BEYOND THE FOG:

AUTONOMOUS WEAPON SYSTEMS IN CONTEXT OF THE INTERNATIONAL LAW OF ARMED CONFLICT

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Working theses

1. Introduction of the Autonomous Weapon Systems (AWS) in conflict resolution represent a veritable paradigm shift

2. There are shockwaves inside the legal community over the usage of AWS: from complete ban of the development of the autonomous weapon systems to the complete support of these systems

3. States are divided over the usage of AWS

4. New Convention – Treaty or Protocol that will maintain connection between AWS and decision makers as a potential solution

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Premise

Quemadmodum gladius neminem occidit; ...occidentis telum est.

A sword never kills anybody; ...it is a tool in the killer's hand.

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OUTLINE

1. AWS in conflict resolution – *hic sunt leones*

2. Inside the fog: the legal debate over the AWS usage

3. State’s position over the AWS employment

4. Beyond the fog: the new treaty as a start

5. Conclusion
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1. AWS in conflict resolution – *hic sunt leones*

The technology have always influenced the operational environment.

Post WW-II - the political imperatives to increase the force protection and protection of the civilians and civilian property.
1. AWS in conflict resolution – *hic sunt leones*

“drone technology” evolution of conducting military operations (planning, conducting and analyzing)

operational environment transformed from time and space driven i.e., linear understanding - a “battlefield”, to a multi-dimensional system of systems understanding - a “battlespace”
1. AWS in conflict resolution – *hic sunt leones*

Militaries around the world acquire systems that can identify, track, and prioritize targets.

Autonomy present in the systems that maneuvering and homing in on targets or the timing firing.
1. AWS in conflict resolution – *hic sunt leones*

Michael C. Horowitz and Paul Scharre

“at least 30 countries have defensive systems with human-supervised autonomous modes ...”,

“in a few rare exceptions, autonomy is used for weapons to select and engage targets on


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1. AWS in conflict resolution – *hic sunt leones*

Contemporary achievements in science and technology, along with the dynamics in political and operational affairs, dictate that the trend of utilizing advanced technology into military operations will increase!
1. AWS in conflict resolution – *hic sunt leones*

Kenneth Anderson and Matthew Waxman:

“...Detecting, analyzing and firing on targets will become increasingly automated, and the contexts of when such force is used will expand.” The role of humans, - “will gradually shift from full command, to partial command, to oversight and so on”.

1. AWS in conflict resolution – *hic sunt leones*

So far no AWS in place

*Such weapon systems will not be developed in the foreseeable future*


Robin Geiss, “The International Law Dimension of Autonomous Weapons Systems” Friedrih Ebert Stiftung, p.4
1. AWS in conflict resolution – *hic sunt leones*

The U.S. - programs to develop unmanned systems up to 2038

The International Committee of the Red Cross (ICRC), "increasing autonomy already exists in the 'critical functions' of some weapon systems in use today.

Plans that favor AWS have sparked serious debates among

activists,

lawyers,

political scientists,

ethicists,

philosophers,

military and national security professionals.
2. There are shockwaves inside the legal community over the usage of AWS: from complete ban of the development of the autonomous weapon systems to the complete support of these systems.
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2. Inside the fog: the legal debate over the AWS usage

- No clear understanding of what is considered as an autonomous weapon system

Two problems with this

First, there is no fully AWS, - independent of human control

Second, there is a lack of understanding of what “efforts to produce autonomous weapon systems” really means
2. Inside the fog: the legal debate over the AWS usage

Activists, scholars, experts, but also nation states, have positioned themselves from

- complete ban of the development of the autonomous weapon systems

- to the complete support of these systems
2. Inside the fog: the legal debate over the AWS usage

Critics against AWS exist in

*ad bellum* and *in bello* context
2. Inside the fog: the legal debate over the AWS usage

Critics against AWS

*(ad bellum)*

…the risks that AWS pose is general argument for banning the AWS

Human Rights Watch, has called for an *ex ante* ban on fully autonomous weapons.

“AWS or robots” “…are incapable of abiding by key principles of international humanitarian law. … unable to follow the rules of distinction, proportionality, and military necessity and might contravene the Martens Clause.”

2. Inside the fog: the legal debate over the AWS usage

Critics against AWS

(ad bellum)

International Committee for Robot Arms Control,

“prohibition of the development, deployment and use of armed autonomous unmanned systems”

2. Inside the fog: the legal debate over the AWS usage

Critics against AWS

(ad bellum)

2. Inside the fog: the legal debate over the AWS usage

Critics against AWS

*(in bellum)*

Robert Sparrow,

“designing robots involves formidable technical challenges”.

“hacking”, “spoofing” or “piggybacking” may aloud interception and misuses

2. Inside the fog: the legal debate over the AWS usage

Critics against AWS

(\textit{in bellum})

Heather Roff, focus on the accountability responsibility is almost impossible. AWS cannot violate a right and thus, cannot uphold a right. “\textit{a violating a right is an intentional wronging of someone who has moral accountability}”.

