Ethical Challenges for Future Technologies

Future Operating Environment

THE COVE FUTURE TECHNOLOGIES OF WAR CONFERENCE

23 JUNE 21

Dr Kate Devitt
Chief Scientist

This is the opinion of the author and does not represent the views of the Australian Government

TRUSTED AUTONOMOUS SYSTEMS

Contents

- Ethics fast & slow
- When things go wrong
- Good, bad, mad or cooked apples
- The ethics of individuals & the ethics of states
- A method for ethical AI in Defence

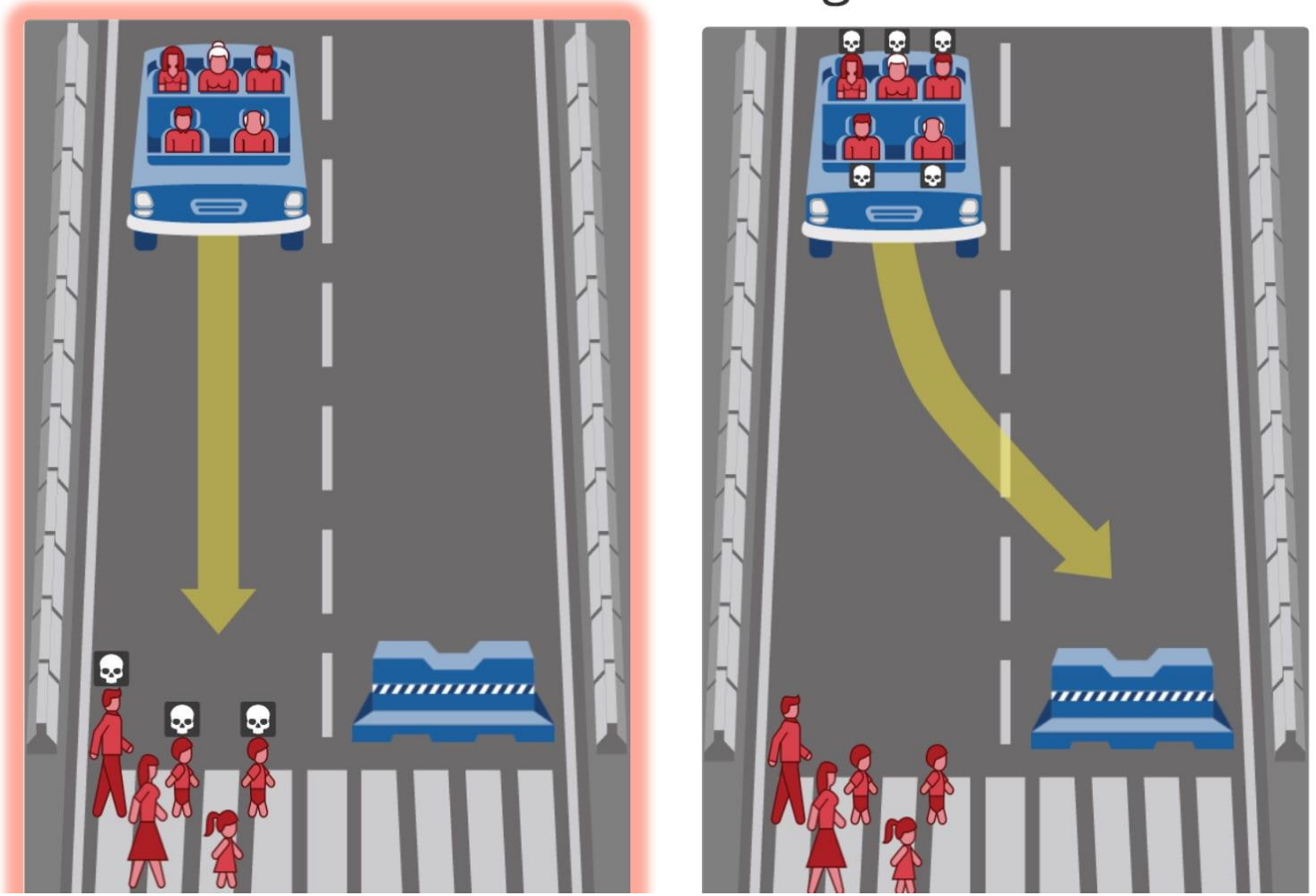
Aid For The Fallen By Sir Thomas Brock

Ethics Fast & Slow

People are morally responsible for decisions if they have:

a) morally relevant information,
b) freedom to act and
c) the situation has ethical risk.

What should the self-driving car do?



