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Corneliu Bjola

The European Union's Quest for Digital Sovereignty and its Implications for the Transatlantic Relationship

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Discussions in European policy making circles surrounding the concept of digital sovereignty have intensified in the past few years and for good reasons. The concept has been forcefully advocated for some time by the French President, Emmanuel Macron, as a possible solution to advancing EU's tech capacity and curbing its reliance on U.S. companies[1]. It has been also mentioned by the President of the European Commission, Ursula Gertrud von der Leyen, in her 2020 State of the Union Address, as an element of the EU strategy to develop a more coherent European approach to connectivity and digital infrastructure deployment.[2] The arrival of the Covid-19 pandemic further strengthened the conviction of the EU German Presidency in the validity of the concept: "Europe must bolster its digital sovereignty to effectively respond to future challenges, guarantee livelihoods and ensure the security of its citizens".[3]

The sense of urgency accompanying the statements made by European officials is hardly coincidental. It reveals the growing anxiety felt by EU policy makers that in a world increasing shaped by the geopolitical and technological competition between the United States and China, the EU risks being left out. Digital sovereignty has thus emerged as a powerful conceptual 'anchor' around which competing visions of EU digital strategic thinking are being articulated, but the constitutive elements holding the 'anchor' together are less clear. The goal of this contribution is therefore twofold: to unpack the epistemic attributes of the concept and to explore its possible ramifications for the EU's diplomatic standing, especially in its relationship with the United States (US). To this end, it will be argued that EU's projections of digital sovereignty are yet to take fully shape and they are unlikely to disrupt the transatlantic relationship. EU's data governance plans are relatively more advanced, partially due to the extra-jurisdictional effect that the General Data Protection Regulation (GDPR) has started to generate. Ambitious new proposals for improving the EU technological capacity have been also added to EU's digital agenda, but their implementation is likely to take time.

Conceptually speaking, digital sovereignty has been primarily referred to in the context of debates around the design of IT architecture and/or laws applicable to data processing.[4] It therefore contains two key components: *data and technological sovereignty* (see Fig 1). The guiding principle of the former is that state jurisdiction ought to be extended over the governance of data flows that is, of how data generated by citizens and public institutions is stored, processed, and accessed within the territory of the implementing country or group of countries. The number of policy measures restricting cross border data transfers has grown, for instance, from nearly zero in 1960 to around 90 in 2017.[5] These measures vary based on factors including the type of data in question (e.g., health-related personal data), the purposes for which

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[1] CPI, "France's Macron Wants Digital Sovereignty For Europe," Dec 10, 2020, https://www.competitionpolicyinternational.com/frances-macron-wants-digital-sovereignty-for-europe/

[2] The European Commission, "State of the Union Address by President von der Leyen at the European Parliament Plenary," Sept 16, 2020, https://ec.europa.eu/commission/presscorner/detail/en/SPEECH_20_1655

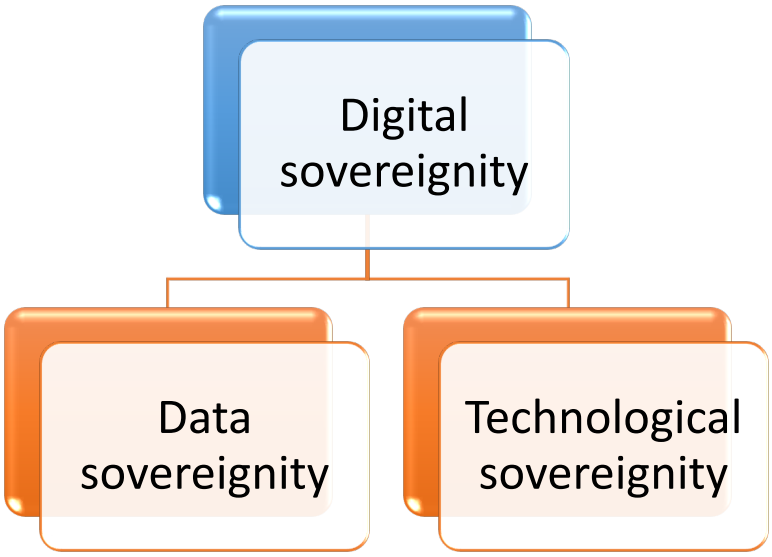
[3] EU2020, "Expanding the EU's digital sovereignty," https://www.eu2020.de/eu2020-en/eu-digitalisation-technology-sovereignty/2352828

[4] Patrik Hummel et al., "Data Sovereignty: A Review," *Big Data & Society* 8, no. 1 (2021): 205395172098201, https://doi.org/10.1177/2053951720982012.

