

Review

Global Power in Digital Age: Reshaping Politics, Diplomacy, and International Relations

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Abstract: The advancement of technology in the 21st century has reshaped global politics, diplomacy, and international relations. This review aims to examine the multifaceted impacts of technological innovation, ranging from the proliferation of information and communication technologies (ICTs) to the rise of artificial intelligence (AI) and cyber capabilities, on the distribution of power, the conduct of statecraft, and international cooperation and conflict. Technology is not merely an instrumental tool but a fundamental force interlaced with the global economy, directly influencing national economic competitiveness and, subsequently, the domestic political stability and foreign policy orientations of a country. Through an analysis of theoretical frameworks and selected case studies of China, the United States, and emerging countries, such as Brazil, Russia, India, China, and South Africa, this review illustrates how technological supremacy is increasingly intertwined with geopolitical influence, economic prosperity, and the ability of countries to project soft and hard power. The review argues that while technology offers unprecedented opportunities for interconnectedness and problem-solving, it also introduces new vulnerabilities, exacerbates existing inequalities, and fuels novel forms of competition and conflict, necessitating a re-evaluation of traditional international relations theories and the development of new governance mechanisms.

Keywords: Global Power, Technology Advancement, Politics, Diplomacy, International Relations

1. Introduction

The 21st century has witnessed an unprecedented acceleration in technological advancement, marking a profound transformation in human society. From the ubiquitous Internet and social media to advanced artificial intelligence (AI) and quantum computing, technological innovations have altered daily life and reshaped the dynamics of global politics, diplomacy, and international relations. The traditional understanding of state power, often rooted in military strength and economic might, is inextricably linked to technological prowess. Therefore, it is necessary to delve into the intricate relationships linking technological advancements, the global economy, global politics, and their subsequent impact on each country's domestic political landscape.

The advent of the information era, characterized by instantaneous communication and vast data flows, has democratized access to information while simultaneously creating new avenues for disinformation and manipulation. Digital diplomacy has emerged parallel to traditional state-to-state interactions, allowing governments to engage directly with foreign publics and exposing them to the volatility of online narratives. Furthermore, the increasing reliance on digital infrastructure has introduced vulnerability, making cybersecurity a paramount national security concern and a new frontier of international competition.

Technological advancement can be viewed as a strategic asset that profoundly influences global power distribution. Countries that lead in critical technological sectors gain significant economic advantages, which in turn bolster their political influence and enable them to pursue assertive foreign policies. Conversely, countries lagging in technological development may risk marginalization in the global economic and political order. This creates a positive feedback loop: technological progress fuels economic growth, which empowers countries politically, allowing them to invest further in research and development, thus perpetuating their technological edge. This interplay inevitably affects domestic politics, shapes public discourse, influences electoral outcomes, and prompts governments to adopt policies aimed at fostering innovation and safeguarding national digital sovereignty.

To illustrate these complex interactions, it is necessary to outline the theoretical underpinnings of technology's influence on international relations. The critical linkages between technological advancement, the global economy, and global politics need to be explored to understand how these forces reciprocally shape each other and ultimately impact domestic politics. In this review, case studies of diverse countries showcase the results and challenges faced by countries as they navigate the digital age.

2. Technology's Influence

The impact of technology on international relations can be analyzed through various theoretical principles. Realist perspectives, traditionally focused on state power and security, recognize technology as a crucial component of national strength. Technological superiority is translated into military dominance (for instance, advanced weaponry and cyber warfare capabilities) and economic leverage (such as control over critical supply chains, and intellectual property). Neorealists such as Kenneth Waltz's emphasis on the anarchic international system can be extended to understand how countries seek technological advantages to ensure their survival and enhance their relative power (Waltz, 1979).

