
The Governance of Data and Data Flows in Trade Agreements: The Pitfalls of Legal Adaptation

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The rise of the data economy dominates many of the contemporary policy debates. One specific aspect that is often overlooked is the impact of trade law. The present Article seeks to fill this gap by exploring the relevance of international trade rules for data and cross-border data flows. It asks whether and how trade law has deliberately reacted to the increasing importance of data flows, as well as to the increasing difficulty of controlling them for the sake of protecting vital public interests. The inquiry starts with the law of the World Trade Organization (“WTO”), illustrating its effects, as well as its failed adaptation. The rule framework of free trade agreements, which in many ways compensates the lack of progress under the WTO, is subsequently explored. The analytical focus is on the U.S.-driven free trade agreements and the evolutionary regulatory design for digital trade that these agreements have developed. Specific attention is paid to the Trans-Pacific Partnership Agreement as the most advanced model for electronic commerce so far. The Article compares these developments with experiences of other countries and in other venues. It ultimately assesses the existing governance framework for data flows in international trade forums and shares thoughts on better regulatory models, or at least on the paths that may lead to them.

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INTRODUCTION

Data is the new buzzword in contemporary debates of economic growth and innovation. A plethora of studies and expert reports point to the vast potential of data as a trigger for more efficient business operations, highly innovative societal solutions, and ultimately better policy choices.¹ Companies, as well as governments, are encouraged to use this potential and to mobilize their resources aptly, so as to make the data-driven economy real. At the same time, the perils of reliance on data and on Big Data,² in particular with regard to the protection of privacy, have been repeatedly highlighted.³ There too, policymakers

¹ See, e.g., NICOLAUS HENKE, ET AL., MCKINSEY GLOB. INST., *THE AGE OF ANALYTICS: COMPETING IN A DATA-DRIVEN WORLD* (2016) (showing which economic sectors have so far only partially used the potential of Big Data analytics and how this may be changed); JAMES MANYIKA ET AL., MCKINSEY GLOB. INST., *BIG DATA: THE NEXT FRONTIER FOR INNOVATION, COMPETITION, AND PRODUCTIVITY* 15-36, 97-122 (2011) (presenting one of the first reports that shows the range of opportunities that Big Data and Big Data analytics open for different economic sectors); VIKTOR MAYER-SCHÖNBERGER & KENNETH CUKIER, *BIG DATA: A REVOLUTION THAT WILL TRANSFORM HOW WE LIVE, WORK, AND THINK* 123-84 (2013) (being one of the first comprehensive studies that reveal the deep impact that Big Data will have on all facets of societal life, the chances and perils associated with it, and how we may need to change existing regulatory design to adequately accommodate the affordances of Big Data).

² There are no clear definitions of small versus Big Data. Definitions vary and scholars seem to agree that the term of Big Data is generalized and slightly imprecise. One common identification of Big Data is through its characteristics of volume, velocity, and variety, also referred to as the “3-Vs.” Increasingly, experts add a fourth “V” that relates to the veracity or reliability of the underlying data. See MAYER-SCHÖNBERGER & CUKIER, *supra* note 1, at 13; Julie E. Cohen, *What Privacy Is For*, 126 HARV. L. REV. 1904, 1920-21 (2013); Neil M. Richards & Jonathan H. King, *Big Data Ethics*, 49 WAKE FOREST L. REV. 393, 394 (2014). Small data on the other hand, although also undefined, is thought of as solving discrete questions with limited and structured data. The data often is controlled by one institution. See, e.g., JULES J. BERMAN, *PRINCIPLES OF BIG DATA: PREPARING, SHARING, AND ANALYZING COMPLEX INFORMATION* 1-2 (2013). For an excellent analysis of both terms and review of the literature, see Margaret Hu, *Small Data Surveillance v. Big Data Surveillance*, 42 PEPP. L. REV. 773, 794-99 (2015).

³ See, e.g., EXECUTIVE OFFICE OF THE PRESIDENT, *BIG DATA: SEIZING OPPORTUNITIES, PRESERVING VALUES* (2014); COUNCIL OF EUROPE, *GUIDELINES ON THE PROTECTION OF INDIVIDUALS WITH REGARD TO THE PROCESSING OF PERSONAL DATA IN A WORLD OF BIG DATA* (2017); FEDERAL TRADE COMMISSION, *INTERNET OF THINGS: PRIVACY AND SECURITY IN A CONNECTED WORLD* (2015); *PRIVACY, BIG DATA, AND THE PUBLIC GOOD: FRAMEWORKS FOR ENGAGEMENT* (Julia Lane, Victoria Stodden, Stefan Bender & Helen Nissenbaum eds., 2014); Colin J. Bennett & Robin M. Bayley, *Privacy Protection in the Era of ‘Big Data’: Regulatory Challenges and Social Assessments*, in *EXPLORING THE BOUNDARIES OF BIG DATA* 205-27 (Bart van der Sloot, Dennis Broeders & Erik Schrijvers eds., 2016); Urs Gasser, *Perspectives on the Future of Digital Privacy*, *ZEITSCHRIFT FÜR SCHWEIZERISCHES RECHT* 337 (2015); Urs Gasser, *Recoding Privacy*