[5] Martina Ferracane, "Restrictions on Cross-Border Data Flows: A Taxonomy," *SSRN Electronic Journal*, 2018, https://doi.org/10.2139/ssrn.3089956.

the data can be used (e.g., commercial, academic research, public policy), and the degree to which the legislation of the recipient country is aligned to that of the implementing country. Technological sovereignty, on the other hand, focuses on infrastructure, innovation, and other technology-driven elements of the digital agenda.[6] While encouraging local tech capacity growth via ambitious tools of industrial policy, technological sovereignty also seeks to extend state control, via investment screening and export control, over technologies (e.g., 5G, cloud computing) that are required to building digital infrastructures.

Fig. 1: *Digital sovereignty – key components*



Conceptions of EU digital sovereignty encompass both dimensions (data and technological sovereignty), but with slightly different weights. Following the adoption of the General Data Protection Regulation by the European Commission in 2016, new mechanisms have been put in place to ensure the protection of data of European citizens in foreign jurisdictions. Adequacy decisions and Standard Contractual Clauses (SCC) are, for instance, two instruments used by the European Commission to allow for personal data to flow from the EU to third countries (Canada, Iceland, UK, Switzerland, New Zealand, etc.) without any further safeguards. The legal basis for such data sharing agreements is that the country outside the EU is expected to offer an adequate level of data protection, similar or at least aligned with GDPR provisions.[7] The Privacy Shield framework established by the US and the EU in 2016 was expected to do exactly that. The European Court of Justice (ECJ) invalidated, however, the agreement in 2020 on grounds that U.S. law enforcement and national security powers conflicted with EU data

[6] Frances G. Burwell and Kenneth Propp, "The Rise of Digital Sovereignty," 2020, *The Atlantic Council*, https://www.atlanticcouncil.org/wp-content/uploads/2020/06/The-European-Union-and-the-Search-for-Digital-Sovereignty-Building-Fortress-Europe-or-Preparing-for-a-New-World.pdf, p. 1.

[7] The European Commission, "Adequacy decision, " https://ec.europa.eu/info/law/law-topic/data-protection/international-dimension-data-protection/adequacy-decisions_en

protection requirements.[8] A new framework is being currently negotiated by the Biden Administration and the EU,[9] but the issue provides a tangible illustration of how fast data sovereignty has advanced on the EU's diplomatic agenda and how it has already started to influence EU's political and economic relationship with close allies and partners.

Another important application of EU's approach to data sovereignty is the projected establishment of nine *common European data spaces (*ranging from industry to energy, and from health to the European Green Deal), which are designed to facilitate the use of data for innovative business ideas in compliance with applicable personal data protection, consumer protection and competition laws.[10] The immediate objective of the proposal is to improve the flow of data across sectors and Member States and enable the formation of a European single data market. More strategically, data spaces are expected to enable the generation of large, secure, and robust datasets, which are critically necessary for European AI technology to develop. This will allow, in turn, the EU to catch up and compete more vigorously with tech superpowers like the US or China. Complementary to EU efforts, German and France launched in Oct 2019 the GAIA-X project, a "federated, open data infrastructure based on European values", which seeks to connect cloud providers around Europe.[11] EU efforts to develop its digital single market has prompted no official reaction from the Biden Administration thus far, but US business has voiced concerns about the possibility of mandates governing data sharing in the EU to negatively affect U.S. companies, which are so heavily invested in Europe.[12] If so, they predict, new tensions in the transatlantic relation may emerge as EU's pursuit of data sovereignty might affect the ability of US companies to operate competitively in the European data marketplace.

On the technological side of digital sovereignty, EU has focused on developing secure and sustainable digital infrastructures through a combination of strategic actions: improved connectivity via 'open' 5G networks, the repatriation of the semiconductor production capacity, robust investment in edge and cloud computing, and the acceleration of quantum computing research and start-ups.[13] Unlike the case of data sovereignty which mainly requires

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[8] William Alan Reinsch and Isabella Frymoyer, "Transatlantic Data Flows: Permanently Broken or Temporarily Fractured?," Aug 31, 2020, https://www.csis.org/analysis/transatlantic-data-flows-permanently-broken-or-temporarily-fractured

[9] Vincent Manancourt, "Biden seeks high-level data deal to repair EU-US digital ties," *Politico*, Jun 2, 2021, https://www.politico.eu/article/joe-biden-data-transfers-privacy-shield-eu-transatlantic/

[10] Mayer Brown, "The European Commission proposes the creation of a single European data space," Mar 30, 2020, https://www.mayerbrown.com/en/perspectives-events/publications/2020/03/the-european-commission-proposes-the-creation-of-a-single-european-data-space

[11] "GAIA-X: A Federated Data Infrastructure for Europe, " https://www.data-infrastructure.eu/GAIAX/Navigation/EN/Home/home.html

[12] Peter Chase, Jonas Keck, Margaret Van Scoy, "Data Access as the Next Transatlantic Digital Battleground," *German Marshall Fund* 2021, https://www.gmfus.org/news/data-access-next-transatlantic-digital-battleground