Liberal institutionalism, conversely, views technology as a facilitator of cooperation and interdependence. The Internet and global communication networks enable transparency, foster transnational civil society connections, and provide platforms for multilateral dialogue and problem-solving (Keohane and Nye, 1989). Digital diplomacy enables such platforms to accommodate public engagement and cultural exchange, potentially reducing misunderstandings and promoting shared norms. However, even liberals acknowledge that technological interdependence can create new vulnerabilities and avenues for coercion (Baldwin, 1980).

Constructivism offers a valuable perspective by highlighting how technology shapes norms, identities, and shared understandings in the international system. AI has influenced global debates on ethics, governance, and the future of humanity. Social media platforms can mobilize the public, amplify their voices, and contribute to the formation of new international norms, sometimes challenging state control over information (Brown, 2021). The perception of a country as a technological leader or laggard significantly impacts its international standing and the willingness of other countries to cooperate with that country.

The concept of "techno-nationalism" is critical for countries to achieve technological innovation and control as essential for national security, economic prosperity, and global power projection. This often leads to protectionist policies, competition for critical technologies, and a decoupling of global supply chains, exemplified by the United States (US)-China rivalry in semiconductors and 5G technology (Krammer and Van Assche, 2024). This framework underscores the strategic imperative for countries to develop and secure their technological capabilities, even at the cost of traditional economic openness.

Finally, the discussion of economic interdependence is essential to understanding technology's impact. While scholars argue that economic interdependence fosters peace by increasing the costs of conflict (Zentner, 1987), it is also highlighted how it leads to vulnerability and competition. This is especially true in the emergence of critical technological dependencies. The globalization of supply chains, driven by technological efficiency, means that disruptions in one part of the world can have cascading effects globally, affecting national economies and potentially leading to political tensions (Baldwin, 1980).

3. Interrelationship among Technology, Economy and Politics

The relationships between technological advancement, the global economy, global politics, and domestic politics are complex but dynamic. Technological breakthroughs drive economic growth, productivity gains, and the creation of new industries, fundamentally altering global economic power balances. This economic shift reshapes global political alignments and influences the foreign policy of countries. External pressures and opportunities affect domestic political landscapes, dictating national priorities, resource allocation, and even the stability of political systems.

3.1. Technology and Global Economy

Technological advancement is an engine of modern economic growth. Innovations in automation, AI, biotechnology, and digital platforms have led to increased productivity, reduced costs, and the development of entirely new markets (Bresnahan and Trajtenberg, 1995). For instance, the digital economy has created trillions of dollars in wealth and countless jobs. Countries that effectively harness and innovate in these areas gain a significant competitive edge, attracting foreign direct investment, expanding export markets, and accumulating wealth. This creates a global economic hierarchy where technological leaders often hold disproportionate influence. The shift from manufacturing-based economies to knowledge-based economies underscores the critical role of intellectual property and technological know-how as key determinants of national wealth.

Moreover, technology facilitates economic interdependence. Global supply chains are enabled by advanced logistics and communication technologies, with which countries are deeply intertwined. While this interdependence promotes efficiency and lowers consumer prices, it could lead to vulnerabilities. Disruptions, whether from natural disasters, geopolitical tensions, or cyberattacks, lead to widespread economic consequences, as observed during the COVID-19 pandemic and its impact on global supply chains, especially of the semiconductor industry.

3.2. Global Economy and Global Politics

Economic power is an important determinant of global political influence. Countries with robust, technologically advanced economies possess greater resources for defense spending, foreign aid, and diplomatic initiatives. They exert "soft power" through the attractiveness of their technological innovations and economic models, and hard power through their ability to leverage economic sanctions or offer incentives. China, as an economic powerhouse driven by its technological development, has increased geopolitical assertiveness with a challenge to the existing unipolar international order (Mishra, 2014). Competition for economic dominance, particularly in strategic technological sectors, has become an essential feature of global politics. The "tech cold war" between the United States and China over 5G, semiconductors, and AI illustrates how economic competition is inextricably linked to national security and ideological rivalry. Control over critical technologies is an economic advantage and a geopolitical imperative, shaping alliances and rivalries.