are under pressure to act swiftly and with an appropriate toolset to address these dangers. One specific discourse, where both these lines of discussion intersect, is trade law and policy — the explanation for this is self-evident — data needs to cross borders for a thriving data economy; at the same time, states do exercise jurisdiction within their borders as a rule of public international law.⁴ Trade rules matter for data in at least three ways: (i) because they regulate the cross-border flow of data by regulating trade in goods and services as well as the protection of intellectual property; (ii) because they may install certain beyond-the-border rules that demand changes in domestic regulation — for example, with regard to intermediaries' liability; and (iii) finally and more generally, because trade law can limit the policy space that regulators have at home.

This Article focuses on these contested domains and seeks to explore the relevance of international trade law for data and cross-border data flows. It asks whether and how trade law has deliberately reacted to the increasing importance of data flows, as well as to the increasing difficulty of controlling them for the sake of protecting vital public interests. Such an inquiry is partly descriptive; it maps the trade rules, which are spread in multilateral and free trade agreements that can affect data when it flows across borders, as well as the policy space that domestic regulators have to enact new rules with regard to data. The analysis ought to also consider the changes over time in regulatory frameworks, as some of the rules stem from pre-Internet times, some have been updated, others have not, and entirely new rules have come into being. The evolutionary patchwork is further complicated by the different rationales behind installing different rules, by the different actors that pushed for them, and ultimately by the different institutional settings where they are embedded. The article seeks to disentangle this web of rules and clarify their interaction. It critically analyzes the existing law and exposes the

Law: Reflections on the Future Relationship Among Law, Technology, and Privacy, 130 HARV. L. REV. 61 (2016); Paul Ohm, *Broken Promises of Privacy: Responding to the Surprising Failure of Anonymization*, 57 UCLA L. REV. 1701 (2010); Paul M. Schwartz & Daniel J. Solove, *The PII Problem: Privacy and a New Concept of Personally Identifiable Information*, 86 N.Y.U. L. REV. 1814 (2011); Omer Tene & Jules Polonetsky, *Big Data for All: Privacy and User Control in the Age of Analytics*, 11 NW. J. TECH. & INTELL. PROP. 239 (2013).

⁴ S.S. *Lotus* (France v. Turkey), Judgment, 1927 P.C.I.J. (ser. A) No. 10 (Sept. 7); see also William J. Drake, *Territoriality and Intangibility: Transborder Data Flows and National Sovereignty*, in BEYOND NATIONAL SOVEREIGNTY: INTERNATIONAL COMMUNICATIONS IN THE 1990s 259-313 (Kaarle Nordenstreng & Herbert I. Schiller eds., 1993).

failures of legal adaptation, the driving political forces that may have led to suboptimal governance solutions, and the path dependencies that may be hard to overcome in the future.

It should be noted at the outset that although data is particularly prominent in trade policy discussions now, academics and policymakers have made the link between data flows and the need to protect certain national interests before.⁵ The trigger again was technology — at the time, satellites, computers, and software. As is still the case today, back in the 1980s, some states, driven by the concerns of large multinational companies, started to worry that information flows may be stopped for reasons of national security and privacy and saw a need for a mechanism that would preclude such interventions. Attempts by the United States and Japan to include language on the free flow of information in trade agreements were largely unsuccessful, as the other partners seemed cautious in giving up policy space.⁶ More flexible, less binding solutions were offered by the Organisation for Economic Co-operation and Development (“OECD”), which drafted some principles that sought to balance the free flow of data with the national interests in the fields of privacy and security.⁷ Yet, as the OECD itself points out,⁸ while this privacy framework has persevered, the situation then was profoundly different from the challenges we face today: ubiquitous digitization, powerful hardware, and the Internet as interconnected networks have changed the volume, the intensity, the potency, and indeed the nature of data flows.⁹ So, while “data flows were largely discrete point-to-point transmissions between businesses or governments in the 1980s, now data can be processed simultaneously in multiple locations; dispersed for storage around the globe; re-combined instantaneously; and moved

⁵ See, e.g., CHRISTOPHER KUNER, REGULATION OF TRANSBORDER DATA FLOWS UNDER DATA PROTECTION AND PRIVACY LAW: PAST, PRESENT AND FUTURE 187 (2011); Susan Aaronson, *Why Trade Agreements Are Not Setting Information Free: The Lost History and Reinvigorated Debate over Cross-Border Data Flows, Human Rights and National Security*, 14 WORLD TRADE REV. 671, 672, 680-85 (2015); see also WILLIAM J. DRAKE, BACKGROUND PAPER FOR THE WORKSHOP ON DATA LOCALIZATION AND BARRIERS TO TRANSBORDER DATA FLOWS 14-15 (2016).

