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Autonomous Weapons and Artificial Intelligence: The Regulatory Priority Should, for Now, Be the Latter

Jason J. Oliveri*

According to the author, although the types of killer robots depicted in popular works of fiction are unlikely to subvert mankind anytime soon, artificial intelligence ("AI") still presents dangers that need to be addressed in a timely and logical manner. He adds that by prioritizing the regulation of AI's commercial applications, we can hasten and sharpen the world's focus on regulating its military applications.

The Western fear of killer robots is at work in the world and it is being fueled by recent and much publicized advances in artificial intelligence ("AI"). It is unclear why this fear is not universally shared and specific to the United States and Europe. Certainly, some blame can be attributed to science fiction novels and movies, which for approximately 200 years have bombarded audiences with the same dystopian theme, namely, that our creations will rise up against us and bring about humanities end.

Regardless of its origins, technology has now reached a point where what was once derided as nothing more than an irrational fear is beginning to sound more plausible. Indeed, the theory that computers can be taught to think and make decisions—first advanced by British polymath Alan Turing in the 1950s—has been proven many times over. Seventy years later, AI has infiltrated nearly every facet of our lives, from banking to agriculture and everything in between. If the claim made recently by OpenAI cofounder Ilya Sutskever is to be believed—and there are many who argue it should not be—AI has also already achieved some form of consciousness.[1]

Whether AI is conscious or not, we are, by most estimations, far from achieving the type of AI that would allow robots to take over the world. At present, AI is relatively limited. It can be very good at accomplishing specific tasks, but it generally cannot deal

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with ambiguity or produce new knowledge, outside of pre-coded scenarios. For that reason, it may be better to think about the AI in use today as software that can enhance other more developed technologies.

That is, of course, a simplification and not meant to ascribe an undeserved benignity to AI or suggest that there is nothing to fear from it. On the contrary, even in its current incarnation, AI can pose a serious threat to the well-being and dignity of human beings, particularly in the context of its military applications.

The Debate Surrounding Fully Autonomous Weapons

That is just one of the arguments being made by organizations such as the International Committee for Robot Arms Control and the Campaign to Stop Killer Robots, both of which have joined forces with other prominent human rights non-governmental organizations in an effort to ban autonomous weapons that use AI to independently track and kill a target without meaningful human control. These organizations assert that autonomous weapons are incapable of complying with the law of armed conflict, focusing on the core principles of distinction and proportionality. In sum, they argue that such weapons cannot distinguish between civilians and combatants and the damage they could cause would be excessive in relation to the military advantage gained. In the age of relentless cyberattacks, there is also the concern that these weapons could be hacked and fall into the hands of terrorist groups.

Those who oppose a ban argue that autonomous weapons are already in use and by way of example point to Raytheon's Phalanx Close-In Weapon System ("CIWS"), a rapid-fire, computer-controlled, radar-guided gun system designed to destroy incoming anti-ship missiles; Israel Aerospace Industries' Harpy and Harpy-2 missiles, designed to destroy enemy radar stations; MBDA's Dual Mode Brimstone anti-armor missile; and the Samsung Techwin SGR-A1 sentry gun. They further argue that AI will develop to the point where distinction and proportionality will not be an issue, or at the very least will not be an issue in every conflict (e.g., in isolated locations). With respect to hacking, the opposition concedes that it is possible, but extremely unlike with military grade weapons, and in any event, a ban would not stop nefarious actors.[2]

These are the types of issues that were under consideration at the Sixth Review Conference of the UN Convention on Certain Conventional Weapons ("CCW") that took place in December 2021. The 125-member intergovernmental forum was urged by UN Secretary-General Antonio Guterres to come up with an "ambitious plan" in light of a murky UN panel report suggesting that the first fully autonomous drone attack might have already occurred in Libya.[3] Seemingly unmoved, the group failed to come to the required consensus on either banning or otherwise restricting the use of autonomous weapons that can operate independently. Frustrated, Switzerland's representative warned that "[a]t the present rate of progress, the pace of technological development risks overtaking our deliberations."[4]

Perhaps the most interesting thing to come out of the conference was the submission by the People's Republic of China ("PRC"). In its position paper on regulating the military applications of AI, the PRC took a surprisingly humanitarian tone:

> [C]ountries need to uphold the common values of humanity, put people's well-being front and center, follow the principle of AI for good, and observe national or regional ethical norms in the development, deployment and use of relevant weapon systems. Countries need to ensure that new weapons and their methods or means of warfare comply with international humanitarian law and other applicable international laws, strive to reduce collateral casualties as well as human and property losses, and prevent misuse and malicious use of relevant weapon systems, as well as indiscriminate effects caused by such [behaviors].[5]

However, there was no specific mention of banning or restricting the use of autonomous weapons that can make the decision to kill.