3.3. Global Politics and Domestic Politics

Global political dynamics, shaped by technological advancements and economic transformations, profoundly influence domestic politics across nations. External pressures, such as trade wars, sanctions, or competition for technological leadership, force governments to make difficult policy choices that directly affect their citizens. For instance, the desire to preserve competitiveness in markets of advanced technologies often necessitates significant government investment in research and development, education, and infrastructure, potentially reallocating resources from other domestic priorities. Furthermore, technology directly influences domestic political processes. Social media platforms have been used for political mobilization and the spread of disinformation, polarization, and foreign interference in elections (Neyazi, 2015). Governments face increasing challenges in managing the digital public sphere, balancing freedom of expression with national security concerns, and fighting against misinformation. A country's ability to control or influence information flows, both domestically and internationally, becomes a critical element of its political stability.

3.4. Domestic Politics and Technology Advancement

Domestic political choices and governance structures largely influence a nation's capacity for technological advancement. Countries with stable political systems, robust institutions, strong rule of law, and significant investment in education and research tend to foster more vibrant innovation ecosystems (Jha, 2012). Policies regarding intellectual property rights, data governance, and open science environments can have differing impacts on technological progress. Authoritarian regimes, while sometimes capable of directed technological leaps, may stifle creativity and broad innovation due to restrictions on information and individual freedoms. Conversely, public demand and domestic political pressures can also drive technological development. Citizens demanding better public services, environmental solutions, or improved healthcare often push governments to invest in relevant technologies. The interplay of domestic political priorities, economic incentives, and societal values thus shapes the trajectory of technological advancement within a nation, which then feeds back into the global economy and political landscape.

4. Case Studies

To demonstrate the varied impacts of technological advancement on global politics, diplomacy, and international relations, while considering the intertwined economic and domestic political dimensions, three case studies in China, the United States, and a broader category of developing countries are presented in this review.

4.1. China: Techno-Authoritarian Power

China's development over the past few decades exemplifies the profound impact of technology on national power and global influence. Its rapid economic growth has been inevitably linked to its technological advancement, often through a state-led model characterized by massive investments, technology transfer (both voluntary and involuntary), and indigenous innovation (Paz, 2019).

China's technological rise, particularly in areas such as 5G infrastructure (Huawei), AI, and space technology, has profoundly reshaped global power dynamics. China leverages its technological capabilities to expand its geopolitical footprint, particularly through initiatives in the Digital Silk Road, for example, exporting Chinese technology and standards to developing countries, thereby extending its economic and political influence (Patil and Gupta, 2024). In diplomacy, China has increasingly adopted "wolf warrior diplomacy" on digital platforms, using social media to assert its narratives and counter Western criticism of China, albeit this has been successful to varying degrees. The global competition over 5G technology, with the US attempting to block Huawei's expansion due to security concerns, is a clear manifestation of how technology has become a central battleground in great power rivalry (Aqil, 2025).

China's technological prowess is indispensable in the global economy. It dominates supply chains for numerous high-tech products and is a major investor in technological infrastructure worldwide. This economic leverage gives Beijing significant political clout. However, this also makes China a target for trade protectionism and technological decoupling efforts by countries such as the United States to reduce dependence on Chinese technology for national security reasons. The ongoing semiconductor dispute highlights the vulnerability of global supply chains and the strategic importance of technological self-sufficiency (Krammer and Van Assche, 2024).

Domestically, technology is fundamental to the Chinese Communist Party's (CCP) governance model. AI and surveillance technologies are extensively used for social control, censorship, and maintaining political stability through initiatives such as the social credit system (Xiao *et al.*, 2022). While this has enabled rapid development and order, it also presents a challenge to the global norms of privacy and freedom of expression.

4.2. US: Navigating Technological Leadership and Challenges

The United States has been a leader in technological innovation, from the Internet to personal computing and now AI. Its technological leadership has contributed to its economic prosperity and global political dominance. However, it faces challenges from rising technological powers and the domestic implications of digital transformation.

