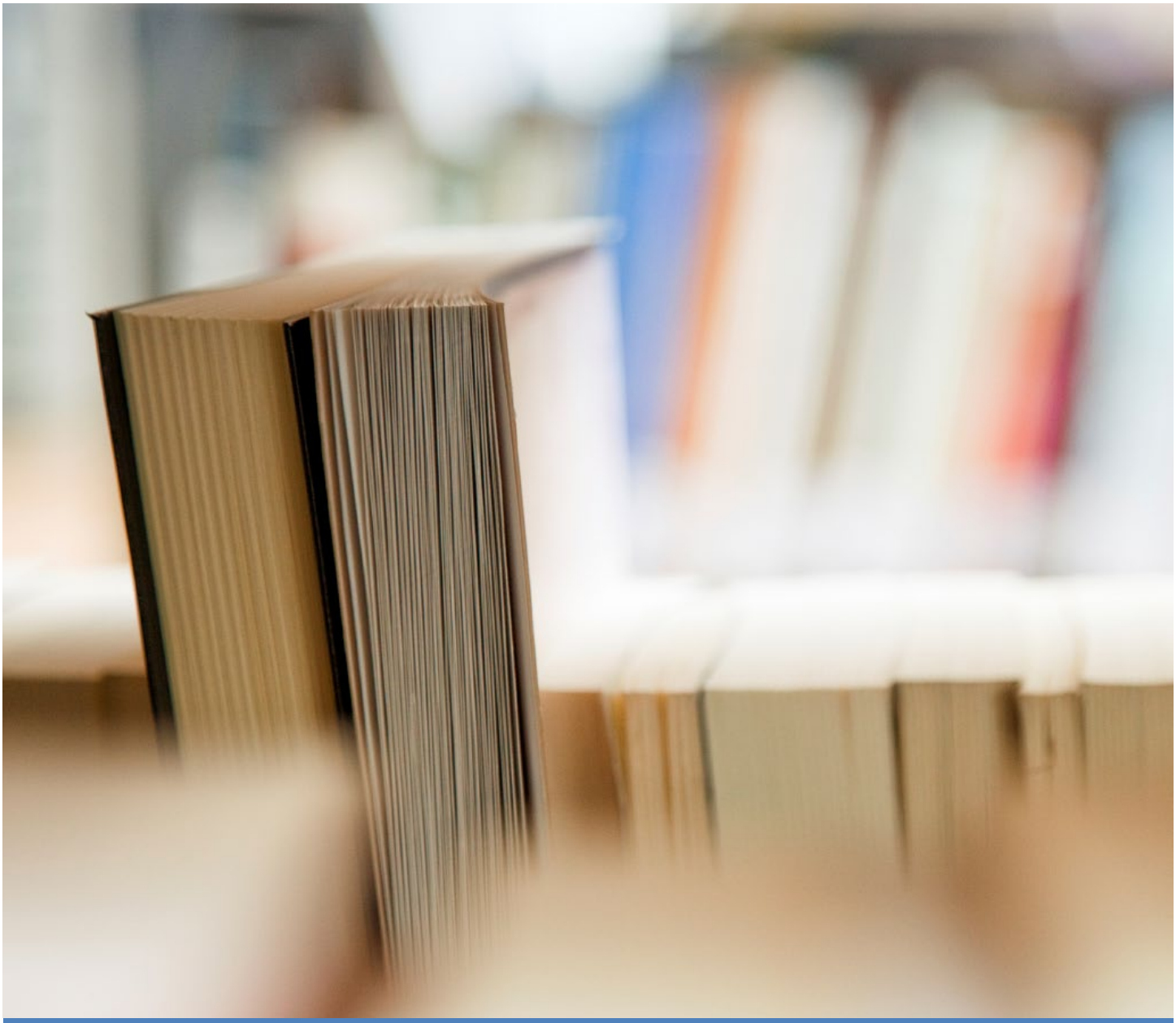


Future of Work

New-age Risks and Implications in a Digitally Enabled World

Regenerative Futures, Inc

Thought Leadership Compendium.