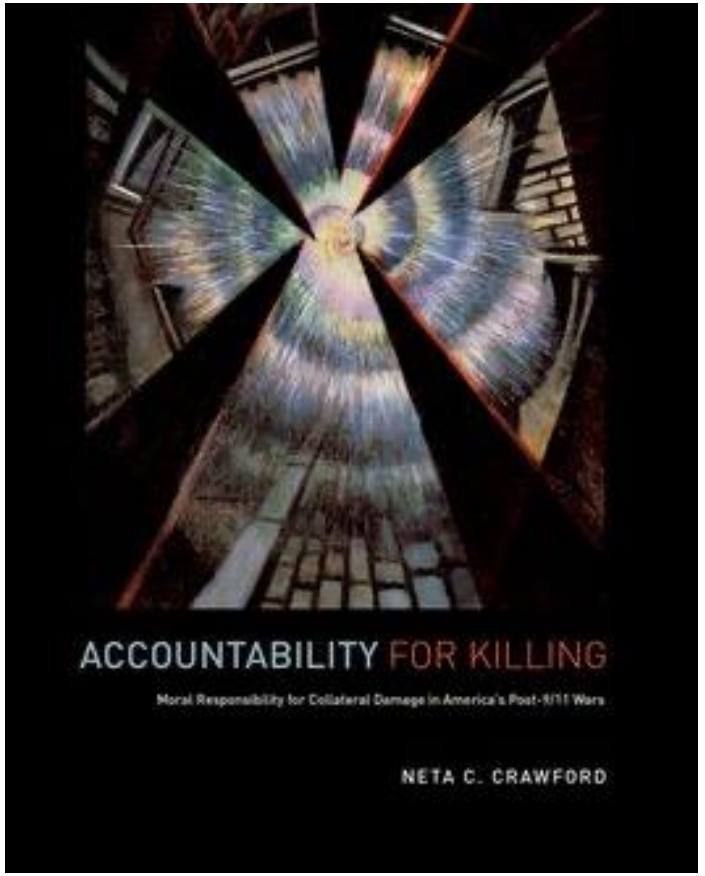
‘Moral Machines: When the Trolley Fights Back’
https://blogs.unimelb.edu.au/sciencecommunication/2020/10/11/moral-machines-when-the-trolley-fights-back/

When things go wrong…

This is the "bad apple" view of war crimes, where the bad apples are fully autonomous moral agents who are no longer exercising discipline. They are failing to control their anger and other emotions, such as the desire for revenge. War unleashes our natural passions. Ultimately, it is the job of the soldiers themselves, and their commanders, to keep control, and so, the reasoning goes, these malevolent passions are unleashed in war if the soldier or commander loses control.

Neta C. Crawford
Accountability for Killing: Moral Responsibility for Collateral Damage in America's Post-9/11 Wars

#kindlequotes



When otherwise sane and law-abiding soldiers snap or deliberately commit crimes in combat, something has gone terribly wrong. In this case, mad apples commit atrocities where the moral agency of the mad apples is compromised and diminished by the stress of war. Thus, the assignment of moral responsibility to soldiers for their actions that violate the laws of war depends on the soldiers' capacity to make decisions and their freedom to act—their agency.

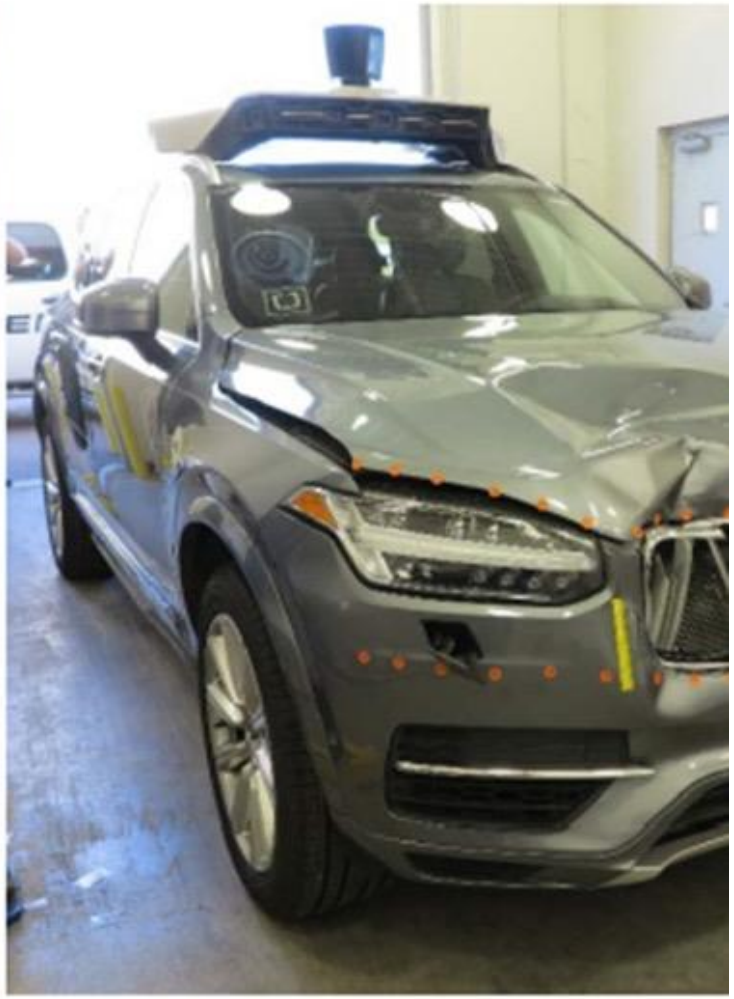
Neta C. Crawford
Accountability for Killing: Moral Responsibility for Collateral Damage in America's Post-9/11 Wars