US foreign policy is deeply intertwined with its technological leadership. It uses its technological advantage in defense (e.g., advanced weaponry and cyber capabilities) to project power globally and maintain its security alliances. In diplomacy, the US pioneered "digital diplomacy" through social media, engaging foreign publics and promoting democratic values (Guo, 2023). However, it also faces challenges from state-sponsored disinformation campaigns and cyberattacks, which undermine its democratic processes and global influence. The competition with China over technologies, such as AI and 5G, has become a central pillar of US foreign policy, shaping its trade relations and alliances.

The US economy remains a global leader, largely driven by its vibrant tech sector (Silicon Valley and Boston's tech hub). These companies dominate global markets in software, Internet services, and cutting-edge hardware. This economic strength enhances the US' ability to invest in research and development, maintain a strong military, and provide foreign assistance. However, domestic concerns about job displacement due to automation, the monopolistic power of tech giants, and the need to protect intellectual property are significant economic challenges that influence trade policy and regulatory approaches.

Domestically, technology has profoundly impacted US politics. Social media platforms have become arenas for political discourse, campaigning, public mobilization, and the spread of misinformation and polarization (Pariser, 2011). Concerns about foreign interference in elections through digital means have heightened national security debates. The government grapples with regulating tech giants, addressing issues of data privacy, content moderation, and algorithmic bias, reflecting a growing tension between innovation and societal control. The domestic push for tech regulation reflects public concerns about the unbridled power of these companies and their influence on democratic processes.

4.3. Emerging Economies: Opportunities, Dependencies, and Digital Divides

In many developing countries, technological advancement presents both immense opportunities for leapfrogging traditional development stages and significant challenges related to dependency and digital divides.

Technology can empower emerging economies of countries, such as Brazil, Russia, India, China, and South Africa, on the global stage. Digital platforms facilitate direct communication with global audiences, enabling smaller countries to participate in global debates and articulate their interests more effectively (Guo, 2023). Access to satellite imagery and geospatial data enhances their capabilities in areas such as environmental monitoring or disaster response. However, many developing countries are relying on technology from major powers, potentially leading to technological dependence and geopolitical influence from donor countries. For instance, countries adopting Chinese 5G infrastructure might face pressure regarding data security or political alignment.

Technology offers significant economic opportunities for developing countries. E-commerce platforms connect small businesses to global markets, mobile banking can facilitate financial inclusion, and digital education can improve human capital through contributing to a more skilled workforce. Developing countries have leveraged their IT service industry to become a global economic force. However, many countries with emerging economies face the "digital divide," lacking adequate infrastructure, affordable Internet access, and digital literacy. This exacerbates existing economic inequalities, both within and between countries, potentially leaving countries with limited technological development further behind in the global economy (Archibugi and Pietrobelli, 2003).

Technology is a double-edged sword (maybe phrase this more formally) for emerging economies. It empowers citizens through increased access to information and facilitates democratic movements (Neyazi, 2015). However, it can also be used by authoritarian regimes for surveillance and repression, or by internal actors to spread misinformation and fuel instability. Governments in these

countries struggle to balance the benefits of technological integration with the need to protect national sovereignty, data privacy, and societal cohesion. The rapid influx of digital technologies can also challenge traditional social structures and values, leading to domestic political tensions.

5. Evolving Landscape of Global Affairs

Technology is not only a tool but a transformative force reshaping global affairs. The interrelationship between technological advancement, the global economy, global politics, and domestic politics forms a complex adaptive system where changes in one domain ripple across others. Technological leadership is becoming increasingly synonymous with global power. The ability to innovate, produce, and control critical technologies grants countries significant economic leverage and strategic advantage. This has led to a multipolar technological landscape, where traditional powers and emerging economies are vying for supremacy. The US-China tech rivalry is the most prominent example, demonstrating how technological competition has become a component of geopolitical strategy.

