Future of Work

Building resilience through technology.

Regenerative Futures

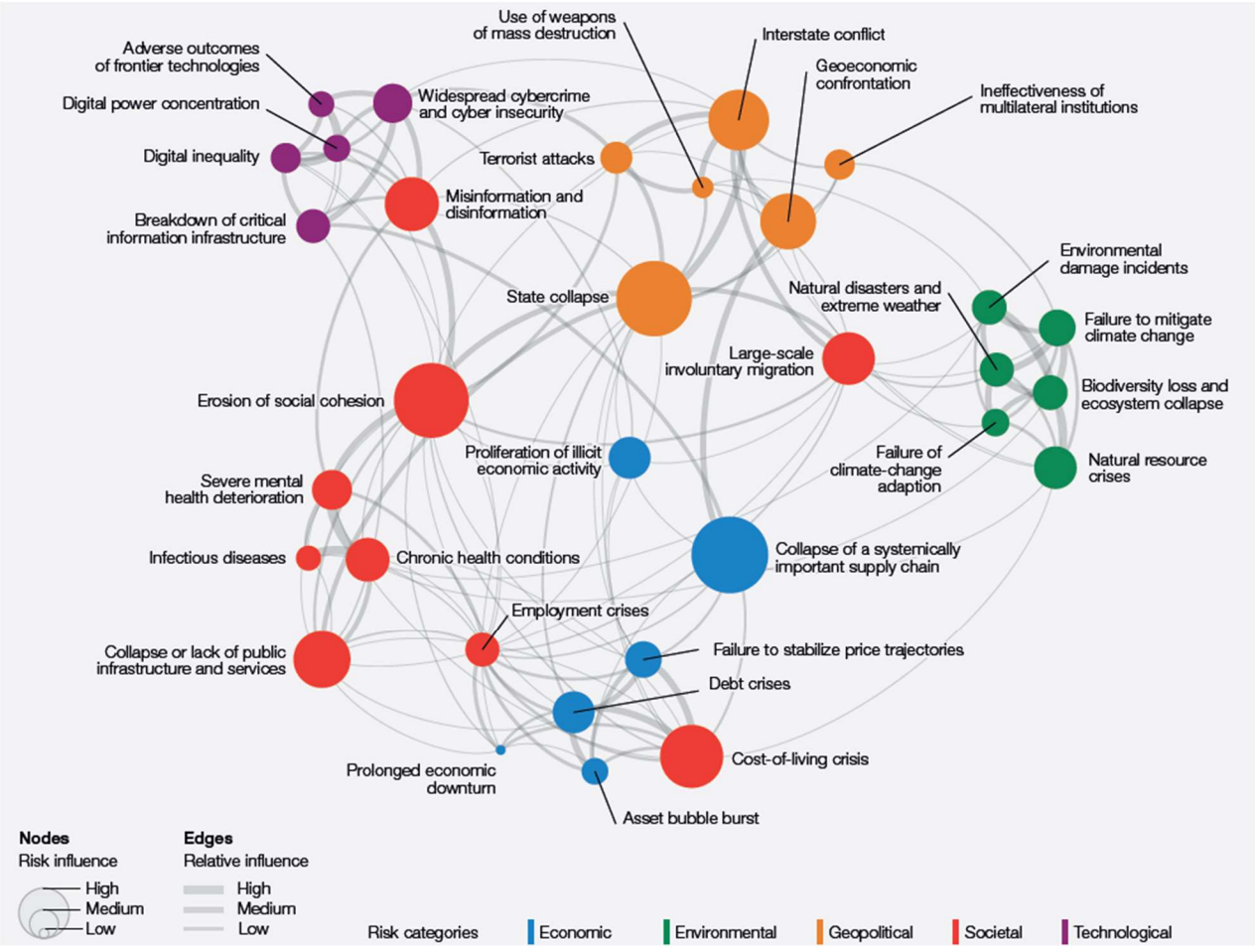
Thought Leadership Compendium.

REGENERATIVE FUTURES

Global Risks & their implications

In 2022, the World Economic Forum had articulated about a divergent post-pandemic economic recovery where deepening divisions would exacerbate at a time when collaboration was urgently required to address looming global challenges. Yet despite hard-learned lessons around the interdependence of global risks, few would have anticipated the extent of instability that would soon unfold – Ukraine war and supply breakdowns, rising carbon emissions, increased cybersecurity challenges et al. The same report in 2023 is more foreboding. Food and energy have become weaponized by the war in Ukraine, sending inflation soaring to levels not seen in decades, globalizing a cost-of-living crisis and fueling social unrest. The resulting shift in monetary policy marks the end of an economic era defined by easy access to cheap debt and will have vast ramifications for governments, companies and individuals, widening inequality within and between countries.

It is crucial to appreciate the interdependence of such risks and how they manifest across economies and societies. A range of risks have come to the fore and continue to plague economic and social endeavors. Both short and medium-term outlooks with these risks indicate strong to severe repercussions. The persistence of the resultant crises is already reshaping the world that we live in, ushering in economic and technological fragmentation[1].

