FUTURE TRENDS

Report

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ترينـدز للبحوث والاسـتشـارات

Future Trends Report

Future Trends Report, published in English and Arabic by TRENDS Virtual Office in Montreal, stands out as a distinctive publication dedicated to highlighting:
1. the most important forward-looking studies that aim to identify future trends, analyze various variables that may influence these trends, and determine the best future scenarios.
2. the most important applied studies that explore the application of knowledge, scientific theories, and information to solve current problems and overcome future challenges.
3. the most important illustrative and graphic forms that visually summarize significant studies, helping readers understand the trends and challenges of the future world.

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Cont ents

1 Prospective research

Geopolitics and International Business

Zhang, H., & Tian, L. (2025). Risk hedging: How geopolitical risks affect enterprises' overseas merger and acquisition?. International Review of Economics & Finance, 104296.

This article examines the way in which emerging geopolitical risks are remapping the geography of international business study and practice. As interstate tensions increase, the authors argue that international business must rethink its original assumptions about globalization, openness, and cooperation.

The article refers to a rising need for conceptual models that better represent the essence of conducting business in a split and politically disputed international economy. Globalization has, in the past, been thought of as overall a good and linear process, but this article presents a more complex vision, where firms face cooperation and coercion depending on their geopolitical background.

The authors point out that geopolitical risk is different from market or technological risks in that it is grounded in state behavior, power disparities, and strategic competition. Geopolitical risk occurs in the form of sanctions, investment bans, expropriation, or unilateral changes in diplomatic relations, endangering a company's operations, supply chain, and access to markets. As a result, multinational corporations (MNEs) are now required to adopt more politically charged strategies that consider not only economic indicators but also state interests, foreign policy agendas, and international rivalries. The article proposes a framework to describe the influence of geopolitical risk on MNE strategy. It identifies three basic mechanisms: risk exposure, strategic response, and institutional mediation. Risk exposure varies by geography, industry, and firm characteristics—those operating in sensitive sectors like defense or energy are more exposed. Strategic responses range from market exit and supply chain redesign to lobbying and alliance building. Conversely, institutional mediation examines how firms handle such risks by engaging with home and host country governments, international institutions, and regulatory bodies. The authors argue that such triangulation of business strategy, state power, and institutional setting is at the heart of managing geopolitical concerns.

A further contribution of the article is the compulsion to reconsider globalization in the face of rising geopolitical fragmentation. The authors propose the notion of "geopolitical globalization" to describe the novel order wherein global integration is propelled not just by market forces but also by national interests and geopolitical alignments. In this new world, MNEs can no longer assume the stability or neutrality of global institutions and must prepare for more recurrent and sudden political disruptions.

In conclusion, the article dares international business scholars and practitioners to take geopolitics seriously as a strategic decision-making variable. There needs to be more interdisciplinary research between international relations and business studies to build careful theory and helpful tools to deal with increasing turbulence in the global environment.

International business must rethink its original assumptions about globalization, openness, and cooperation.

Triangulation of business strategy, state power, and institutional setting is at the heart of managing geopolitical concerns.

Prospective research

Strategic Competition in AI

Nguyen, Thanh Tam, et al. "Privacy-preserving explainable AI: a survey." Science China Information Sciences 68.1 (2025): 111101.

This article analyzes the United States-China strategic competition in artificial intelligence (AI) and how the competition is reshaping technological innovation, economic agendas, and international order architecture. The authors argue that AI is no longer a value-free innovation space but a contested space where geopolitical aspirations and national security interests drive policy and investment. This competition affects everything from supply chains and academic exchange to world standards and ethical practices.

The United States has a pivotal position to play in cutting-edge AI research and high-end chip design, given that it has a robust ecosystem of private companies, universities, and venture capital. However, the article also notes that the U.S. has increasingly shifted towards restricting China's access to key technologies. This includes advanced chips and manufacturing plants on national security and military application grounds. The export controls and investment screening measures used strategically are a sign of a broader decoupling of technological cooperation between the two superpowers. It indicates a growing belief in Washington that maintaining control over AI is needed to keep the world in check.

China, meanwhile, has responded with a state-driven model of self-sufficiency. It has made substantial investments in AI infrastructure, research facilities, and industrial applications, particularly in surveillance, fintech, and public administration. While still dependent on imported semiconductors, China is rapidly developing local capabilities, including large-scale local AI models and domestic production of chips. The article emphasizes that China's strategy combines AI at the national and civil-military fusion levels and positions the technology as a tool of statecraft and a pillar of strategic autonomy. China also aims to export its AI-driven models of governance to developing countries to boost its geopolitical influence.

Aside from bilateral competition, the article examines how the U.S.-China competition in AI is influencing the international system generally. Multilateral institutions are being strained by the two powers as they push competing models for data protection, AI ethics, and cross-border data flows. This has resulted in the establishment of dual-track technological ecosystems, where countries lean toward adopting one model or the other. The authors warn that this bifurcation can fuel increasing global inequality and thwart efforts at inclusive global cooperation.

The piece ends with a plea for a coordinated international response to AI governance, one that welcomes the geopolitics without relinquishing the benefits of openness and collaboration. Strategic rivalry will not be eradicated, but the authors urge limited cooperation on shared challenges such as safety, transparency, and risk management. Ultimately, they stress the importance of bridge-building in a fractured AI world, harmonizing competition with responsible stewardship everywhere.

