Tim McFarland

Military Robots: Mapping the Moral Landscape

By Jai Galliott. Surrey, U.K.: Ashgate, 2015, 266 pp.

Perhaps the most well-known, and controversial, development in military technology in recent years has been the rapid rise of unmanned systems, the most visible manifestation of which has undoubtedly been the use of unmanned aerial vehicles (UAVs, or "drones") against targets in the Middle East and Africa.

In a sense, this is a unique development in the practice of warfighting, in that it is enabled by a confluence of technologies never before available to humanity, notably those related to robotics and artificial intelligence. As Jai Galliott, the author of this book notes, these technologies facilitate development of weapons that "mediate the operator's role and may ultimately take action independently of their human users," — a reference to the steadily increasing capacities for autonomous operation exhibited by modern unmanned systems.

In another sense, though, it is just the latest manifestation of a pattern of weapon development that has been followed for thousands of years. Humans have always sought to develop new weapon technologies with which to fight their enemies more effectively and efficiently and at less risk to themselves. Many such technologies have achieved their operational aims by adding a "buffer zone" between friend and foe, ostensibly to make warfare "cleaner" and quicker; spears, bows and arrows, mechanical artillery, gunpowder, and others up to modern firearms, artillery, and missiles are all examples of this process, and unmanned systems can be seen as the next stage in this physical and emotional distancing of attackers from their targets.

It is no surprise, then, that the ethical issues cited by participants in the contentious debate about unmanned military systems are also a mixture of old and new, those that relate to the novel characteristics of unmanned systems and those that are arguably applicable to weapon technologies and warfighting in general. Given the revolutionary nature of unmanned military systems and their extensive ramifications, both promising and ominous for the future of warfare, it is unfortunate that discussions about the ethics associated with their use are often shallow and polarized.

In this book, Dr. Jai Galliott, a Postdoctoral Research Fellow in Indo-Pacific Defense at the University of New South Wales and a former officer of the Royal Australian Navy, has presented an account that, happily, refrains from the partisanship too often seen in publications on this topic. Rather, the book stays true to its title by addressing the ethical arguments in favor of using unmanned systems as well as the reasons for caution. Moreover, it goes beyond merely surveying the ethical points for and against unmanned warfare, and reconciles them into a coherent statement that, while unmanned warfare improves on earlier modes of warfare in many ways, it also introduces a range of new problems which point to the need for caution and further research.

This is a scholarly work that bases its arguments on ethical theories, which while they are undoubtedly well known to ethicists and academics working in related fields, may be unfamiliar to readers with an interest in unmanned systems. Thankfully, the author takes the time to explain the essential points of the relevant theories in language that is generally clear and free of jargon, and in a way that will be useful to anyone with an interest in military ethics, even beyond discussion of unmanned systems.

The author's justification for the employment of unmanned systems by military forces is expressed in

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terms of the "social contract," an implicit agreement between the State and its citizens, and between the State and its military force, as to the moral and political obligations that each bears towards the others. According to this agreement, the primary justification for the existence of States is their status as the entity most able to provide protection and security for their citizens. On that basis citizens entrust their security to the State, and the State monopolizes the right to employ armed violence in the protection of its citizens. Similarly, the State delegates most of its protective responsibilities to its military force, and the military force is obliged to be as efficient and effective as possible in providing that protection to citizens, in terms of the costs it incurs in both lives and resources. Thus, the author argues, states and their military forces bear an ethical obligation to employ unmanned systems to the extent that such systems offer a more effective or efficient means of fulfilling the military's protective responsibilities.

The reader should note, though, that social contract theory has been subject to many criticisms over its long history from a variety of philosophical perspectives, with many writers questioning the extent to which it accurately accounts for the experiences of all citizens in a state, or the spectrum of moral and political obligations they bear. Most recently, several authors have noted the increasing inadequacy of a model that assumes that the state is the sole protector of its citizens, or that it has a monopoly on the use of armed violence. The author's argument could perhaps benefit by addressing such criticisms, as the reader is left wondering to what extent they undermine the asserted obligation to employ unmanned systems.

As a framework for exploring the reasons for restraint in use of unmanned systems, the author relies on just war theory, while noting that we may need to rethink how we apply its principles to unmanned systems. Just war theory, which pervades much of western thought on military ethics, deals with the justification of how and why wars are fought, specifying sets of principles for judging when it is permissible for a state to go to war, and conditions for how that war should be fought. As explained in this book, a decision to wage war must be made with a just cause in mind, with right intention, by a right authority, with a reasonable chance of success, be proportional such that the anticipated total good outweighs the anticipated total bad, and be a last resort. The war must then be conducted such that only appropriate (military) targets are attacked, and the harm resulting from any military action does not outweigh the good. It is noted that the applicability of just war theory to modern warfare in general, and to unmanned warfare in particular, has been critiqued by several authors; unlike the discussion of social contract theory, though, a solid defense of the usefulness of just war theory is presented before the theory is used to discuss reasons for caution in development and use of unmanned systems.

