Design requirements for a Moral Machine for Autonomous Weapons

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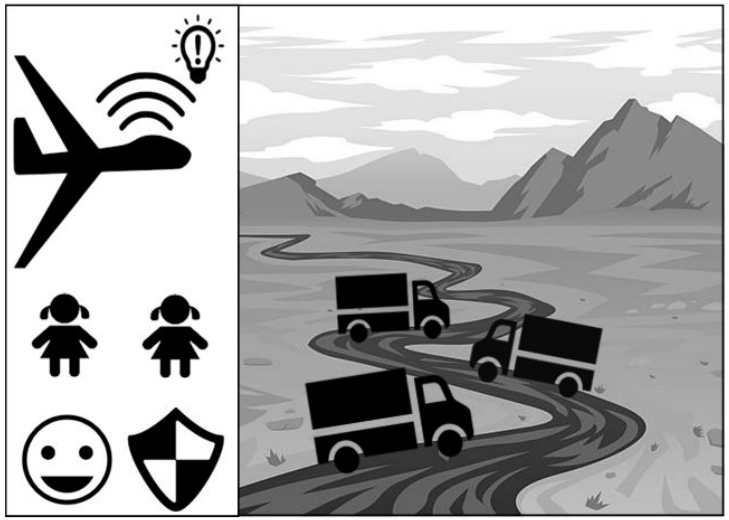
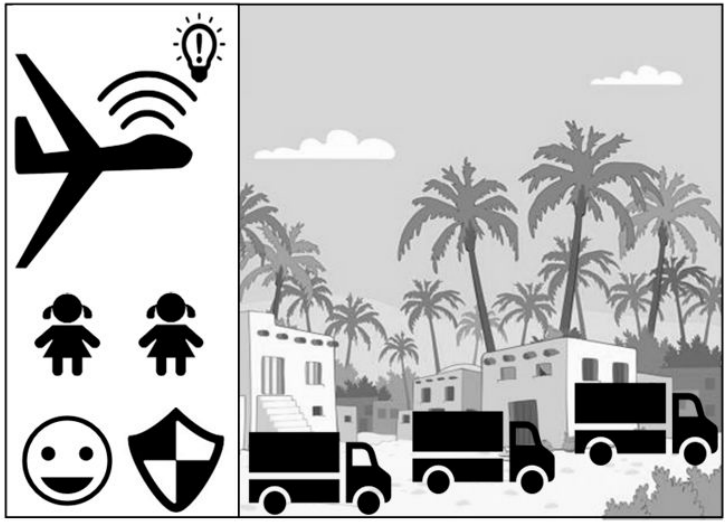
Which scenario is most acceptable to you?





Scenario A:

- ➔ Autonomous drone
- ➔ Location in desert
- ➔ No collateral damage
- ➔ 2 children nearby road

Scenario B:

- ➔ Autonomous drone
- ➔ Location village
- ➔ No collateral damage
- ➔ 2 children nearby road

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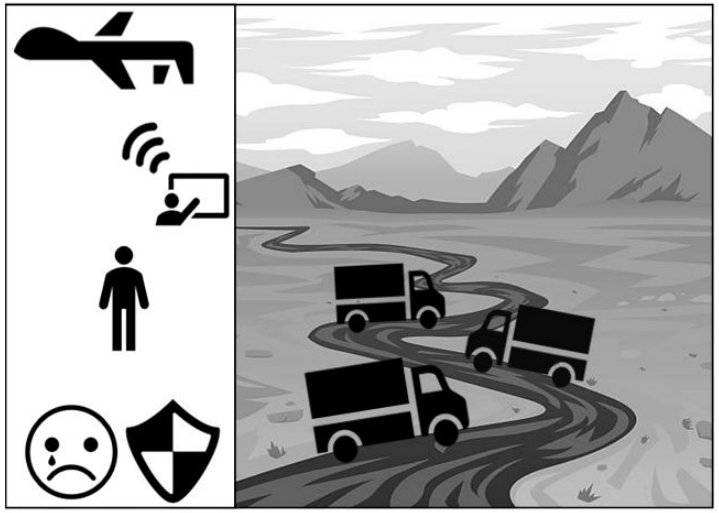
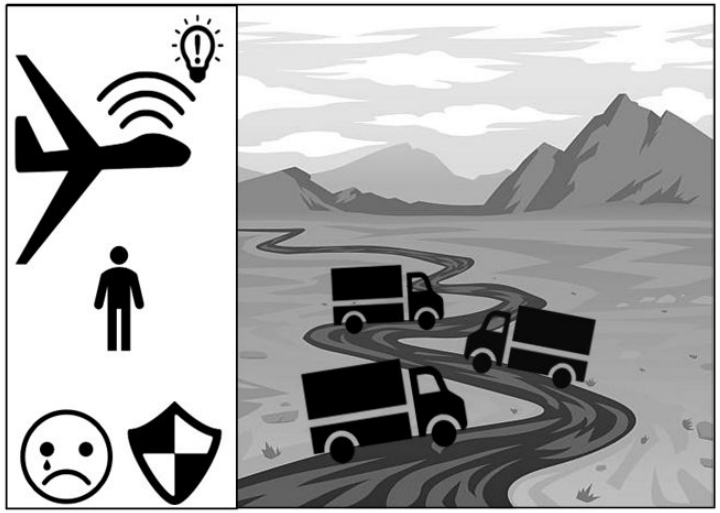
Which scenario is most acceptable to you?