AI is no longer a value-free innovation space but a contested space where geopolitical aspiration and national security interests drive policy and investment.

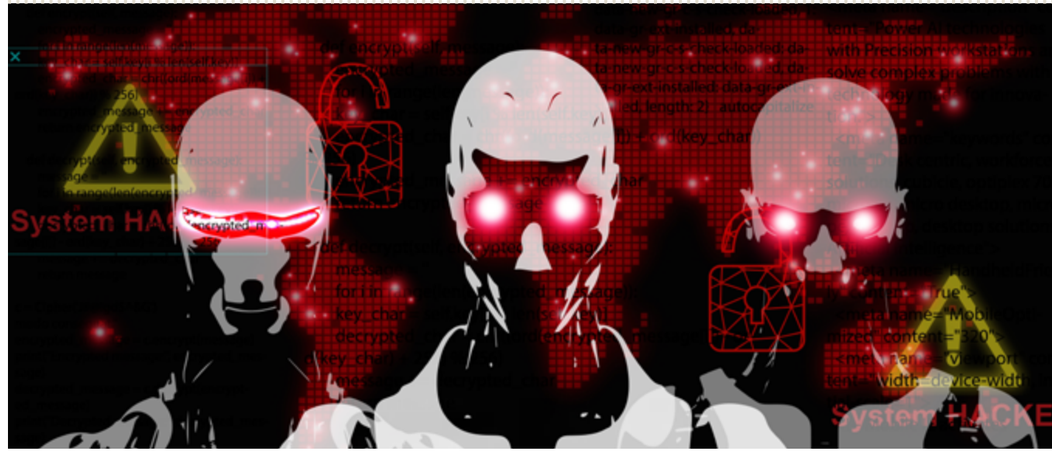
The U.S.-China competition in AI is influencing the international system.

Prospective research

Risks in AI Research

Brenneis, A. (2025). Assessing dual use risks in AI research: necessity, challenges and mitigation strategies. Research Ethics, 21(2), 302-330.

This article refers to the growing concern about dual-use dangers in artificial intelligence research—where technologies developed for good purposes can be channeled toward malicious ends. With AI systems becoming increasingly advanced and pervasive, scientists and organizations are increasingly subject to calls to anticipate, assess, and mitigate the threat of their work being used for ill. The author argues that despite broad recognition of such risks, there are no defined and uniform guidelines for dual-use potential evaluation in the discipline, creating enormous lacunae in responsible research governance.



The report begins by locating dual-use risks within the broader frames of AI safety and governance. It distinguishes between "accidental" harms, such as technical failure or unintentional bias, and "intentional" harms, such as the application of AI for nefarious ends like espionage, manipulation, or autonomous weapons. While accidental risks have been thoroughly explored and addressed in technical alignment research, intentional misuse—particularly by non-state actors or authoritarian regimes—is particularly problematic. These are harder to quantify and tend to evolve along with political and technological change; therefore, they are difficult to forecast with classical risk assessment matrices. The author identifies several hurdles to sound dual-use assessment. First, the AI research community lacks a common vocabulary and standards for dual-use risk. Second, the open scholarly culture and publication regime conflict with the necessity of keeping potentially dangerous findings confidential. Third, there is institutional uncertainty about which entities should be responsible for performing such risk assessments—individual researchers, university ethics boards, or external regulators. Finally, the global nature of AI development makes it difficult to apply standards uniformly, especially when differing standards exist across countries and sectors.

To alleviate these difficulties, the paper proposes a layered mitigation strategy. It calls for clearer articulations of dual-use risk categories and suggests the development of tools to help researchers review their research. Those tools can include risk self-assessment checklists, impact scenario modeling, and red teaming exercises. Institutions, for their part, are requested to put review processes in place that take into account dual-use concerns without unduly inhibiting academic freedom or innovation.

The article concludes that perfect mitigation is impossible, but active and transparent assessment practices can go far toward reducing the likelihood of malign consequences. It urges the research community to move beyond general principles and invest in concrete processes that incorporate dual-use awareness into the research cycle. Lastly, the authors frame dual-use risk mitigation as not merely a technical or ethical issue but as a constitutive responsibility of AI research during an era of accelerating capabilities and global insecurity.

Scientists and AI organizations face mounting pressure to anticipate, assess, and mitigate the potential misuse of their work.

Perfect mitigation is impossible, but active and transparent assessment practices can go far towards reducing the likelihood of malign consequences.

Prospective research

Perspectives from Richard Ennals: A Precursor in AI Ethos

Gill, K. S. (2025). The end AI innocence: genie is out of the bottle. AI & SOCIETY.

This editorial reflects on the transformation of AI from a domain of exploratory research to one of widespread commercial application, marking the end of what is described as AI's "age of innocence."

Drawing inspiration from the work of Richard Ennals, a pioneer of socially responsible AI, the text emphasizes how the transition from laboratory prototypes to mass-market technologies has shifted the ethos of AI from exploration to exploitation.

Ennals had always been a strong proponent of putting AI into the broader context of human values, social responsibility, and societal welfare, and this paper validates that his vision is more current today than it ever was. The author outlines Ennals's pioneering work, such as his 1986 demand for a Strategic Health Initiative, where he envisioned the application of high technologies to support national health and economic wealth. Even then, he was cognizant of the risks of unleashing AI without proper consideration of social impact. His views on corporate and social responsibility were based on a belief that researchers and practitioners should be held accountable for the implications of the technologies they develop and deploy.

