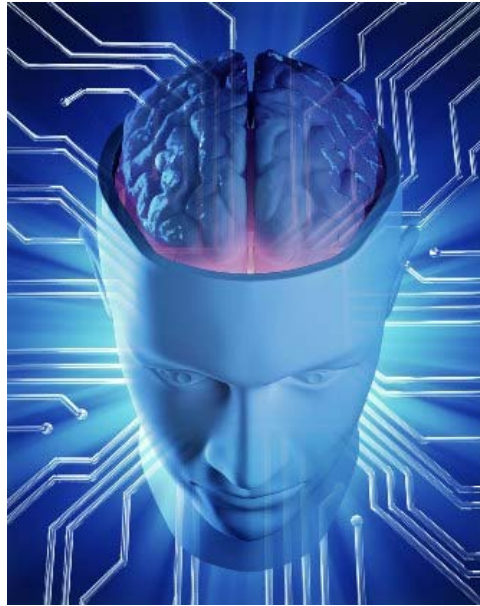
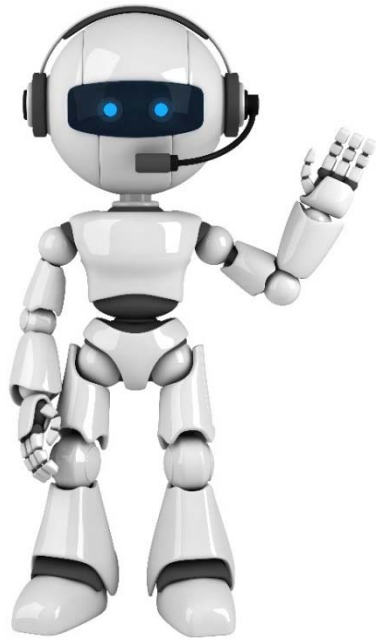


An Overview of Autonomy in Weapon Systems and International Negotiations

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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



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