

On the night of July 7th, 2016, Micah Xavier Johnson targeted police officers present at a peaceful protest in Dallas, killing five people and injuring eleven others; after an hours-long standoff, Johnson was killed with a robot armed with explosives. The shooting was the deadliest incident for US law enforcement since the terrorist attacks of September 11th, 2001; and Johnson's death is the first time US law enforcement used a robot to kill a suspect.

Before continuing with the assignments' directions below, please closely read the attached articles (all published in the *New York Times* on July 14th, 2016).

Annotations & Summaries

For *each* article, annotate (circle/mark/underline related information within the text itself along with small written notes) and use the space in the margins to address each of the following elements:

- What is the author's main **argument** (i.e., thesis) in the article? *Highlight it.*
- What **evidence** or **reasoning** does he or she use to support that argument?
- What is the author's **background** (e.g., education, profession), and *how* might it affect his or her perspective on the issues that he or she addresses in the article? (You'll want to do a bit of informal research on each author.)
- Which of the eight academic **lenses** (i.e., cultural/social, artistic/philosophical, ethical, political/historical, futuristic, environmental, economic, scientific) does this author seem to be primarily coming from?
- Beneath the article, write a *one-sentence summary* of the article's **purpose** (the effect that author would like the article to have on its readers' thoughts or actions).

Discussion Questions & Further Research

- After annotating and summarizing all four articles, consider which of the eight academic lenses were not represented by any of the four authors' arguments. Choose **one** of them through which to conduct further research.

Use a **research database** (e.g. Gale, EBSCO) to find an article that addresses a **topic related to** any of the articles or the Dallas shooting itself (e.g., the Dallas shooter's motivations, the Black Lives Matter movement, the use of robots in law enforcement, artificial intelligence).

The article *must* come from a research database, not a simple search engine. **Print** the article, and bring it to class on the due date; please **label** it (at the top) with all of the following: your name, class period, and the academic lens you feel it seems to be coming from.

- Lastly, please create *four discussion questions* (that cannot be answered with a simple yes/no) related to any of the issues involved with this assignment (i.e., the articles themselves or your further research); bring those questions to class, written down and headed with your name and period) for our scheduled class discussion.



Police Robots Need to Be Regulated to Avoid Potential Risks

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The robot used by the Dallas police department to kill Micah Johnson — the sniper who fired into a peaceful protest and killed five police officers, injuring others — was originally designed to defuse explosives. The police attached a pound of the explosive C4 to the robot, creating a makeshift weapon out of a design that was not intended to inflict harm on people. The robot was also remote-controlled, not autonomous. I include these details to clarify: This wasn't quite a "Robocop" scenario. But it was the first time U.S. police have used a robot armed with lethal force to kill a suspect, and this deliberate move raises important questions for the future.

If armed robots can take police officers out of harm's way, in what situations should we permit the police to use them? (The same question goes for police use of armed drones, which have been legalized in North Dakota as long as they are "less than lethal.") The use of an armed robot in a violent standoff may make sense, but equipping squad cars with robots as part of ordinary patrols, as some envision, is much murkier.

For example, if robots become ordinary in policing, should they carry weapons — lethal (firearms) or non-lethal (electric stun guns or tear gas)? Robots permit the use of force at a distance. If distance makes it easier to use force, shouldn't we be concerned at a time when there have been protests around the country over fatal encounters with the police?

And a robot is unlike a gun in that a gun may misfire, but it can't be hacked. The market for police robots is emerging, but we as a society — and that includes the police — should be wary of any armed police robot that is vulnerable to takeover by third parties. Experience with the security of electronic devices doesn't inspire confidence: If third parties can hack cars or toy drones, they can certainly hack police robots.

Robots will only become more sophisticated. Any future use must be aligned with a vision of transparent and accountable policing. A future in which armed robots might be designated for neighborhoods deemed "dangerous" would only reinforce existing inequities in policing today. Democratic policing involves trust and legitimacy, values that require human relationships. Robots should be a tool for safety, and not for further distancing.

Regulation of police robots should come about by consensus, and not be guided by fear. The wider use of police robots is inevitable, so the time to regulate is now.



Police Robots Could Reduce the Use of Deadly Force

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The use of robots inevitably changes the equation for how police apply "use of force," a term that is broadly defined by the International Association of Chiefs of Police as the "amount of effort required by police to compel compliance by an unwilling subject."