The article argues that the advent of ubiquitous AI technologies, such as language models and automated decision-making systems, demands re-examination of ethics, responsibility, and common sense in their use and creation. There is growing concern about the use of systems that lack human reasoning in important domains. The article warns against normalizing uncritical obedience and the danger of surrendering human values and identity to AI, especially where it is motivated by market forces rather than public interest. The editorial also launches a set of modern articles in the journal issue that address issues such as AI and human identity, algorithmic fairness in decision-making, AI effects on human embodiment, and the dangers of embracing generative AI without careful consideration. The papers continue Ennals's legacy by challenging prevailing narratives and advancing socially aware frameworks for AI applications.

In summary, the author calls for new discussions, interdisciplinarity, and reaffirmation of human agency in technological development. It is not just to understand AI as a tool but also to make it align with human values and societal objectives. The celebration of Richard Ennals thus serves both as a look back and as an appeal—a reminder that, just as the genie of AI is now out of the bottle, it is still not too late to influence its path with deliberate and responsible participation.

Ennals had always been a strong proponent of putting AI into the broader context of human values.

As the AI's genie is out of the bottle, it is still possible to shape its course through deliberate, responsible participation.

Prospective research

Measuring Socioeconomic Inequalities in a Comparative Perspective

Fachelli, S., Suter, C., & Son, J. (2025). Measuring Socioeconomic Inequalities in a Comparative Perspective. Social Indicators Research, 111.

This editorial is a special issue dedicated to the measurement of socioeconomic inequalities from a comparative perspective. When addressing recent world crises—economic, environmental, health, political, and military—the authors emphasize that previously existing inequalities are worsening while new ones emerge. These developments are especially heartless for disadvantaged people and require new means in theory as well as measurement.

The shift towards digitalization, telework, AI, and globalization adds more complexity to inequality, which requires multidimensional analysis tools capable of capturing such interlinking processes. The special issue is born out of the ISA's RC55 conference and foregrounds the contributions of the INCASI network. The editors reiterate the value of comparative research to identify patterns and contrasts between regions, allow generalization of lessons and insights, and serve as the basis for policy design.

Four large thematic domains organize the contributions. The first addresses issues of the world using new social indicators. Themes encompass transnational mobility, for which more prosperous, better-educated individuals show higher mobility and cosmopolitanism; the complex income-environmental behavior linkage, particularly in industrialized societies; volunteer satisfaction during crises; and the philosophical foundations of indicators of educational equity. These contributions highlight how digitalization, urbanization, and crises transform inequality and require policy adaptation.

The second section addresses mobility and stratification, reconsidering traditional theories like the FJH hypothesis of international social fluidity patterns. Comparative studies between Chile and Spain, as well as Latin American-European comparative analysis, reveal gendered trends and cyclical patterns of inequality. Education is at the core of mobility, but its impacts are gendered and context-dependent, implying that structural transformation is a necessity.

The third block intersects income and wealth inequality, providing new indices like the ARSEI for Argentina and examining unidimensional socioeconomic status measures by country. These discussions outline how wealth concentration and limited asset access drive intergenerational inequality and demonstrate that income establishes class distinctions but does not accurately reflect wealth inequality.

Finally, the last section addresses health, well-being, and gender inequalities. It reveals that cultural values such as power distance influence people's perception and acceptance of inequality and its impact on well-being. Breadwinning women report lower well-being, particularly in patriarchal settings, pointing toward the nature of gendered responsibilities.

The issue concludes with recommendations for additional research, giving top priority to interdisciplinary, cross-cultural studies of social indicators encompassing AI, the Anthropocene, global crises, and evolving justice norms. Overall, the volume encourages a global, multi-perspectival view of inequality and provides a platform for responsive and inclusive policy responses.

Previously existing inequalities are worsening, while new ones emerge.

Digitalization, urbanization, and crises transform inequality and require policy adaptation.

2 Applied research

“Geopolitical Environment” and Global Power Relations

Chukwuma Sr, C. (2024). Geopolitics of the nature and crises of the environment, economics and health in a sustainable society for human progress and survival. Journal of Scientific and Innovative Research, 13 (1), 16-21.

Chukwuma discusses environmental geopolitics as a field of study that considers the ways in which natural and social environments converge to create global power relations. He theorizes the "geopolitical environment" as an extensive system that commingles physical components—like terrain, climate, water, and biodiversity—with human ones like population, culture, ethics, politics, economy, and science. The convergence is not just theoretical; it underpins how states and territories leverage geographical elements to extend influence, trade resources, and exercise diplomacy.

The article proceeds to analyze how environmental stresses destabilize health and economic systems. For example, ecological disasters—from the disturbance of rainfall regimes and rising temperatures to habitat loss—alter species niches, imperil sustainability, and provoke crises with far-reaching social and economic consequences. Moreover, such uncertainty in the environment also increases geopolitical risks, often resulting in market volatility and short-run shocks to financial assets—although these can ultimately revert to normal once the source of uncertainty has been made clearer.

There are also economic vulnerabilities interwoven with ecological concerns. Resource scarcity—actual or perceived—is often socially constructed based on policy, market dynamics, and diplomatic theatrics. Energy geopolitics, for instance, has been significantly conditioned by debates over low-carbon technologies like nuclear energy, underscoring how environmental interests can counterbalance strategic interests and supply chains.

