**Special Issue of Technological Forecasting and Social Change**

**Managing Technology in the Changing Geopolitical Landscape**

**Deadlines:**

**1. Submission of extended abstract to the conference: 30 April 2023 (optional)**

**2. Submission to the TF&SC system: 31 March 2024**

**Guest Editors:**

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This special issue of *Technological Forecasting and Social Change* aims to bring scholarships together to advance research on the interrelationships among contemporary geopolitical trends, technology, and the society, in particular in different economic, institutional and political contexts. For last two decades, scholars have discussed geopolitics and technology based on the assumption of globalization and global interdependence (e.g. Montobbio & Sterzi, 2013). From this lens, the main focus was often to close the gap between developed and less developed regions and the important role that technology plays in the process (Stigliz, 2003). However, the Covid-19 pandemic, the recent Russia-Ukraine war, and the continuing geopolitical tension between China and the West have significantly challenged these assumptions. When competition on technologies of energy, cyber-physical system, healthcare, and semiconductors is increasingly at the centre of international politics, geopolitics, by all means, is crucial in reshaping technology, manpower, capital, commodity, and information flows in the world. There is an urgent need to improve our understandings on dynamic interactions between and among technology, economics, institution, and society in this new era of geopolitics.

Changing geopolitics landscape are thus multifaceted. On one hand, technological changes are important factors in geopolitical considerations. For example, the replacement of coal with oil as the fuel of the battleships of the British Royal Navy before the WWI led to significant elevation of geopolitical importance of oil producing nations, such as Persia (now Iran) while the emergence of widely applied hydrogen technology is constructing another wave of geopolitical issue (Yergin, 2011; Rystad Energy, 2020).More recently, there have been intensive discussions on how technological changes in various areas, such as energy (Goldthau et al., 2019), health (Bollyky, et al., 2021; Kahl & Wright, 2021), or metaverse technology (Eurasia Group 2021; Wong et al., 2022) may reshape and reconfigure geopolitics.

On the other hand, geopolitical tensions and rising nationalism influence future technological development. For instance, the US has recently passed the “Chips and Science Act” aiming to ensure American leadership in semiconductor research, development, and production. The proposed “Chip 4” semiconductor alliance promotes cooperation among American, Japanese, South Korean and Taiwanese chipmakers while deliberately excluding China. China’s Belt and Road Initiative includes technical cooperation as a key component (Normile, 2017). Facing energy crisis, the European Union proposed a “Critical Raw Materials Act” to build up green tech markets and avoid the overdependence on a small number of fossil fuel suppliers. These initiatives foreshadow that future technological development is increasingly influenced by geopolitical divisions in the world.

Entrepreneurs, cooperate managers and policy makers in the world would respond to the geopolitical challenges differently in their technological development and innovation activities. This is because of their different positions in the geopolitical contests and in the global value chains. For example, China is in a direct technology “cold war” with the West, which is a critical component of their broader geological rivalry (Tan & Yang, 2021). Europe Union, Japan, Korea and Taiwan are not only close allies of the US, but also technological powerhouses which, meanwhile, have close interconnections with China in their supply chains. There are also a large number developing and emerging economies that are seeking technological catch-up for economic and social development.

The geopolitical risks and the resultant increase of nationalism may hamper or exploit technology in unexpected ways (e.g., Scholten & Bosman, 2016; Wang et al., 2021). Given the multidisciplinary nature of the topics, we invite manuscripts from various scholarly domains including, but not limited to, innovation and technological management, international business, strategic management, international political economy, political science, economics, finance, and entrepreneurship, for better understanding and managing technology under the changing geopolitical landscape. Both theoretical and empirical papers are welcome.

Suggested topics and research questions can include, but are not restricted to:

* How is technology influencing global decoupling?
* How can we better understand the changing geopolitics landscape from various technology fields including energy, metaverse, cyber-physical system, healthcare, semiconductor?
* Do geopolitical risks affect the consumption and production patterns of energy sources in relation to fossil fuels to renewables?
* What role do political regimes play in affecting technology policy and governance?
* How can a nation state best promote its own technological sovereignty amid geopolitical challenges?
* What are the respective roles of the state and the private sectors in sourcing new technology in the changing geopolitics landscape?
* How do geopolitical risks influence global technology politics and markets?
* How does geopolitical tensions influence technology adoption?
* How does technology worsen or mitigate geopolitical tensions?
* How do different political systems and governance arrangements respond to geopolitical challenges in technology?

**Special Issue workshop**: We plan to organize a paper development workshop for the special issue during the Technological Forecasting and Social Change Special Conference in Taiwan between 28 Oct and 30 Oct 2023. Participants of the workshop are encouraged to submit the full paper to the conference submission system. The SI editors will then invite authors of a selection of papers to this workshop to discuss their papers, although all submissions to the SI need to go through the journal’s review process later.

Please direct questions about the submission process, or any administrative matter, to the Conference administrator (Email:tfsc2023@gmail.com). Questions about expectations, requirements, and the appropriateness of a topic should be directed to the guest editors of the special issue.

All the submissions should follow the general author guidelines of Technological Forecasting & Social Change available at

<https://www.elsevier.com/journals/technological-forecasting-and-social-change/0040-1625/guide-for-authors>

Full-length papers should be submitted through the journal’s online submission system between 1 November 2023 and 31 March 2024. Please make sure to tick the box “Special Issue: TECH & GEOPOL” when submit and indicate in your cover letter that the submission is intended for this Special Issue.

**Schedule**

* **Call for papers:** October 2022
* **Submission to the TF&SC Conference (**[**www.tfsc2023.org**](http://www.tfsc2023.org/)**):** 30 April 2023 (optional)
* **Notification of invitation to the paper development workshop:** 1 June 2023
* **Paper development workshop:** 29 October 2023 with the special conference
* **Submission to the TF&SC SI online system:** 1 November 2023 – 31 March 2024
* **Publication in the journal:** Rolling basis

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This special issue is in part designed to support the Journal’s special conference to be held at Hsinchu, Taiwan on 28-30 Oct 2023. The conference provides a platform to bring editors, board members, authors, reviewers, and other stakeholders of the journal together. Doing so allows us to discuss not only research in the field but also various topics related to the journal. Aligning with the theme of the special conference, the special issue will focus one of the most critical contemporary topics in the disciplines of innovation and technological management, that is, the interrelationships between technology and geopolitics.