We don't have enough details about the stand-off in Dallas to assess whether deadly force was necessary. To use deadly force, the police must have believed that it was necessary to protect the public or that there was an immediate threat of death or other serious harm to themselves.

But in the future, police robots may make some threats less immediate, and perhaps de-escalate situations, reducing the need for deadly "use of force."

For example, if a robot is used to confront an armed suspect — as opposed to putting an officer's life on the line — it could assist with an arrest by exercising some form of nondeadly force, like releasing a chemical gas.

In 2014, the Albuquerque police did just this: They used a robot to "deploy chemical munitions" in a motel room where a man had barricaded himself with a gun, forcing him to surrender.

If appropriate rules and regulations can be agreed upon by law enforcement and society, the use of robots by the police is very promising. Robots may save police officers' lives, and enable them to use less force in apprehending suspects, which, in turn, will allow for fair trials for suspects. Robots could be used to, say, communicate with a hostage-taker or detect explosives. Still, appropriate rules for the use of robots would limit their deployment: If robots were used too widely, it would only serve to dehumanize law enforcement.

And we need to be wary about the precedents we set. So far, we have only seen robots that execute the decisions of human police officers. But there is a movement to proactively bar robots from engaging in completely autonomous killing, which is not ridiculous considering we may eventually end up with artificial intelligence that is sophisticated enough to make decisions in crisis situations. What's more, earlier uses of robots under human supervision will likely inform the use of artificial intelligence. Artificial intelligence programming may rely on past robot operations to calculate the appropriate use of force, or courts may take previous situations into account when determining whether a decision made by a machine was proportionate.

It is important that law enforcement establishes precedents for using minimal force now, before those precedents are set incidentally.



Focus on Human Decisions, Not Technological Ethics of Police Robots

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The Alberta wildfires. The Deepwater Horizon oil spill. The meltdown of Fukushima.

Robots have been used to address each of these emergencies, and many more. So it should come as no surprise that police in Orlando and Dallas would use robots to respond to the recent attacks in those cities. In Orlando, a bomb robot was sent in to the Pulse nightclub after a SWAT team knocked down a wall to get in. It sent images back to law enforcement officials, who believed that the gunman had strapped explosives to some of the victims because of a photo of a battery part next to a body. (It was later revealed the part had fallen out of an exit sign or smoke detector.)

In Dallas, to my great shock, the police used their robot intentionally to kill someone. But rather than focus on the technology, we should focus on whether it was legitimate to kill Micah Johnson instead of incapacitating him. Because robots could do either.

We shouldn't pretend robots are the same as other tools. We wouldn't be having a national conversation about the use of a knife to kill a suspect. But ultimately the ethical issues around robots have to do with the new capabilities they afford. Police and others must think through how to preserve existing rights and values in light of these new affordances.

When the next crisis hits, we are going to want robots on hand. But we are also going to need policies around what is an acceptable use, and what is not.



Technology Doesn't Change the Need for Legal Protection

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Technology is playing a greater role in law enforcement — from robots to “predictive policing” software to “shot spotter” technology — and it can increase efficiency in investigations and offer better protection to both police and the public.

During a time of heightened tensions over policing, however, policy makers must scrutinize the implementation of technological devices, particularly those that can involve the use of deadly force. And police departments with access to this equipment must be trained and adhere to clear guidelines.

The Fourth Amendment protects citizens against unreasonable seizures, so any use of force (deployed by robot or human) must be reasonable in light of the circumstances. This protection does not change with more advanced technology.

Reports indicate that use of deadly force was justified in the Dallas case because the suspect posed imminent danger to police and bystanders. He reportedly told police he intended to kill more officers.

In most cases, though, technology should help avoid killings, which deprive the suspect and society of a full legal resolution.

Human beings remain responsible for any tactical decisions that are made, and legitimate concerns exist that certain devices or methods will be used disproportionately on disenfranchised groups. We will never be able to divorce human error or implicit bias from the uses of technology. What's more, before police begin to use of robots or other technologies they must consult with the communities they serve.

The use of the robot in Dallas comes on the heels of many civil rights and advocacy organizations criticizing the nation's police departments for their increased militarization.

During this critical time, police departments and communities must begin to build trust and strengthen relationships. The responsible use of military and technological devices and transparency regarding guidelines for their uses should be a top concern of those who make rules for using police robots in the future.