1. This video shows an interview with a former drone pilot, in which he describes the psychological impact of this work. Please watch this video, and answer the questions below.

(A) Bryant says, "I felt like it destroyed my soul". Why did he feel this way?

He didn't think he'd actually have to kill someone, and he was looked down upon for not being comfortable killing people. He says that the job itself is inherently cowardly and makes you feel weak automatically, but you're forced to feel the opposite resulting in psychological trauma. He was called a traitor and threatened for speaking out, and it haunted him and stuck with him in his personal life.

(B) What was the constitutional issue that Bryant was concerned about?

He was told to kill the "internet's Bin Laden" using an unarmed drone. He was concerned about the constitutionality of this because, even though Anwar was a traitor, the constitution states that even a traitor "deserves a trial in front of a jury of his peers". Remotely striking someone down in this manor violates that right.

2. This article describes some of the difficult issues that arise with drone warfare. Please read sections I, II and V of this article, and answer the questions below.

(A) What were the emotions of the drone pilot after his successful attack? What still bugged him months later?

The pilot says he was a little freaked out, with his whole body shaking and that he felt bad about it. He remembers it being difficult to take someone's life like that, even if the people around him were giving him positive reinforcement and saying he did the right thing. He said he didn't feel worthy of the safety he had. What bugged him was that he had killed these people without putting himself in any danger whatsoever. He had protected some Marines that were actually on the battlefield while he was just sitting in his office building.

(B) The author says, "The dazzling clarity of the drone's optics does have a downside". What is this downside? How does this situation compare with that for a traditional bomber pilot?

The downside of the drone's optics is that the pilot sees the impact of their weapon immediately. The pilot of the drone sees the carnage in high definition, seeing "the blood and severed body parts" and the anguish of the target's friends and family. Due to drones being used to spy on target before attack, pilots also develop an almost intimate connection with them. For a traditional bomber pilot, they don't hear about the effects of their weapons until a post-mission briefing.

(C) As discussed in the article, in contrast to ground-assault raids, drones target and kill people without giving these people the chance to surrender. Do you think this is ethical (and why)?

No, I do not think this is ethical (usually). I tend to take the more consequentialist take here, where I think it is only ethical if the target has a well-known and highly accurate/documented track record of harming innocent civilians. Even then, I think immediate strikes on these people are only ethical if they are alone (i.e., no innocent people will be injured). Assuming that this person would continue to cause more harm, which is reasonable given their track record, letting them surrender may allow them to escape and cause more harm than good, as someone would have to come take them in on foot. When these criteria are not met, then the consequences of killing them without giving them an option are too severe to perform the strike. Surrender should be a right for most targets, and violating that right potentially puts you on the same level as your target.

3. This scholarly article, by CWRU professor Prof. Shannon French, addresses the ethics of drone warfare. Please read pages 3-11, 15-17 and 23, and answer the questions below.

(A) "Soldiers are asked to overcome the most basic lessons of their moral development and kill fellow human beings." What is the "armor" that protects soldiers as they carry out this task?

The warrior's code provides soldiers with the mental and emotional armor needed to carry out these tasks. This code provides the soldier with rules on how to interact with their fellow soldiers, other members of society, enemies, and conquered peoples. It sets boundaries on behavior and enforces others as honorable.

(B) What are the two core principles of jus in bello?

The first is proportionality, meaning that the magnitude of the response to the threat should be proportional to the threat itself. This requires a response to be only enough to neutralize a threat, and not to act vengefully. The second is discrimination, requiring that those attacking take care to target only those who pose a legitimate threat, not killing innocent civilians.

(C) Why is face-to-face combat less problematic to process and evaluate than distance warfare?

In face-to-face combat, both parties have been ordered to kill the other, and so if the two parties fight face-to-face, then it feels fair. There's some sort of mutual risk or shared respect present, where it is just two parties struggling to survive. Distance warfare removes the kill-or-be-killed mentality, making it very difficult for the pilot to reconcile with intentionally ending someone's life while there was no threat to their own.

(D) What is the dehumanizing effect of drones, and what is its consequence on enemy morale?

The dehumanizing effect comes from the implication that the attacker does not believe the conflict is worth risking people's lives for, but still believes it reasonable to kill the enemy forces. This dehumanizes the enemy, making them feel like objects, which results in less/non existent empathetic reasoning. It results in the attacker being able to recognize the target as a human, but not that they are truly feeling and living in the same world as them. This is amplified by the targets not being able to see the attackers at all, resulting in an "impassioned resistance" where the enemy may rally behind any means necessary to overthrow the attacker. Their morale may be temporarily crushed, but the feelings of vengeance and anger prevails.

