# Insecurity and Emerging Technology

# CONDENsE, Ypres

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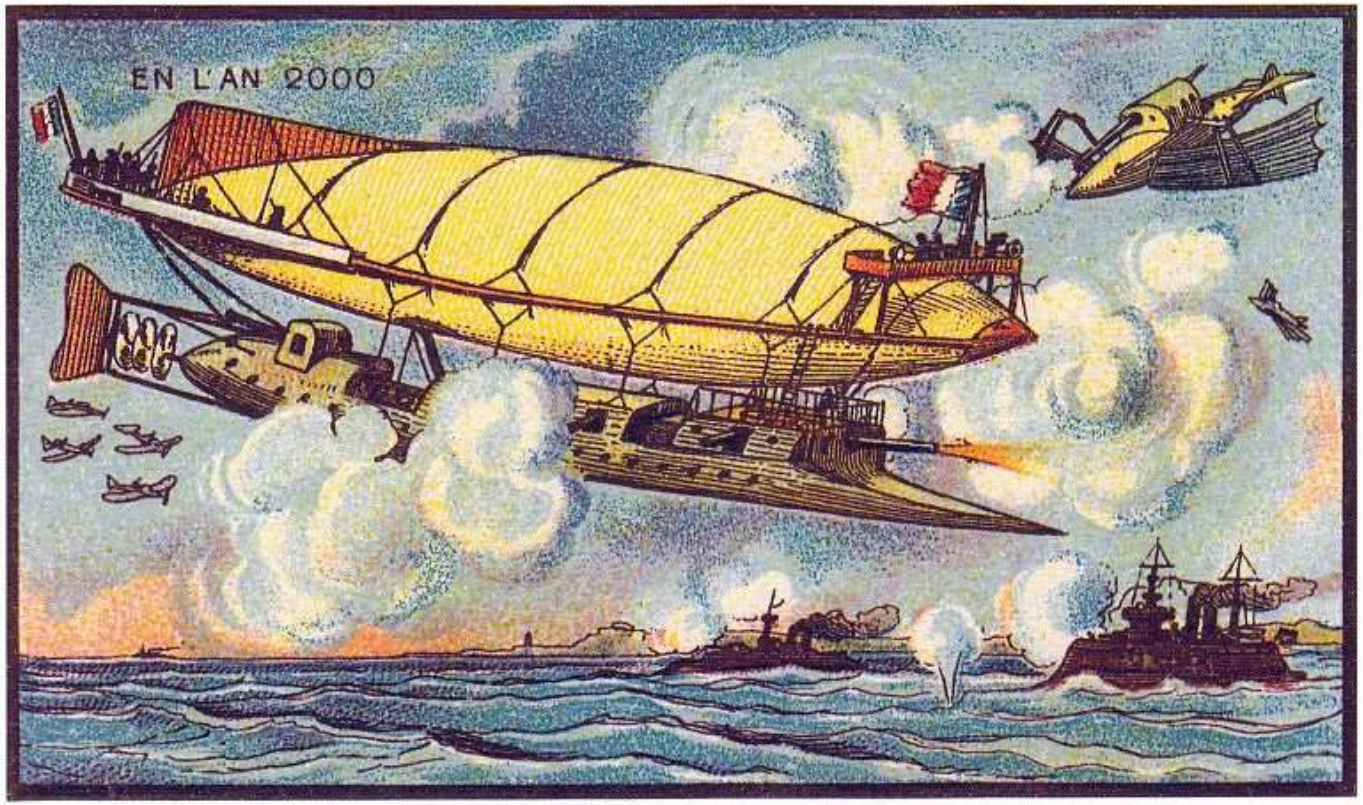
# About me….




An Aerial Battle


The Rural Postman


Battle-Cars

# Over view

- What is the issue?
- Three old problems
- A case in point
- A group exercise

# What is the issue ?

# Evolving relations between US military and private sector….

‘You don't buy AI like you buy ammunition…. [how] best to engage industry [to] advantage the taxpayer and the warfighter, who wants the best algorithms that exist to augment and complement the work he does.”

