Article

The technology challenge in the transatlantic relationship

Raluca Csernatoni

Abstract

Technological innovation has become a critical element of international cooperation and geopolitical rivalry. This has impacted key areas of the transatlantic partnership, presenting both opportunities and challenges for EU–US relations, either rejuvenating a relationship mired in rifts or deepening those rifts. Instead of examining how these structural cracks have emerged and are growing, this article zooms in on the challenge to transatlantic relations posed by technological innovation, both as a driver of cooperation and a cause for further rivalry. In doing so, the article explores three interrelated elements: the transatlantic technology gap and the EU's quest for technological sovereignty, approaches to technological innovation and the role of emerging and disruptive technologies, and the values-based governance of digital and technology issues. As fast-paced technological transformation continues to disrupt societies and economies on both sides of the Atlantic, technology should be at the heart of a revived phase in EU–US cooperation and trust.

Keywords

Transatlantic relationship, EU–US cooperation, Technological sovereignty, Emerging and disruptive technologies, Regulation

Introduction

'Happy families are all alike; every unhappy family is unhappy in its own way,' Leo Tolstoy wrote as the opening line of his nineteenth-century novel, *Anna Karenina*. This description is clearly applicable to the transatlantic partnership. The relationship sometimes shares a common set of attributes leading to enhanced cooperation; yet any of a variety of diverging elements can cause friction. Indeed, there has been a recurrent pattern of rapprochement, cooperation, tension and conflict in much of the transatlantic

Corresponding author:
R. Csernatoni, Carnegie Europe, 15 Rue du Congrès, 1000 Brussels, Belgium.
Email: raluca.csernatoni@ceip.org

relationship across the decades. Scholars have branded it an entangling alliance, a deepening rift, a case of mutual dependence, and a special or even the most important strategic relationship (Kaplan and Honick 2007; Anderson et al. 2008; Peterson and Pollack 2003; Smith 2011; Haar et al. 2021). Thus, viewing the transatlantic link from a longerterm perspective makes one more cautious about making judgements about how healthy the relationship is and whether it is changing for the better or the worse. Often the rhetoric surrounding rifts is overcharged (Jones 2004), making it difficult to assess the situation accurately.

In this article the transatlantic relationship is defined as the overall set of relations between the US and the EU, relations that are maintained via engagements in institutions such as NATO (Smith 2018, 539). This relationship has been intimately linked to the ebbs and flows of two interconnected structural changes. First, since the end of the Cold War era, systemic changes in the international arena have seen successive US administrations and European leaders alternate between fully embracing shared views and interests, with limited disagreement on certain issues, and episodes of acute discord and crisis. To name a few points of disagreement, the US-led invasion of Iraq; nuclear strategy; and international development, monetary and trade policies have caused many furrowed brows in both European capitals and Washington. These issues all arose long before the US strategic pivot towards Asia, disagreements over China, the lingering effects of former President Donald J. Trump's transactional approach to foreign policy, data privacy and the recent responses to the novel coronavirus pandemic.

Second, structural changes in the EU integration project and the increasing supranationalisation of the EU's defence policy have also had powerful repercussions. The growing role of the European Commission in defence technological and industrial matters and the launch of the European Defence Fund, an unprecedented funding scheme financed directly from the EU budget to support homegrown European collaborative defence research and development (Håkansson 2021), have raised concerns across the Atlantic. In recent years, a new momentum in EU defence integration has taken shape around the concept of European strategic autonomy, coupled with pragmatic policy steps and initiatives prioritising European sovereignty in defence industrial areas, as well as technological and digital matters (Csernatoni 2021b). This growing supranationalisation has been partly triggered by the combination of former President Trump's vitriolic stance towards the EU and NATO, the EU losing its strongest transatlantic link with the UK's departure, and the evolving international technological rivalry between the US and China. Such challenges have called for a critical reappraisal of European autonomy and dependency in key technological areas, from defence, emerging and disruptive technologies (EDTs), and the digital domain, to space. Conversely, EU talk and action to spend more on military and technological power have provoked fears that European defence and technological cooperation will lead to industrial rivalry with the US or a duplication of NATO's efforts.

