from the effects of war, and fully autonomous weapons would not be able to abide by those rules. [...] The requirement of distinction is arguably the bedrock principle of international humanitarian law' (HRW, 2012, pp. 3, 24). While listing various risks raised by LAWS, the focus on civilians is still the most prominent element in the campaign's framing of the issue today. LAWS are diagnosed with a lack 'of the human judgment necessary to evaluate the proportionality of an attack [and] distinguish civilian from combatant', and are considered particularly prone to 'tragic mistakes' that would 'shift the burden of conflict even further on to civilians' (CSKR 2019a).

The aim of sparing civilians from the effects of armed conflict is commendable, and we wholeheartedly support it. In relation to the specific case of LAWS, however, this legacy focus on IHL and civilian harm risks obscuring the much

deeper ethical problem of delegating the decision to kill to machines. The LAWS problematique thus goes far beyond the question of whether a machine will be able to comply with the principle of distinction or not. We elaborate on this argument in the following section.

LAWS and human dignity

Compared to the principle of distinction, the principle of human dignity, deemed common to all human beings, is more widely scattered across different sources and is less clear-cut. The Universal Declaration of Human Rights refers to it in its preamble, as does the Charter of the United Nations. Various other international as well as national legal texts evoke it. The key example for the latter is Germany's basic law (*Grundgesetz*) Article 1 (1) which states human dignity's inviolability and prohibits the treatment of humans as objects or means to an end (Amoroso et al., 2018).

Treating a human as an object is what happens when LAWS are allowed to kill. The victim, be she combatant or civilian, is reduced to a data point in an automated killing machinery that has no conception of what it means to take a human life. The appropriate primary framework for judging this issue is a moral one; legal frameworks are secondary, with International Human Rights Law – rather than IHL – ranking first among those.

Our argument is not that this point has not been made in the debate on LAWS. Quite the opposite. The objection that LAWS violate human dignity, regardless of their discriminatory performance, was initially raised by Special Rapporteur Christof Heyns (2013) when LAWS were discussed in the HRC. Human dignity has also been referred to by the Campaign to Stop Killer Robots, for instance in reports by HRW; its relevance has been underlined by various scholars (Asaro, 2012; Sparrow, 2016). Lastly, the International Committee of the Red Cross has drawn attention to it (ICRC 2018).

Nevertheless, we argue, human dignity too often tends to fall by the wayside. Instead, the legal case – mostly revolving around the discrimination principle – receives most of the emphasis. The most recent case in point are the ten 'Possible Guiding Principles' included in the final report of the CCW's August 2018 GGE meeting, which states that IHL and 'ethical perspectives', too, 'should guide the continued work of the Group' (UNOG, 2018, p. 4). But five out of those ten guiding principles are legal in nature, while not a single one contains a reference to human dignity. Mobilizing it more would be beneficial, as we substantiate in the next section.

The benefits and challenges of putting human dignity first

The benefits of shifting the debate more toward human dignity and away from distinction are twofold. First, the human dignity case against LAWS is the stronger and more substantive one in normative terms. Second, it is also the more durable and thus preferable one in terms of communicating and framing the issue strategically.

From a normative point of view, overemphasizing the indiscriminate nature of LAWS implies that, as long as civilians (or non-combatants) remain unharmed, attacking combatants with LAWS is acceptable. We reject this notion since combatants, too, are imbued with human dignity. Moreover, when the concept of human dignity is invoked in the discussion on LAWS, it is often associated with civilians or non-combatants such as soldiers *hors de combat* and/or in surrender (see e.g. Heyns, 2013 or Sparrow, 2015). To strengthen the normative case against LAWS, it is necessary to make explicit that delegating the decision to kill to algorithms is inhumane and unacceptable under *any* circumstances.

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

There are (at least) three more specific objections to our proposal to put human dignity first, both in terms of substance and of putting it into practice. We use the remainder of this section to address those objections:

1. Your proposal creates a false alternative between the principle of distinction and human dignity, between laws and morality.

We contend that viewing LAWS through the lens of human dignity is a moral exercise first and a legal exercise second.

The two are closely intertwined, of course. After all, '[u]nderlying the whole of body of law, and particular expressions of law, we find morality [...] and many legal norms coincide with moral norms' (Asaro, 2016, p. 371). In the LAWS debate, morality is routinely tied back into the legal discourse via the Martens Clause, by arguing that the new phenomenon of algorithmic killing on the battlefield runs counter to the dictates of public conscience and thus justifies the creation of new law. While we think that this argumentative move is a worthwhile endeavor, our concern is that invoking the – in itself controversial – Martens Clause once again invites legal dispute. As a result, the fact that human dignity is actually the Archimedean point of the debate (rather than one that first needs carrying over into legal terminology to matter) is given short shrift. Referring primarily to human dignity would simplify and strengthen the message, cut through the legal debate, and render referral to an already codified norm such as the principle of distinction less relevant in addressing the fundamental new concerns raised by LAWS.