# Project Maven fall-out....

- Employees find out Google developing weapons technology ( 2017)
- Google state they ‘would not continue to work with the military on weapons projects directed at people, or which would contravene ‘widely accepted principles of international law and human rights.’

# Pro-militarization arguments….

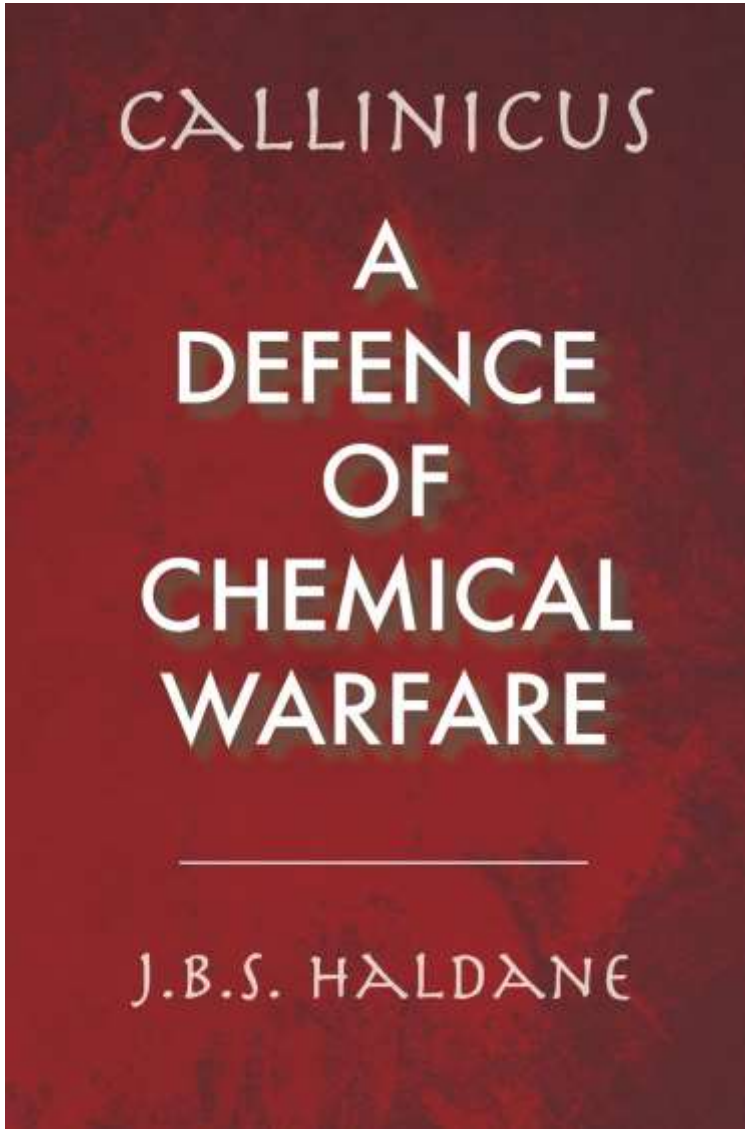
US security dependent on tech….

- Inevitability of tech development
- A determined undemocratic enemy
- Potential benefits – cleaner, safer war

We can militarize ‘ethically’…

> - *‘Some proposals will be unethical. Some will be stupid. Some will be both. Where they see such proposals, researchers should oppose them.’*

Gregory C. Allen, ‘AI Researchers Should Help with Some Military Work’, News, Nature, 6 June 2018, https://doi.org/10.1038/d41586-018-05364-x.