The Current State of Artificial Intelligence Regulation

Of course, the lack of a consensus is not surprising given the enormous investment many countries have already made in developing this technology. Moreover, even if the international

community could come to some sort of agreement, it is hard to regulate the hardware when the software remains largely unregulated. Although at least 60 countries have adopted some form of AI policy, there is very little meaningful regulation governing its development and use.[6] This regulatory vacuum has resulted in a wave of non-binding ethics guidelines, frequently prepared by, or with input from, companies developing AI. However, change is in the air and it is being driven, once again, by the European Union.

In April 2021, the European Commission published a proposal for regulating AI, the Artificial Intelligence Act ("AIA"), based on the perceived risk of an AI system. The higher the risk, the greater the legal obligations. Although the AIA—the first of its kind—was met with much applause, detractors complained loudly about the broad definition of AI, which was meant to future proof the law given the technology's rapid pace of development. Instead, critics argued, the definition would likely cover most software and eventually make the law obsolete. Amendments have since been proposed and it is anticipated that discussions will continue into 2023.

Even in the unlikely event that the AIA does not pass into law, it is significant that it has inspired other countries to take regulatory action. For example, in late September 2021, approximately five months after publication of the AIA, Brazil's Congress passed a bill that creates a legal framework for AI based, in part, on the AIA's risk-based approach.[7] The PRC was also an early mover and in November 2021 it passed its own law, regulating the algorithms that power AI.[8]

The United States looks like it will also follow the European Union's lead. At least that is what Lynne Parker of the newly formed National Artificial Intelligence Initiative Office suggested.[9] When asked if the United States should have a vision for regulating AI that is similar to the European Union's, Parker reportedly indicated that it is "a must."[10] Recent events bear this out:

- In March 2021, the five largest federal financial regulators in the United States released a request for information on how banks use AI, suggesting that new guidance is coming for the finance sector;
- In April 2021, the Federal Trade Commission released an uncharacteristically bold set of guidelines for AI on "truth, fairness, and equity;"

- In June 2021, the Department of Housing and Urban Development began the process of reversing a rule that shielded housing-related algorithms from claims of discrimination;
- In July 2021, the National Institute for Standards and Technology began work on developing an AI risk management framework; and
- In October 2021, the Equal Employment Opportunity Commission announced an initiative to enforce hiring and workplace protections on AI systems.

While the United States may ultimately take a more sectorial approach—as it has historically done—there is little doubt that AI regulations based on risk are coming.

Regulating Artificial Intelligence Should, for Now, Be the Priority

In contrast, an international agreement banning or restricting the use of fully autonomous weapons is unlikely to materialize any time in the near future; if it does, it will not come out of the CCW. The rivalry between the United States, Russia, and China, which are all racing for dominance in the field of military AI, makes such an event extremely unlikely. No nation is going to halt the development of game-changing weapons if they believe—or even suspected—that their neighbors and/or adversaries are still doing so.

Another roadblock is that the discussion on fully autonomous weapons continues to be framed as a future problem. This is a clever position to take if one wants to avoid restrictions. In general, human beings suffer from a cognitive bias toward future events and consequences.[11] This glitch in our brain behavior makes it harder to take actions that benefit our future selves, both as individuals and as a society. Unfortunately, for this reason, it usually takes a present or impending catastrophe for change to occur and laws to get passed—just ask any global warming expert.

Beyond that, some of the most seemingly basic questions remain unanswered and open to debate. Crucially, what is the definition of AI? What does autonomous mean? Under what circumstances should a machine make a decision and when should a human do so? Answers to these questions currently vary by state.

However, to the extent the "Brussels effect"[12] can still be relied on, passage of the AIA could help resolve these issues and pave the way for meaningful discussions concerning autonomous weapons. Indeed, the impact of the new rules could be similar to that of the General Data Protection Regulation, which was adopted by many countries to one degree or another and quickly became the world's data privacy gold standard. Even if a definition or term from the AIA were not adopted by a particular country (e.g., AI), it would, nevertheless, be useful during discussions on autonomous weapons if a nation had already implemented some form of AI regulation and accepted a certain definition or term. That country would then be hard pressed to later say it means something different.

In addition, AI development is being driven mainly by tech companies and universities—not the defense industry. Commercial applications of AI have then later been adopted for military use, such as, facial recognition and location tracking software. Given AI's role in the development and use of autonomous weapons, it follows that it would be useful to regulate AI first, particularly since regulatory discussions and frameworks for AI are further along, and as discussed above, can inform the discussion on autonomous weapons.

Conclusion

In sum, although the types of killer robots depicted in popular works of fiction are unlikely to subvert mankind anytime soon, AI still presents dangers that need to be addressed in a timely and logical manner. Without question, the development and use of fully autonomous weapons deserves serious attention and continued discussion. However, the realities suggest that by prioritizing the regulation of AI's commercial applications we can hasten and sharpen the world's focus on regulating its military applications.

Notes

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