(E) The conclusion says, "Civilian and military leadership owe it to the troops who operate these technologies to take additional care to provide…". What is it that they should provide, and why is the "additional care" needed towards drone operators and not combat troops?

The conclusion says that they should provide "clear and compelling justifications for their missions" and should allow troops to resist authority and group dynamics to reject any targets that don't seem like they should be targets. This additional care is needed for drone pilots as their targets are not seen in person, and they cannot tell the exact intent of their targets through a screen alone. Extra information and ability to backout is necessary for that reason.

4. This video is science fiction, but may not be far from becoming reality. Please watch this video, and answer the questions below.

(A) What is the weapon in the video and how does it use AI?

It is an explosive drone that is navigating entirely with AI. It uses AI to stabilize itself in the air, sense its surroundings, identify targets using facial recognition, and also jitter to prevent snipers from shooting it down. The AI drone is entirely autonomous (no pilot whatsoever), and will target and attack on its own. In groups, they work together to attack with 'surgical precision'.

(B) What is the point that the Berkeley professor makes at the end of the video?

He says that it has the potential to benefit humans and defense systems, but that allowing machines to choose to kill humans would be devastating to security and freedoms. His final remark is that there is an opportunity to prevent what happened in the video, but that the opportunity is closing fast.

5. This video addresses the state-of-the art of autonomous weapons, and discusses the rationale for their use. Please watch the first 7:30 of this video, and answer the questions below.

(A) What weapon did Dmitry Litovkin sell to the Russian government?

Dmitry sells driverless tanks to the Russian government called T-14s. It is fully robotic and operates in automatic mode. It fires and drives on its own.

(B) What is the definition given in the video for "killer robot"?

They define killer robots with 3 objectives, as something that locates, selects, and attacks human targets.

(C) What are the drawbacks of human soldiers described in the video that machines can overcome?

The video says that human soldiers get tired and are emotional. They miss targets and get traumatized. They follow this up with the statement "machines do not". Saying machines can react at machine speed, and could sense threats much faster than humans. The last part of the 7:30 video segment says that autonomous machines can save lives.

6. This scholarly article, by CWRU professor Prof. Shannon French, addresses the ethics of using AI in the military. Please read sections 1 and 2, and answer the questions below.

(A) What is automation bias, and what is its relevance regarding AI in the military?

Automation bias is present when people are in fully automated spaces, where they are forced to be observers instead of agents. Here, people have an increased trust in the automated systems, and will not attempt to confirm nor deny the decision made by the systems. With AI systems in the military, an environment is created where military members and soldiers will be more likely to trust the judgements of the AI systems over their own and over their other human peers. It has also been shown that humans in these situations will not notice anything wrong other than what the system reports, and will not check if a problem actually exists if it is reported.

(B) Why are the games chess and Go mentioned, and what is the relevance to automation bias?

Chess and go are mentioned because they are strictly rule based games, where there are a set number of moves that can be played, and an algorithm can be used to find the quickest route to the desired outcome, like with chess bots. It is mentioned alongside artificial intelligence, where the author states that even though there are tons of documented errors and failures, people tend to focus on reports that suggest that artificial minds are superior to human ones. While computers can win strategy games like chess and go, these games are exclusively algorithmic and require no ethical backing of decision making. People singling out these good scenarios results in people concluding that the AI is more able in general, resulting in even stronger and more potent automation bias.

(C) According to the author, which type of ethical framework (consequentialist, deontological, or virtue ethics) is most prevalent in militaries?

The author says that virtue ethics is the most prevalent in militaries, where there is a code promoting particular virtues which is instilled in all new recruits until it becomes a part of the identity of every serving person. Troops are encouraged to act according to the military virtues instilled in them, and should be an intrinsic part of every decision made.

(D) What is the quote by Aristotle related to ethical deskilling, and how does this relate to using AI in the military?

Aristotle, in his *Nicomachean Ethics*, says that '...moral virtue comes about as a result of habit'. This is relevant here because it reminds us that virtue ethics is more than just skill or know-how, being a state where know-how is *reliably* put into action when called for and is done with moral concern for what is good. Use of AI anywhere in the military takes away a person's ability to practice their virtues in that role, and will become weaker over time as a result.

(E) In 100 words, what are your views on the use of drones and AI in the military, taking into account the real need for national security and the lives of US soldiers (often people your age)
I think the use of drones is acceptable if it becomes used by a higher percentage of armies. As suggested in a response to a previous article this assignment, the targets MUST be chosen correctly (prevent civilian targeting), and people MUST be able to back out of missions if they do not believe it is right (without consequence). I do not think AI should be used, as it is really just machine learning and is often predictive, which means hallucinations are frequent and detrimental. My opinion may change as AI develops.