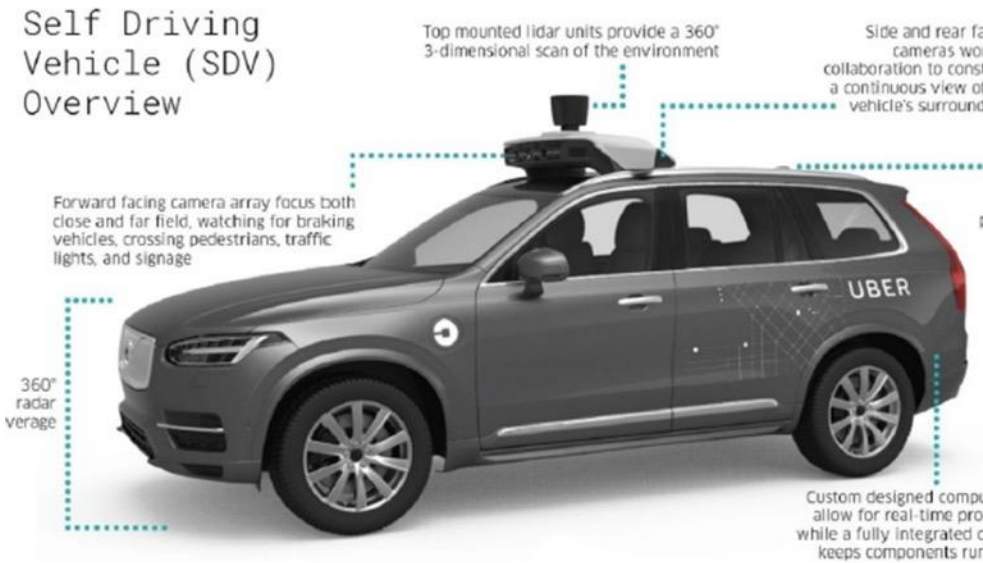
#kindlequotes

https://www.engadget.com/2012-07-11-lockheed-martin-f-35-hands-on.html

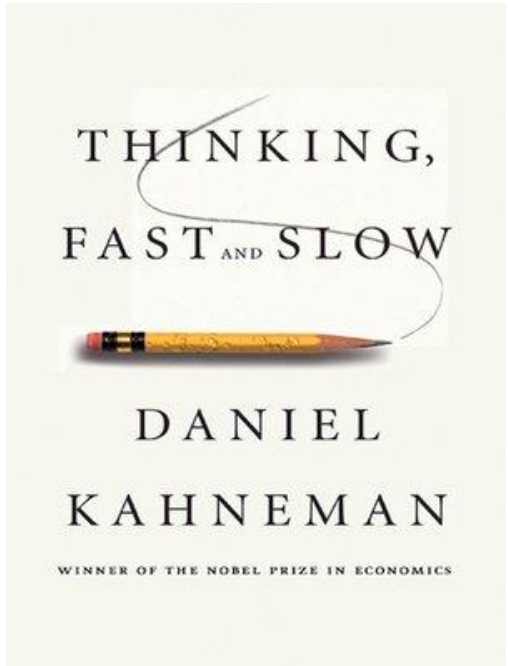
Elish, M. C. (2019). Moral crumple zones: Cautionary tales in human-robot interaction. *Engaging Science, Technology, and Society, 5*, 40-60.