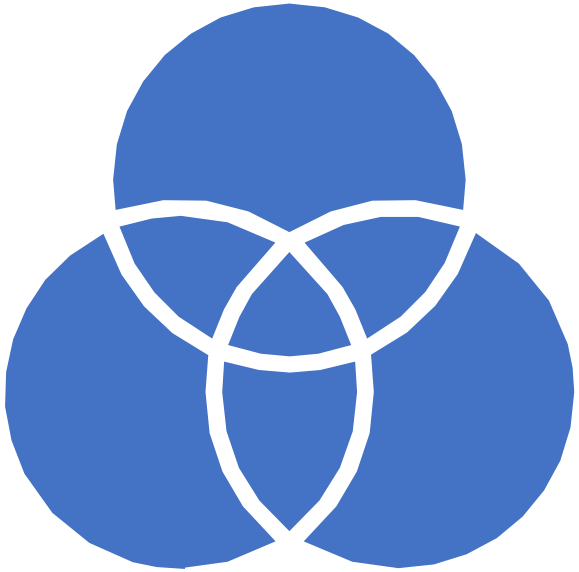


# The predominant framings of technology as a national and international security challenge… (2)

Key contemporary frames….

- Arms race problem
  - Drives unethical behaviour
- Research ethics problem
- Technology proliferation problem
- Innovation proliferation problem
  - States
  - Non-states
- Cultural lag





# Some shared characteristics of these issues….

- Complexity
- Ambiguity
- Contestation
- Dynamism
- Irrationality

# Three ways of thinking about misuse concerns….

- The innovator’s problem
- The innovation problem
- The global security problem

In different national context these problems defined and addressed in different ways and reflect broader cultural and historical norms.

# The Innovator’s problem

Innovation can produce both good and negative consequences. This then appears to generate conflicting ethical responsibilities for those that create, and those that facilitate creation

Focus: Social contract between innovator’s and society

- implementation
- transformation

Problems: What can we expect scientists to know? What do we miss by focusing on innovator’s?

Oh and what the heck even is a scientist?????

# The Innovation problem…

- Societies seek security through the development and maintenance of innovation systems, but innovation can also generate insecurity.
  - This then appears to create conflicting demands for exploitation and precaution.
- Focus: National approaches to innovation investment and governance
  - Science as experts
- Limitations: Technology effects everywhere, but new developments happen somewhere

# The Global Security Problem

- The route to national security is more global approaches management of technology.
- But national security is at the centre of current formal approaches to global security