The health dimension is equally at the core of this geopolitics. Drawing on related scholarship, the author discusses how pandemic and food insecurity threats to global health are geopolitically innate, necessitating multilateral responses beyond traditional diplomatic understandings. Health crises often coincide with ecological damage and economic disparities, hitting particularly hard at vulnerable groups and requiring comprehensive policy measures that integrate environmental management, public health infrastructure, and diplomacy.

To respond to such multidimensional threats, the article advocates a sustainable model of society grounded in interdisciplinary coordination. Ecological, economic, and health crises are not compartmentalized but interconnected; hence, effective solutions require coordinated efforts spanning scientific appraisal, governance reform, public policy, and diplomacy at the international level. Overall, the article defines the geopolitics of health, economy, and environment as a persistent platform in which state systems, human societies, and physical environments dynamically co-evolve with one another. Ecological change reconfigures economic security and health trends, which, in turn, construct geopolitical tensions. Managing these interlinked threats necessitates governance frameworks that integrate scientific knowledge, diplomatic adaptability, and long-term planning. Only through such holistic involvement can societies enable human advancement and survival under accelerating global threats.

Ecological, economic, and health crises are not compartmentalized but interconnected.

Managing them necessitates governance frameworks that integrate scientific knowledge, diplomatic adaptability, and long-term planning.

Applied research

The GATT and Diplomacy

Aliyah, Y., Prakoso, L. Y., Alam, T. M., & Patmi, S. (2024). The Role of Diplomacy through Agreements General Agreement on Tariffs and Trade (GATT) Geopolitics in the Pacific War. Formosa Journal of Applied Sciences, 3(5), 2381-2394.

The Pacific War of 1941-1945 deeply destabilized both trade and geopolitical relations throughout the Asia-Pacific. In response to these destabilizations, the General Agreement on Tariffs and Trade (GATT), established in 1947, emerged as a fundamental diplomatic instrument. Envisioned to reduce tariffs and trade barriers, GATT stabilized and simplified trade relations among countries that were previously engaged in war. This study looks at how GATT functioned not only as an economic instrument but also as a diplomatic policy for promoting peace and rebuilding post-war confidence.

GATT evolved in a series of negotiating rounds, reducing global average tariffs from approximately 22% in 1947 to near 5% at the end of the Uruguay Round in the 1990s. Its success led to its eventual incorporation into the World Trade Organization (WTO) in 1995. Though economically focused, GATT had profound geopolitical implications. By providing forums for negotiation and mutual concessions, it alleviated commercial tensions that could have reignited war, particularly in the post-war Pacific. Countries like Indonesia utilized GATT to foster economic diplomacy and insert themselves into new international systems, advancing their interests through trade while adapting to global standards.

The study highlights that Pacific War diplomacy extended beyond traditional negotiations. It included economic, defense, and multilateral diplomacy, all aimed at restoring stability. Indonesia, for instance, conducted military diplomacy to manage South China Sea tensions and pursued multilateral forums to influence regional outcomes. Lessons from this period highlight the need for integrated diplomatic solutions, involving governments, private sectors, media, researchers, and civil society in conflict resolution and international cooperation. Geopolitical rivalries—particularly between Japan and the United States—were the main catalysts for the Pacific War, fueled by rivalry for natural resources, strategic dominance, and territorial gains. The legacy of such rivalries persists to this day in the present strategic rivalry between the U.S. and China.

The authors argue that institutions like GATT and its successor, the WTO, continue to be important to keep such rivalries in check by injecting rules-based disciplines that favor cooperation over confrontation.

Lastly, the article concludes that GATT was key to stifling trade wars in and after the Pacific War. Beyond sparking economic intercourse, it also supported broader geopolitical stability. With tensions escalating worldwide in recent years, the historical precedent of GATT reminds us that multilateral diplomacy is a blessing in terms of preventing war and promoting peaceful engagement among nations.

Established in 1947, the General Agreement on Tariffs and Trade (GATT) emerged as a fundamental diplomatic instrument.

GATT was key to stifling trade wars in and after the Pacific War and supporting broader geopolitical stability.

Applied research

How do Multinational Enterprises Respond to Geopolitics?

Moura, S. T. G., Lawton, T. C., & Tobin, D. (2025). How do multinational enterprises respond to geopolitics? A review and research agenda. International Journal of Management Reviews.

This article discusses how multinational corporations (MNEs) strategically respond to geopolitical risks, especially with shifting diplomatic relations between home and host countries leaving things uncertain. While earlier research in international business acknowledged the significance of geopolitics, this article establishes that the existing understanding is fragmented and lacks an integrative perspective.

The authors attempt to account for how geopolitical tensions, such as international conflicts and power shifts, influence MNE decision-making by synthesizing 97 strategy, management, and international business papers.

The authors argue that geopolitics can best be understood as an interactive dynamic combination of geography and political power, which influences bilateral state relations and subsequently affects the operation and investment plans of MNEs. The review acknowledges that the reaction of MNEs is driven by two determinants: their political capacities and flexibility or commitment in their investments. Where political capacities are extensive, MNEs will be more proactive in shaping governments in designing favorable policies or risk avoidance. Such a reaction is known as a shaping engagement reaction. Weaker political skills result in more conservative strategies, such as adaptive involvement—when firms accommodate operations to suit the changing context—or non-involvement, when firms withdraw and instead pursue a "wait and see" policy. In cases where risks outweigh potential returns and adaptability is limited, MNEs can choose to pull out of a country altogether.