Scenario A:

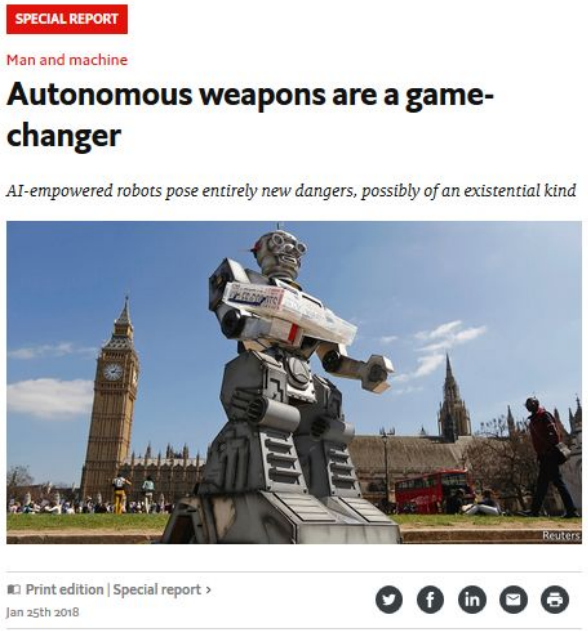
- ➔ Human operated drone
- ➔ Location in desert
- ➔ Collateral damage
- ➔ 1 person nearby road

Scenario B:

- ➔ Autonomous drone
- ➔ Location in desert
- ➔ Collateral damage
- ➔ 1 person nearby road

Why?

Ethical decision-making is studied in related fields like Autonomous Vehicles and Human Operated drones, but not yet fully extended to the deployment of Autonomous Weapon Systems and research on moral judgement is lacking.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Jan 25th 2018

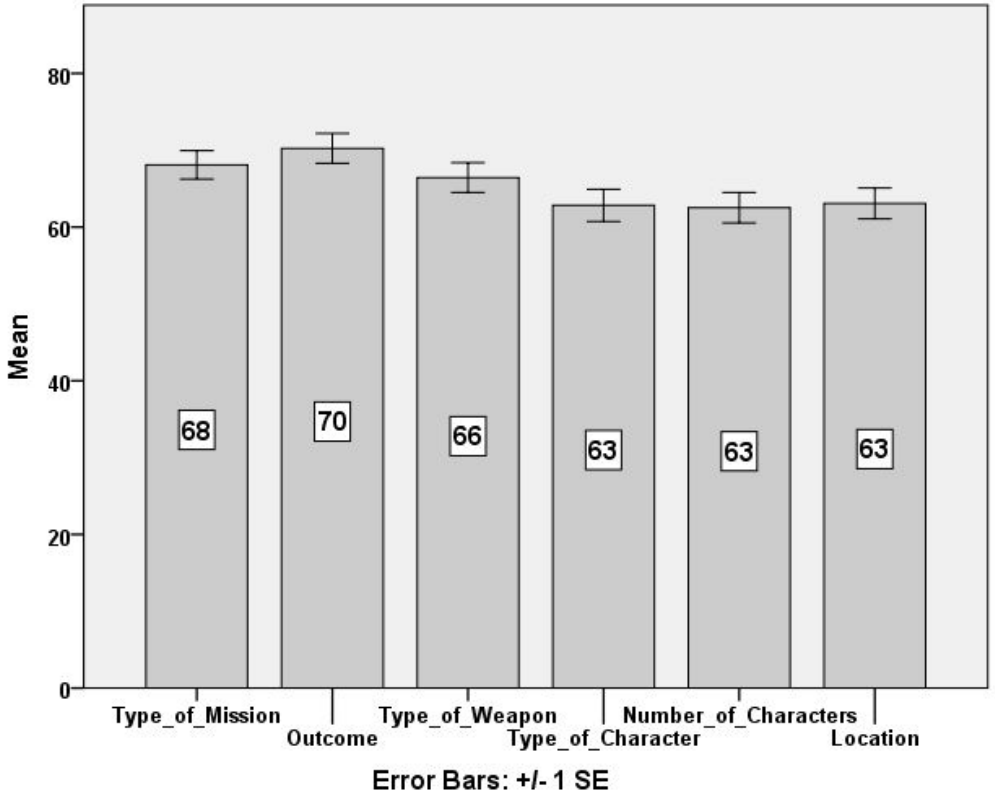
https://www.economist.com/special-report/2018/01/25/autonomous-weapons-are-a-game-changer

What?

We propose design requirements for a Moral Machine (Similar to http://moralmachine.mit.edu/) for Autonomous Weapon Systems to conduct a large-scale study of the moral judgement of people regarding the deployment of this type of weapon.

How? -> method

Survey 6 variables: *Type of Weapon* (W), *Location* (L), *Character* (C), *Number of Characters* (N), *Outcome* (O) and *Mission* (M).



N= 209

How? -> Design Moral Machine

- Description of variables in paper;
- Scenario based on real-life with feasible technology;
- Variables depicted in figures and pictograms > need testing for understandability;
- Run pilot study to test scenarios before scaling up;
- Not allow people to create their own scenarios or share their results on social media due to sensitivity of topic.

Discussion

- Does this design result in a good sample of respondents for robust statistics?
- Can you measure ethical decision-making by means of a Moral Machine?
- Is this simplified view of military operations sufficient to measure the complexity of deployment of Autonomous Weapons?

Questions?