Digital and General Economics

Digital Economics is the economic activity that results from billions of everyday online connections among people, businesses, devices, data, and processes, where humans and technology collaborate online. These activities comprise digitalized sectors such as e-Business, e-Commerce, advanced manufacturing, precision agriculture, algorithmic economy, sharing economy, and the gig economy. These digitalized sectors phenomenally give rise to the Fourth Industrial Revolution. However, the term is evolving by on how digital technologies, services, products, techniques, and skills are integrated across economies in digitalization. Meanwhile, general economy comprises all economic activities across the production-consumption continuum with exchange and distribution as key elements. Would this therefore mean that digital economy is a subset of the general economy, or is there more to it?

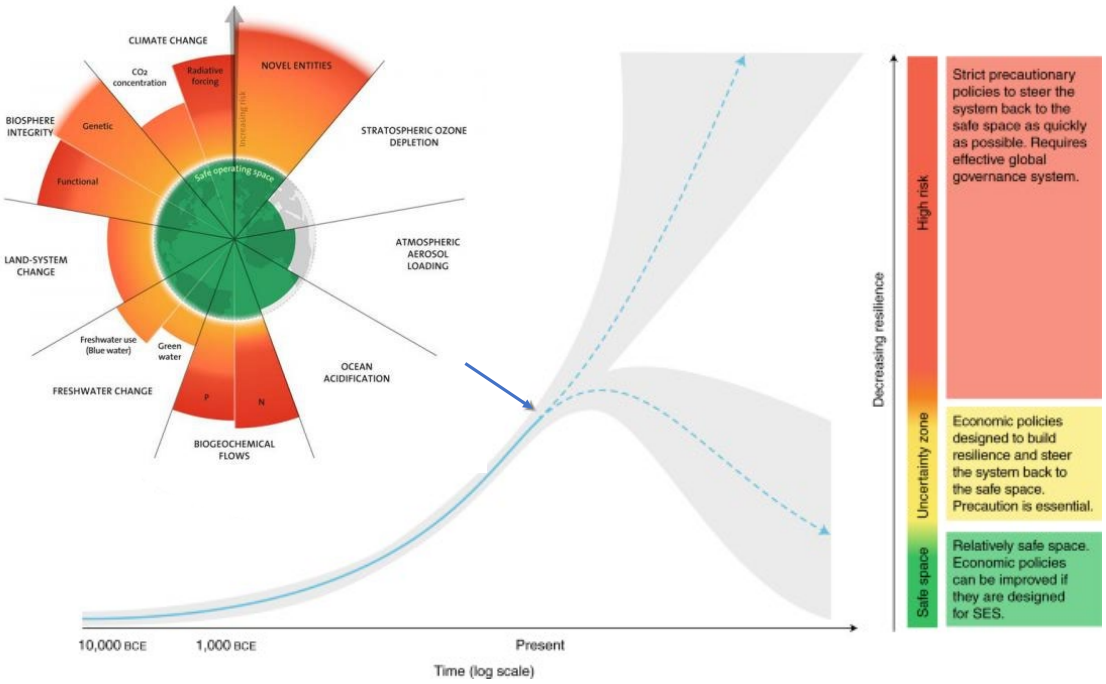
The digital economy also relates to how digital technologies are integrated with the economy in general. The variety of definitions can make the digital economy's financial impact challenging to measure. For example, a small store might use an e-commerce platform to expand its sales to include an entire nation or region; or a farm might use consumer trend forecasting to pivot to more plant-based products. For platform-centered businesses, such as on-demand ridesharing apps, or accommodations bookings like Airbnb, digital-focused models illustrate how connected technology is changing the way consumers shop and what they demand of services. The world of convergence – digital into general economics – has resulted in new avenues as evidenced by platform-centric solutions and business models that go beyond products/ services to encompass new types – namely data-centric solutions.

Significant value is being derived from leveraging digital solutions available across all sectors, with marketing, scalability, access, customization, and real-time (and predictive) provisioning. The debate that digital shall exist alongside general economy is being morphed into a conclusion that all economics would be digital in nature (and not just enabled). What would the future of work (jobs, roles, accountabilities, skills, resources et al) look like in the near future?