⁶ Aaronson, *supra* note 5, at 672.

⁷ ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT (OECD), GUIDELINES FOR THE PROTECTION OF PERSONAL INFORMATION AND TRANSBORDER DATA FLOWS (1980).

⁸ OECD, THE OECD PRIVACY FRAMEWORK: SUPPLEMENTARY EXPLANATORY MEMORANDUM TO THE REVISED OECD PRIVACY GUIDELINES (2013) [hereinafter OECD (2013)].

⁹ See MANYIKA ET AL., *supra* note 1, at 15-36.

across borders by individuals carrying mobile devices. Services, such as ‘cloud computing,’ allow organisations and individuals to access data that may be stored anywhere in the world.”¹⁰

Perceptive scholars have shown that it is not only the sheer amount of data and our dependence on it that have exponentially increased; the ways governments assert control over global data flows have also changed.¹¹ Exerting jurisdiction over online matters beyond borders, as exemplified by the seminal French judgment in the *Yahoo!* case,¹² or Internet censorship, as practiced by China and many other states,¹³ are well-known examples of control. But things have changed over time and the new generation of Internet controls seeks to keep information from going *out* of a country, rather than stopping it from entering the sovereign state space. Governments increasingly “localize” the data within their jurisdictions, due to a variety of reasons — some of them arguably legitimate, others less so.¹⁴ To be sure, this manner of erecting barriers to data flows impinges directly on trade and may endanger the realization of an innovative data economy.

The present Article seeks to tackle this clash by looking at how current international trade law works. The inquiry starts with the law of the World Trade Organization (“WTO”), illustrating its relevance, as well as its failed adaptation. The rule framework of free trade agreements, which, although fragmented, in many ways compensates

¹⁰ OECD (2013), *supra* note 8, at 29.

¹¹ See Anupam Chander, *National Data Governance in a Global Economy* 2 (UC Davis Legal Studies Research Paper No. 495, 2016); see also Anupam Chander & Uy n P. L , *Data Nationalism*, 64 EMORY L.J. 678, 679-82 (2015).

¹² Tribunal de grande instance [TGI] [ordinary court of original jurisdiction] Paris, May 22, 2000, No RG:00/05308. For more on the case, see also JACK GOLDSMITH & TIM WU, WHO CONTROLS THE INTERNET? ILLUSIONS OF A BORDERLESS WORLD 49-64 (2001); Marc H. Greenberg, *A Return to Lilliput: The LICRA v. Yahoo Case and the Regulation of Online Content in the World Market*, 18 BERKELEY TECH. L. J. 1191, 1192 (2003).

¹³ See, e.g., ACCESS CONTESTED: SECURITY, IDENTITY, AND RESISTANCE IN ASIAN CYBERSPACE (Ronald Deibert, John Palfrey, Rafal Rohozinski & Jonathan Zittrain eds., 2011); ACCESS CONTROLLED: THE SHAPING OF POWER, RIGHTS, AND RULE IN CYBERSPACE (Ronald Deibert, John Palfrey, Rafal Rohozinski & Jonathan Zittrain eds., 2010); ACCESS DENIED: THE PRACTICE AND POLICY OF GLOBAL INTERNET FILTERING (Ronald Deibert, John Palfrey, Rafal Rohozinski & Jonathan Zittrain eds., 2008); Jonathan L. Zittrain et al., *The Shifting Landscape of Global Internet Censorship* (Berkman Klein Ctr. Research Publication No. 2017-4).

¹⁴ Digital Trade in the U.S. and Global Economies, Part 2, Investigation No. 332-540, USITC Pub. 4485 (Aug. 2014); Digital Trade in the U.S. and Global Economies, Part 1, Inv. No. 332-531 (2013) [hereinafter USITC (2013)]. For a country survey, see Chander & L , *supra* note 11, at 682-712.

the lack of progress under the WTO, is subsequently explored. The analytical focus here will be on the U.S.-driven free trade agreements (“FTAs”) and the evolutionary regulatory design for digital trade that these agreements have developed. The Trans-Pacific Partnership Agreement (“TPP”), although no longer strictly speaking a U.S. FTA, will be singled out as the most advanced model so far that seeks to accommodate the specificities of the contemporary digital economy and shows not only incremental adjustments but some legal innovation too. Contrasts to other countries’ practices, notably that of the European Union (“EU”), will be exposed. The Article will then proceed with a critical assessment of the existing governance framework for data and data flows in international trade venues and share thoughts on better regulatory models.

