



**UNODA**  
UNITED NATIONS OFFICE FOR  
DISARMAMENT AFFAIRS



## **Emerging technologies in the area of LAWS: Exploring the legal and ethical implications of algorithmic bias**

**Date:** 26 July

**Time:** 13:15-14:45 CET

**Format:** Virtual (Zoom)

**Registration link:** [https://us06web.zoom.us/webinar/register/WN\\_4OvMBp2iSYW\\_cBO-WuFAsg](https://us06web.zoom.us/webinar/register/WN_4OvMBp2iSYW_cBO-WuFAsg)

### **FORMAT**

- a) Presentations will be given by panelists.
- b) After the presentations the floor will be open for questions and comments, which will be typed by participants into the chat and selected by the moderator.
- c) **Moderator [TBC].**
- d) **Audience:** States, civil society, academia, industry.

### **CONTEXT**

Algorithmic Bias in machine learning—a type of error by which an algorithm may not behave as a mere “neutral transformer of data or extractor of information,” with the consequence of its results deviating from a standard—<sup>1</sup> can have severe implications for the normal functioning of an AI-powered system. Algorithmic bias can arise from different sources, including bias in training data, differential use of information in the training data, biased algorithms, and as a consequence of the inappropriate use of the system, such as “transfer context bias” (the deployment of an AI-system beyond its intended use, purpose and context of operation) and “interpretation bias” (the misinterpretation of the algorithm’s output).

Limited availability of military training data that is representative of the actual context of use and the variability and adversarial nature of the battlefield could make Lethal Autonomous Weapons Systems (LAWS) susceptible to these types of errors. Furthermore, problematic

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<sup>1</sup> David Danks, and Alex John London. 2017 “Algorithmic bias in autonomous systems” in C. Sierra, (Ed.), *Proceedings of the 26th International Joint Conference on Artificial Intelligence*: <https://static1.squarespace.com/static/5f6d0320212a261d8716949f/t/621319a48c750a3ce04c5d84/1645418917386/IJCAI17-AlgorithmicBias-Distrib.pdf>

algorithmic biases in AI military system can have legal and ethical implications for compliance with International Humanitarian Law and the values and principles that underpin it.

The legal and ethical dimensions of AI military systems have been considered by the Group of Governmental Experts (GGE) on Emerging Technologies in the Area of LAWS, a Group established by the High Contracting Parties of the Convention on Certain Conventional Weapons (CCW). Guided in its work by International Law, in particular the UN Charter and international humanitarian law, and relevant ethical perspectives, the GGE on LAWS has identified algorithmic bias as an area that would benefit from further clarification or review.

This webinar, aimed at deepening participants' understanding of the technical, legal, and ethical, and governance implications of algorithmic bias in emerging technologies in the area of LAWS, is organized as part of the implementation of the *EU Council decision (CFSP) 2021/1694 in support of the universalization, implementation and strengthening of the CCW*, adopted in 2021, which supports *inter alia* discussions on underexplored issues related to the Convention.

## STRUCTURE

### 1. Welcome and opening remarks

Scene-setting and housekeeping.

### 2. Machine learning and Bias

This presentation will provide an overview of the technical aspects of algorithmic bias and its manifestation in the military domain as it related to the development and deployment of autonomous weapons systems.

- Guiding questions: *What is algorithmic bias? What causes algorithmic bias and what are its implications for the normal functioning of AI systems? How does algorithmic bias manifest in Autonomous Weapon Systems and what are the particularities of this type of error in the military domain?*

### 3. Legal and ethical implications of algorithmic bias in the area of LAWS

This panel will explore the key legal and ethical implications of algorithmic bias in the development and deployment of AI weapons systems and discuss the extent to which algorithmic bias can limit compliance with International Humanitarian Law and the ethical values and principles that underpin it.

- Guiding questions: *What are the legal and ethical implications of algorithmic bias for the development and deployment of AI weapons systems? What legal and ethical principles are particularly affected by algorithmic bias in Autonomous Weapons Systems? Whose rights and could be particularly affected by this problem?*

### 4. Implications of algorithmic bias for military AI governance

This panel will reflect on the existing and potential tools to address algorithmic bias in AI military systems, with a special focus on multilateral weapons governance and norm-setting processes.

- Guiding questions: *How can algorithmic bias in AI military systems be addressed? Are there governance avenues to mitigate and limit its potential harmful effects? What are the*

*implications of algorithmic bias for the multilateral military AI norm-setting processes? What aspects of algorithmic bias should be considered when addressing this error in the field of Autonomous Weapons Systems?*

**5. Participants' Comments and Q&A**

- Rules: Participants will be encouraged to type questions into the chat throughout the presentation, which the moderator will select and distribute between speakers.

**6. Closing remarks**

Recalling main points, connecting ideas, and conclusions.