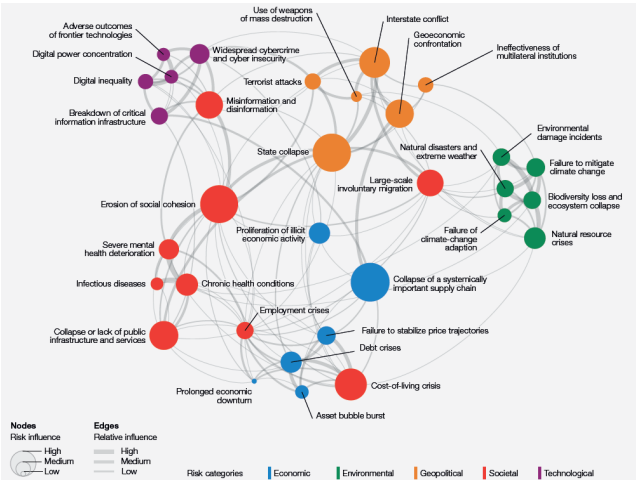
Risks and Implications

The world has become highly inter-connected thanks to technologies eliminating almost all barriers. Alongside the veritably exciting opportunities that have come to be, new risks that we didn't contend with until now have begun to manifest. A review of how these risks have played out is interesting to observe. Between 2023 and 2024, these risks remain entrenched across the spectrum – social, economic, environmental, geopolitical, technological. However, their manifestations have evolved distinctly in just the past one year, thanks in no part to the advent of artificial intelligence (and more so with generative AI). A deteriorating global outlook for geopolitics given multiple wars raging, to biodiversity losses and ecosystem collapses, particularly with environmental risks that have hit a potential point of no return, we are confronted with the profound reality that in just the past six years, human activity has primarily contributed to breaches with six of the nine planetary boundaries. Are we truly heading toward a point of no return? The infographic below is quite telling[1].

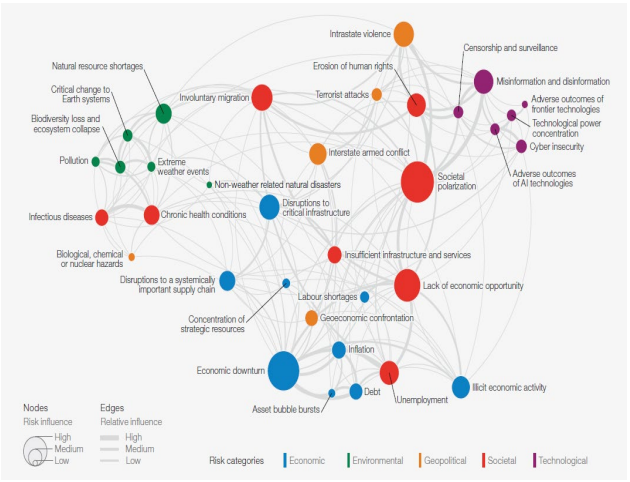
[1] **SOURCE:** Institute for Interdisciplinary Research into the Anthropocene; **https://iiraorg.com/**



An analysis of global risks reveals some key trends[2], as depicted in the two infographics below.