The text differentiates between uncertainty and risk, discussing how while risk involves measurable probability, uncertainty is indeterminate and inconclusive in outcomes. Geopolitically, models that view nation relationships as purely cooperative or conflicted are insufficient. Uncertain or equivocal alliances, for instance, produce a kind of uncertainty that complicates MNE planning. Such indefinite relationships are not necessarily conclusive in leading to contractual agreements but can nevertheless influence corporate strategy pervasively.

To comprehensively understand MNE conduct, the authors propose a dual theoretical framework: political capabilities and real options theory. Political capabilities determine how sophisticated firms are in managing political settings, and real options theory determines how firms handle economic flexibility and investment timing. Both combined provide an explanation of why different firms adopt different strategies despite shared geopolitical pressures.

Lastly, the paper presents a new integrative model of MNE responses to geopolitics, affirming that strategic decisions are based on the perceptions and handling of both dimensions of political and economic uncertainty by firms. It concludes by presenting a challenge for further research into the intersection of geopolitics, corporate diplomacy, and firm-level strategic decision-making in a more

Geopolitics is best understood as the dynamic interplay between geography and political power.

MNEs is driven by two determinants: their political capacities and flexibility or commitment in their investments.

Applied research

AI Competition: An Arms Race or an Innovation Race?

Schmid, S., Lambach, D., Diehl, C., & Reuter, C. (2025). Arms race or innovation race? Geopolitical AI development. Geopolitics, 1-30.

This article explores whether geopolitical competition in AI may be most fruitfully imagined as an arms race or an innovation race. The authors argue that framing the advance of AI as a race, in the guise of military conflict—dictated by national security, hegemony, and zero-sum competition discourses—may conceal more essential dynamics of technological development and cooperation.

Whereas states like China and the United States prefer to articulate their AI strategies in defensive and nationalist language, AI advancement is, in fact, more complex and based on internationalized flows of knowledge, academic collaboration, and commercial networks.

The idea of an "AI arms race" has caught hold among policymakers and in the media, highlighting situations where countries rush to advance their AI programs in fear of being left behind on the military front. The article criticizes this narrative, arguing that it is simplistic regarding the nature of AI advancement and the interplay between the major players. AI, in contrast to nuclear weapons or conventional war technologies, is a general-purpose technology with dual-use applications.

The authors propose that AI progress is better termed an "innovation race," where states seek not only to lead in military applications but also in economic advancement, talent attraction, access to information, and quality of government. Innovation races value long-term capacity building, investment in research, and infrastructure. They are also characterized by interdependence—most AI breakthroughs arise from international collaboration and open-source communities; therefore, nationalism is harder to discern.

The essay stresses that framing matters: the arms race analogy can push governments toward secrecy, aggressive bluster, and risky policy, which can inflame tensions and tempt AI weaponization. Alternatively, the innovation race paradigm highlights governance, ethics, and cooperation, offering paths to international standards, collective safeguards, and benign use. The authors warn that the legend of the arms race can lead to misallocations of resources and a greater likelihood of catastrophic misuse, especially if security and transparency are sacrificed for speed.

The article recommends reframing AI geopolitics in terms of collective benefit, global governance frameworks, and responsible innovation. It calls on researchers, authors, and policymakers to avoid militaristic language and instead promote an ideal of AI research and development based on human well-being, equitable access, and collaborative advancement. The authors ultimately argue that the greatest risk is not who controls the AI competition, but how the competition is set up—and whether it yields a safe, fair, and peaceful technological future.

Innovation races value long-term capacity building, investment in research, and infrastructure.

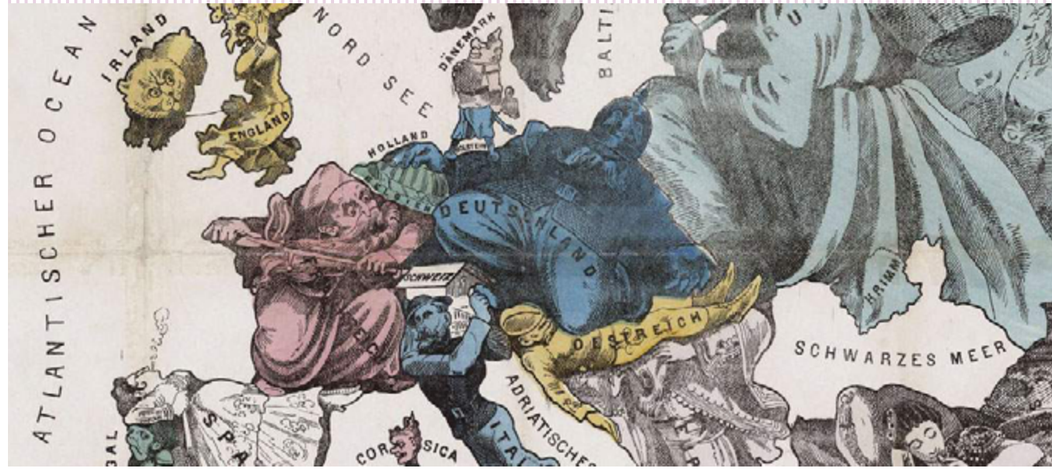
The legend of the arms race can lead to resource misallocations and heighten the risk of catastrophic misuse.