[13] The European Commission, "Europe's Digital Decade: digital targets for 2030," Mar 9, 2021 https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/europes-digital-decade-digital-targets-2030_en

regulatory action to come into effect, technological sovereignty is more difficult to achieve in the absence of a robust tech industrial capacity. 66 percent of the European cloud market is controlled, for instance, by US tech companies like Amazon, Microsoft, and Google.[14] Among the top 20 digital companies in 2019 according to Forbes, only one was a European company, Deutsche Telekom, on the 19th position. The rest were based in the US (12), China (3), Japan (2), South Korea (1) and Taiwan (1).[15] It has been also estimated that of the €25 billion total investment in AI and blockchain technologies each year, the US and China account for more than 80%, while the EU's share only amounts to 7% or about €1.75 billion.[16] In sum, the EU is facing serious challenges in implementing its vision of technological sovereignty, but the strategy it has put in place is supposed to make these challenges more manageable in medium term.

The relative weakness of the EU tech sector is bound to intensify EU's aspirations for technological sovereignty, which in turn may further amplify tensions within the transatlantic relationship. The key issue to observe is the scale and intensity with which EU will seek to reduce its dependency on US tech companies. Two battles are emerging on the horizon, taxation of digital services, and to a lesser extent, government procurement. EU's proposal for taxing digital services would enable Member States to tax profits that are generated in their territory, even if a company does not have a physical presence there. In so doing, the EU seeks to ensure that online businesses contribute to public finances at the same level as traditional 'brick-and-mortar' companies.[17] The proposal was expected to be adopted in the first part of the 2021, but in a gesture of goodwill to the Biden Administration, the EU decided to postpone discussions on the digital levy and concentrate instead on finalising G20 efforts on a planned global minimum tax rate.[18] Government procurement, on the other hand, would place restrictions on the national origins of the hardware, software, and digital services used by governments in Europe. Citing security concerns, the European Commission has called on Member States to exclude high-risk vendors from critical or sensitive parts of their 5G networks. While this measure primarily targets Chinese companies, like Huawei, European governments have also become sensitive to the risks of utilising foreign software in processing public data. Following the Snowden revelations about the US foreign surveillance activities,

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[14] Natalie Bannerman, "Amazon, Microsoft and Google dominate European cloud market," Capacity Media, Jan 18, 2021, https://www.capacitymedia.com/articles/3827441/amazon-microsoft-and-google-dominate-european-cloud-market

[15] Forbes, "Top 100 Digital Companies," 2019, https://www.forbes.com/top-digital-companies/list/

[16] Mathieu Pollet, "EU faces €5-10 billion investment gap on AI and blockchain," *EuroActiv*, June 2, 2021 https://www.euractiv.com/section/digital/news/eu-faces-e5-10-billion-investment-gap-on-ai-and-blockchain-report/

[17] The European Commission, "Digital Taxation: Commission proposes new measures to ensure that all companies pay fair tax in the EU," Mar 21, 2018, https://ec.europa.eu/commission/presscorner/detail/en/IP_18_2041

[18] Euronews, "The US has reportedly pushed the EU to delay its new digital services tax," June 30, 2021, https://www.euronews.com/next/2021/06/30/the-us-has-reportedly-pushed-the-eu-to-delay-its-new-digital-services-tax

the German government cancelled a contract with Verizon, a US company, to supply telecommunications services to a number of German federal agencies.[19]

To conclude, the EU has little choice other than to continue pursuing its aspirations of digital sovereignty. Normative concerns involving the access and use of public data by tech companies drive forward its push for data sovereignty, while the weakness of the European tech sector has intensified calls for measures that can create "a level playing field" with US tech giants. Diplomatic frictions within the transatlantic relationship are inevitable as the US government will likely seek to protect US tech companies against practices (data governance, digital levy, government procurement) that are perceived to dilute their global competitiveness. That being said, these frictions are unlikely to disrupt relations between the two allies, unless the US will seek to return after the presidential elections in 2024 to the inward-looking and EU-bashing rhetoric of the "America First" doctrine. The recent launch of the Trade and Technology Council (TTC) is however a sign of the relationship evolving in the right direction. TTC will focus on developing common approaches and strengthening the cooperation between US and the EU on wide range of issues, including data governance and technology platforms, the misuse of technology threatening security and human rights, export controls, and investment screening.[20] In so doing, TTC will not able help assist the EU and US overcome differences over the issues of digital sovereignty. It may also help them lay the ground for the establishment of a tech-oriented, globally open, and non-military focused Digital Transatlantic Organisation. If so, the new Digital NATO will be able to promote a renewed sense of partnership, security, and prosperity across the Atlantic and globally in the digital age.

[19] F.G. Burwell and K. Propp, "The Rise of Digital Sovereignty," 2020, p. 7.
[20] The European Commission, " EU-US launch Trade and Technology Council to lead values-based global digital transformation," June 15, 2021, https://ec.europa.eu/commission/presscorner/detail/en/IP_21_2990