2. It makes no difference whether a machine or a human kills you – when you are dead, you are dead.

There *is* a difference, and it matters enormously. First, we share the view that it matters for the person dying: 'In the absence of an intentional and meaningful decision to use violence, the resulting deaths are meaningless and arbitrary' (Asaro, 2016, p. 385). As we have argued above, mindless machines killing people based on algorithmic decision-making reduces the latter to data points and strips them of their right to be recognized as humans in death. Second, it matters even more for the society causing that death. Modern warfare, especially in democracies, already decouples societies from warfighting in terms of political and financial costs (Kreps, 2018; Sauer and Schörnig, 2012). A society outsourcing moral costs by no longer concerning itself with the act of killing, with no individual combatants' psyches burdened by the accompanying responsibility, risks losing touch with not only democratic norms but fundamental humanitarian norms as well.

3. Your proposal ignores the fact that the CCW is a framework convention concerned with IHL, for which human dignity is simply not as relevant a concept.

The discourse about LAWS is not and does not have to be confined to the CCW discussions. While human dignity is admittedly not a crucial point of reference within this particular forum, it is a universal and ubiquitous concept that does resonate with States Parties in other UN fora (such as the General Assembly, for instance). In addition, as of 2019, it is in fact quite likely that the CCW will yet again end up being merely an incubator for regulative action. Should the process surrounding LAWS leave the CCW, proponents of a ban on LAWS must be ready to refocus on human dignity. After all, in the US, 55 per cent of the public is opposed to LAWS (Carpenter, 2013); in Germany, 71 per cent of the population is against handing weapons control in warfare

over to AI (YouGov 2018). And international opinion polls conducted online by the Open Roboethics Initiative (2015) as well as by IPSOS (CSKR 2019b; Roff, 2017) indicate not only a similar picture but even growing resistance against LAWS at the global level. Since the public's reaction to LAWS is mostly visceral, rather than based on legal considerations, putting human dignity first will gain traction. This point is granted even by skeptics of our line of argument: 'There could be some campaigning advantages. Saying that something is against human dignity evokes a strong visceral response' (Sharkey, 2018, p. 9).

Conclusions

None of the arguments contained in this article are meant to criticize the scholars from various disciplines or the numerous activists arguing against LAWS and for the retention of meaningful human control over weapons systems from a variety of angles – be they ethical, legal, strategic, military, or technological. Quite the contrary. To put it bluntly: we are in favor of mobilizing whatever valid argument there is.

Yet we find that, while the principle of distinction enshrined in IHL was well suited to latch onto in the processes of stigmatizing AP landmines and cluster munitions and establishing international norms against them, in the case of LAWS, distinction is, while certainly relevant now and probably well into the future, not the strongest overall argument to mobilize. First, the possible expiration date on its validity constantly invites legal disputes about a possible 'technological fix'. Second, the legal debate obscures the fact that delegating the decision to kill to an algorithm is *mala in se* (Sparrow, 2016: 110), irrespective of who is killed, civilian or combatant, and irrespective of the level of discrimination involved. So instead of over-relying on the principle of distinction in IHL to build the case against LAWS, pointing to the risk of them infringing on human dignity and thus violating a much more basic norm of civilization is the more appropriate and prudent case to make in the currently ongoing stigmatization effort.

Notes

1. There is currently no internationally agreed-upon (legally codified) definition of LAWS. However, a functional definition has found increasing acceptance in both academic literature and the diplomatic debate at the United Nations in Geneva, not least because the United States and the International Committee of the Red Cross, both important voices in the debate, have adopted this particular stance (ICRC, 2016; US DoD, 2017 [2012]; see also Scharre, 2018). According to it, fully autonomous weapons, or LAWS, are weapons completing the critical functions of the targeting cycle, that is, the selection and engagement of targets, without human intervention. LAWS already exist, though only in limited applications for now. The Israeli loitering munition Harpy is probably the best example for an already existing weapons system that – albeit only for the very specific task of engaging radar signatures – selects and engages targets without human supervision or meaningful human control. It thus fulfills the functional definition suggested above. Defensive systems capable of firing without human input such as the Patriot missile defense

system are another example of weapons where this gray area of basic LAWS functionality criteria is being met (as are some types of smart naval or anti-vehicle mines). The concern surrounding LAWS is, of course, not about these legacy systems but about autonomous targeting becoming more widespread and used in various offensive manners.

2. How meaningful human control can be retained and how its preservation can afterwards be verified are subsequent questions exceeding the scope of this article. Suffice it to say that suggestions to address both these issues exist and could be developed further (see e.g. Amoroso, Sauer, Sharkey, Suchman and Tamburrini (2018) on control; Rosert (2017) on its codification, and Gubrud and Altmann (2013) on verification).
3. However, in contrast to the conventions on biological and chemical weapons, the Nuclear Ban Treaty has not yet entered into force while also lacking support among nuclear weapons-possessing states.
4. A global network of academics and a leading non-governmental organization within the campaign against LAWS. Full disclosure: One of the authors (Frank Sauer) is a member of ICRC.
5. <https://www.icrac.net/statements/>, 15 April 2019.

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