Applied research

How Do Governments Use Science Diplomacy?

Yeboah, S. D., Agyei, S. K., Korsah, D., Fumey, M. P., Akorsu, P. K., & Adela, V. (2025). Geopolitical risk and exchange rate dynamics in Sub-Saharan Africa's emerging economies. Future Business Journal, 11(1), 78.

This article explores how governments use science diplomacy to increase their influence and legitimacy on the global platform. As pandemics, climate change, and geopolitical tensions escalate as international challenges, the authors argue that science diplomacy has become a vital tool for navigating cooperation and competition within global politics.



It is not merely a question of how science is employed to guide foreign policy but also how scientific collaboration is strategically employed to project national influence, achieve economic interests, and shape global norms.

The authors point out that science diplomacy is not a neutral endeavor. While invariably presented as a collaborative and favorable undertaking, it is acutely affected by national interests, geopolitical rivalry, and domestic agendas. It is this dual nature—both scientific and political goals—that complicates and often contradicts science diplomacy. For instance, while countries may collaborate in space exploration or climatology, they may simultaneously compete on patenting, technologies, or access to scientific data. The article demonstrates how countries such as China, the United States, and the European Union have pursued science diplomacy not just to facilitate mutual understanding but also to gain strategic advantages.

China's science diplomacy, then, is emphasized as a conscious effort to expand its international influence. China has become the leading power in global science with the aspiration of luring talent and setting up research partnerships that align with its broader geopolitical ambitions. Similarly, America has long leveraged its leadership in scientific innovation to maintain global governance in its interest and influence regulatory policies. The European Union, on the other hand, uses scientific cooperation to foster multilateralism and practice normative leadership in areas such as data governance, ethics, and sustainability.

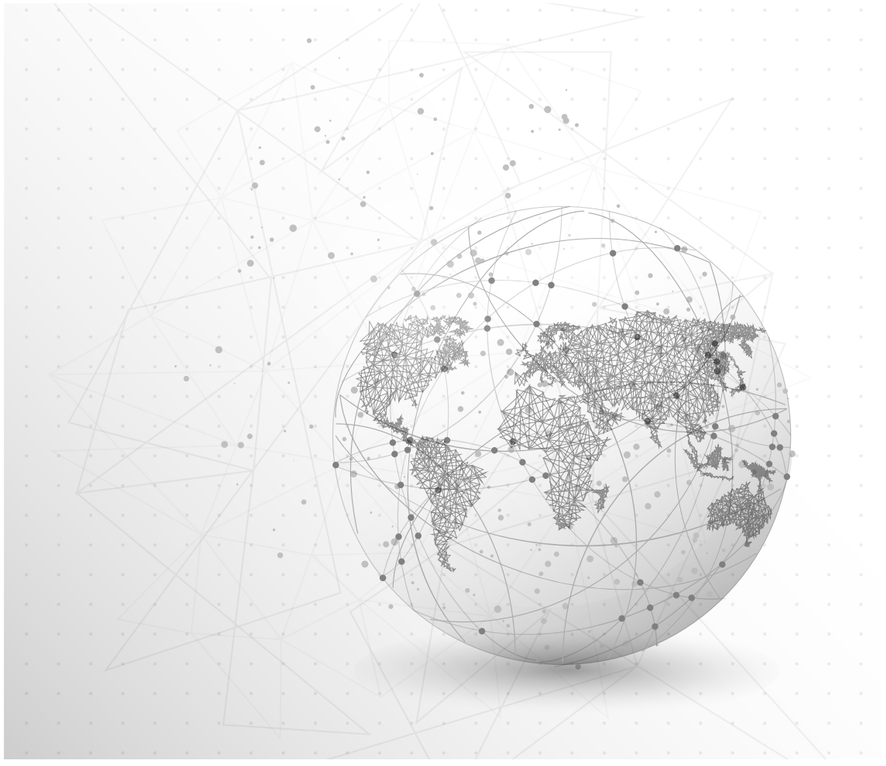
The article also considers the tensions and risks present when science is used to serve national power. Scientific collaboration is hindered by rising protectionism, conflicts in diplomacy, and increasing security and intellectual property concerns. Furthermore, the authors note that science diplomacy, as much as it can foster global cooperation, can widen disparities if fewer powerful states determine the terms of cooperation and access to knowledge.

Lastly, the authors argue that science diplomacy can be understood only through a critical examination of the political dimensions. With the increasingly contested nature of the international environment, science diplomacy is now not just about sharing unattached science but about strategic alignment. The article calls for an educated and self-reflexive science diplomacy that takes into account power relations, national interests, and the evolving geopolitical landscape.