Against this backdrop, instead of broadly examining how the structural cracks in the transatlantic bond have emerged and are growing, this article zooms in on the challenges

to the relationship posed by technological innovation, both as a driver of cooperation and as a cause for further rivalry. In doing so, the article explores three core and interrelated dimensions:

- the transatlantic technology gap and the EU's quest for technological sovereignty—namely the desire to strengthen Europe's technological competitive edge, support a strong industrial base and reduce dependencies in critical technology areas and value chains;

- differing approaches to technological innovation and the role of emerging and disruptive technologies; and

- the values-based governance and regulation of digital and technology issues.

In the shifting geopolitical context, the EU and the US share values and have a common interest in navigating the current and emerging technology challenges together by leveraging their common strengths and operationalising a transatlantic technology agenda. As fast-paced technological and digital transformations continue to disrupt societies, economies and geopolitics, technology must be at the heart of a revived phase in EU–US cooperation and trust. Granted, this will be easier said than done.

Tech transatlanticism in perspective

In early 2021 there was widespread optimism in Europe that the end of the Trump era would also put an end to toxic transatlanticism (Soare 2020), especially once the new Biden administration had taken office in the White House. After all, no ties between two strategic partners are as closely knitted in economic, security and political affairs as those between the EU and the US (Alcaro et al. 2016). While it is too early to tell whether a change in the White House will usher in a new momentum for trust and partnership or rivalry in transatlantic relations, several developments paint conflicting pictures. On the one hand, the EU–US summit in Brussels in June 2021 (European Council 2021) marked a sea change in tone and overall rhetoric, expressing a desire to revive and deepen transatlantic relations. This was further substantiated by the summit's announcement of the establishment of an EU–US Trade and Technology Council (TTC). This body will serve as a forum for the US and the EU to coordinate approaches to key global trade, economic and technology issues based on their shared democratic values (European Commission 2021b). On the other hand, the US's chaotic withdrawal from Afghanistan in August 2021 and scant prior consultation with its European and NATO allies, coupled with the launch of AUKUS, a security alliance between the US, the UK and Australia, through which Australia will acquire US nuclear-powered submarines at the expense of scrapping a previous agreement with France (Balfour 2021), forebode a grimmer reality. Rhetorical reassurances aside, these realities spell a sobering realisation in Europe that it risks becoming a mere instrument (Brattberg 2021) or an expendable partner and foreign-policy afterthought in the US's geopolitical calculations and rivalry with China.

The EU's quest for technological sovereignty

The Biden administration is marching headlong into restructuring the transatlantic alliance. While the diplomatic tone has been normalised, Washington is broadly following in the footsteps of the Trump administration and its attitude towards European efforts to achieve greater strategic autonomy in defence and technological sovereignty. The Biden administration also aims to prioritise outright opposition to China, including in technological and industrial matters, while the EU is taking a more nuanced approach. The technology dossier sees the US and the EU sharing common concerns, from the protection of Western democratic values in trade and tech relations, and mitigating threats such as unfair competition and the misuses of new technologies by authoritarian regimes, to strengthening transatlantic technological and industrial leadership and expanding bilateral investments (European Council 2021). Yet the US and the EU are divided by differing approaches to technological innovation and regulation, and the relationship between the public and private sectors. In addition, there is an overall technological gap between the EU and the US (Locatelli 2007). In this respect, the EU's ambition has been to gain greater autonomy and increase its capacity to act in the global tech race (Sahin and Barjer 2021), as well as to catch up in some technological niches such as drone technologies (Csernatoni 2021a), artificial intelligence (AI) (Brattberg et al. 2020) and, more recently, semiconductors (Poitiers and Weil 2021). How the EU can square its ambitions for more European technological and digital sovereignty with strengthening cooperation with the US is an interesting puzzle. Unsurprisingly, calls for more European strategic autonomy and technological sovereignty were perceived as expressions of anti-Americanism and a Europe-first rationale during the Trump administration, and these perceptions are not likely to change under the Biden administration.

With this in mind, it remains to be seen whether such perceptions will take a positive turn or become even more corrosive in the long run. The launch of the EU–US TTC seems to be a constructive step in the right direction, and towards more cordial and pragmatic transatlantic ties. To be clear, transatlanticism and European strategic autonomy and technological sovereignty are not mutually exclusive geopolitical concepts (Soare 2020). Behind the EU's strategic autonomy and technological sovereignty agendas is a need to stay ahead of the curve when it comes to innovation and development, as well as to achieve a new level of EU engagement in the global (tech) balance of power. Technological and digital sovereignty, even if they are conceptually vague notions (Csernatoni 2021b), are at the very heart of such ambitions. They are equally complemented by EU statements that support deeper collaboration with the US and like-minded partners on issues related to the democracy–technology nexus (Brattberg 2021).