Good, bad, mad or cooked apples

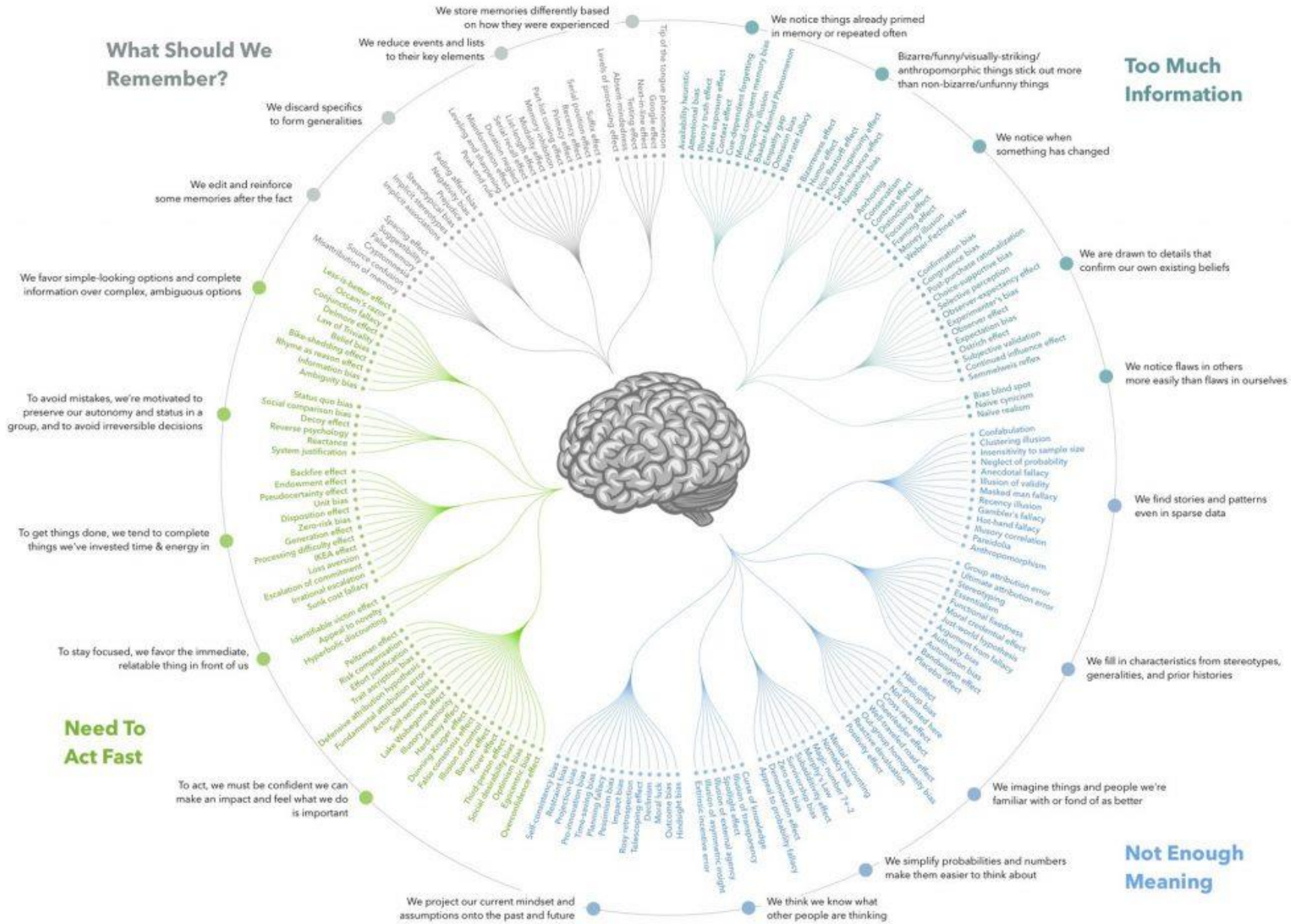




NTSB Investigation Into Deadly Uber Self-Driving Car Crash Reveals Lax Attitude Toward Safety (7 Nov 2019)
https://spectrum.ieee.org/cars-that-think/transportation/self-driving/ntsb-investigation-into-deadly-uber-selfdriving-car-crash-reveals-lax-attitude-toward-safety



