Brian Craft

CSC480 Final Project

Sources:

<https://qz.com/767648/weaponized-artificial-intelligence-us-military/>

* Robot strike teams
* Autonomous landmines
* Robotic spies
* Currently recognizant and attack drones still piloted
* Mix of human and 100% robotic machines working in parallel
* In one scenario, a swarm of autonomous drones would flock above a combat zone to jam enemy communications, provide real-time surveillance of the area, and autonomously fire against the enemy
* Robotic warehouses into supply chains
* Autonomous cyber security

<https://www.wired.com/2016/08/security-bots-show-hacking-isnt-just-humans/>

* August 2016
* Bots would patch security flaws in their machine and attack wholes in others.

<http://newatlas.com/open-letter-un-weaponized-artificial-intelligence/38645/>

* 2015 over 1000 AI/robotics experts signed letter to UN to ban to deployment of weaponized AI with the ability to target and kill without intervention
* backed by Stephen hawking, Elon Musk
* when making highly dangerous weapons, such as nuclear weapons, humans must consider loss of life and moral indicators. However, AI doesn’t necessarily have to.
* Real scare is the cost of military intervention is so little now, without human lives to consider. Costs are more material.
* Vietnam War…why are we putting our troops in harms way? Does anyone care about a robot?
* Warlords, terrorists, etc.

<https://www.theatlantic.com/technology/archive/2015/08/humans-not-robots-are-the-real-reason-artificial-intelligence-is-scary/400994/>

<https://www.nytimes.com/2016/10/26/us/pentagon-artificial-intelligence-terminator.html?_r=0>

* The Defense Department is designing robotic fighter jets that would fly into combat alongside manned aircraft.
* It has tested missiles that can [decide what to attack](http://www.nytimes.com/2014/11/12/science/weapons-directed-by-robots-not-humans-raise-ethical-questions.html)
* ships that can hunt for enemy submarines, stalking those it finds over thousands of miles, without any help from humans.
* Defense officials say the weapons are needed for the United States to maintain its military edge over China, Russia and other rivals, who are also pouring money into similar research (as are allies, such as Britain and Israel)
* The Pentagon’s latest budget outlined $18 billion to be spent over three years on technologies that included those needed for autonomous weapons.

<https://www.nytimes.com/2014/11/12/science/weapons-directed-by-robots-not-humans-raise-ethical-questions.html>

* Britain, Israel and Norway are already deploying missiles and drones that carry out attacks against enemy radar, tanks or ships without direct human control.
* After launch, so-called autonomous weapons rely on artificial intelligence and sensors to select targets and to initiate an attack.
* Britain’s “fire and forget” Brimstone missiles, for example, can distinguish among tanks and cars and buses without human assistance, and can hunt targets in a predesignated region without oversight. The Brimstones also communicate with one another, sharing their targets.

<http://www.popularmechanics.com/military/weapons/a18410/brimstone-missile-uk-david-cameron-isis/>

* Brimstone was based on a millimeter-wave radar, a short wavelength that provides a detailed picture of metal objects. It can identify, track, and lock on to vehicles autonomously. A jet can fly over a formation of enemy vehicles and release several Brimstones to find targets in a single pass. The operator sets a "kill box" for Brimstone, so it will only attack within a given area
* In one demonstration, three missiles hit three target vehicles while ignoring nearby neutral vehicles outside the kill box.
* It is also claimed to hit targets moving at up to 70 mph using the radar mode
* Brimstones on a single mission, the weapon costs more than $250,000 per missile