Traditional diplomacy, characterized by closed-door negotiations and bilateral engagements, is facing augmentation and being challenged by "digital diplomacy." Governments are using social media and other online platforms to engage directly with foreign publics, influence narratives, and build alliances (Frey, 2024). This creates opportunities for greater transparency and public participation but also introduces challenges related to information control, rapid response to online crises, and the proliferation of fake news and disinformation (Neyazi, 2015). Cyber diplomacy, addressing issues of cyber warfare, espionage, and Internet governance, has become a critical and nascent area of international negotiation.

Technology has opened new frontiers for conflict and cooperation. Cybersecurity has emerged as a critical domain, with countries engaging in cyber espionage, sabotage, and information warfare (Singer and Friedman, 2014). The potential for cyberattacks on critical infrastructure poses existential threats, leading to calls for international norms and rules of engagement in cyberspace. Simultaneously, technology facilitates international cooperation on global challenges such as climate change, pandemics, and sustainable development through data sharing, collaborative research, and digital platforms. The development of AI, for instance, necessitates global dialogue on ethical guidelines, safety protocols, and arms control to prevent a dangerous AI arms race (UNESCO, 2025). While technology offers immense potential for development, it risks worsening existing inequalities. The "digital divide" between technologically advanced and less developed countries persists, limiting access to opportunities and hindering economic growth in many parts of the world. Within countries, access to technology and digital literacy can deepen socio-economic disparities. This raises crucial questions about equitable access to technology, technology transfer mechanisms, and the responsibility of leading technological powers to ensure that the benefits of innovation are broadly shared.

The borderless nature of the Internet and digital technologies poses fundamental challenges to traditional notions of state sovereignty. Data flows transcend national boundaries, making it difficult for countries to regulate and control information. The power of global tech companies, often exceeding that of many countries, presents complex governance dilemmas, necessitating international cooperation on issues such as taxation, privacy, and antitrust regulations. The development of new global governance frameworks for emerging technologies such as AI and quantum computing is urgently needed to manage risks and harness opportunities responsibly.

6. Conclusion

Technological advancement is undeniably the determining force of the 21st century, fundamentally reshaping global politics, diplomacy, and international relations. The persuasive influence of technological advancement is firmly rooted within the global economy, driving economic power shifts that, in turn, dictate geopolitical alignments and exert profound effects on domestic political landscapes. Digital innovation in the information era has transitioned countries from mere users of technology to a central determinant of national security, economic prosperity, and international standing. Technological supremacy is increasingly synonymous with global influence. States that lead in cutting-edge technologies gain significant economic advantages, allowing them to invest more in defense, project soft power through innovation, and exert greater leverage in international negotiations. This leads to a complex geopolitical environment characterized by intense competition for technological leadership, as depicted by the strategic rivalry over semiconductors and 5G.

Technology has fundamentally transformed the conduct of diplomacy, giving rise to "digital diplomacy" that allows for direct engagement with foreign publics, albeit with the inherent risks of misinformation and manipulation (although inherent risks of misinformation and manipulation are present). Moreover, technology can cause new conflicts, particularly in cyberspace, making cybersecurity indispensable in national security as a burgeoning area for international norm-setting. The nature of digital

technologies impacts domestic politics, influencing public discourse, shaping electoral outcomes, and prompting governments to balance between innovation, control, and civil liberties.

Technological advancement also leads to several problems. The widening digital divide, the potential for technology to exacerbate socio-economic inequalities, and the challenges to traditional notions of sovereignty require concerted international efforts. Global actors need to have reactive measures and proactively establish governance frameworks, ethical guidelines, and cooperative mechanisms to harness the benefits of technology while mitigating its risks. The trajectory of global politics, diplomacy, and international relations will be defined not merely by technological change, but by how effectively the international community utilizes the complex and transformative power of technological change, ensuring humanity's collective interests rather than letting it deepen the divides that threaten us all.

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