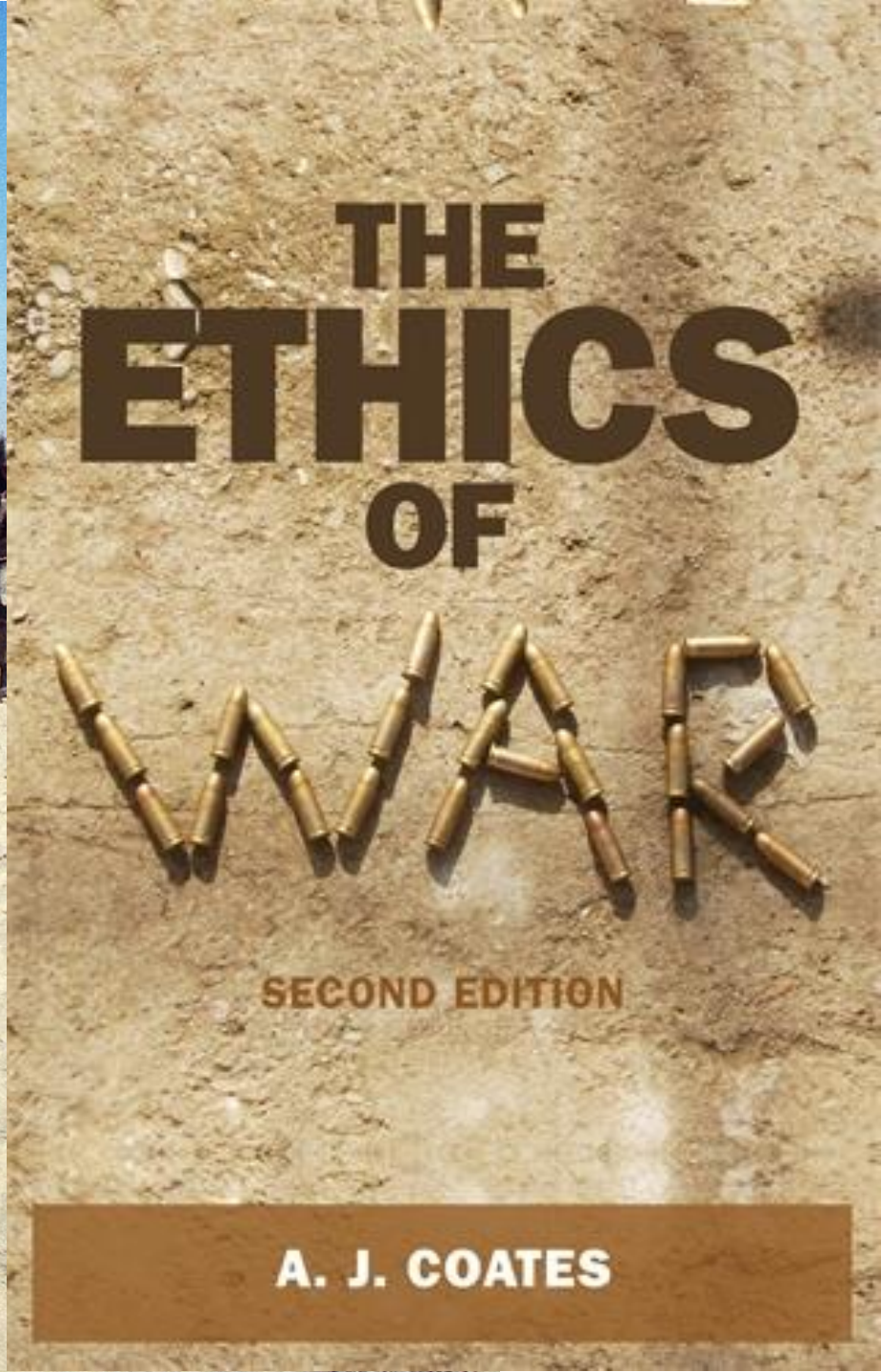
COGNITIVE BIAS CODEX, 2016



ALGORITHMIC LAYOUT + DESIGN BY JM3 · JOHN MANOOGIAN III // CONCEPT + METICULOUS CATEGORIZATION BY BUSTER BENSON // DEEP RESEARCH BY WIKIPEDIANS FAR + WIDE

The ethics of individuals & the ethics of states

- realism
- militarism
- pacifism
- the just war
- legitimate authority
- just cause
- proportionality and the recourse to war
- last resort
- proportionality and the conduct of war
- noncombatant immunity
- peacemaking



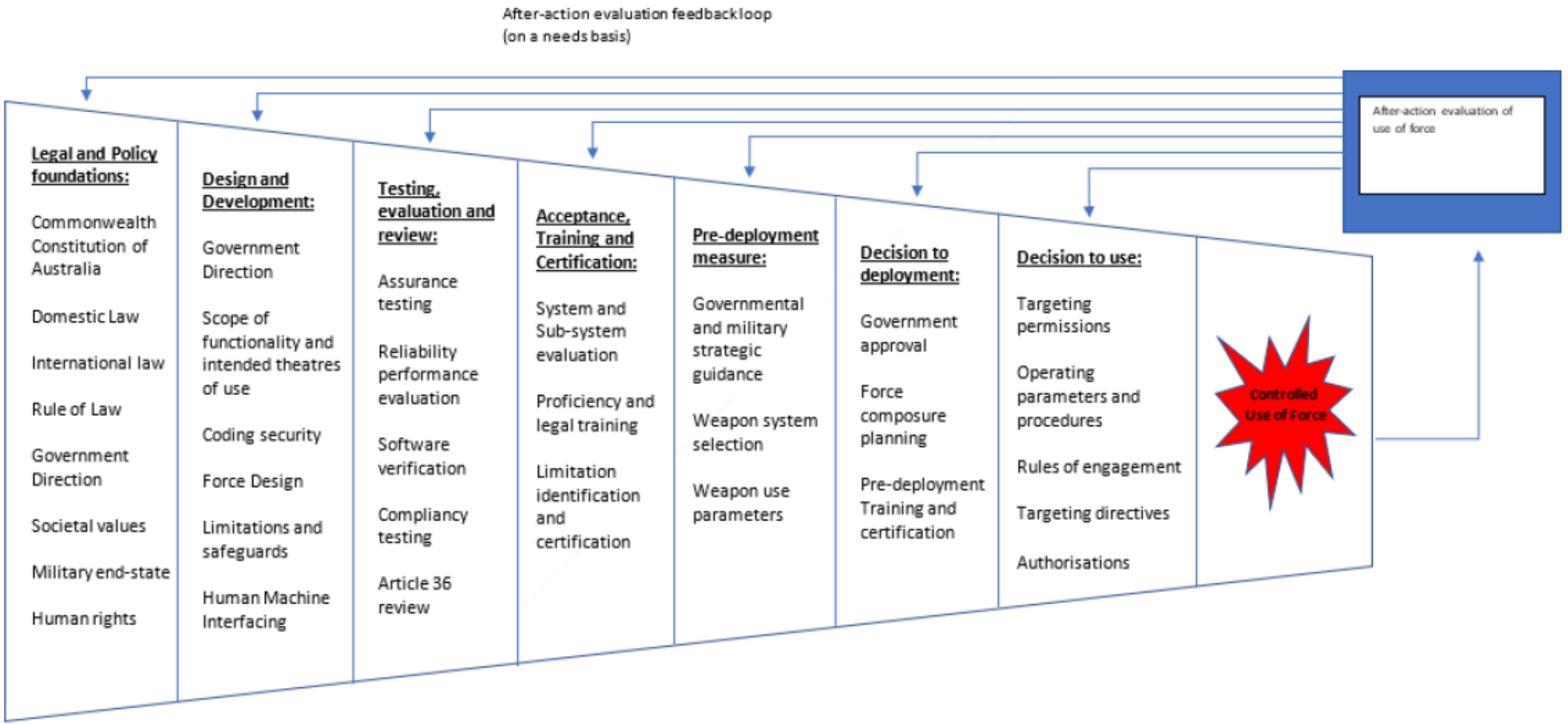
“In the lawless, Hobbesian world of international affairs, the policy maker was always dealing with particulars and exceptions, specific problems situated in the immediate present”.