The greater part of the book is devoted to detailed discussion of the ways in which the principles of just war theory may be violated by use of unmanned systems in warfare, and the reasons for caution and further regulation. The range of ethical considerations discussed is wide, covering observations about the effects of unmanned warfare on those who operate unmanned systems as well as on those who may be targeted or otherwise affected by them, and the effects on the practice of warfare itself. The reader will be able to directly relate many of the points raised to arguments made in other forums as well as to events being reported in the popular media, with the added advantage of having an explanation of the ethical theoretical basis of each argument. The author relates many of these concerns to notions of the "risk economy," wherein states attempt to transfer the risks of armed conflict away from themselves to others, sometimes to enemy combatants but sometimes to civilians. The notion of risk transfer, as discussed in this book and in the references provided, has much explanatory power beyond the topic of unmanned systems, and will be of benefit to all those readers engaged in study of the Western practice of war.

Of particular interest, given the prevailing situation in the Middle East, is the discussion of post-war responsibility, the "third tenet" of just war theory. This body of thought is concerned with whether the termination phase of a war is just, and investigates the obligations of states to work towards post-war reconstruction of affected societies, with a view to achieving stability and lasting peace. It is a relatively recent addition to just war theory and has received much less academic attention than the first two tenets discussed above, with current thinking being described as "in its infancy." Views on what constitutes just action in the termination of a war range from merely restoring the state of affairs to that which existed prior to the conflict, up to taking active steps to avoid future conflict by assisting in long-term reconstruction efforts. The view taken in this book is that the aim of a just war is the vindication of the fundamental rights

of societies, exercised on behalf of their citizens, and a victorious state must follow a "comprehensive ethical exit strategy" to that end. It is troubling then that the author is able to make a strong case that the current use of drones in the Middle East may be working against efforts to establish a lasting peace, by conducting attacks that are perceived by the local population as inaccurate and disproportionate, and that inhibit the ability of the public to associate with others and rebuild civil society. The possibility is raised that such attacks may indeed induce further radicalization of the population, such that they "create more terrorists than the number of enemy combatants they kill." Suggestions are offered as to how unmanned systems may be used in a manner more consistent with the requirements of just war theory.

The final substantive chapter discusses an objection that is often raised against the development of highly autonomous weapon systems in particular: the "responsibility gap," or "the inability to identify an appropriate locus of responsibility" for actions taken during a conflict. According to this objection, a significant capacity for autonomous operation represents an "insurmountable" barrier, preventing any person from being held accountable for harm caused in the process of selecting and engaging a target via an autonomous weapon. The first part of this chapter is devoted to explaining how just war theory requires that someone be held accountable for harm caused during a war; this explanation, like the others presented in the book, is clear and accessible, although the author makes the possibly contentious claim that responsibility should be borne by "agents of war, whether human, machine, or some combination thereof." The notion of placing any ethical responsibility on a machine is one that must be explained. The author then refutes the claim that nobody can be held responsible for harm caused by an autonomous system, and lays the foundations for an interesting theory of responsibility that is prospective, based on the capacity to foresee and prevent harm, rather than retrospective, focused on allocating blame for harmful incidents.

Overall, the book thoroughly equips readers to pursue further independent study of the ethical issues surrounding military use of unmanned systems. For anyone seeking to deepen an understanding beyond the often shallow debate that is presented in other forums, this is an excellent place to begin.

Reviewer Information

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Digital Militarism

Digital Militarism: Israel's Occupation in the Social Media Age. By Adi Kuntsman and Rebecca L. Stein. Stanford University Press, 2015, $21.95 paperback.

It is well-known in academia that the Internet has been a mixed blessing, accused of contributing to shorter attention spans, and making us less able to engage in critical thinking (see, for example, Nicholas Carr's 2008 essay, "Is Google Making Us Stupid" here: http://www.theatlantic.com/magazine/archive/2008/07/is-google-making-us-stupid/306868/). There are also many scholars who have explored the impact of the Internet and social media on everything from family life to dating to the process of seeking employment. But one area that has received less scrutiny up to this point is how online media have affected the way wars are waged. In a world with so many ongoing conflicts, this is a topic worthy of serious study. It has become especially relevant in the past decade, as a growing number of countries began using social media to disseminate their government's viewpoint. In previous wars,

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