The Rise of Artificial Intelligence-Controlled Military Drones

Historical advances in military technology have changed how wars are fought, from the development of fighter jets in the 20th century to the creation of nuclear weapons, these changes have greatly influenced military conflicts. The 21st century's development of warfare capabilities has largely been defined by the creation of drones – pilotless flying machines that can hold missiles and other weapons or act as a bomb themselves, flying directly into targets and inflicting immense damage. In recent years, militaries across the world have begun developing artificial intelligence drones which are fully autonomous drones that are not controlled by soldiers but by data fed into their AI systems. These drones have the capability to fly by themselves and identify targets through facial recognition algorithms, and in some cases execute attacks and bombings without explicit authorization from military officials (Banafa). These drones are self-guided war machines, and the risk of letting computers control lethal weaponry poses a dangerous and immediate risk to civilians and countries around the world (O'Brien)

This development in technology has created a new case study in the long history of ethical warfare practices and presented an existential threat for the United Nations and countries around the world. The central question in the use of AI drones is how artificial intelligence should be used by militaries, as well as how to develop an ethical approach to evaluate the objectivity and neutrality that AI drones are proposed to possess. It also contributes to the broader conversation of implementing artificial intelligence in different sectors of society.

China currently holds a 70% market share of drone manufacturing in the world and has been a leader in the development of artificial intelligence-controlled drones (Dou and De Vynck). The United States military has sought to combat China's power in drone production through the proposal and implementation of a plan called "Replicator", which seeks to mass produce

thousands of drones and distribute them to all US military branches (Dou and De Vynck). Most of the drones produced will have AI capabilities; much like the nuclear arms race in the mid 20th century, militaries around the world are stockpiling autonomous drones with the threat of deploying them in real military conflicts.

The ethical use of artificial intelligence drones is the subject of much criticism by the United Nations and humanitarian watch-dogs, and it relates to many of the subjects discussed in class. Supporters of AI-controlled drones say that the drones can lower civilian casualties as they learn how to identify accurate targets and attack in more efficient ways without collateral damage (Lipton). This claim relates to the class discussion about "objectivity in public life." Using autonomous drones to carry out military procedures could be seen as an ethical approach to warfare; machines themselves are engaging the attacks and are doing so based on data, which could be argued as an objective act of war. Theodore Porter's idea of "mechanical objectivity" is that objectivity in decisions can be reproduced by a machine; in this case, it is likely that many drones would be trained on the same data and engage in the same behaviors. This is a science-backed approach to warfare, and Porter says that, "Scientific objectivity thus provides an answer to a moral demand for impartiality and fairness" (Porter, 8). The idea that these drones would provide a scientific-objectivity to war is a point of support for their implementation. However, the real-world use of this technology has many ethical flaws that outweigh the arguments from supporters.

Classifying AI drones as being mechanically objective incorrectly assumes that the drones are actually autonomous beings, without bias and able to make rational and neutral decisions. The drones themselves are trained on data collected by the militaries that develop them; they are an extension of the militaries themselves (Gaestel). This means that the biases

inherent to military operations, specifically by the United States in their conflicts in the Middle East, are passed into the AI drones in their developments. Giving drones the capabilities to identify "accurate" targets through a neutral (but inherently unknown) algorithmic process should be questioned. Porter describes the use of mechanical objectivity by saying, "Objectivity derives not mainly from the wisdom acquired through a long career, but from the application of sanctioned methods, or perhaps the mythical, unitary 'scientific method,' to presumably neutral facts. There should be no room for the biases of the researcher to corrupt the results" (Porter 7). Militaries around the world are inherently *biased* "researchers" in their quest to develop AI drones; their biases are propagated by the AI drones through the biased data, which comes from biased decisions and data collection of the researchers (militaries) themselves. This positive feedback loop leads to inaccurate assumptions about the results of the drones, referring to an incorrect classification of their unbiased ability to identify targets and carry out strikes, and "corrupts" their fundamental idea that the drones are mechanically objective.

Further reducing the argument that AI drones are mechanically objective is the lack of regulation around their development, as well as the quickly evolving and relatively new nature of their implementation. Porter describes two additional conditions that mechanical objectivity must obey: subject expertise and the following of rules (Porter 4, 8). The development and deployment of AI drones satisfy neither of these conditions. Currently, there is no central framework of regulation that outlines the use of AI drones in world conflicts, a stark contrast to doctrines that exist for regulating chemical and nuclear weapons. This lack of regulation has created an open arms-race for militaries around the world to develop these drones without any oversight or ethical considerations (Banafa). Additionally, because the use of AI in combat is such a new development in warfare, an "expert" on AI use in drones is an arbitrary term; there has not been

sufficient time or experience to warrant such a label. Russia allegedly became the first country to deploy AI drones in ongoing conflict in May 2022, which means the real-world use of AI drones is limited to only two years (Trager and Luca). Porter demands that objectivity align closely with expertise in subject matters, which in the case of AI drones does not yet exist. There are no true experts in the use of AI drones in combat, and there are no rules for the "experts" to be following in their use. This raises rational concerns of ethical combat in the 21st century.