2. Inside the fog: the legal debate over the AWS usage

Critics against AWS

*(in bellum)*

Markus Wagner

“AWS eliminate the possibility to establish individual criminal responsibility that requires moral agency and a determination of *mens rea*”

2. Inside the fog: the legal debate over the AWS usage

Critics against AWS

(*in bellum*)

Critics based on our inability to foresee how AWS might act in complex operational environment

AWS cannot meet some of the requirements under Article 36 of Additional Protocol I (AP-I) to the 1949 Geneva Conventions (1949, GC)
2. Inside the fog: the legal debate over the AWS usage

Critics against AWS

(*in bellum*)

Peter Asaro, AWS that cannot be tested and verified under the ILOAC requirements should be banned
2. Inside the fog: the legal debate over the AWS usage

Critics against AWS

*(in bellum)*

Richard M. O’Meara

inability to govern the increasingly rapid innovation and associated tactics that are designed for its usage

2. Inside the fog: the legal debate over the AWS usage

*Contra critics (pro) to the usage of AWS*

Authors and experts who advocate for usage of AWS build their argumentation by criticizing the calls against usage of AWS

- legal argumentation aims to defend certain policy (U.S. predominantly)
- argumentation starts by narrowly explaining the technical aspects of the AWS
- link these explanations to operational context and complexity of modern warfare
- finally, they offer legal analyses to justify policy documents and objectives
2. Inside the fog: the legal debate over the AWS usage

*Contra critics (pro) to the usage of AWS*

According to those who support these views

“an outright ban of autonomous weapon systems is insupportable as a matter of law, policy, and operational good sense”
2. Inside the fog: the legal debate over the AWS usage

Contra critics (pro) to the usage of AWS

For Schmitt

calls to ban outright AWS have serious national security implications

2. Inside the fog: the legal debate over the AWS usage

Contra critics (pro) to the usage of AWS

For Schmitt

“the ILOAC has never been about ensuring a "fair fight"
It "comprises prohibitions, restrictions, and obligations designed to balance a State's interest in effectively prosecuting the war (military necessity) with its interest in minimizing harm to those involved in a conflict (humanity)"
“whether autonomous weapon systems comply with the legal norms that States have put in place to achieve this balance".

2. Inside the fog: the legal debate over the AWS usage

Contra critics (pro) to the usage of AWS

“...imposing a general ban on autonomous systems could carry some highly unfavorable consequences—and possibly dangers

improving decision making on the battlefield, system accuracy, minimizing collateral injuries; and limiting human loss of life on both sides and among civilians

2. Inside the fog: the legal debate over the AWS usage

*Contra critics (pro) to the usage of AWS*

The question of legal analysis is one of lawful use of AWS

...to differentiate between
(a) weapons that are employed in specific circumstances contrary to the principle of distinction and
(b) weapons that by their very nature or design cannot possibly maintain the distinction in any set of circumstances

2. Inside the fog: the legal debate over the AWS usage

*Contra critics (pro) to the usage of AWS*

Jeffrey S. Thurnher

Applying legal analysis about the legality of AWS must consider that

“context and environment in which the weapon system operates play a significant role.”

3. States are divided over the usage of AWS
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3. State’s position over the AWS employment

States are not united over the legal banning of the AWS usage
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States are not united over the legal banning of the AWS usage

A total of 52 nations have publicly expressed their views on “killer robots” since 2013, mostly to indicate their support for multilateral talks on concerns raised
3. State’s position over the AWS employment

States are not united over the legal banning of the AWS usage

In May 2014, representatives from 87 states participated in the first Convention on Conventional Weapons (CCW) informal meeting of experts to consider questions related to emerging technologies in the area of lethal autonomous weapons systems.
3. State’s position over the AWS employment

States are not united over the legal banning of the AWS usage

Follow-up CCW experts meeting on 13-17 April 2015. Several states have expressed interest in discussing the matter at the Human Rights Council since the first debate on the matter took place in April 2013.
3. State’s position over the AWS employment

States are not united over the legal banning of the AWS usage

Yet few states have elaborated on their national policy on this issue. Only the UK and US have issued policies on autonomous weapons systems.
3. State’s position over the AWS employment

A total of 67 countries have for the first time elaborated their views publicly on lethal autonomous weapons systems in a multilateral forum:

- 44 states in 2013,
- 7 in 2014,
- 15 in 2015, and
- 1 in 2016
3. State’s position over the AWS employment

Countries calling for a ban on lethal autonomous weapons systems in alphabetical order:

1. Algeria
2. Chile
3. Costa Rica
4. Cuba
5. Bolivia
6. Ecuador
7. Egypt
8. Ghana
9. Holy See
10. Mexico
11. Nicaragua
12. Pakistan
13. State of Palestine
14. Zimbabwe
4. New convention (treaty) or protocol that will maintain connection between AWS and decision makers as a potential solution
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Two general proposals:

Unique and rare opportunity to develop regulation *ex ante*

1. A new, stand-alone treaty or
2. A protocol to the CCW
4. Beyond the fog: the new treaty as a start

Two general proposals:

Regardless of the approach new regulation must consider that AWS must always have meaningful human control.
4. Beyond the fog: the new treaty as a start

The new regulation should consider Art 36 of AP-I (1977) i.e. that operational uses of the AWS must comply with the law of targeting.

A sword never kills anybody; it is a tool in the killer's hand.

Seneca-
4. Beyond the fog: the new treaty as a start

The new regulation should consider Art 36 of AP-I (1977)

**Distinction**
- distinguish between combatants and civilians, as well as between military and civilian objects - API (Art 48)

**Proportionality**
- anticipated military advantage of an operation be weighed against the reasonably anticipated civilian harms - API-(Art 51 (c))

**Accountability**
- Individual combatants should be criminally responsible for committing war crimes if they use AWS to commit them, also if they order AWS to commit criminal acts or fail to prevent them
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5. Conclusion

The desire to introduce the AWS in conflict resolution – combat operations, among others, represent a serious legal challenge.

Activists, scholars, experts, but also nation states, have positioned themselves from complete ban of the development of the autonomous weapon systems to the complete support of these systems.

A new Treaty or a Protocol that will regulate development and usage of the AWS is needed.

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