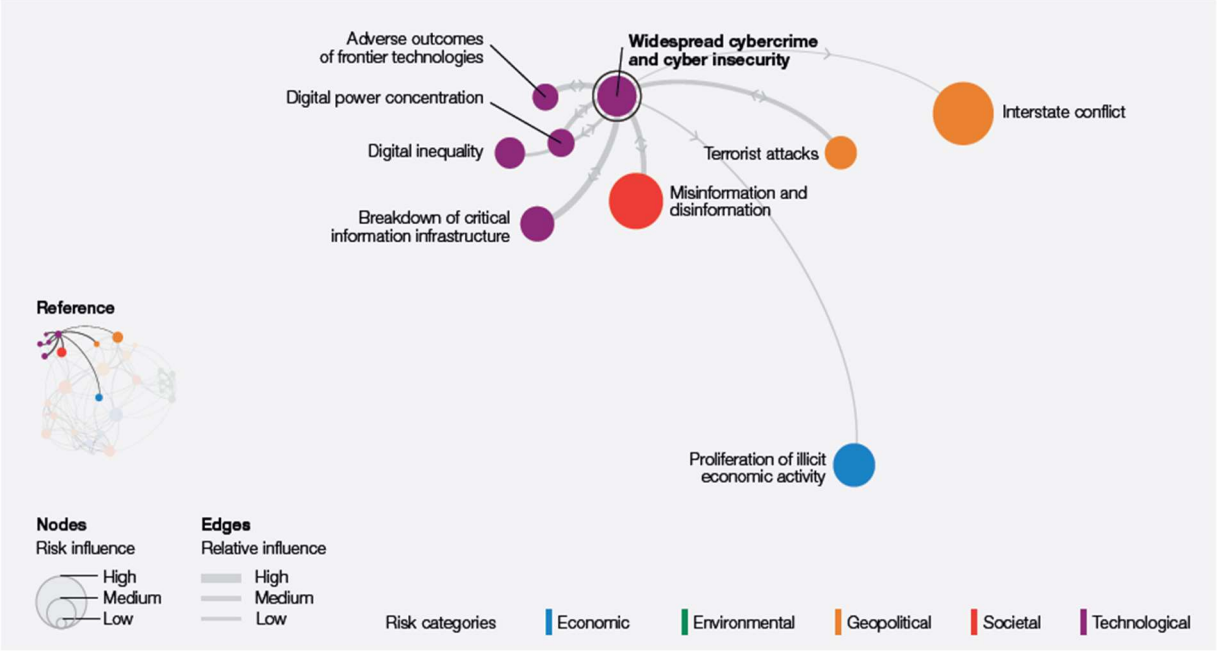


[1] Source: Global Risks Report 2023; World Economic Forum; www.weforum.org

A continued push for national resilience in strategic sectors will come at a cost – one that only a few economies can bear. Geopolitical dynamics are also creating significant headwinds for global cooperation, which often acts as a guardrail to these global risks.

Technology Risks Manifested

A global view to the matrix nature of interconnections where technology is an initiator are well described in the infographic below.



Interestingly so, a range of new-age risks are beginning to manifest in ways that current policy constructs, regulatory boundaries, or supranational collaborative endeavors are unable to contain or eliminate. Some of the more pertinent ones are as below:

Widespread cybercrime and cyber insecurity - Widespread cybercrime has become a top ten global risk today for the first time, reflecting upon severe implications for critical national information infrastructure, and their collective resilience. Malicious activity in cyberspace is growing, with more aggressive and sophisticated attacks taking advantage of more widespread exposure.

Risk to Individual Autonomy - The proliferation of data-collecting devices and data-dependent AI technologies could open pathways to new forms of control over individual autonomy. Individuals are increasingly exposed to the misuse of personal data by the public and private sector alike, ranging from discrimination of vulnerable populations and social control to potentially bio-weaponry.

Risk to Right-to-Privacy - Non-malicious threats to the digital autonomy and sovereignty of individuals where larger data sets and more sophisticated analysis heighten the risk of the misuse of personal information through legitimate legal mechanisms.