I. RELEVANT MULTILATERAL INSTITUTIONS: THE WTO AGREEMENTS

Any analysis on digital trade issues ought to begin with the World Trade Organization, as it is the multilateral forum specifically designed to regulate trade. The WTO marks also the highest degree of institutionalizing economic globalization¹⁵ and represents an effort to constitutionalize trade regulation moving away from older, diplomacy-based forms of governance towards stricter legal principles and norms.¹⁶ The WTO was established in April 1994 as part of the final act embodying the results of the Uruguay Round of trade negotiations (1986–1994)¹⁷ and became operational on January 1, 1995. Building upon the General Agreement on Tariffs and Trade (“GATT”) 1947,¹⁸ the WTO has grown over the last two decades to be one of the most influential organizations at the global level. It regulates not only trade in goods, services, and trade-related aspects of intellectual property

¹⁵ JOHN BRAITHWAITE & PETER DRAHOS, *GLOBAL BUSINESS REGULATION* 175-221 (2000).

¹⁶ See, e.g., Thomas Cottier & Maya Hertig, *The Prospects of 21st Century Constitutionalism*, in 7 *MAX-PLANCK YEARBOOK OF UNITED NATIONS LAW* 261 (Armin von Bogdandy & Rüdiger Wolfrum eds., 2003). For a more nuanced account, see Joost Pauwelyn, *The Transformation of World Trade*, 104 *MICH. L. REV.* 1, 4 (2005).

¹⁷ Marrakesh Agreement Establishing the World Trade Organization, Apr. 15, 1994, 1867 U.N.T.S. 154 [hereinafter Marrakesh Agreement]; see also Understanding on Rules and Procedures Governing the Settlement of Disputes, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 2, 1869 U.N.T.S. 401; Trade Policy Review Mechanism, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 3, 1869 U.N.T.S. 480.

¹⁸ General Agreement on Tariffs and Trade, Oct. 30, 1947, 61 Stat. A-11, 55 U.N.T.S. 194.

rights, but affects also broader governance domains, such as health and the environment.¹⁹

The law of the WTO is contained in multiple agreements, attached as annexes to the Marrakesh Agreement establishing the World Trade Organization.²⁰ The GATT,²¹ the General Agreement on Trade in Services (“GATS”),²² and the Agreement on Trade-Related Aspects of Intellectual Property Rights (“TRIPS”)²³ build the three essential pillars of WTO law. In seeking the opening of markets and a decrease in protectionism, and in establishing a rule-based system for free trade, the WTO endorses far-reaching principles of non-discrimination: the *most-favored nation* (“MFN”) and the *national treatment* (“NT”) obligations.²⁴ In essence, they ban countries from

¹⁹ For an introduction to the law of the WTO, see, for example, two of the leading textbooks in Europe and in the United States: PETER VAN DEN BOSSCHE & WERNER ZDOUC, *THE LAW AND POLICY OF THE WORLD TRADE ORGANIZATION* (4th ed. 2017); PETROS C. MAVROIDIS & MARK WU, *THE LAW OF THE WORLD TRADE ORGANIZATION: DOCUMENTS, CASES, AND ANALYSIS* (2d ed. 2013).

²⁰ As stated in Article II:2 of the WTO Agreement: “The agreements and associated legal instruments included in Annexes 1, 2 and 3 (hereinafter referred to as ‘Multilateral Trade Agreements’) are integral parts of this Agreement, binding on all Members.”

²¹ General Agreement on Tariffs and Trade 1994, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1867 U.N.T.S. 187 [hereinafter GATT]. The GATT was created in 1947 and was incorporated into the WTO structure in 1995. Its prime purpose is to promote international trade in goods by reducing or eliminating trade barriers, such as tariffs or quotas. The GATT bans discrimination between products coming from different WTO members and between domestic and imported products. The GATT’s impact on trade, in particular with regard to trade in industrial goods, has been sizeable.

²² General Agreement on Trade in Services, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1B, 1869 U.N.T.S. 183 [hereinafter GATS]. The GATS is a new agreement created only with the establishment of the WTO in 1995. It regulates trade in services and seeks to reduce barriers to trade for foreign services and services suppliers. The GATS allows WTO members to make commitments for market access and national treatment in certain services sectors. This permits flexibility. Consequently, some services sectors, where there are national sensitivities, such as maritime or media services, are less liberalized than others.

²³ Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 U.N.T.S. 299. The TRIPS is the WTO agreement on intellectual property. It codifies the existing international rules on different forms of intellectual property protection, such as patents and copyright, and adds some new forms of protection, such as with regard to software. Importantly, the TRIPS makes these IP rules and their domestic implementation and enforcement subject to the effective WTO dispute settlement.

²⁴ See, e.g., MAVROIDIS & WU, *supra* note 19, at chs. 4, 8; see also WILLIAM J. DAVEY, *NON-DISCRIMINATION IN THE WORLD TRADE ORGANIZATION: THE RULES AND EXCEPTIONS*

discriminating between products and services coming from different WTO Members (MFN) and from discriminating between foreign and domestic products and services (NT). These principles apply to trade in both goods and services but with some qualifications. The critical test in finding *de jure* and *de facto* discrimination is establishing the “likeness” of the products, or services and service suppliers at issue.²⁵ This test is performed on a case-by-case basis.²⁶ It essentially links legal and economic analysis and seeks to mediate between the aims of progressive trade liberalization and the regulatory autonomy of the WTO Members.²⁷

Even at this meta-level of thinking about the law of the WTO and even though it is rarely granted direct effect²⁸ domestically,²⁹ it is evident that its impact on national regimes can be truly powerful. It may substantially limit the possibilities that national policymakers have, as their hands may already be “tied” by WTO obligations.³⁰ The WTO is also, unlike any other international organization, equipped with an effective dispute settlement mechanism, which renders

chs. 3, 5 (2012).

²⁵ See, e.g., NICOLAS F. DIEBOLD, NON-DISCRIMINATION IN INTERNATIONAL TRADE IN SERVICES: “LIKENESS” IN WTO/GATS (2010).

²⁶ See, e.g., Appellate Body Report, *Japan – Taxes on Alcoholic Beverages (Japan – Alcoholic Beverages II)*, WTO Doc. WT/DS8/AB/R, WT/DS10/AB/R, WT/DS11/AB/R (adopted Nov. 1, 1996), at 21 (being a seminal case in WTO law on the concept of likeness and the application of the national treatment obligation under Article III GATT).

²⁷ DIEBOLD, *supra* note 25, at 2-7.

²⁸ The legal term “direct effect” means that a private person may base a claim in the domestic courts against another private party or the state, based on the state’s obligations existing under an international treaty. On the definition of “direct effect,” see HELEN KELLER, REZEPTION DES VÖLKERRECHTS 13-16 (2003); see also John H. Jackson, *Status of Treaties in Domestic Legal Systems: A Policy Analysis*, 86 AM. J. INT’L L. 310, 310 n.1 (1992).

²⁹ WTO law neither obliges the Members to impose “direct effect” in their domestic legal system, nor elaborates upon this effect. It is for the domestic law to establish the concrete parameters of its relationship with WTO law. Most trading nations, including the European Union and the United States, have not given WTO rules direct effect. See 19 U.S.C. § 3512 (2012); *Joined Cases 21–24/72, Int’l Fruit Co. NV v. Produktschap voor Groenten en Fruit*, 1972 E.C.R. 1219; see also Thomas Cottier & Krista Nadakavukaren Schefer, *The Relationship Between World Trade Organization Law, National and Regional Law*, 1 J. INT’L ECON. L. 83, 102 (1998); Hélène Ruiz Fabri, *Is There a Case – Legally and Politically – for Direct Effect of WTO Obligations?*, 25 EUR. J. INT’L L. 151, 151 (2014).

³⁰ See, e.g., Joshua Meltzer, *State Sovereignty and the Legitimacy of the WTO*, 26 U. PA. J. INT’L L. 693 (2005); JOHN H. JACKSON, *SOVEREIGNTY, THE WTO, AND CHANGING FUNDAMENTALS OF INTERNATIONAL LAW* (2006) (discussing the WTO’s impact on domestic structures and new conceptualizations of sovereignty).

breaches of the obligations undertaken by the now 164 WTO Members “punishable.”³¹ The decisions taken by the WTO panels and the Appellate Body not only settle the particular conflict as a matter of WTO law and contribute to legal certainty and law’s evolution, but can also be enforced.³² Although the ultimate remedy remains the withdrawal or amendment of the measure in breach of WTO law by the “wrongdoing” state, the Dispute Settlement Understanding (“DSU”) provides for two temporary remedies — compensation and suspension of concessions or other obligations (commonly referred to as “retaliation”), which effectively ensure compliance within a reasonable period of time.³³

The WTO law can in this sense be qualified as relatively “hard” — it does involve deep intervention in domestic regulatory regimes and can impose certain sanctions for breach of obligations.³⁴ But the law of the WTO also has some in-built flexibilities.³⁵ One of those is of systemic importance and needs to be mentioned here. It relates to the so-called

³¹ See, e.g., THE WTO AT TEN: THE CONTRIBUTION OF THE DISPUTE SETTLEMENT SYSTEM (Giorgio Sacerdoti, Alan Yanovich & Jan Bohanes eds., 2006) [hereinafter THE WTO AT TEN] (arguing that the WTO’s dispute settlement system is uniquely effective); Thomas Bernauer, Manfred Elsig & Joost Pauwelyn, *Dispute Settlement Mechanism — Analysis and Problems*, in THE OXFORD HANDBOOK ON THE WORLD TRADE ORGANIZATION 485-506 (Amrita Narlikar, Martin Daunton & Robert M. Stern eds., 2012) (discussing the relative advantages of the WTO’s dispute settlement mechanism); William J. Davey, *The WTO Dispute Settlement System: The First Ten Years*, 8 J. INT’L ECON. L. 17 (2005).

³² From a formal perspective, WTO law does not have independent enforcement effect. Nonetheless, the WTO panels authorize a winning party to withdraw equivalent concessions, the amount to be determined by the panel, in the event of non-compliance by the losing party. See Understanding on Rules and Procedures Governing the Settlement of Disputes art. 22, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, 1869 U.N.T.S. 415; *infra* Section I.D (discussing the possibilities of WTO law evolution, in particular with regard to digital trade).

³³ See, e.g., THE LAW, ECONOMICS AND POLITICS OF RETALIATION IN WTO DISPUTE SETTLEMENT (Chad P. Bown & Joost Pauwelyn eds., 2010) (discussing retaliation and the DSU); TRADE DISPUTES AND THE DISPUTE SETTLEMENT UNDERSTANDING OF THE WTO: AN INTERDISCIPLINARY ASSESSMENT (James C. Hartigan ed., 2009) (discussing the remedies provided by the DSU); Yuka Fukunaga, *Securing Compliance Through the WTO Dispute Settlement System: Implementation of DSB Recommendations*, 9 J. INT’L ECON. L. 383, 397, 411 (2006) (discussing how the DSU approved for compensation and suspension of concessions, which are available when recommendations are not implemented within a reasonable period of time).

³⁴ Gregory C. Shaffer & Mark A. Pollack, *Hard vs. Soft Law: Alternatives, Complements, and Antagonists in International Governance*, 94 MINN. L. REV. 706, 715, 760 (2010).

³⁵ See, e.g., KRISTA NADAKAVUKAREN SCHEFER, SOCIAL REGULATION IN THE WTO (2011).

“general exceptions” clauses as part of the GATT³⁶ and the GATS³⁷ that seek to balance economic and non-economic interests. They do so through a listing of vital objectives, such as the protection of public morals or public order, that nation states seek to protect, as well as through a series of legal tests that try to prevent the use of protectionist means for the attainment of these objectives.³⁸

Next to these general rules within the WTO architecture, it is important to add that the specific WTO Agreements that regulate trade in goods, trade in services, or the protection of intellectual property rights, as well as the provisions on subsidies, standards, government procurement, or trade facilitation, include rules that matter for the digital economy — either by endorsing and detailing the application of the non-discrimination principles or by specifically addressing certain issues (for instance, interconnection and abuse of dominant position in the telecommunication services sector).³⁹

In the following sections, instead of providing a structured analysis of the different WTO Agreements and all their provisions, we reveal their relevance for data flows by three discrete examples. The first is from the domain of trade in goods and focuses on the Information Technology Agreement. The second stems from the field of services trade and exposes the immediate pertinence of the GATS for key digital economy sectors. The third example shows the systemic benefits of the multilateral forum in its attempt to balance economic and non-economic objectives by drawing a line between legitimate protection and protectionism. We show how this may matter with regard to the EU data protection norms today. This part concludes with a weighing on the importance of WTO law for digital trade.

A. *The WTO as Enabling Data Flows by Liberalizing Infrastructure*

1. The General Agreement on Tariffs and Trade

Despite the fact that the 1998 WTO Work Program on Electronic Commerce⁴⁰ acknowledged early on that digital technologies affect all

³⁶ GATT art. XX (providing “General Exceptions” to the GATT).

³⁷ GATT art. XIV (providing “General Exceptions” to GATS).

³⁸ See *infra* Section I.C for a more detailed analysis of the general exception clauses and literature review.

³⁹ For a detailed analysis, see TRADE GOVERNANCE IN THE DIGITAL AGE (Mira Burri & Thomas Cottier eds., 2012); Mira Burri, *The International Economic Law Framework for Digital Trade*, 135 ZEITSCHRIFT FÜR SCHWEIZERISCHES RECHT 10, 34 (2015) [hereinafter Burri, *International Digital Trade Framework*].

⁴⁰ General Council, *Work Programme on Electronic Commerce*, WTO Doc.

domains of trade — be it in goods, services, or intellectual property rights — much of the debate within and outside the WTO, as well as the literature devoted to digital trade, have focused on trade in services and its regulation.⁴¹ This is natural as digital trade is often associated with transactions that do not involve tangible products. Under the current trend of “servicification,” whereby there is an increase in the use, production, and sale of services,⁴² this argument is only strengthened. In addition, it has been argued that many of the newer generation of information technology (“IT”) products (such as smartphones, music players, or video games) inherently include some sort of support, continuous maintenance, or new content,⁴³ which transcend the purchase of the product and will more readily fall under the services category.⁴⁴ Despite the predisposition to ignore trade in goods, it should be underscored that the development of a global communications system with sufficient traffic capacity and connectivity, as well as the trade in IT hardware itself, have been and remain critical for sustaining the physical infrastructure layer of the Internet.⁴⁵ Its proper functioning is a precondition for accessing applications and information and for the full use of the affordances of the digital environment.

It should in this sense be underlined that, with regard to trade in IT products, the WTO secures one of the most accommodating conditions for free trade. This has to do with the nature of the GATT as an older and far-reaching trade treaty that laid the foundations of

WT/L/274 (adopted Sept. 30, 1998).

⁴¹ See, e.g., Burri & Cottier, *supra* note 39, at Part III (including works discussing trade governance and regulation in the WTO).

⁴² See, e.g., SWEDISH NATIONAL BOARD OF TRADE, EVERYBODY IS IN SERVICES: THE IMPACT OF SERVICIFICATION IN MANUFACTURING ON TRADE AND TRADE POLICY (2012) (discussing the rising trend of ‘servicification’); Magnus Lodefalk, *The Role of Services for Manufacturing Firm Exports*, 150 REV. WORLD ECON. 59 (2014) (discussing changes in the industry with the growth of the services sector); Rainer Lanz & Andreas Maurer, *Services and Global Value Chains – Some Evidence on Servicification of Manufacturing and Services Networks*, (WTO, Working Paper ERSD-2015-03, 2015) (analyzing the role of ‘servicification’ through the lens of global supply chains). Also critically, some fifty percent of the world’s traded services are already digitized. See JAMES MANYIKA ET AL., MCKINSEY GLOB. INST., DIGITAL GLOBALIZATION: THE NEW ERA OF GLOBAL FLOWS 7 (2016).

⁴³ See, e.g., Henke et al., *supra* note 1.

⁴⁴ ROLF H. WEBER & MIRA BURRI, CLASSIFICATION OF SERVICES IN THE DIGITAL ECONOMY 51-124 (2012).

⁴⁵ David Luff, *Convergence: A Buzzword to Remain?*, in TRADE GOVERNANCE IN THE DIGITAL AGE 65, 68 (Mira Burri & Thomas Cottier eds., 2012).

international economic law.⁴⁶ As part of the post-1995 institutional set-up, the WTO not only established low tariffs and freed substantial volumes of trade but also sought to address key aspects of non-tariff trade barriers — such as in the fields of standards and subsidies.⁴⁷ In addition to this fairly solid legal framework for trade in goods, the Information Technology Agreement, which is reviewed in the next section, provided for a special regime for trade in IT products and ensured that trade in communication equipment is duty free.

2. The Information Technology Agreement

The Information Technology Agreement (“ITA”) was adopted after the completion of the Uruguay Round at the Singapore Ministerial Conference in 1996,⁴⁸ largely as a result of the pressure put by the U.S. IT industry.⁴⁹ The proclaimed objectives of the ITA are to “achieve maximum freedom of world trade in information technology products,” to “encourage the continued technological development of the information technology industry on a world-wide basis,” and to “enhance market access opportunities for information technology products.”⁵⁰ To this effect, the ITA signatories pledged to provide zero tariffs for selected IT products, such as computers, semi-conductors, semi-conductor manufacturing equipment, telecommunication apparatus, data-storage media, and software.⁵¹ The exact product coverage stipulated in the ITA is contained in its two annexes. Annex A lists the codes of the included products pursuant to the Harmonized System (“HS”), which is the standard and widely used international tariff nomenclature for all traded products.⁵² Annex B lists the

⁴⁶ The GATT sought to free trade amongst countries by prohibiting import and export quotas. GATT 1947 art. XI. GATT also sought to free trade by reducing and binding the trade tariffs that countries applied. GATT signatories were banned from imposing higher tariffs than the ones they have bound in their tariff schedules. *Id.* art. II. Irrespective of whether tariffs were bound or not, states had to apply the same tariffs to all countries alike in a non-discriminatory manner. *Id.* art. I.

⁴⁷ See, e.g., MAVROIDIS & WU, *supra* note 19, at chs. 15, 19.

⁴⁸ World Trade Organization, Ministerial Declaration on Trade in Information Technology Products, WTO Doc. WT/MIN(96)/16 (1996) [hereinafter Information Technology Agreement].

⁴⁹ See BARBARA FLIESS & PIERRE SAUVÉ, OF CHIPS, FLOPPY DISKS AND GREAT TIMING: ASSESSING THE INFORMATION TECHNOLOGY AGREEMENT 21, 31-32, 38, (1997) (discussing the negotiating history of the ITA).

⁵⁰ Information Technology Agreement, *supra* note 48, at pmb., para. 1.

⁵¹ See WTO, 15 YEARS OF THE INFORMATION TECHNOLOGY AGREEMENT: TRADE, INNOVATION AND GLOBAL PRODUCTION NETWORKS (2012).

⁵² The Harmonized Commodity Description and Coding System, also known as

products to be covered by the agreement, which each participant country is left to classify in an appropriate HS category.⁵³

Despite being adopted under the auspices of the WTO, the ITA is not a multilateral but a plurilateral deal, which means that it only binds the parties that have signed it. However, unlike other plurilateral agreements, such as the WTO Government Procurement Agreement,⁵⁴ the ITA is uniquely constructed as an open agreement that functions on an MFN basis, so that its benefits accrue to all WTO Members, including those that are not signatories. Despite the inherent danger of free-riding, the ITA has been successful in creating a “critical mass” and attracting the major stakeholders in IT trade in both the developed and the developing world. Originally signed by twenty-eight countries, the ITA currently lists eighty-two WTO Members. Together, these Members account for more than ninety-five percent of global trade in IT products.⁵⁵ Some estimates maintain that the ITA is the most significant trade liberalization move that has taken place since the creation of the WTO, second only to the Uruguay Round itself in the scale of trade volumes liberated.⁵⁶