”Moral principles are universal and timeless…foreign policy is bounded by circumstances” Henry Kissinger

Barry Gewen ‘The Inevitability of Tragedy: Henry Kissinger and His World’

System of Control

Australia's System of Control and applications for Autonomous Weapon Systems (2019)
https://meetings.unoda.org/section/ccw-gge-2019-documents/



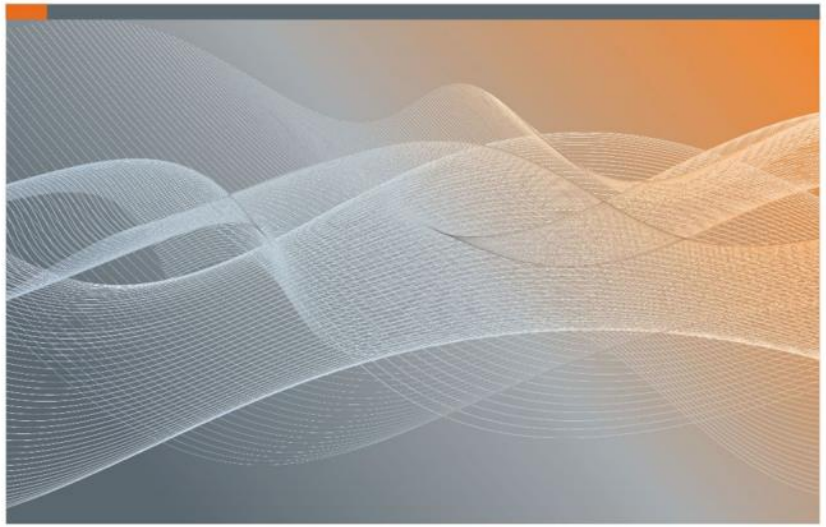
See also 'The Australian Article 36 Review Process' (2018) https://meetings.unoda.org/section/ccw-gge-2018-documents/

Introduction to the ethics of Robotics Autonomous Systems and Artificial Intelligence in Defence

OFFICIAL

Australian Government
Department of Defence

A Method for Ethical AI in Defence



Defence Science and Technology Group

DSTG-TR-3786

This is a report on the outcomes of a workshop only and does not represent an official position of Defence. It represents views expressed by participants and stakeholders of the workshop.

Defending Australia and its National Interests
www.defence.gov.au

OFFICIAL

Facets of Ethical AI in Defence

RESPONSIBILITY
Who is responsible for AI?

GOVERNANCE
How is AI controlled?

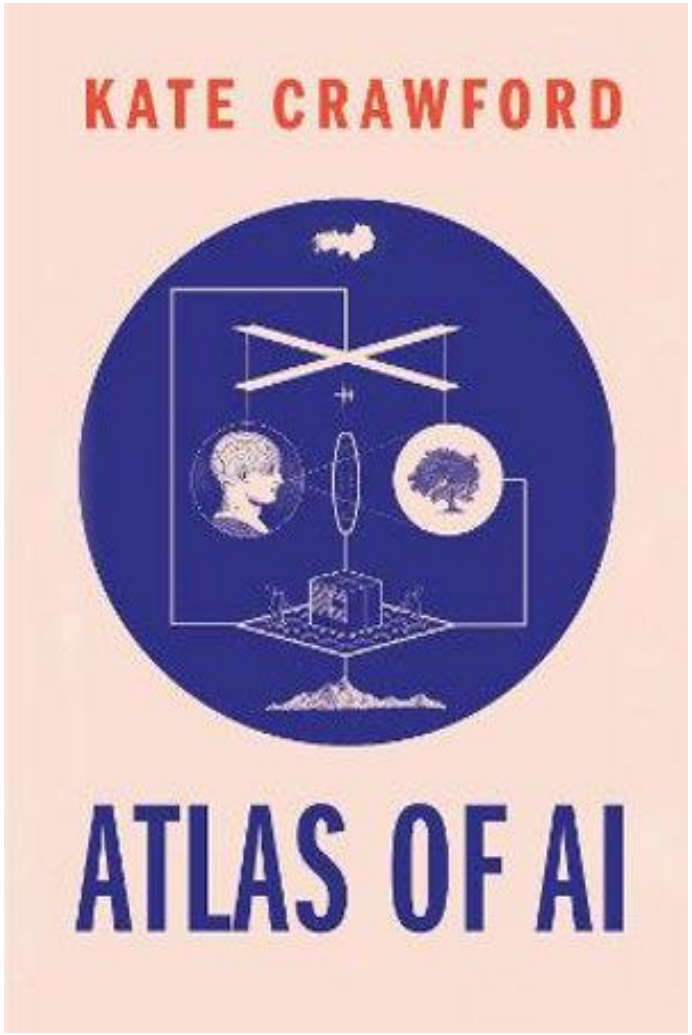
TRUST
How can AI be trusted?

