**Robots in the Service of the War on Terror: the impact of AI on Battlefield Ethics**

Research Statement

Ongoing changes in the battlefield and in the development of weapon systems present state and non-state belligerents with diverse challenges and dilemmas. The U.S. Army foresees technological breakthroughs in 2030–2050 that will transform the nature of war.[[1]](#footnote-1) Prime among the technologies in question is Artificial Intelligence (AI), a branch of computer science that concerns itself with a computer’s ability to emulate human thinking.

The past decade has seen increasing use of unmanned aerial vehicles. Under President Obama, for example, UAV attacks in Pakistan’s tribal areas grew tenfold[[2]](#footnote-2) and thousands of UAV bombing operations were conducted in Afghanistan, Pakistan, Yemen, and Saudi Arabia. The number of such operations by the U.S. climbed from 2,640 to 3,474 between 2004 and 2012.[[3]](#footnote-3) These UAVs are equipped with AI systems but are controlled by humans who make the final decisions. Future AI systems, in contrast, will give the combat devices that host them full autonomy. Thus, in early 2018, the U.S. Army announced the initial development of an AI-equipped UAV that can detect and attack vehicles and people. The new device’s technology will allow the drone to decide whom to kill with almost no human intervention.[[4]](#footnote-4)

In a 2018 article, Henry Kissinger argued that this AI system will take strategic considerations—some based on data fed into it and others predicated on data that it will gather by itself—into account before acting. It is such a complex system, Kissinger says, that human society is totally unprepared for it.[[5]](#footnote-5)

Indeed, the introduction of AI technology on the battlefield raises many moral dilemmas. Examples: What is a legitimate target for attack? How will a machine decide to inflict damage? What will happen if non-combatants are mistakenly targeted? And how will it be possible to decide which menace to inflict on the other side’s civilians even when your own soldiers face no danger whatsoever?

In an increasingly machine-driven world, ethics are immensely important. Therefore, the proposed study will examine the impact of AI on the future battlefield on the basis of a twofold main research question: Can a universal code of ethics for the battlefield robot be created? And, if the answer is affirmative, of what set of rules will it be composed? The study will take up issues in security ethics that states already face and will face with greater intensity in the future as they deploy AI-equipped automatic robots in the war on terror. Targeted assassinations and border-crossing attempts are only two examples. For each issue, I will sketch the matrix of parameters that, given the high probability of their presence, will permit an attack. Concerning the question of a person who approaches a security barrier, for example, **resources, intent,** **and ability** will be defined. If the computers sees, in accordance with the information fed into it, that all three are present with high probability, such a person may be attacked. The matrix of parameters and considerations will be bundled into a set of ethical rules for the battlefield that can be assimilated into the AI system. One of the insights that came up in my dissertation is the importance of understanding a rival country’s culture. It is claimed, for example, that the U.S. has failed to understand Afghani cultural traits such as the importance of beards and weapons in the eyes of men, resulting in numerous U.S. attacks on many noncombatant males. Therefore, I will examine the existence of important cultural nuances which may affect the ethical code that combat robots receive.

The study will make an enormous contribution because even as many AI systems are being developed, data collection for the robot and composition of rules for its decision-making are deficient—notwithstanding the immense importance of both of these for the system’s construction and programming.

1. “How Would the Future Battlefield Look Like?” *IHLS,* <https://i-hls.com/archives/77893> [↑](#footnote-ref-1)
2. “Flight of the Drones—the Future of Air Power, from *The Economist,* published in Hebrew in *Ha’aretz,* October 2012, <https://www.haaretz.co.il/1.1556962>. [↑](#footnote-ref-2)
3. Chamayou Gregoire, *The Theory of the Drone* (NY-London:The New Press, 2015). [↑](#footnote-ref-3)
4. Lee Peter, “The US Army is Developing Unmanned Drones that can Decide Who to Kill,” *Busness Insider,* April 2018, <https://www.businessinsider.com/the-us-army-is-developing-unmanned-drones-that-can-decide-who-to-kill-2018-4> [↑](#footnote-ref-4)
5. Henry Kissinger, “How the Enlightenment Ends,, *The Atlantic,* June 2018,<https://www.theatlantic.com/amp/article/559124/> [↑](#footnote-ref-5)