



Diploma Thesis Evaluation Form

Author: Matyáš Ortmann

Title: "Development and Potential Regulation of Autonomous Weapon Systems: EU and U.S. Policy Strategies"

Programme/year: Security Studies/2021

Author of Evaluation (external assessor): Anzhelika Solovyeva

Criteria	Definition	Maximum	Points
Major Criteria			
	Research question, definition of objectives	10	6
	Theoretical/conceptual framework	30	15
	Methodology, analysis, argument	40	15
<i>Total</i>		80	36
Minor Criteria			
	Sources	10	10
	Style	5	5
	Formal requirements	5	5
<i>Total</i>		20	20
TOTAL		100	56



Evaluation

Major criteria:

The thesis raises important issues and brings together a range of relevant terms and insights relating to AWS. However, it lacks a single coherent line of argument. The material is not arranged consecutively. The links between parts of the text and between concepts and empirics are weak. Much more attention is paid to more general aspects and much less – to the core of the research questions. Definitions are imprecise. The thesis is for the most part descriptive and does not contribute much to the existing literature.

Different terms and perspectives are introduced: LAWS, AWS, AI, ML, DL, “killer robots,” the continuum of autonomy and the human-*in/on/out-of-the* loop model. All of them are relevant and can indeed help to define and categorize AWS. However, the author often presents them as separate from each other and does not comment in sufficient detail on the links between them all. Sentences that explain how these concepts are linked are rare and rather incidental (e.g. the author clarifies that LAWS are “referred to” as killer robots, p.25; the author links the development of AI to ML and DL, p.10). The author refers to some real world examples – MQ-9 Reaper, SGR-A1, Phalanx, Sea Hunter, Type-X – which illustrate different degrees of autonomy, pp.35-37. But this does not help to define AWS. The overview is quite general, these weapon systems are not compared and contrasted along the same lines and not linked in a systematic manner to the concepts of AWS/LAWS/AI/ML/DL/etc. (the only exception perhaps is that SGR-A1 is linked to the human-*on-the* loop model). So their description has little *analytical* value. The result is the lack of a clear definition of what this thesis is about (e.g. LAWS, p.25, are not the same as remotely operated vehicles, p.14, which the author also associates with AWS; Phalanx, p.36, is not a LAWS; the Campaign to Stop Killer Robots and the CCW/GGE discussions are in the first place focused on LAWS, and not on such systems as MQ-9 Reaper, p.35; references to drones such as MQ-9 Reaper, p.35, also do not fit in with the author’s claim that AWS “surpass systems that are remotely controlled, such as drones or other types of unmanned aerial vehicle”, p.11; MQ-9 Reaper, p.35, is not even equipped with AI/ML, even though such intentions have been announced).

There is one more problem from the empirical perspective. The title suggest that the EU and the US are at the centre of attention. However, the analysis of their “policy strategies” and the amount of attention given to them in general are limited. Their current weapons programmes, which could contribute to a better understanding of their approaches to the regulation of AWS, are not considered. Comparative findings are also weak for two reasons: some set of criteria, which could serve as the basis for comparison, is not developed; and conclusions, which derive from the simultaneous analysis of both cases, are not made. This analysis also does not communicate well with the conceptual part and the *variety* of issues for some reason presented there. It is no more than a general overview of the EU and US attitudes towards autonomy in weapon systems, AWS, LAWS, AI, ML.. (again, no clear differentiations between these categories are made here).



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Last but not least, the research questions are quite general, unfocused and not answered well: *What are the current regulatory trends in the field of AWS?* (the thesis refers to the word “trend” in the analysis a few times, almost in passing; an overview of recent developments and the current state of affairs cannot be presented as the analysis of “trends”); *Have autonomous weapon systems already achieved forms of full autonomy?* (the answer is imprecise, please see above); *How do individual states react to the topic of AWS?* (the logic of case selection is not explained); *To what extent is the current development of ML and AI reflected in these regulatory trends?* (first of all, there is no proper analysis of “trends”, please see above; second, the analysis of regulatory attempts and approaches marginally touches upon AI/ML). The conclusion does not get back to these research questions and does not provide the answers.

Minor criteria:

The thesis satisfies all the formal requirements.

Overall evaluation:

The author’s knowledge of subject matter is adequate but the way things are presented in this thesis, with no clear research direction and outputs, is unfortunate.

Suggested grade: E

Signature: