Transatlantic Antitrust and IPR Developments

Issue No. 1/2023 (May 12, 2023)

Contributors:
Amedeo Rizzo, Craig Atkinson,
Marie-Andrée Weiss, Olia Kanevskaia,
Salome Kohler, Stefan Heiss

Editor-in-chief: Juha Vesala
Other Developments
European Union

A Legal-Technical Basis for a Computational Transatlantic Trade and Investment Partnership (TTIP) Agreement

By Craig Atkinson

With the emergence of new modes of governance, this article specifies a legal-technical basis – background, analytical structure, sources, methods, and research questions – to advance the notion of a ‘computable’ transatlantic trade agreement.

Background

Negotiations for a Transatlantic Trade and Investment Partnership (TTIP) agreement between the European Union (EU) and the United States (US) began in 2013 and ended without conclusion in 2016. By April 2019, the EU had rendered its negotiating directives “obsolete and no longer relevant.” While no agreement was finalized, terms under the TTIP ‘version 1.0’ were expected to add €120 billion to the output of the EU, €90 billion to the US economy, and €100 billion to the world economy. Now, the stakes associated with EU-US cooperation are even higher: cross-border data flows have become a greater driver / enabler of international commercial activity, the digitalization of trade has accelerated, and

71 To pursue more limited and specific tariff negotiations on industrial goods, see Council Decision 6052/19, Authorising the opening of negotiations with the United States of America for an agreement on the elimination of tariffs for industrial goods, 2019.
72 Gross Domestic Product (GDP). These and other estimates are subject to conjecture. See Werner Raza et al., ASSESS_TTIP: Assessing the Claimed Benefits of the Transatlantic Trade and Investment Partnership 1-5 (Österreichische Forschungsanstalt für Internationale Entwicklung – ÖFSE Oct. 2014).
the global ‘digital economy’ continues to expand.75

Re-connecting for ‘Digital Cooperation’: The Trade and Technology Council (TTC)

To re-engage and coordinate responses, the EU-US Trade and Technology Council (TTC)76 was established in 2021 and seeks to enhance bilateral relations by, inter alia, mitigating technical barriers between the jurisdiction(s),77 strengthening transatlantic supply chains, fostering cooperation on certain data issues,78 setting standards, promoting digital tools for small business inclusion, and mutually reforming the rules-based multilateral trading system. With limited progress at the World Trade Organization (WTO), negotiations in other fora have achieved some success in devising wholly new frameworks, dedicated chapters in trade agreements, and specific provisions to bridge ‘analog-to-digital’ gaps.79

Yet, in identifying and attempting to reconcile policy differences via a thematic Working Group (WG) model,80 TTC statements to “update the rules for the 21st century economy”81 are not binding commitments. In lieu of a formal, comprehensive, and modern

---

75 Amid expansion, EU-US digital trade flows are the “world’s most extensive”, yet differing policy stances (e.g., on data protection) caused the TTIP ‘version 1.0’ negotiations to fail. See Emily Jones et al., The UK and Digital Trade: Which Way Forward? (Oxford University Blavatnik School of Government Feb. 2021).
77 Considering the potential for barriers within and across the supranational EU; the national and sub-national systems of EU Member States; and the US federal / ‘state’ system.
78 In the 1980s, the US was the first jurisdiction to ‘govern’ data flows. See Susan A. Aaronson, The Digital Trade Imbalance and Its Implications for Internet Governance, GLOBAL COMMISSION ON INTERNET GOVERNANCE (Feb. 2016). More recently, the EU and US have included varying language on data governance issues in bilateral / regional trade agreements, see Mira Burri, Digital Trade: In Search of Appropriate Regulation, in JUSTICE, TRADE, SECURITY, AND INDIVIDUAL FREEDOMS IN THE DIGITAL SOCIETY 213 (Fernando Esteban de la Rosa et al. eds., Thomson Reuters Sep. 2021). See also Neha Mishra, Building Bridges: International Trade Law, Internet Governance, and the Regulation of Data Flows, 52 VAND. J. TRANSNAT’L L. 463 (2019).
EU-US trade agreement,\textsuperscript{82} maintenance of the status quo is both a risk and an opportunity cost.\textsuperscript{83}

