

BLOG 1

LETHAL AUTONOMOUS WEAPON SYSTEMS: Its potential risks and advantages.

The United Nations conference on Certain Conventional Weapons (UN CCW) established an international framework for weapons control. The risks of lethal autonomous weapon systems (LAWS) have prompted a judicial and strategic discussion in this structure. Due to their ability to substitute a human operator on a weapon platform, LAWS pose a significant challenge to current International Humanitarian Law (IHL). However, the theories about lawful accountability and social obligation must not lose their importance to decide whether LAWS should be permissible under IHL. The UN organisations have not yet thoroughly addressed the real and prospective weaponization of Autonomous Technology (AT). Furthermore, even when not weaponized, AT can still offer serious systemic hazards to humanity and world society. This is true even if it is not used as a weapon. Considering how seriously they challenge both current IHL and normative concepts, the UN claims that the application of LAWS is necessary for evolving norms (Jacobson 2017).

What is the definition of ARTIFICIAL INTELLIGENCE?

AI is the current most financially successful branch of science. AI also symbolise something that is frequently seen as the driving force behind the fourth industrial revolution, which is occurring at a rate that is unheard of in human history. But the answer to the issue of what AI is frequently ambiguous and opaque (Surber 2018). The term "artificial intelligence" includes the word "intelligence," which was first used to describe a human trait. There is neither a common interpretation of this natural quality nor an accepted definition, regardless of having an extensive record of study and debate (Helbing 2018). Additionally, there have been misunderstandings about the meaning of artificial intelligence because the term "AI" is used to refer to two different, but related interpretations may be a contributing factor. When applied to technological terms, formerly "human concepts" like "intelligence" or "autonomy" should arouse the reader's initial sense of suspicion. Applying essentially human terminology to technological artifacts—which are increasingly capable of performing

"activities" that are like those of humans—might initially appear accurate and comprehensive.

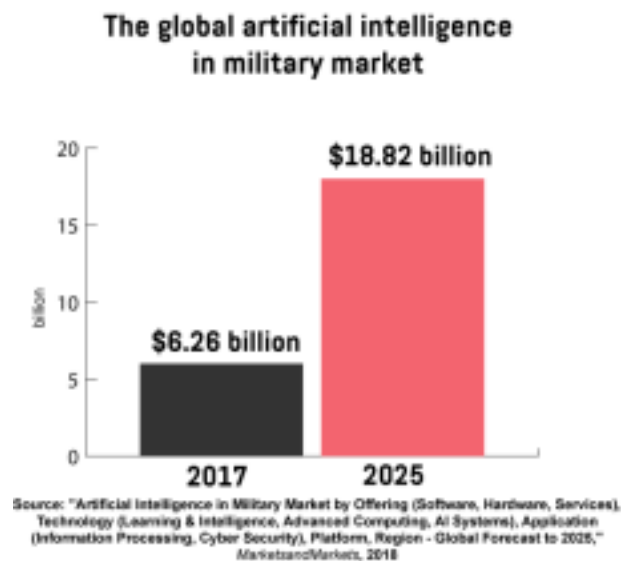
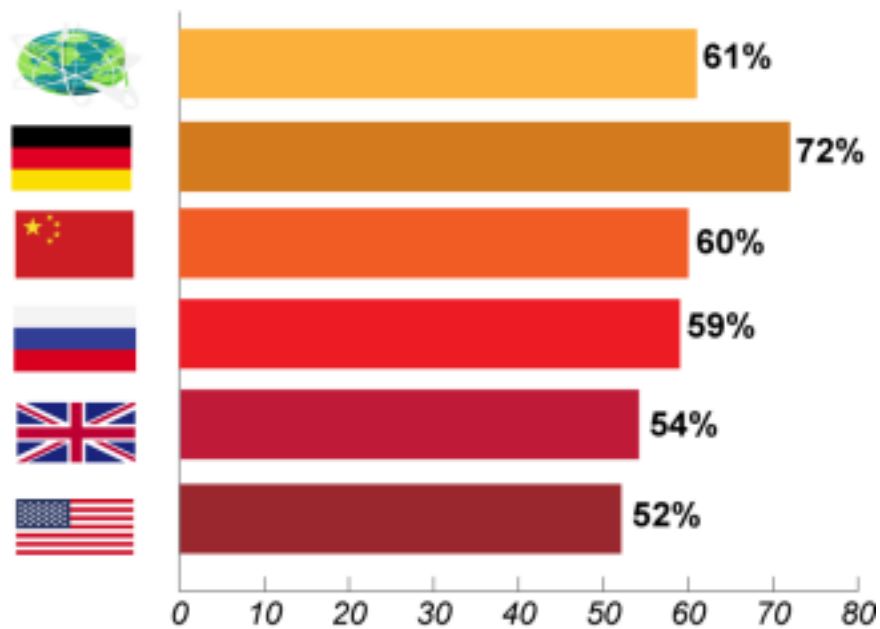


Figure 1: According to a latest study the global market using artificial intelligence in the military will increase substantially in 2025. (Source: Richard van Hooijdonk Blog)

Role of autonomous technology in weapon systems

In some situations, the decision-making process of humans can be controlled by *autonomous technology*. This has a great deal of potential for good, e.g., automated vehicles for visually compromised individuals and medical androids (Strickland 2017). Autonomous technology (AT) can be and perhaps already is integrated into robots that can choose and engage a military target (for example, infrastructure and combatants) without a human disregard. This is in addition to the promising applications of AT. There is no established definition of lethal autonomous weapons systems (LAWS), which are frequently referred to as such. The term 'autonomy' is not well understood because of lack of defined information (Surber 2018).

