

General Security Scan (open scan)

Novel and important signals to watch: threats

Trade and Economics The end of economic convergence

- Convergence between developed and developing economies was linked to adapting to industrialization, but modern technologies such as robotics, AI and bioengineering, have higher barriers to entry for developing economies. This may end economic convergence, fueling new forms of inequality [WEF](#), [Forbes](#), [UN](#), [Bain](#)
- What are the potential longer term security implications of this inequality for the EU?

Climate and Environment Climate change accelerating, scenarios for health and food security deteriorating

- UN IPCC's recently released draft report states: human-induced warming may rise to 3°C rather than the agreed 2°C. [The Guardian](#)
- Above 2°C warming will lead to deadly and resistant bacteria, and reduce nutritional values of staple food. [Popular Science \(1\)](#), [\(2\)](#), [Scientific American](#)
- How do we create resilience against the health effects of climate change?

Technology Mistrust of the artificial intelligence 'black box'

- Currently, AI systems make decisions without making (potentially discriminatory) algorithms explicit, leaving questions on how AI works and can be applied. [IBM](#), [VOX](#), [The Guardian](#)
- The EU introduced a law that will require companies to be able to explain algorithms to customers. Some organizations are already developing new systems that can make AI explain itself. [The Economist](#), [Futurism](#)
- Black box: Do we need to understand how AI works?

Megatrends

A dangerous paradox: democracy spreads, but human freedom declines

- For 12 years in a row, the Freedom House group has observed declines in global freedom. In 2017 "democracy faced its most serious crisis in decades," despite that there are more democracies today. Decline in freedom is seen especially in personalist autocracies, but also in some democracies. [HumanProgress](#), [KOTO](#), [Harvard University Press \(video\)](#)
- How can governments contribute to the distribution of freedom within democracies and halt the tipping of the scale?

Reality geopolitics: people are biased towards increasingly negative news

- A steady trend towards more negativity in news outlets in the past 30 years has been identified using sentiment mining. [HumanProgress \(1\)](#)
- People have a bias towards negative news, which is exploited by politicians who make their campaigns increasingly negative. [HumanProgress \(2\)](#), [The Guardian](#)
- How do we combat this vicious negative spiral?

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Novel and important signals to watch: international order

Trade and Economics Information is power and the future is data driven

- The new era of trade is one of disintermediation, in which data flows are becoming more important than physical trade. Services are becoming more tradeable, which raises concerns about labor markets and growth. This will change the way we approach the economic order. [WEF](#), [Wired](#)
- Is the current order equipped to deal with a new system of trade?

Climate and Environment Gene engineering for climate change: in need of a new regime?

- Gene edited food, for example with Crispr, is the future of adapting crops for climate change. Crispr will push the boundaries of biology, legislation and order. [Vox](#), [Wired](#)
- Are current international legal frameworks sufficient to deal with emerging technologies?

Technology China wants to be the world leader in artificial intelligence by 2030 and is positioned to set universal standards

- China is investing heavily in AI, including through education, aiming to set the global standards for the technology. [Wired](#), [MIT Technology Review](#), [The Economist](#)
- A different approach to privacy concerns and regulations give China an advantage in innovation over other markets. [Stratfor Worldview](#), [ECFR World in 30 Minutes \(Podcast\)](#)
- Is China setting universal standards and norms in the digital domain?

Megatrends

The Network Generation questions political and economic fundamentals

- The Network Generation (those born in 1997 or after) does not know a time before Internet. They see themselves differently from millennials, rejecting traditional mantras. [War on the Rocks](#), [Business Insider](#), [The Conversation](#), [The Economist \(1\)](#)
- They also consume information differently, possibly making them more susceptible to fake news. [Wall Street Journal](#), [The Economist \(2\)](#)
- New generations of leaders view the world (order) differently, are they set to shake up the order as we know it?

Weapons of mass instruction: education as a force for good?

- Less-educated children often grow to be underemployed, impoverished adults who are far more susceptible to the siren song of extremism and cause-related violence. [Morning Consult](#) [Times Higher Education](#)
- Education can build resilience in at-risk populations through media literacy training to better identify fake news and other propagandist content. [Radicalisation Awareness Network](#) [Centre of Excellence](#), [RAND Corporation](#)
- Can education globally be harnessed as a force for good in countering extremism and building societal resilience?