\textit{Enter: Applied Computational Law}

Concurrently, applications of Computational Law (CompLaw)\textsuperscript{84} are emerging that allow for the expression and online publication of digital versions of rules\textsuperscript{85} as algorithms\textsuperscript{86} to improve accessibility\textsuperscript{87} for humans and support operationalization\textsuperscript{88} by machines. Computational Law is that branch of legal informatics concerned with “the mechanization of legal analysis” and “the codification of regulations in precise, computable form.”\textsuperscript{89} The field is loosely defined, often interrelated, modelling techniques and associated sub-branches, including ‘Big Data Law’\textsuperscript{90}

\textsuperscript{82} The scope of ‘modern’ trade agreements has expanded to cover new rules and their harmonization (e.g., data, intellectual property, health and safety, etc.). See Dani Rodrik, \textit{What Do Trade Agreements Really Do?}, 32 JOURNAL OF ECONOMIC PERSPECTIVES 73 (Jan. 2018).


\textsuperscript{84} As first described in 2005 by Stanford University’s Nathaniel Love and Michael Genesereth in their seminal conference paper, see Nathaniel Love & Michael Genesereth, \textit{Computational Law}, Proceedings of the 10th international conference on Artificial intelligence and law - ICAIL '05 205 (ACM Press 2005).


\textsuperscript{86} See Robert Kowalski, \textit{Algorithm = Logic + Control}, 22 COMMUNICATIONS OF THE ACM 424 (July 1979). See further Joseph Potvin, \textit{Data With Direction: Design Research Leading to a System Specification For 'An Internet of Rules'} (Université du Québec en Outaouais 2023). In this form, ‘Rules as Data’ supplement normative expressions in natural languages and, while possibly ‘de jure’, are not to be considered as ‘law’ per se.

\textsuperscript{87} Accessibility implies both access and capability (e.g., to understand and/or utilize data/information).

\textsuperscript{88} The meanings of operationalization and application vary by discipline (e.g., law, computer science, etc.). See Meng Weng Wong, \textit{Rules as Code - Seven Levels of Digitisation} (Singapore Management University Yong Pung How School of Law Apr. 2020).


\textsuperscript{90} Concerned with, “data-driven approaches to legal analysis... legal scholarship that leverages big data analytics—specifically, advances in statistical artificial intelligence, including machine learning, natural language processing, and deep learning—to identify patterns in legal information, to draw conclusions, to make policy recommendations, and to predict legal outcomes.” See Roland Vogl, \textit{Introduction to the Research Handbook on Big Data Law, in}
analytics and ‘Algorithmic Law’ efforts to express the logic of rules as computable proxies. With the potential to assist human decision-making (e.g., through legal expert systems) and process automation (e.g., via compliance automation systems), Computational Law may also address private rights and obligations: computable contracts, financial rules, and ‘business rules’ (e.g., inventory, pricing, etc.).

Analytical Structure and Sources

As instruments begin to refer to governance for, of, and by information and

---

91 RESEARCH HANDBOOK ON BIG DATA LAW 1–8 (Edward Elgar Publishing 2021).
96 Sources of law are recognized by jurisdiction and under international law by the International Court of Justice (ICJ). See Statute of the International Court of Justice, art. 38, ¶ 1, concluded at San Francisco June 26, 1945, entered into force Oct. 24, 1945, T.S. 993. Although there is no consensus on the definition of a 'rule', it is generally understood that legal texts (e.g., treaties, legislation, regulations, case law, and contracts) are the source of norms, rules, and guidelines. See LegalRuleML Core Specification Version 1.0 (Organization for the Advancement of Structured Information Standards – OASIS Aug. 2021), https://docs.oasis-open.org/legalruleml/legalruleml-core-spec/v1.0/legalruleml-core-spec-v1.0.html.
97 Broadly, governance refers to, “making decisions and exercising authority to guide the behaviour of individuals and organizations. Governance is commonly achieved by the creation and enforcement of explicit rules... less explicit social norms, guidelines, policies, or the creation of defined command structures.” See Agile Governance: Reimagining Policy-making in the Fourth Industrial Revolution 16 (World Economic Forum Jan. 2018).
communications technology (ICT), public and private branches of law can be used to construct a five-point legal-technical basis for a TTIP version 2.0 with computational rules (and data sources) in parallel to its natural language, other texts, and associated systems:

- First, by providing a ‘chapeau’ of concepts and methods, it is possible to describe the nature of EU-US relations in the age of Computational Law and the Internet.
- Second, the identification of sources of public international law – the WTO agreements, ongoing negotiations, plurilateral Joint Initiative (JI) on E-commerce proposals, and legal instruments of the World Customs Organization (WCO) – assists in portraying the ‘multilateral interface’ for digital trade.
- Third, to complement the scope of the TTC, it is necessary to compare existing and envisaged sources of EU and US trade, business, technology, and privacy international organizations, and increasingly states and individuals. The source of law here is mostly comprised of treaties and custom...

---

98 Here, for refers to status (e.g., legal recognition of electronic documents), of relates to limitation (e.g., data protection regulations), and by implies operationalization (e.g., via the systems of governments and/or private individuals/entities). See Governance Innovation: Redesigning Law and Architecture for Society 5.0, MINISTRY OF ECON., TRADE & INDUSTRY (METI), https://www.meti.go.jp/press/2020/07/20200713001/20200713001-2.pdf (Japan).

99 The TTLF Working Paper also exists as a ‘living’ GitHub project. See TTIPv2, https://github.com/lexmerca/TTIPv2_ToC.

100 This includes a variety of ‘systems’ used in trade and commerce. For Customs, the EU and the US are pursuing modernization through single window systems. See RECOMMENDATION AND GUIDELINES ON ESTABLISHING A SINGLE WINDOW TO ENHANCE THE EFFICIENT EXCHANGE OF INFORMATION BETWEEN TRADE AND GOVERNMENT: RECOMMENDATION No. 33 (United Nations Centre for Trade Facilitation and Electronic Business 2005). In the EU, see Parliament and Council Regulation 2022/2399, Establishing the European Union Single Window Environment for Customs, 2022 O.J. (L 317), 1. In the US, the single window for trade is the ‘Automated Commercial Environment’, see ACE Portal Modernization, US CUSTOMS AND BORDER PROTECTION, https://www.cbp.gov/trade/automated/ace-portal-modernization.

101 Typically concerned with, “the relations of states, and states and state-created

102 Formerly known as the ‘Joint Statement Initiative’ (JSI) on E-commerce.

103 Defined by the Organisation for Economic Cooperation (OECD)-WTO-International Monetary Fund (IMF) as trade that is ‘digitally ordered’ and/or ‘digitally delivered’, where digitally ordered is, “the international sale or purchase of a good or service, conducted over computer networks by methods specifically designed for the purpose of received or placing orders” and digitally delivered reflects “international transactions that are delivered remotely in an electronic format, using computer networks specifically designed for the purpose.” See HANDBOOK ON MEASURING DIGITAL TRADE (OECD-WTO-IMF 2020). Under the WTO system, see Robert Staiger, Does Digital Trade Change the Purpose of a Trade Agreement?, No. w29578 (National Bureau of Economic Research Dec. 2021).
law. This includes the many EU ‘digital policy’ initiatives.\textsuperscript{104}

- Fourth, as discoverable in whole or in part in international agreements, legislation, regulations, and private contracts, it is essential to frame the institutional sources of ‘transnational commercial law’:\textsuperscript{105} the principles, conventions, and model laws of the United Nations Commission on International Trade Law (UNCITRAL) and the International Institute for the Unification of Private Law (UNIDROIT). Relevant instruments of the Hague Conference on Private International Law (HCCH) and the International Chamber of Commerce (ICC) must also be considered.

