

# Reviews

***Fighting Machines: Autonomous Weapons and Human Dignity***, Dan Saxon (Philadelphia: University of Pennsylvania Press, 2022), 264 pp., cloth \$75, eBook \$75.

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Lethal autonomous weapon systems (LAWS) are among the most frequently discussed developments in military technology. While these weapon systems, which select and engage targets without human intervention or control, raise numerous ethical, legal, and security policy questions, the international political response to regulate these systems has been slow moving. The ongoing political debate over LAWS is marked by controversies surrounding the scope and applicability of international law and the role of the human in increasingly autonomous warfare. In *Fighting Machines*, Dan Saxon draws on his extensive practical and academic experience and expertise in international law to argue that certain human responsibilities should not be delegated to autonomous weapons.

Saxon's argument against delegating responsibility to autonomous weapon systems centers on the impossibility of these machines ever possessing qualities of human reasoning and judgment. He deems these qualities necessary in the use of lethal force to preserve moral agency and human dignity. Unlike many scholars who are concerned with whether the use of LAWS can comply with moral standards and preserve the dignity of those who

become targets or victims of the use of force, Saxon focuses on those figures operating these lethal systems. This includes, for example, soldiers, commanders, or law enforcement officers. With increasing operating speed and more autonomous functions in weapon systems, effective human decision-making, intervention, or control will become even less possible. Saxon argues that "the delegation of human responsibility for moral judgement to lethal autonomous weapon systems erodes human dignity and, consequently, international law" (p. 1) when the space for human reasoning and judgment shrinks. Therefore, Saxon investigates how using LAWS to take human life constitutes a violation of the human dignity of those operating the systems.

Drawing on Kant's account, Saxon understands human dignity primarily as moral agency: only humans can make moral judgments, as they are the only ones who have the "ability to think and communicate about difficult concepts and values" (p. 61), something that Saxon argues—in agreement with many other scholars—machines will never be able to do. Human dignity is more than an abstract concept that ought to guide international law. While it is not a rigid legal norm in

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itself, Saxon argues that human dignity is the foundation of modern international law, the starting point for decision-making, and “serves as a *guiding* legal concept for the creation and application of more specific legal norms and rules” (p. 33). Saxon’s foregrounding of human dignity as the ethical foundation of international humanitarian law, international human rights law, international criminal law, and state responsibility presents an intriguing pathway into broader questions of the intersection of ethics and law.

This book provides an important contribution to the legal understanding of the LAWS debate, particularly for nonlegal scholars. It clearly and thoroughly presents and discusses the relevant legal regimes that govern the (potential) use of autonomous weapons. Most importantly perhaps, the book offers a comprehensive analysis of international legal provisions governing the use of LAWS that goes beyond the usual scholarly and political focus on international humanitarian law. For one, Saxon’s discussion of human rights law in relation to the use of LAWS in law enforcement and counterterrorist operations shows that states will also need to develop new domestic laws to regulate the use of these systems within a state in accordance with the value of human dignity. Focusing only on international law, as the academic and political debate mostly does, leaves blind spots in accounting for required national legislation for the use of LAWS. Second, he illustrates that accountability cannot be transferred to machines, and since individual and command responsibility might be difficult to ascertain, the design of the system needs to include a way of documenting operating decisions. Lastly, legal responsibility falls within the scope of both state entities and manufacturers of weapon

systems—analogue to principles of prevention, precautionary measures, and the “polluter pays” principle in international environmental law.

Throughout the book, Saxon argues that the use of LAWS in warfare impacts the human dignity of soldiers and commanders, as delegating the moral and legal responsibility of the decision to use force and potentially take human life undermines the moral agency of soldiers and deprives them of their innate humanity. One of the core rationales that proponents of these systems put forth posits that LAWS will become more accurate than humans and will save more lives on the battlefield than human soldiers. Saxon argues against this line of thinking, writing that “we must choose between *different dignities*” (p. 39)—human life in the short term and humanity and moral agency in the long term.

This is where the book’s argument becomes less persuasive. The dignities of the two bearers—those subjected to lethal force by those operating LAWS—do not necessarily need to be weighed against each other but can be seen as two sides of the same coin. Delineating human life as “short term” dignity and humanity and moral agency as “long term” dignity can only offer a partial picture of the problem and potential solutions at best. First, the promised precision and accuracy of autonomous weapons that is supposed to spare civilian life is a mere technical solution to the political problem of how people are selected as legitimate targets. Existing applications of artificial intelligence and remote warfare have shown an increasing reliance on data that is inherently flawed and exhibits gender and racial biases. These violate not only the dignity of the human life of the victims of such targeting but also the moral agency of those operating the

machines if they blindly rely on algorithmically generated decisions. The human dignity of those targeted cannot be detached from the dignity of the ones operating the systems. Second, human soldiers and commanders have been shown to not always display the moral judgment that Saxon ascribes to them. In the beginning of chapter 3, Saxon cites the accounts of Karl Marlantes, a Vietnam War veteran, who has written about his own experience and the morality of causing suffering and killing in warfare. While this provides a good example of the moral agency and responsibility of those taking human life, Saxon does not account for those that committed individual or systematic immoral or inhumane acts during that same war. Would they still be seen as the bearers of moral agency and humanity? Saxon makes a compelling plea for the primacy of human dignity since “the increasing speed of autonomous weapon systems will lead to the de facto absence of ‘reason’ for lethal force” (p. 42), leaving no possibility for human judgment and intervention. His argument could have been strengthened by considering the interdependence between the dignity and moral agency of those who are subjected to violence as much as those who exercise violence.

Despite the shortcoming regarding the interdependence of the dignity of all humans, Saxon opens up a broad ethical and legal analysis of the problems with the use of LAWS. His conclusion on how to preserve human dignity through weapons design reflects his understanding of human dignity. How should LAWS then be designed to “most effectively preserve human dignity in its different iterations” (p. 45)? One proposal is through notions such as meaningful human control, appropriate human judgment, and effective human supervision.

The concept of meaningful human control has gained particular attention in the LAWS debate as a way to prohibit those systems that would operate outside of human control. Yet, as Saxon also observes, there is significant disagreement over the precise nature and meaning of these terms, and it remains unclear how they could or should be operationalized. He concludes that only an interdependent design for autonomous weapons, where humans and machines work as a team, can guarantee human dignity. The benefits of this solution are to, first, reduce the speed of operation so humans can still effectively make decisions and ensure compliance with international law and, second, to ensure that human reasoning and judgment is available for those functions where responsibility should not be transferred to machines.

While Saxon’s conclusion highlights the legal and ethical necessity for human-machine teaming as they are being increasingly conceptualized in government policies on LAWS, most prominently by the United Kingdom and the United States, this only shows one way of politically handling LAWS. If we were to take both sides of human dignity and the bearers thereof into account, the need for a preemptive international regulation might become more imperative. Nevertheless, Saxon’s call for the preservation of human dignity to ensure compliance with international law is at the very heart of the challenges posed by autonomous weapon systems and makes this book a noteworthy contribution to the growing literature on LAWS.

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