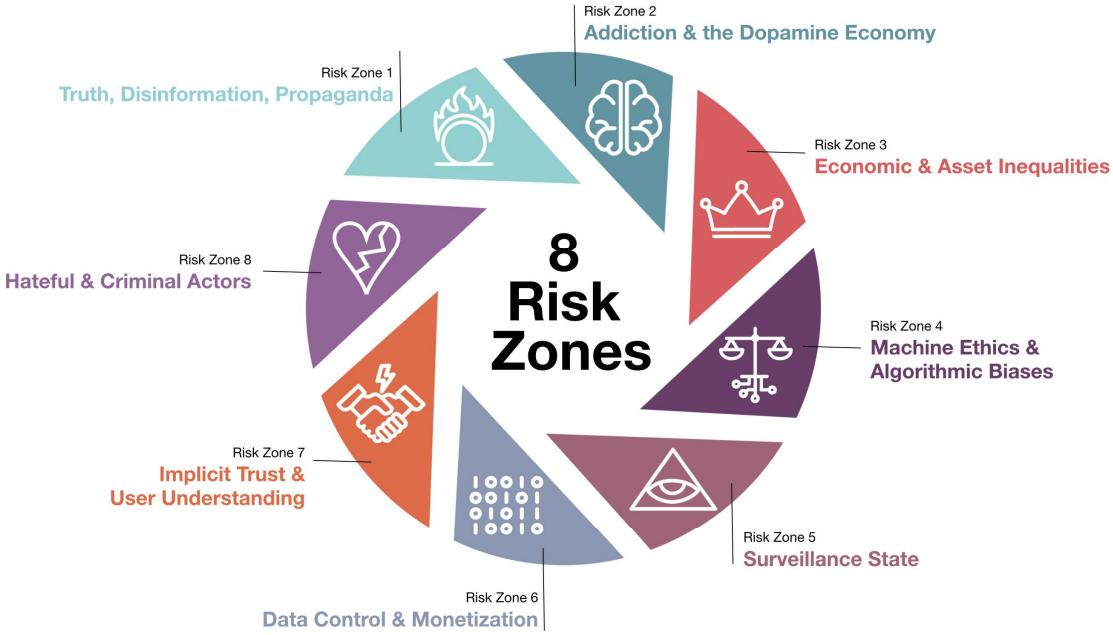
Risk to Freedom of Movement through Commercialized Privacy – monitoring of individuals leading to more insidious technologies leveraging networked data/ information to control and commoditize such "everyday experiences" thereby leading to increased surveillance.

Risk to Anonymity & Consent - As more data is collected and the power of emerging technologies increases over the next decade, individuals will be targeted and monitored by the public and private sector to an unprecedented degree, often without adequate anonymity or consent.

Risk of Re-identification & Attribute Disclosure – as collection, commercialization and sharing of data grows, consent in one area may reveal far more than intended when aggregated with other data points. This is known as the "mosaic effect", which gives rise to two key privacy risks: re-identification and attribute disclosure.

Ethical Considerations

For perhaps the second time[2] in our industrialization history, ethical and moral considerations are taking center-stage. Dual-use technologies with autonomy and potential sentience increase consequences for societal collapses.



[2] Recombinant DNA – Post discovery of DNA, and the Watson-Crick model that permitted scientists to manipulate DNA, the first time such moral considerations were taken into account was in 1972, when scientists worldwide had halted experiments using recombinant DNA technology (which entailed combining DNAs from different organisms) due to potential safety hazards. These principles (known as the Asilomar Principles of Recombinant DNA) continue to hold good in the biotechnology world.

The range of new risks posed due to ethics are only increasing, and incorporating further complexity with human endeavor. Many institutions have begun to address moral and ethical implications emanating from use of augmented and artificial intelligence, given machine learning models / large language models seem to have become party to promoting existing biases instead of eliminating them. The argument that machines are purely logical in analyzing and providing solutions does not necessarily result in the best solutions for mankind, as the approach often results in "greatest good for the greatest number" – an idea that has more adverse consequences that warranted. One such glaring example can be found in the use of autonomous AI solutions – deployed in both civilian and military contexts. Dual-use technologies are only adding to the existing complexity.

Dual-use technologies with autonomy and potential sentience increase consequences for societal collapses a greater threat.

In Conclusion

The world today continues to embrace modern technologies with a zeal never seen before, given the substantial gains we have made across sectors from healthcare and drug discovery to digital financial inclusion and democratized learning markets.

However, these exponential gains being made in technology through autonomous and artificial intelligence are introducing new risks that are both misunderstood and misinterpreted. Consequently, proponents of these technologies present a blinkered and short-sighted consumerist view, while ignoring the larger societal and economic implications.

A concerted effort at understanding the larger adverse implications are crucial if we are to enable societies and economies in an inclusive manner where implosion becomes far-fetched. The 2017 endeavor[3] at incorporating some fundamental principles into use and deployment of artificial intelligence is surely in the best interests of mankind, should there be no players trying to dilute them in their quest to prop up predatory capitalist models.

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[3] Asilomar Principles for Artificial Intelligence by Future of Life Institute: In January 2017, over two thousand global leaders agreed to leverage artificial intelligence in a responsible manner. The 23 principles encompass morals/ ethics, sustainable development, inclusive growth, transparency, explainability, robustness, and accountability. These principles are accessible via link **https://futureoflife.org/open-letter/ai-principles/**

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About REGENERATIVE FUTURES

We are one of the world's top 20 global sourcing advisory firms focused on strategic advisory, services sourcing and management consulting with specialization in practices that have a direct influence on the businesses and the future of work. Particular emphasis is placed on co-creation of solutions that enable (a) governments leverage the ICT sector to create sustainable sub-sectors incl. effective policy changes, attract FDI, enhance local entrepreneurship etc., (b) corporations adopt partnership-oriented strategies to aid expansions and growth, and (c) enable enterprises incorporate de-carbonization strategies into their businesses, initiate circular economy endeavors across their supply chains, and collaborate to build sustainable products / services.