Focus: Existing institutions of collective governance, science and security

- Science as experts
- Science as a global system

Limits: Older order solutions to new order problems

- Conflict/warfare
- Big power politics
- Globalization

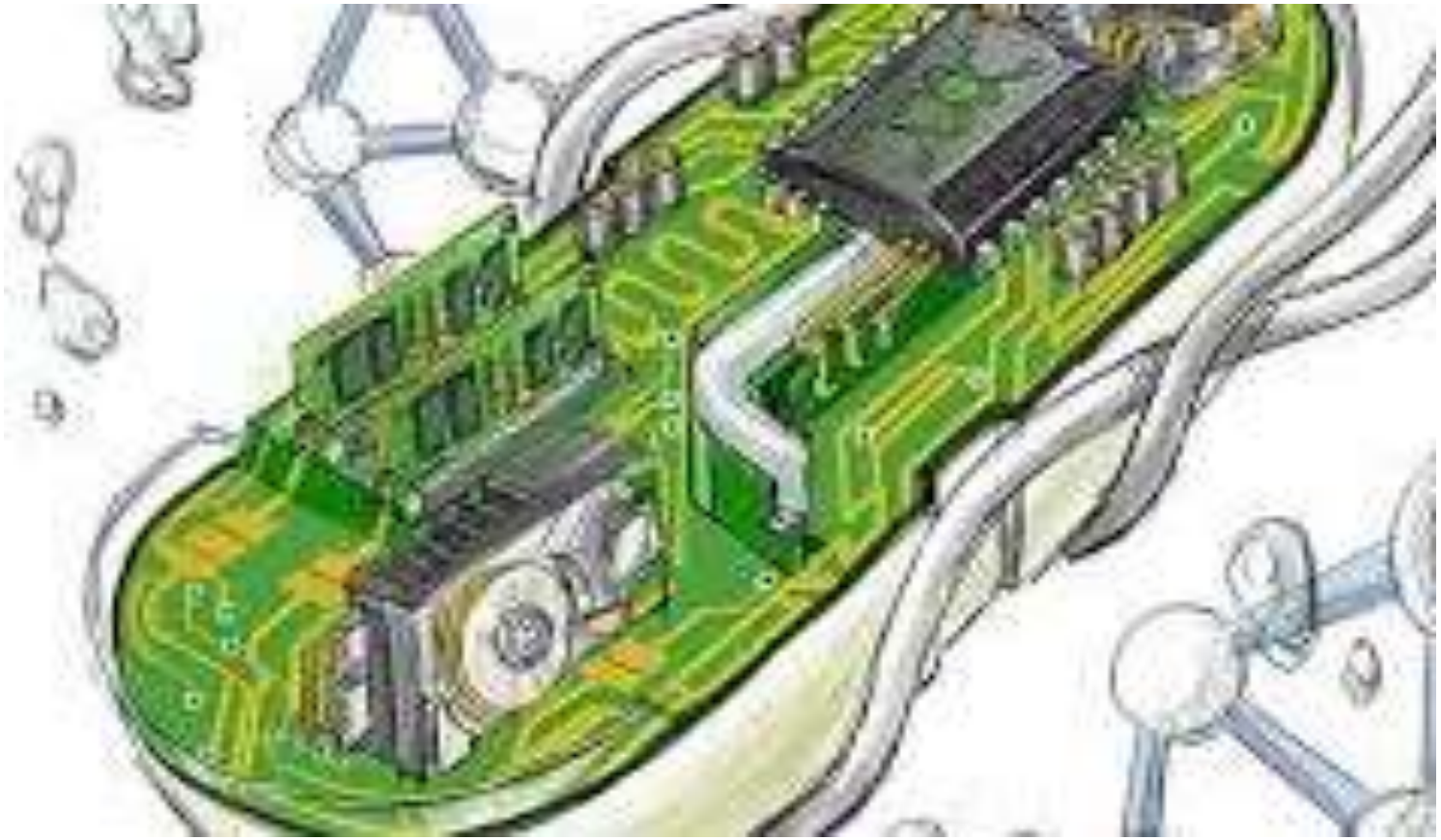
And so….

Emergent technologies are a site of political struggle

The very same policy initiatives can take on different types of significance and are embedded in much broader political struggles

- Development verse security?
- Scientific responsibility verse norm engineering?
- A clash of economic models?

# A case in point: Synthetic Biology and the three  old problems…



# Synthetic Biology and its security complex

**Synthetic biology as a disciplinary paradigm….**

**Synthetic biology as a vanguard community…**

**Synthetic biology as a site of policy innovation…**

**Synthetic biology as a national project…**

**Synthetic Biology as a site of global ethics discussion…**

# Three big insights…

- **The vanguard,** discovering, implementing, shaping and projecting ethical norms
  - But faced many obstacles!!
- **The national project,** our tech, our problems our social contract
  - Exportation of ‘western problems’?
    - UK/US case in point
- **International level,** patchworks of collaboration
  - Scientific institutions
  - Economic co-operation
  - Non-proliferation
  - Pathogens
  - Disarmament/IHL

# Your challenge.

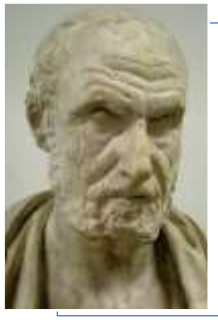
Three groups

- Each group discusses one of the three old problems…

Each group Reports back on:

- Your views on thinking about misuse concerns in this way
- Examples and experiences of dealing with this type of issue
- Key challenges and ideas for action
  - Personal
  - Institutional
  - Big dreams

# Group Exercise: Managing security fears



The Innovator's problem:

The scientists responsibilities…

The Innovation problem:

How to pre-emptively govern emerging technology ( including research findings)…?

The Global Insecurity problem:

How to enable net overall improvement of global security

**Each group reports back on:**

- Your views on thinking about misuse concerns in this way
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  - Key challenges and ideas for action
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# Get in touch!

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