Opposition to fully autonomous weapons



Source: "Global poll shows 61% oppose Killer Robots," Campaign to Stop Killer Robots, 2018

*Figure 2: 61% of the global population, according to the *Campaign to Stop Killer Robots*, oppose completely autonomous weaponry. (Source: Richard van Hooijdonk Blog)*

The main notion is that a LAWS, if activated, would automatically identify, search for, choose, and strike targets using sensors and computationally intensive algorithms. Debatable is whether a human may still veto or override an autonomous weapon's choice. However, it appears that the military's operational requirements specifically call for weapon systems that can continue to function even if human communication links fail (Adams 2011). Additionally, cutting-edge AI research is now developing software that can fully autonomously "learn" (Silver, Schrittwieser et al. 2017) and even 'learn' to 'learn' on its own. According to Fig.2 a global poll was conducted to oppose killer robots or AT, that suggests that most of the world's population opposes the application of fully automated weaponry.

LAWS provide several benefits over traditional automated or remotely operated systems from a military standpoint such as:

- Less people would be required to support military operations because LAWS would not be dependent on communication links, and their faster processing rates would match the escalating pace of warfare (Thurnher 2014).

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- They will save lives by taking the place of human forces, and because they don't experience feelings like remorse, fear, or self-interest, their objective decision-making may result in less detrimental overall performance.

However, the use of LAWS may also result in significant risks.

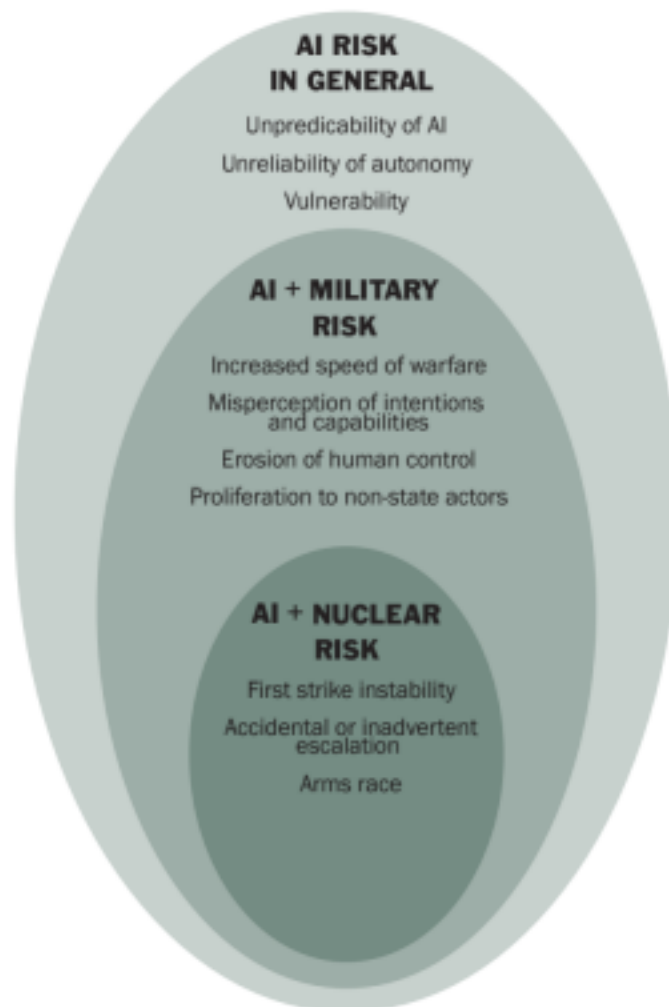


Figure 3: the autonomous technology risk onion (Source: Effective Altruism Forum)

- The lethal weapon systems acquire the potential that can control and alter the use of force with dangerous repercussions.
- It is likely that the target during an attack or even explaining the selection of a certain target based on a LAWS will no longer be predicted by the humans. This fact gives rise to significant legal, moral, humanitarian, and security issues (Brehm, 2017).

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- When a machine, rather than a human being, "decides" to kill, LAWS could be seen as devaluing human life from a humanitarian and ethical standpoint (Brenneke 2020).
- The programmer or engineer of a LAWS may also exhibit indifference or perhaps a "Gameboy Mentality" due to the physical and emotional barrier between them and the target (Sassoli 2014).
- LAWS could be hazardous from a security standpoint because they may also be flawed and malfunction (International Committee of the Red Cross, 2017).
- The level of autonomy of a LAWS rises in direct proportion to technological advancement. This further increases the unpredictable nature of LAWS' results and may allow for the interplay of different LAWS, such as self-organizing swarms (Ekelhof 2019).

The definition of "autonomy" for technical reasons should not divert the attention of the global community. Years of LAWS study and discussion within the UN Conference on Certain Conventional Weapons have not resulted in a terminological definition, although

perspectives on the connotation and extent of the term "autonomy" or "autonomous technology" have become more diversified. Defining AT might promote a possible result of the UN debates (such as, standards for responsible Government behaviour or strict code of conduct). New and yet undiscovered technology advancements useful for military applications might fall outside the range of this concept of LAWS (Surber 2018). AT is much more than its representation in LAWS. Regarding the future of mankind, one must first have a comprehensive awareness of the consequences of AT and developing technologies on peace and security. Given how quickly AI research is developing, both its potential and its dangers must be considered before application at a global level.