Polluter and cyber elites: from common problems to common solutions

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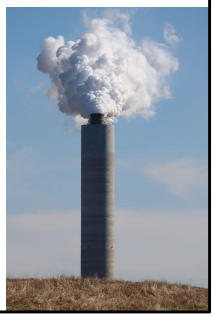
(All references listed in final slides)

Polluter elite

- Senior managers of major corporations in:
  - Fossil fuel production
    - Coal, oil, gas
  - High carbon/ polluting sectors
    - Coal & gas utilities, auto, aviation, cement, steel, animal-based farming & foods, military & arms, leisure shipping etc
  - Services for high carbon/ polluting sectors
    - Banking, advertising, lobbying etc
- Over-consumers
  - World wealthiest 1%/10%
    - By income or assets
- Political supporters of overconsumption



- Focus on people powerful enough to direct technologies and industries, as well as those who profit most from pollution, and end users ultimately responsible for pollution.

[image credit: Ian Montgomery]

Cyber ('tech') elite

- Senior managers of major corporations in:
  - Information and communications (ICT) industry, especially
    - Artificial Intelligence
    - Social media
    - Cryptocurrencies
    - Automated weapons
  - Services for these sectors
    - Banking, advertising, lobbying etc
- Political supporters of poorly-regulated ICTs

- Focus on people powerful enough to direct technologies and industries, as well as those who profit most from those technologies, and end users ultimately responsible for damage caused by misuse.

[image credit: Gerd Altman]

Common interests

1. Energy intensification
2. Industrial deregulation
3. Militarisation

➢Points to increasing political alignment

- At first glance, these two elites seem to have little in common, but closer examination reveals clear overlaps in their interests.

Common interest 1: energy intensification

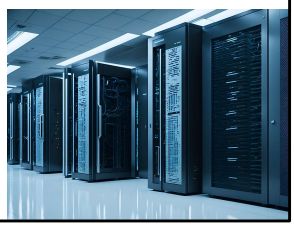
- Fossil fuel industry profits from high energy use
  - 81% of world's 'total energy supply' is still from fossil fuels
  - Global energy demand is still increasing
- Depletion of reserves causing move to unconventional fossil fuel sources
  - Extraction from (e.g.) tar sands, deep-sea reserves, shale formations (fracking)
  - Unconventional sources require greater energy input
- Both producers and consumers subject to higher costs, eating into profits/ wealth

- Data from IEA (2024a)

[image credit: Elliott Day]

Common interest 1: energy intensification

- Major ICT corporations fuelling rapid growth of energy use
  - AI, cryptocurrencies & associated data centres
  - International Energy Agency projects global electricity consumption by data centres to rise by 130% by 2030 (from 2024)
  - Leading to new contracts with nuclear power industry
- Higher costs, eating into profits/ wealth
- AI being used by fossil fuel industry to increase extraction



- Total consumption of data centres will be similar to Japan's (current) electricity sector by 2030
- Main source: IEA (2025)

[image credit: Pete Linforth]

Common interest 2: deregulation

- Fossil fuel industry
  - Climate/ other environmental regulations curbing fossil fuel use and supporting alternative industries, especially renewables and energy efficiency
  - Development of technologies to maintain fossil fuel use
    - e.g. carbon capture, utilisation & storage (CCUS); blue hydrogen
  - Higher costs; legal risks
- High carbon industries
  - Subject to higher costs (probably); legal risks
- Over-consumers
  - Subject to higher costs, especially affecting frequent flyers, SUV owners etc

- Most carbon dioxide captured by fossil fuel industry is used in enhanced oil recovery (EOR) to increase extraction of crude oil – so does not reduce emissions
- Blue hydrogen is derived from fossil gas

Common interest 2: deregulation

- ICT industry
  - Restrictions on social media, internet access due to online abuse, incitement to violence, child pornography, election interference, copyright infringement etc
    - Increasing application to AI
  - Restrictions on cryptocurrencies due to fraud, organised crime use etc
  - Restrictions on data centre construction due to climate/ water use regulations
    - Regulations also affecting new nuclear power partnerships
  - Higher costs; legal risks

- Increasing pressure to reduce regulation of nuclear industry

Common interest 3: militarisation

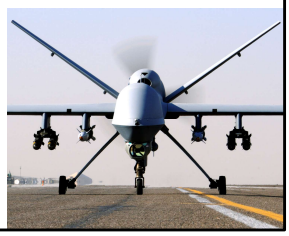
- Militaries and fossil fuel industry deeply intertwined
  - Historically, militaries were early adopters of fossil fuels
  - Fossil fuel resources – especially oil reserves – have been key factor in wars for over a century
  - Existing military craft heavily dependent on fossil fuels
    - Especially combat planes, warships, armoured vehicles
  - Military is hardest sector to decarbonise
  - Militaries have frequent opt-outs from climate/ environmental regulations
  - Links are very profitable for fossil fuel industry