Global Risks Interconnections Map 2023



Global Risks Interconnections Map 2024

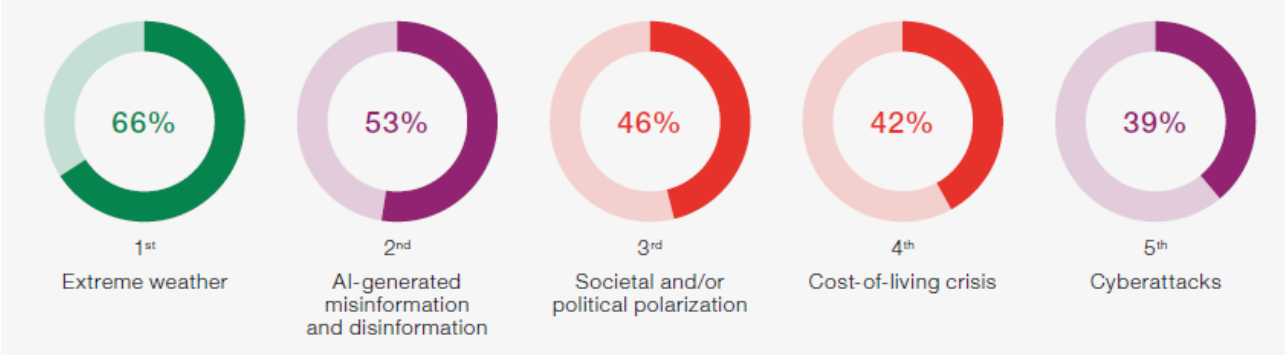
Across both years, Just as natural ecosystems can be pushed to the limit and become something fundamentally new; systemic shifts are also taking place across other spheres: geostrategic, demographic and technological. The rise of global risks against the backdrop of these "structural forces" as well as the tectonic clashes between them are crucial to appreciate. One cannot, and must not presume that digital economies are spared the agony emanating from these complexities. On the contrary, digital revolutions around the world shall continue to be shaped more perversely than needed, potentially resulting in lack of cohesion with transnational/ transboundary endeavors[3].

[2] **SOURCE:** Global Risks Report 2023; Global Risks Report 2024; **www.wef.org**

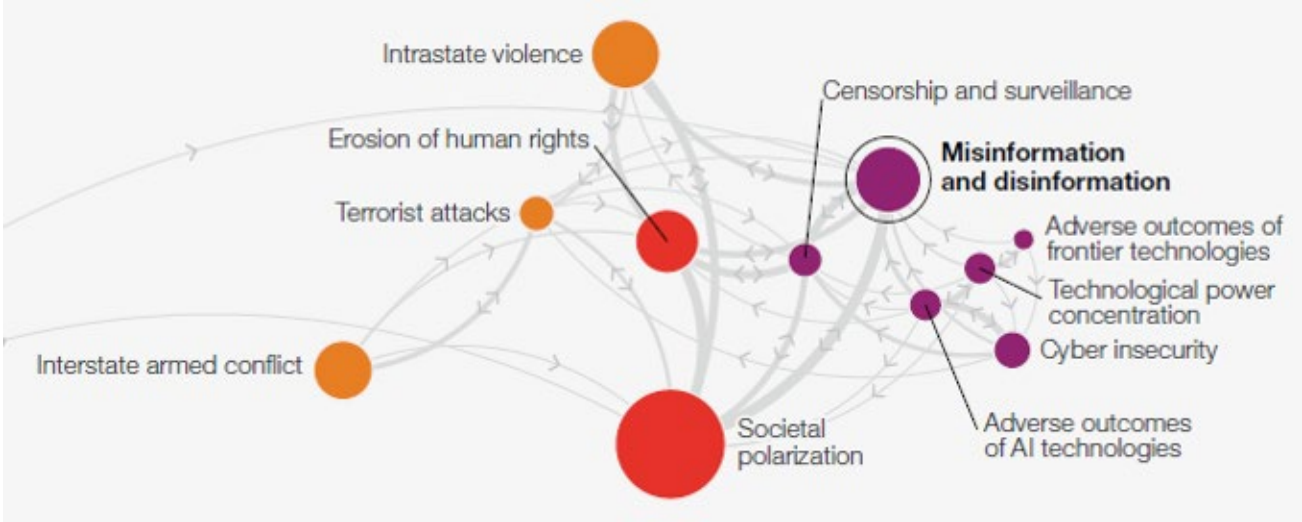
[3] There are many instances of dichotomy resulting from a clash between "the need to globalize" and "the penchant to localize" – most tellingly seen in endeavors where disagreements with various global issues continue to inform policy and corporate action. Key among

Technological Advances & Future of Work

Global risks reflect systemic loopholes in governance and management across both policy and industry. Two of the top five risks emanate from technologies, as in graphic below.