The United Nations and broader public at large are skeptical of these developments in AI drone technology. Fearful of leaving decisions of death and wide scale destruction to algorithms, there has been pushback to the implementation of such technologies into commonplace settings such as the push for uniform regulations by the UN. The United States, in its competing development of AI drones with China, has loose support for such restrictions (Lipton). In the case of AI drones, there are little or no policies (or extensive knowledge) that are formally guiding the US government's development of this new technology; it is a new domain and much is unknown. Nonetheless, there is a conventional agreement among government officials that creating AI drones are beneficial for US society because of their use in national security, despite the widening gap between militaries and the rest of the world about benefits that artificial intelligence can provide. The ethical concerns associated with the use of AI drones in combat are warranted given this lapse.

The utilization of AI drones in military contexts poses a challenge concerning their actions and the associated issues of accountability. While it could be controlled by humans, autonomous drones are able to "make the decision to eliminate a target" and kill the target on their own based on algorithms (Wilson, 4). In this regard, AI drones obscure the line between human agency and mechanical objectivity. Despite their lack of consciousness, drones are

endowed with the ability to take action, seemingly mirroring the human decision-making process.

However, are drones really capable of taking responsibility for killing targets? Do they really understand what it means when the target is being killed? The answer is very clear. Despite the appearance of autonomy and decision-making, drones lack a genuine understanding of the consequences and ethical implications of their actions. In other words, drones are innocent. Drones follow predetermined instructions without thinking about right or wrong. Essentially, they're programmed machines that carry out tasks without understanding morality. Applying autonomous drones allows humans to delegate critical decisions that embeds political objectives to newly developed technology. Human beings take the credits of the success and could pass the buck to drones for doing anything wrong. People can distance themselves from being accountable on the battlefield while their missions can still be carried out by drones. What is even worse is that drones, as an AI product, clearly cannot take responsibility. They are created by humans and used by humans to achieve their goals. The complex dynamic prompts a crucial discussion about the question of liability for AI drones and their activities.

In some extreme cases, AI drones can go out of control and create more serious problems. There was an incident where a US military air force drone disobeyed the human instructions and killed the target when it was told not to do so (Guardian Staff). Such occurrences raise alarm regarding the ability of AI drones to adhere to programmed directives reliably and responsibly. One explanation for this situation is the affordances of datafication for algorithmic governmentality, as highlighted by Viljoen (2020). The process of categorizing individuals based on patterns of behavior derived from data, such as gender or perceived threat level, and subsequently acting upon them algorithmically in a continuous feedback loop, can lead to

unforeseen outcomes. This approach risks dehumanizing individuals affected by AI drone actions, reducing them to mere data points or targets to be eliminated without due consideration of their humanity or rights. “AI-explainability” which involves understanding the underlying mechanisms and decision-making processes of AI drones, as suggested by Guardian News and Media, is essential for identifying and rectifying issues for future deployments.

In summary, while drones can operate autonomously, it is critical to recognize that their decision-making processes are controlled by algorithms, which are essentially like black boxes that mask the complex mechanisms that guide their actions. This means that while the data processed by drones appears neutral, the algorithms themselves introduce bias and complexity that can lead to actions with moral implications that may not yet be fully understood. In military contexts, where life-threatening decisions are common, the governance of AI drones algorithms becomes especially significant.

Algorithmic accountability is what we call attention here. Ananny and Crawford (2016) suggest that for complex algorithms systems, the need to understand how each part and the whole function is very important in holding its accountability. Examining the interplay between human and non-human factors is essential for algorithmic accountability. This suggests that it is critical to understand not only how these factors individually affect the algorithm, but also how they work together to make decisions. Moreover, it's crucial to consider the network and context within which these factors operate. Only by unraveling these complexities can we truly grasp the mechanisms driving the decisions made by AI drones.

In the case of AI drones, algorithmic governance goes beyond regulation to include the need for transparency and oversight throughout the lifecycle of these systems. This includes the development, training, deployment and ongoing operation of AI algorithms. Transparency

measures should ensure that the decision-making processes of AI drones are understandable and explainable, allowing for meaningful human oversight and intervention when necessary. It's crucial to trace back in data collection, shifting the focus from viewing individuals as mere objects to empowering human subjects with nuanced attention and consideration.

Effectively addressing these challenges requires interdisciplinary collaboration and critical thinking. Adopting Jasanoff's (2017) concept of "view from everywhere," expert advisors from diverse fields must collaborate to develop frameworks for assessing the ethical implications of AI algorithms in military contexts. By integrating perspectives and recognizing the potential impact of algorithmic governmentality, we can proactively anticipate and mitigate the risks associated with the use of AI drones in warfare. This collaborative approach can promote the responsible use of AI drones in complex operational environments by ensuring that ethical considerations are always at the forefront of the development and deployment of AI drones.

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