An Overview of Autonomy in Weapon Systems and International Negotiations

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Michael C. Horowitz, University of Pennsylvania
This Is What Happens. . . .
Overview

• Militaries around the world are investing heavily in robotics and autonomous systems for many reasons.

• Lethal autonomous weapon systems (LAWS) represent a small subset of overall military investments in robotics and autonomous systems, and do not really exist now.

• Ongoing international dialogue in the United Nations on LAWS for last 8 years.

• Confidence building measures and standard setting could be promising avenues for encouraging safe and responsible military uses of autonomous systems and robotics.
Who Wants AI & Robotics? Everyone

Democracies

Autocracies
Ongoing International Competition
Convention on Certain Conventional Weapons

- Entered into force in 1983
- Focuses on conventional weapons that are indiscriminate or otherwise problematic
- Example: Landmines
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What is An Autonomous Weapon?

Definition: A weapon system that, once activated, can select and engage targets without further intervention by a human operator.

Source: Department of Defense
Do Autonomous Weapon Systems Exist Today?
Concerns With Autonomous Weapons Systems

**Ethical/Moral**

*Right Decision* → *Wrong Decision*

**Practical**
Why Not Just Ban Killer Robots?
Progress in International Dialogue

- CCW Group of Government Experts (GGE) meetings ongoing
- Current supporters of a “ban” on LAWS generally represent smaller countries without major militaries
- Positions of key countries:
  - China
  - United States
  - Russia
  - United Kingdom
- French approach: Autonomy versus “partial” autonomy
When Do International Agreements Work?

• Demonstrated harm
• Limited or no military utility for both smaller militaries and major military powers
• Clear scope conditions
Alternative: A Confidence Building Approach

- Tool from Cold War
- Building blocks for cooperation
- Standard setting
- Promotion of safety
Conclusion

• Growing concern about LAWS even though they do not really exist (yet)

• More hype than reality given current technological limits and alternative weapon systems

• Clear definitions will be essential to any enforceable international agreement, but alternatives exist (example: Nuclear Ban Treaty)

• French approach could gain momentum