It is significantly concerning that foreign and domestic actors alike will leverage "Misinformation and Disinformation" to further widen societal and political divides. As close to three billion people are expected to head to the electoral polls across several economies - including Bangladesh, India, Indonesia, EU, Mexico, Pakistan, the United Kingdom and the United States - over the next two years, the widespread use of misinformation and disinformation, and tools to disseminate it, may undermine the legitimacy of newly elected governments. Resulting unrest could range from violent protests and hate crimes to civil confrontation and terrorism.



Meanwhile, Artificial Intelligence (particularly generative artificial intelligence - GAI) is becoming mainstream in its usage and deployment, across almost all sectors. Misinformation and disinformation are now the new weapons of choice for both political and economic endeavors. What boundary conditions are necessary to maintain sanity and control? Or would self-governance be the way to go?

these are lack of agreement with single taxonomies for de-carbonization; policy confusion with trans-national cyber security and data protection; ocean resource depletion vs. extraction et al.

A comprehensive analysis undertaken a week ago by the International Monetary Fund[4] is poignant for its projections, both positive and otherwise. The impact to jobs, industrial sectors, digital economies and cross-border collaboration are of significance, as summarized below:

- **Implications for Labor Markets**: AI promises to increase productivity while threatening to replace humans in some jobs and to complement them in others. Global employment exposures are different; 60% for developed markets, 40% for emerging markets, and 26% for low-income nations.

- **Exacerbation of Digital Divide:** AI will affect income and wealth inequality. Unlike previous waves of automation, which had the strongest effect on middle-skilled workers, AI displacement risks extend to higher-wage earners. However, potential AI complementarity is positively correlated with income. Hence, the effect on labor income inequality depends largely on the extent to which AI displaces or complements high-income workers.

- **Increase to Income Inequality**: With high complementarity, higher-wage earners can expect a more-than-proportional increase in their labor income, leading to an increase in labor income inequality. This would amplify the increase in income and wealth inequality that results from enhanced capital returns that accrue to high earners.

- **Overall Wealth Increases:** The gains in productivity, if strong, could result in higher growth and higher incomes for most workers. Owing to capital deepening and a productivity surge, AI adoption is expected to boost total income. If AI strongly complements human labor in certain occupations and the productivity gains are sufficiently large, higher growth and labor demand could more than compensate for the partial replacement of labor tasks by AI, and incomes could increase along most of the income distribution.

- Policy Incoherence: Distinct efforts to regulate AI across the world are leading to a veritably complex set of definitions around AI property rights, as well as redistributive and other fiscal policies. The European Union with its AI Act clearly defines boundary conditions across a broad spectrum - high risk, unacceptable risk, general AI, generative AI and limited risk when it comes to content creation and dissemination. Meanwhile, Australia is mulling regulating only “high risk” applications and outcomes that may pose implications mainly to life and jobs. Both are developed economies of course within the ambit of IMF’s definitions above. Emerging markets however seem to be in a policy paralysis at the moment, leaving stakeholders with an open playing field. Will adverse consequences become the norm rather than the exception, I wonder?

In Conclusion

Deployment of new-age technological solutions can no longer remain pigeonholed in capitalist endeavors that have resulted in exacerbation of risks alongside new risks. Investments in new measures to combat

[4] **SOURCE**: “Gen AI – Artificial Intelligence and the Future of Work”, released on 14 January 2024; **https://www.imf.org/en/Publications/Staff-Discussion-Notes/Issues/2024/01/14/Gen-AI-Artificial-Intelligence-and-the-Future-of-Work-542379**

resulting misuse are only adding to the policy incoherence. Meanwhile the industrial world in its quest for efficiencies and productivity seem to be heading toward an unmanageable future, where globalization becomes obsolete, and transnational endeavors at managing to outcomes are falling short given extremely localized complexities. I see that domestic resilience is eroding at a pace far greater than we are able to build containment structures. Our earnest endeavors at monetization and profit maximization need to be tempered right now with considerations for utility and resilience. This balancing act will remain the most pressing challenge for this and the next generation.

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