Overall, the increasing technological gap is detrimental to the health of the transatlantic relationship. The gap poses several technological and (geo)political challenges and, most importantly, it is up to Europe to take on the burden of bridging it. Paradoxically, such European efforts will also vex US officials and complicate transatlantic cooperation. It is undeniable that the US is in a class of its own in terms of technological advancement, while the EU and its member states have only recently started to think strategically

about a more structured and comprehensive approach to Europe's technological and digital sovereignty. To this end, the Commission's February 2021 Action Plan, the 'Three-Point Belt Plan' (European Commission 2021a), on creating synergies between the civil, defence and space industries, is one way ahead. It proposes a top-down and cross-domain approach to boosting research, technology development and the EU's overall innovation power. The 17-page-long action plan mentions 'technological sovereignty' no less than eight times.

Emerging and disruptive technologies

EDTs range from AI, big data, future-generation wireless technologies, quantum computing, new advanced materials and hypersonic weapons, to autonomous robotics, to name just a few. They have become central elements in political and policy discussions at the EU level (Calcara et al. 2020). American and Chinese tech giants such as Google, Apple, Microsoft, Facebook, Baidu, Alibaba, Huawei and Tencent are leading the latest developments in these strategic fields, advancing the US's and China's quests for global tech supremacy. The European Commission's 2021 Three-Point Belt Plan also identified EDTs (European Commission 2021a, 2) as a critical area for EU intervention, due to their relevance across the defence, space and related civilian industries, and as essential to Europe's technological sovereignty by reducing the risk of over-dependence on external players, including the US.

The above EU-led approach to technological innovation and development is indicative of a distinctive strategy that combines a structured approach to establishing appropriate EU-level processes and mechanisms for tech and digital-related instruments and funding opportunities, with efforts to rationalise member states' efforts to reduce duplication and maximise added value. The strategy aims to foster synergies among the relevant EU-funded instruments and facilitate civilian–space–defence cross-fertilisation (spin-ins and spin-offs), especially in terms of cross-border collaboration between EU member states and supporting small and medium-sized enterprises. Taking something between a more laissez-faire approach and a top-down dirigiste one to technological innovation, the EU, and especially the European Commission, seems to be adopting a hands-on style and a more centralised rationality in governing the innovation and funding of EDTs at the supranational level. The arguments in support of such a top-down harmonised approach are usually about the significant 'costs of non-Europe' in the areas of research and innovation, the failure of Europe's tech innovation system to rationalise efforts and deliver the expected economic impact, and the fragmented nature of public and private research between individual EU member states and the European Commission.

Conversely, in terms of public–private dynamics, the US has traditionally been steeped in a laissez-faire spirit of entrepreneurial innovation and has cultivated a business-friendly environment with minimal involvement from the US administration—which has traditionally delegated power to industry and service providers. This bottom-up policy approach to innovation is an extension of the technology-neutral stance of state non-interference and limited regulation. It also follows the broader US cultural strokes

that prioritise competitive entrepreneurship over governance. Yet, when it comes to critical technology areas and the combined power of American big tech, it could be argued that there has been a shift in US policymaking regarding state action to preserve national security and geopolitical interests, as well as to rein in the influence of tech giants. With respect to geopolitical reasons, this shift is accounted for by the fact that much of the tech agenda during recent years has focused on supporting US competitiveness against China. The US has further urged other countries and the EU to follow the same strategy, while also identifying critical and emerging technologies in which it can compete against China (Brattberg 2020). However, when it comes to regulating tech giants, the US seems to be following the EU's lead. Biden's July 2021 'Executive Order on Promoting Competition in the American Economy' states that the US will address challenges to competition in the American information technology sector created by dominant Internet platforms that 'use their power to exclude market entrants, to extract monopoly profits, and to gather intimate personal information that they can exploit for their own advantage' (US, White House 2021).

Values-based regulation of tech

Both the EU and the US have taken steps to set new standards for responsible innovation in EDTs, particularly in the case of AI development (Brattberg et al. 2020). Steps have also been taken to limit the monopolistic surveillance and data-harvesting power of big tech and digital platforms by ushering in a new era of regulation. These are important areas of transatlantic technology cooperation, focusing on the proper regulation and evaluation of potential misuses of EDTs, as well as on their human rights, democratic and ethical implications. Concerning the regulation of tech giants, the EU has been a first mover (Csernatoni 2021b). There are also signs of converging attitudes in the transatlantic debate on anti-trust issues, competition policy, and the human-centric and responsible development of EDTs such as AI. Data governance, digital regulation and establishing technological standards were set out as areas for potential collaboration at the EU–US summit on 15 June 2021, both for the envisaged EU–US TTC and for the respective working groups dealing with the various technology and digital-related portfolios.