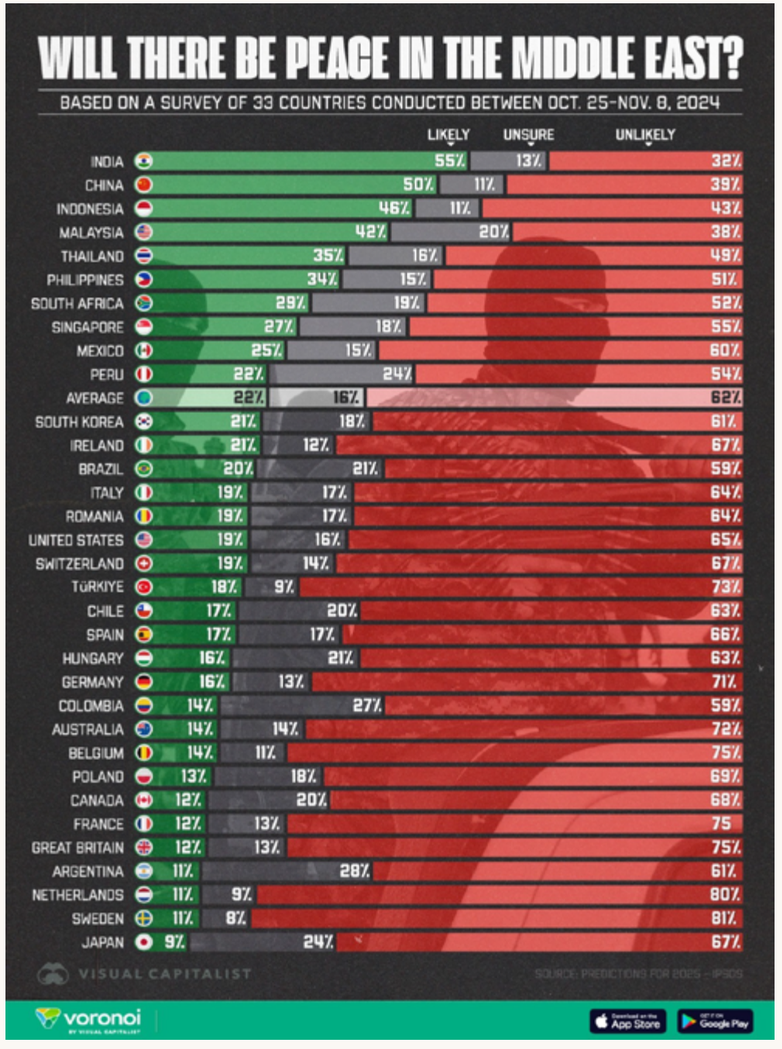
Patents on nuclear reactor technologies determine the conditions under which countries are permitted to develop and sustain global technological power hierarchies.

Control of key technological proficiency allows countries the ability to define access guidelines, decide upon markets, and restrict others' liberty in the nuclear arena.