- For more on historical links between fossil fuels, militaries and war, see: Auzanneau (2018); Crawford (2022)
- For UK examples of environmental opt-outs for militaries, see: Parkinson (2020)

[image credit: USAF]

Common interest 3: militarisation

- Militaries and ICT industry deeply intertwined
  - Militaries already widely use ICTs for control and co-ordination of activities
  - Increasing use of military drones, AI, autonomous systems in general
  - Dependencies are increasing
    - e.g. Microsoft, Google, Amazon “embedded” in Israeli genocide on Gaza
    - Previous ICT corporate commitments to minimise military work now discarded
  - Attempts to update arms control agreements/ international humanitarian law to cover new ICTs bogged down in negotiations
    - Lack of co-operation between major military powers
  - Links are very profitable for ICT industry



- Microsoft, Google, Amazon “embedded” in Israeli genocide on Gaza, according to UN report – Al-Jazeera (2025)
- Previous ICT corporate commitments to minimise military work now discarded – for examples, see: Inglesant (2025)

[image credit: RAF]

Commons positions & activities

- Rising support for:
  - Deregulation, on both climate/ environment and worker/ human rights
  - Increased military spending
  - Right-wing politicians, including far right
- Activities:
  - Major funding of political allies
  - Taking on government roles
  - Building links with nuclear industry

- Trends seen most clearly in USA – a few examples below…
- Funding of political allies
  - Oil & gas companies provided 18 times more funding to Trump's campaign than to Harris' campaign in 2024 election (Sustainable Views, 2024)
  - Elon Musk provided $119m to Trump's campaign in 2024 (Sustainable Views, 2024)
- Government roles:
  - Rex Tillerson (former CEO of ExxonMobil) became Secretary of State (2017-18) under Trump
  - Chris Wright (former CEO of Liberty Energy, leading fracking company; Board member of Oklo, nuclear company) became Energy Secretary (2025-) under Trump
  - Elon Musk (X/Twitter) led 'Dept of Government Efficiency' (2025) under Trump, without leaving his industry post
- Nuclear industry links:
  - Microsoft deal with Three Mile Island nuclear plant (CNN, 2024)
  - Many major electricity generators – e.g. Dominion, Duke Energy – own both coal and/or gas plants and nuclear plants, without having plans to phase out fossil fuels (Chap 3 of: Ramana, 2024)

How is the polluter elite vulnerable?

- Rising costs of oil/ gas extraction driving up costs/ cutting profits
  - Energy efficient tech and renewables often cheaper
  - Peak oil and gas soon?
- Low carbon/ environmental economy is major employer
  - Larger than fossil fuel industry in many nations/ regions
  - Sub-sectors more labour intensive, e.g. home insulation, roof-top solar
- Public backlash over climate/ environment impacts
  - Particularly private jets, space tourism, super yachts etc

- Globally, low carbon energy industry employs 37 million, while fossil fuel industry employ 33m (IEA, 2024b) – and gap is widening
- Support for climate action remains high – for example, in the UK, large proportions of voters still support renewables over fossil fuels, even right-wingers (Climate Barometer, 2025)

[image credit: NoCopyrightVideoClips via Pixabay]

How is the cyber elite vulnerable?

- Poorly regulated increase in automation will cause major job losses
  - Employers moving from ‘pyramid’ to ‘diamond’ structure
  - Much more serious concern than bogus immigration arguments
- Risk of AI industry stock-market crash
- Rapid increase in data centres could push up energy/ water bills
- Public backlash over online threats, especially to children
- Public backlash over climate/ environment impacts
  - Including nuclear risks

- AI causing job losses and changes in organisational structure: e.g. The Observer (2025)
- Potential AI stock-market crash: e.g. BBC (2025)
- Increase in data centres pushing up energy bills in, for example, the USA: e.g. Bloomberg (2025)

Let's talk about a better future

- Sustainable, just, low carbon society
  - Plenty of fulfilling jobs
  - Elimination of poverty, including fuel poverty
  - Clean environment and safe climate
  - Comfortable homes for all
  - Reduction of inequality and related social tensions
  - Careful, democratic use of technology to enhance quality of life
  - Strong basis for international peace

- We need to keep reminding people of the positive benefits of a sustainable society!

[image credit: pexels]

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