BOSNIA AND HERZEGOVINA, INPUT OF THE MINISTRY OF DEFENSE,
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The application of artificial intelligence in all spheres of human activity is not at all questionable, including in the military domain. The use of artificial intelligence (AI) for military purposes offers a range of opportunities and has the potential to improve military capabilities, but its development and application require careful regulation to ensure the representation of ethical principles and minimize risks and possible negative consequences for military organizations and the civilian environment. Artificial intelligence can be effectively applied in strategic decision-making processes, data processing and analysis, research, military decision-making, war games, cybersecurity, threat understanding, planning, reporting, and a wide range of other military activities.

The integration of artificial intelligence (AI) in the military domain presents both opportunities and challenges for international peace and security. Here are some key areas of focus beyond lethal autonomous weapons systems:

Opportunities

1. Enhanced Decision-Making:

AI can process vast amounts of data from various sources quickly, providing military leaders with actionable insights. This can lead to more informed decision-making and potentially quicker responses to crises.

2. Improved Situational Awareness:

AI technologies like advanced surveillance systems and data analytics can enhance situational awareness on the battlefield. This can help in monitoring troop movements, predicting enemy actions, and assessing environmental conditions.

3. Increased precision and accuracy in targeting:

AI technologies, such as drones and autonomous weapons systems, can enhance the precision of targeting, reducing collateral damage and civilian casualties.

4. Cybersecurity:

AI can strengthen cybersecurity measures by identifying vulnerabilities and responding to cyber threats in real-time. This can protect military networks and infrastructure from potential attacks. In this regard, today, challenges in cyber defense cannot be solved without the application of artificial intelligence.

The Ministry of Defense of Bosnia and Herzegovina has purchased and implemented a system for assessing the vulnerability of its IT systems and a system for advanced security and network analytics, the functioning of which is based on artificial intelligence, in the form of machine learning and proposing adequate responses.

5. Logistics and Supply Chain Management:

AI can optimize logistics, improving supply chain efficiency and reducing the risk of shortages in critical resources.

Challenges

1. Ethical and Legal Concerns:

The use of AI in military operations raises complex ethical questions, including accountability, responsibility, and morality for decisions made by AI systems and the potential for unintended consequences.

2. Arms Race and Proliferation:

The advancement of AI could accelerate an arms race among nations, as states seek to develop superior AI capabilities, and increase the risk of proliferation to non-state actors. This could lead to destabilization and increased tensions.

3. Bias and Reliability:

AI systems can inherit biases from the data they are trained on, leading to flawed decision-making. In military contexts, this can have severe consequences, especially in intelligence assessments or threat evaluations.

4. Autonomous Cyber Operations:

The use of AI in cyber warfare, including autonomous attacks and defenses, could lead to unpredictable escalations and challenges in attribution, making it difficult to hold states accountable.

5. Security vulnerabilities:

AI systems can be vulnerable to cyberattacks and hacking, posing risks to the integrity and security of military operations.

6. The lack of transparency, uncertain legal liability or identification of authority

The defense and military system often lacks sufficient expertise for the development and implementation of AI technology, which forces military organizations to rely on the knowledge of academic and industrial AI experts, which raises important ethical and practical questions for AI creators on the one hand and military experts on the other, for the effective synchronization of AI and the principles of military theory and practice. There are potential risks when integrating AI into military systems. The issue of liability for potential errors is an additional problem. Among other things, there are possibilities for misuse and cyberattacks. There is also the question of the moral responsibility of using AI for military purposes in situations where moral judgment is expected. Mistakes when making military decisions in potential military conflicts can have negative implications for civilians and parties to the conflict, which can cause the spread of conflict and pose a threat to world peace and security.

7. International Norms and Regulations:

The challenge of applying artificial intelligence in the military context is the lack of legislation defining this area. Regulating the issue in question through normative acts in order to ensure the safe and reliable use of AI for military purposes is a complex project that will require an analysis of the opportunities, possibilities, risks and dangers of the application

itself in the domain of domestic and international law. Creating a framework for accountability and responsible use is crucial to maintaining international peace.

Conclusion

While AI presents significant opportunities to enhance military effectiveness and operational efficiency, it also poses substantial challenges that must be navigated carefully. Therefore, resolving these concerns requires a multidisciplinary approach through the participation of experts in the fields of law, technology, information science, ethics and security, both at the level of member states and at the UN level, in order to establish clear standards and regulate the use of AI for military purposes. International cooperation and dialogue are essential to address these challenges and harness the potential of AI in a manner that promotes peace and security.