- Fifth, because ‘de facto’ and ‘de jure’ standards\textsuperscript{106} facilitate the development of digital infrastructure, their recognition and classification present technical means to ‘seize the Complaw opportunity’ for transatlantic trade.

**Methods and Research Questions**

Drawing from regime theory,\textsuperscript{107} accounting for Commercial Law Intersections (CLIs),\textsuperscript{108} and new methods and research questions.

\textsuperscript{104} For example, the EU electronic IDentification, Authentication and trust Services (eIDAS) regulation, the Digital Markets Act (DMA), the Digital Services Act (DSA), the Data Governance Act (DGA), and the Data Act.

\textsuperscript{105} Here, transnational commercial law is, “that set of rules, from whatever source, which governs international commercial transactions and is... derived from international instruments of various kinds, such as conventions and model laws, and from codification of international trade usage adopted by contract.” See Royston Miles Goode et al., Transnational Commercial Law: Text, Cases, and Materials (Oxford University Press 2015). In relation to ‘transnational data governance’ issues, see Douglas W. Arner et al., The Transnational Data Governance Problem, 37 BERKELEY TECH. L.J. 623 (Berkeley Technology Law Journal 2022).


\textsuperscript{108} Where business and commercial law have, “grown into a dense thicket of subject-specific branches that govern a broad range of transactions and corporate actions. When one of such dealings or activities falls concurrently within the purview of two or more of these commercial law branches... an overlap materializes... The unharmonious convergence of commercial law branches generates failures in coordination that both increase transaction costs and distort incentives for market participants.” See Giuliano G. Castellano & Andrea Tosato, Commercial Law Intersections, 72 HASTINGS L.J. (Apr. 2021), https://repository.uchastings.edu/hastings_law_journal/vol72/iss4/2. In advancing the conceptualization of CLIs, see further Douglas W. Arner et al., Financial Data Governance: The Datafication of Finance, the Rise of Open Banking and the End of the Data Centralization Paradigm, 117 UNIVERSITY OF HONG KONG FACULTY OF LAW RESEARCH PAPER (Feb. 2022).
and recognizing interplay with ‘constitutional’ and administrative law, the analytical structure may be employed to answer two questions:

1. Which sources contain rules that may be appropriate for algorithmic representation?

2. How do these and other sources inform the legal environment for transatlantic digital trade?

Ultimately, by taking a comparative ‘Law + Technology’ approach to involve different legal subjects and branches, it is feasible to hypothesize the composability of hard and soft-law to realize commercial activity under a ‘born digital’ transatlantic trade agreement. Building on works in other jurisdictional contexts – transpacific and pan-Africa – outputs of the specified analytical structure are set to contribute to the advancement of legal informatics at the nexus of EU-US trade and technology policy regimes.

---

109 The EU has not formally ratified a ‘constitution’ and is ‘constituted’ by treaties and its ‘acquis communautaire’.

110 The extent of ‘appropriateness’ can be analyzed through dimensions related to discretion, risk, and how ‘practicable’ a rule is.

111 The ‘Law + Technology’ approach builds on complexity science and other disciplines / frameworks (e.g., ‘Code / Data as Law’ and ‘Law as Code / Data’) to consider both the issues and positive contributions that technology can bring to society. See Thibault Schrepel, Law + Technology (v2.0), CODEX — THE STAN. CTR. FOR LEGAL INFORMATICS WORKING PAPER SERIES (Jan. 2023).

112 See Laurence Diver, 3.4.2 Legal Subject, in TEXT-DRIVEN NORMATIVITY (CoHuBiCol Jul. 2021). In international law, ‘persons’ may be primary (e.g., states, international organizations) or secondary (e.g., corporations, individuals).

113 The modular assembly of components within any functional system design.

114 Respectively understood as ‘binding’ and ‘non-binding’ instruments, yet perspectives vary among scholars (e.g., on the nature of enforceability) and across disciplines. See Kenneth W. Abbott & Duncan Snidal, Hard and Soft Law in International Governance, 54 INTERNATIONAL ORGANIZATION 421–456 (2000).