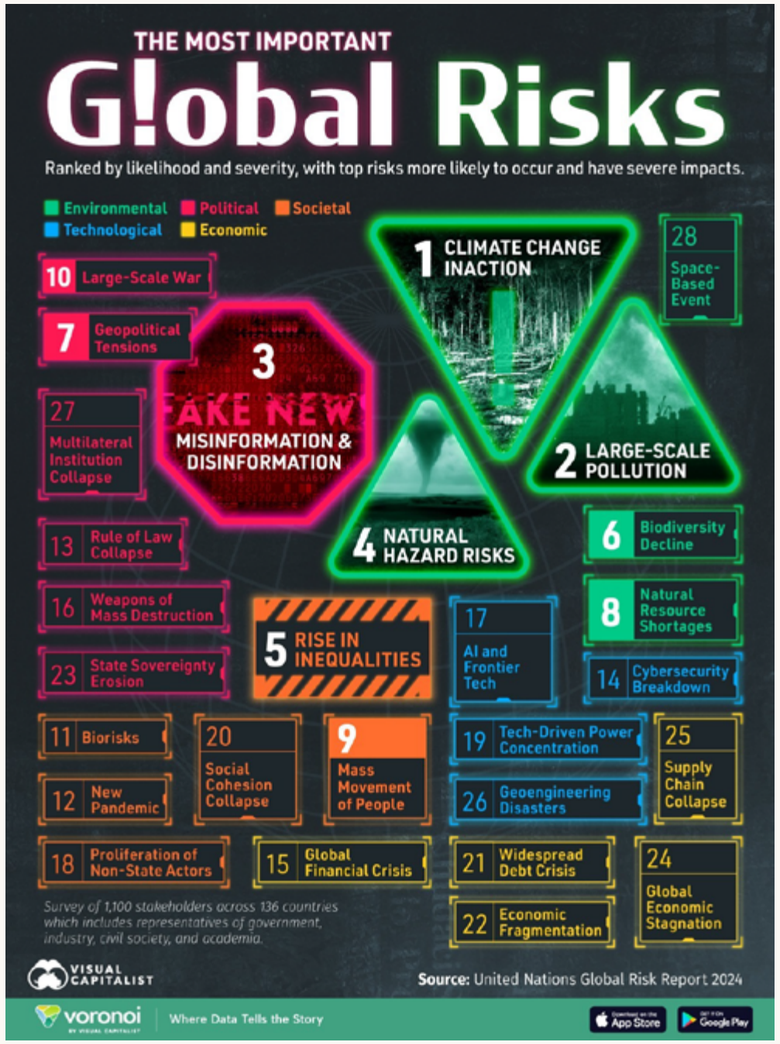
3 The future in numbers



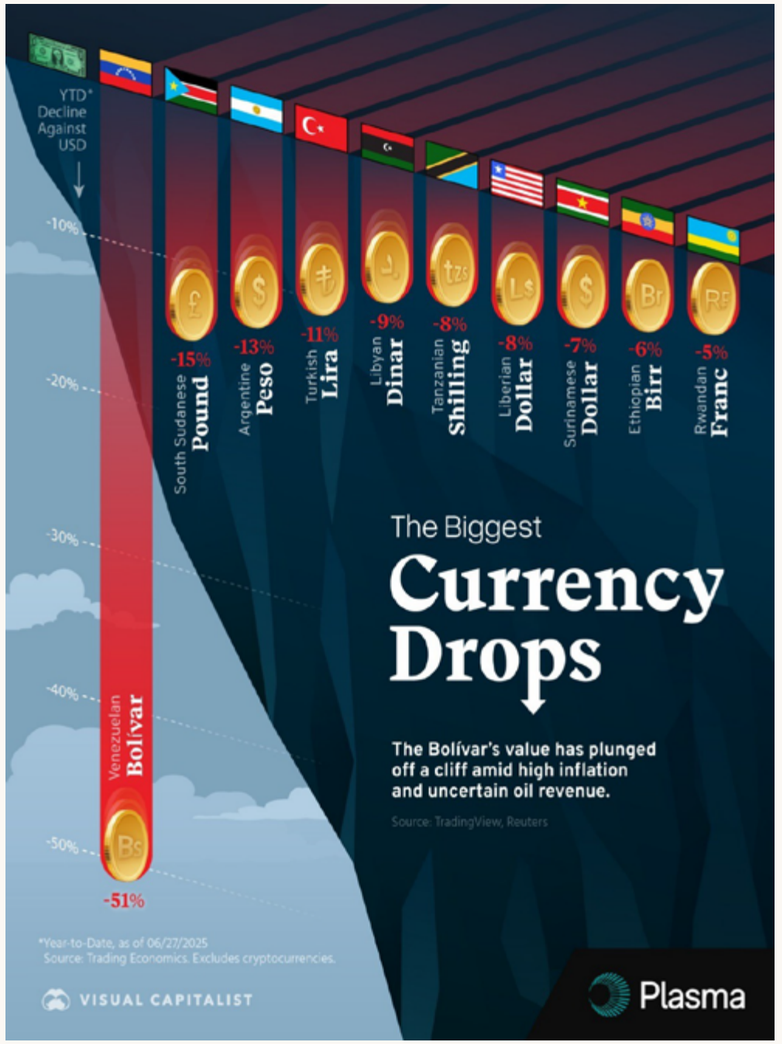
Conflict in the Middle East: Which Countries Think It Will End in 2025?



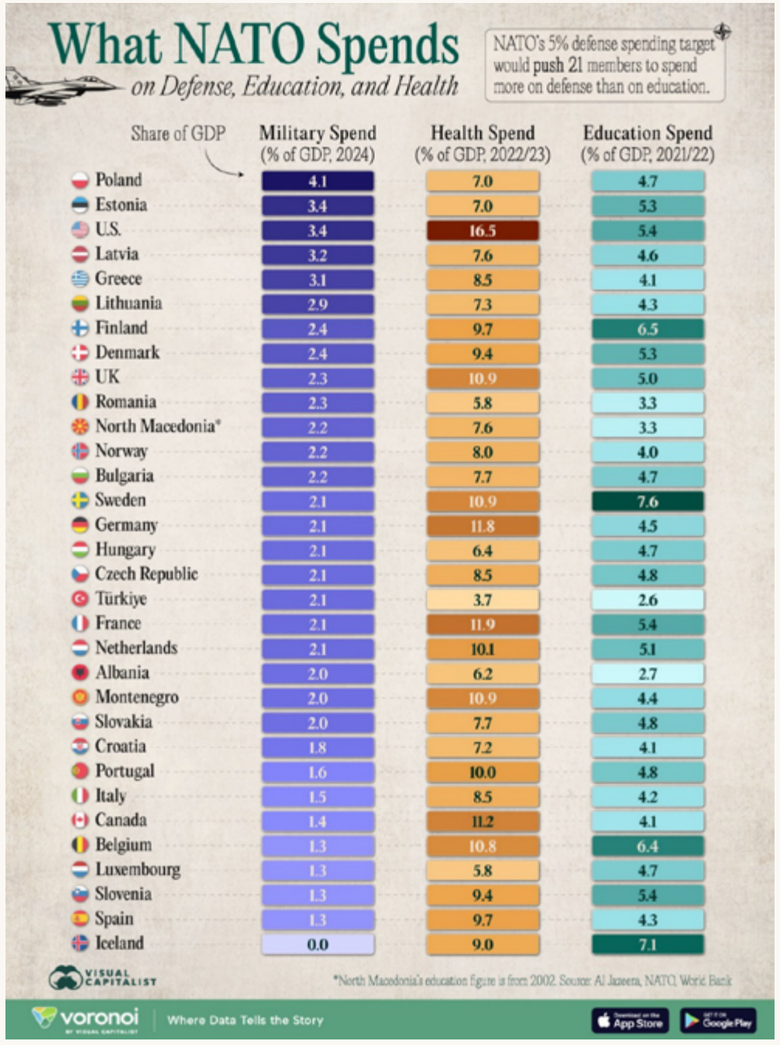
The 28 Biggest Global Risks, According to the UN



The Biggest Currency Drops So Far in 2025



What NATO Countries Spend on Military, Health, and Education



The Biggest AI Funding Rounds of 2025 So Far

The World's 30 Top Research Universities