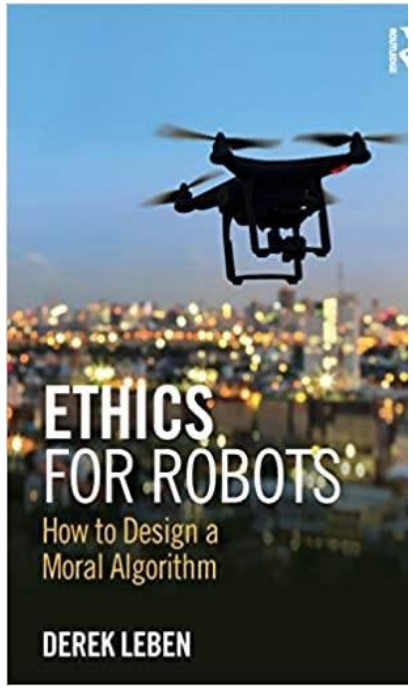
LAW
How can AI be used lawfully?

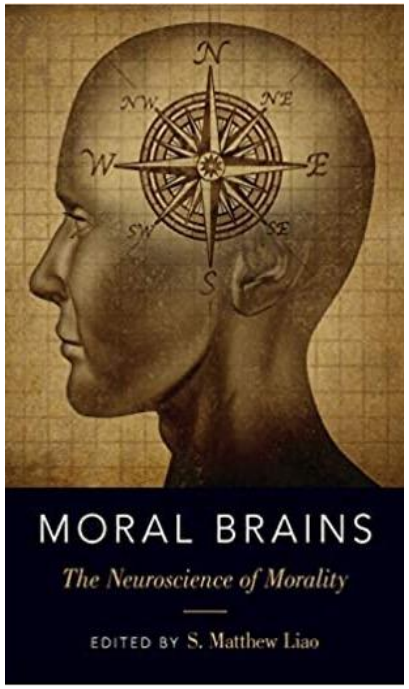
TRACEABILITY
How are the actions of AI recorded?

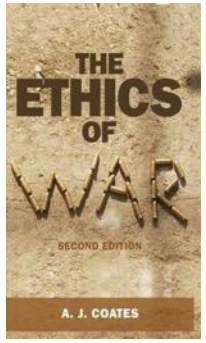
Pragmatic tools for considering and managing ethical risks in AI for Defence

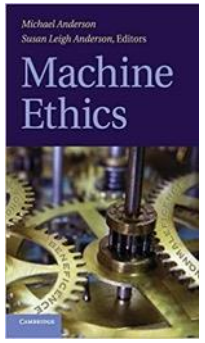
What should we do?