The underlying goals of transatlantic technological cooperation are (1) to promote shared approaches to responsible innovation and human-centric models for research on, and the development and deployment of EDTs (especially AI); (2) to ensure the democratic accountability of online digital platforms; (3) to facilitate the free flow of data and its governance; and (4) to collaborate on building the resilience of digital and technology global supply chains. In terms of regulatory interventions, the EU has certain advantages that it should seek to better capitalise on when it comes to international engagement and building and reinforcing partnerships. The EU's experience with data privacy regulation, with its flagship General Data Protection Regulation, could serve as an example for establishing global norms for emerging technologies and the private sector. Indeed, the EU's 'White Paper on AI' (European Commission 2020c) and the proposed AI regulation (the 'AI Act') (European Commission 2021c), as the first-ever attempts to regulate AI, are likely to influence the global regulatory debate.

EU leaders have argued that technological and digital sovereignty is also about protecting European culture and values (European Commission 2020b), in which fundamental rights are prioritised. With the new strategy of a Europe Fit for the Digital Age (European Commission 2020a), the European Commission wants to deliver on the promise of human-centric and risk-based tech regulation as part of a comprehensive regulatory package that includes the European Digital Strategy, the European Data Strategy, the Digital Services Act, the Digital Markets Act and the proposed AI Act (European Commission 2021c). The aim is to create a safer and more open digital space, establish a level playing field when it comes to gatekeeper online platforms and propose comprehensive legislation targeting AI uses. The White House has also released its AI Principles, which focus on a strategy for engaging in the creation of AI technical standards, and an AI regulatory document intended to ensure the trustworthy development, testing, deployment and adoption of AI technologies (Brattberg 2020).

Thus, aligning transatlantic strategies on tech regulation, including on the issue of responsible AI innovation and data privacy, is very much needed to promote the stronger global democratic governance of EDTs. While respecting some differences and challenges across the Atlantic when it comes to data privacy debates, data transfers, data taxation and regulation, the EU and the US should endeavour to actively combine the EU's global regulatory prowess and the US's commercial competitive edge in technology (Bradford and Csernatoni 2021). Indeed, the Biden administration appears to be willing to collaborate with the EU on the broad strokes of responsible technological innovation and digital regulation. But some of the EU's actions, especially concerning data privacy, digital taxation and antitrust, are still issues that need to be ironed out in the transatlantic relationship (Brattberg 2020). The new EU–US TTC forum might be the best place to politically address such sources of friction, as well as to lead the values-based governance of the technological and digital transformation.

Conclusion

The ghosts of crises past are likely to shape contemporary and future realities in EU and US relations. Should the EU and the US not reconcile their differences concerning the technology challenge, there could be severe economic consequences in store for the future of transatlantic trade and economic relations. The global governance of EDTs would also benefit from stronger multilateral international and transatlantic cooperation, especially in a world where technology is increasingly emerging as a key driver of great-power rivalry and authoritarianism. What is also certain is that the negative perception across the Atlantic that the EU is becoming increasingly supranationalised in key fields such as defence and technological innovation, coupled with the EU's regulatory interventions when it comes to (mostly American) tech giants, could cement in place a complicated dynamic in the transatlantic relationship. Alongside views that the EU is becoming an economic, tech and security competitor to the US, such worrying perceptions will likely continue to fuel a sceptical attitude in Washington. Yet, differing US and EU perspectives should not preclude cooperation on technological and digital matters, but instead be taken as the starting point for key areas of deeper dialogue amid a broader

context of global geopolitical rivalry. In the end, the transatlantic relationship, however structurally estranged or challenged, remains one of the most integrated bonds from the democratic, economic and security points of view.

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Author biography

Raluca Csernatoni, *is a visiting scholar at Carnegie Europe in Brussels, where she leads the workstreams on European security and defence, as well as emerging and disruptive technologies. She is also a guest professor with the Brussels School of Governance of the Free University of Brussels. She co-edited the book,* Emerging Security Technologies and EU Governance: Actors, Practices and Processes, *which was published by Routledge in 2020.*