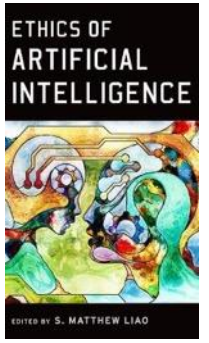


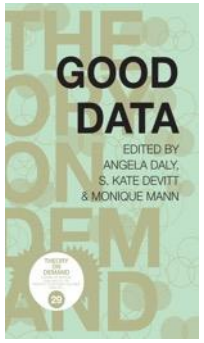




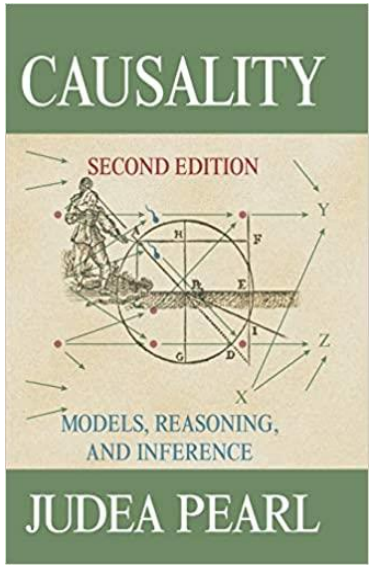


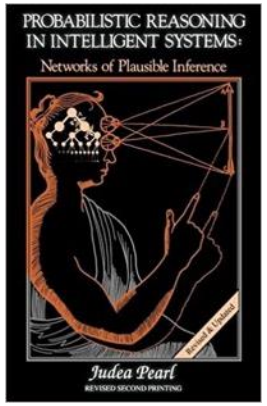


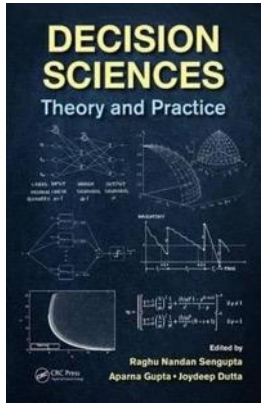


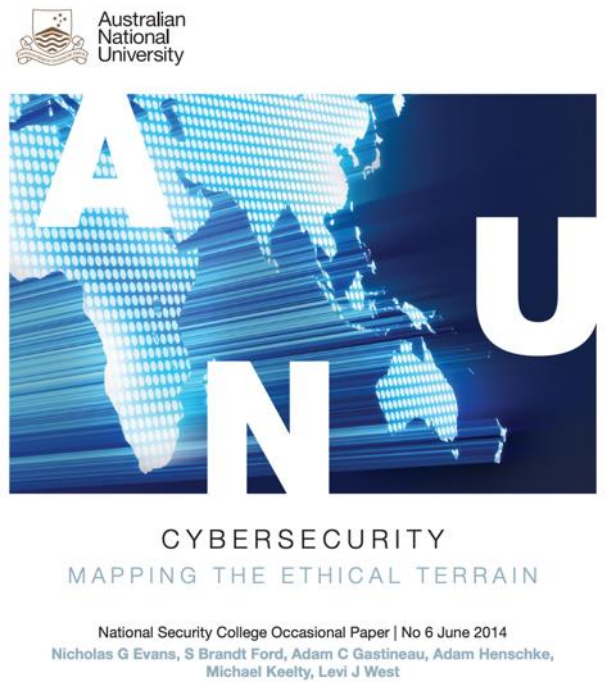


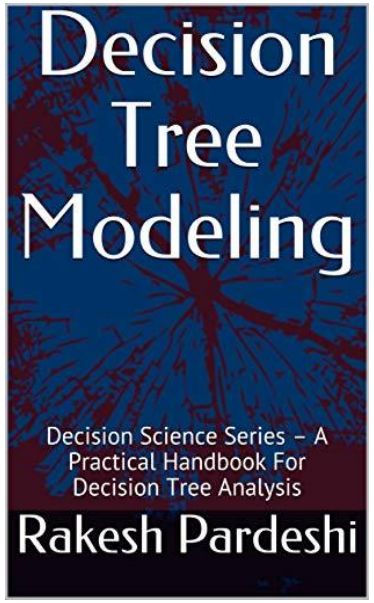
What should we do?

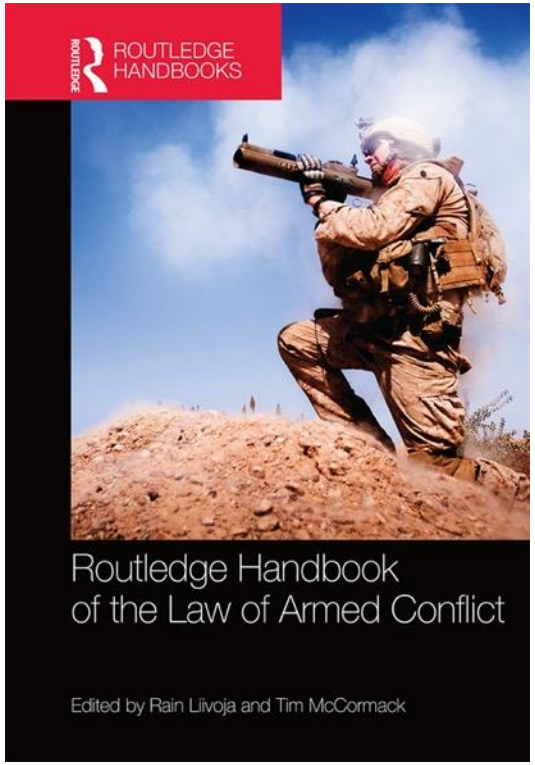


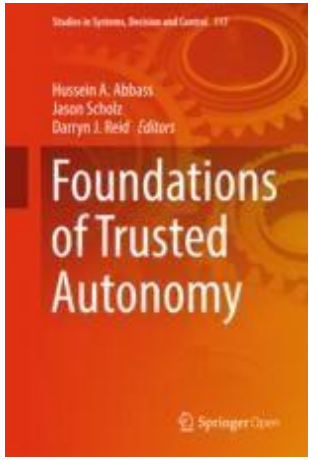


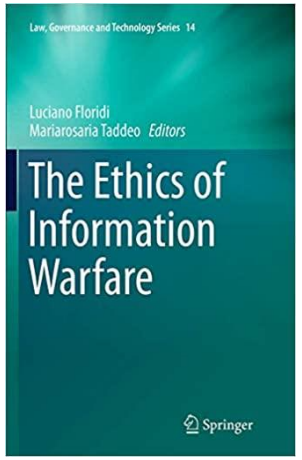












Thank you