Yet, the ITA is by no means optimal. First, it is solely a tariff cutting mechanism. It includes no binding commitments with regard to non-tariff barriers of any kind, and the efforts under the Non-Tariff Measures Work Program adopted by the ITA Committee in 2003⁵⁷

the Harmonized System (“HS”) of tariff nomenclature is an internationally standardized system of names and numbers to classify traded products. It came into effect in 1988 and has since been developed and maintained by the World Customs Organization (“WCO”). See *Nomenclature and Classification of Goods Overview*, WORLD CUSTOMS ORG., <http://www.wcoomd.org/en/topics/nomenclature/overview.aspx> (last visited July 8, 2017).

⁵³ Hosuk Lee-Makiyama, *Future-Proofing World Trade in Technology: Turning the WTO IT Agreement (ITA) into the International Digital Economy Agreement (IDEA) 7* (European Ctr. Int’l Political Econ., Working Paper No. 04/2011).

⁵⁴ The WTO Government Procurement Agreement (“GPA”) seeks openness of procurement market. It is a plurilateral agreement that binds and benefits only its signatories. Agreement on Government Procurement, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 4, 1915 U.N.T.S. 103. The revised GPA, which entered into force on 6 April 2014, is a further reaching effort that establishes standards of non-discrimination, transparency and procedural fairness in public procurement. For the text of the revised agreement, see *Agreement on Government Procurement*, WTO https://www.wto.org/english/tratop_e/gproc_e/gp_gpa_e.htm (last visited July 8, 2017).

⁵⁵ WTO, *supra* note 51, at 3, 15, 38, 52.

⁵⁶ Lee-Makiyama, *supra* note 53, at 3.

⁵⁷ Committee of Participants on the Expansion of Trade in Information Technology Products, *The Non-Tariff Measures Work Programme*, WTO Doc. G/IT/SPEC/Q2/11/Rev.1 (Apr. 14, 2003).

have so far remained fruitless. Another weakness of the ITA stems from its technological bias.⁵⁸ The ITA Members made commitments pursuant to a product classification list that originates from 1989 and is fairly rigid. The ITA is so rendered incapable of appropriately accommodating technological change — emerging integrated, multifunctional, or entirely new products cannot be included automatically if they are assigned to new product classifications.⁵⁹ Several disputes over classification of new products have exposed the limits of these fixed, technology-based tariff schedules.⁶⁰ The decisions of the Panel and the Appellate Body interpreted the schedules in accordance with the customary rules of treaty interpretation and sought to clarify the schedules' meaning by reference to the ordinary sense of the words, in their context and in light of their object and purpose.⁶¹ Nonetheless, they could not achieve legal certainty; nor did they open the door for evolutionary interpretation of the existing classification.⁶² Indeed in a 2010 case, the Panel confirmed a methodology based on the narrow language contained in the Member's schedule, which somewhat undermines efforts to foster harmonization of schedules on the basis of recognized multilateral rules and hinders legal adaptation.⁶³

⁵⁸ See, e.g., Lee-Makiyama, *supra* note 53, at 7-8; Luff, *supra* note 45.

⁵⁹ Lee-Makiyama, *supra* note 53, at 8.

⁶⁰ As early as 1998, a WTO dispute arose concerning the way the European Communities ("EC") classified multimedia computers and certain local area network equipment. The Panel ruled against the EC and the higher tariffs it imposed due to different classification. On appeal, the Appellate Body reversed the Panel's ruling on the ground, amongst other things, that the Panel wrongly based its reasoning on the legitimate expectations of WTO Members during the negotiations. According to the Appellate Body, Members' tariff schedules must be interpreted according to the customary rules of interpretation of treaties. While the Appellate Body did not provide the correct classification of the products concerned, it noted that the Harmonized System ("HS") and the work carried out in the World Customs Organization ("WCO") are the relevant context in relation to tariff classification. See Appellate Body Report, *European Communities – Customs Classification of Certain Computer Equipment*, WTO Doc. WT/DS62/AB/R, WT/DS67/AB/R, WT/DS68/AB/R (adopted June 5, 1998); Panel Report, *European Communities – Customs Classification of Certain Computer Equipment*, WTO Doc. WT/DS62/R, WT/DS67/R, WT/DS68/R, (Feb. 5, 1998). For a brief commentary, see Luff, *supra* note 45, at 68-71.

⁶¹ See Vienna Convention on the Law of Treaties art. 31, May 23, 1969, 1155 U.N.T.S. 331 (providing the framework for interpreting treaties).

⁶² Shin-yi Peng, *Renegotiate the WTO Schedule of Commitments: Technological Development and Treaty Interpretation*, 45 CORNELL INT'L L.J. 403, 405-06 (2012).

⁶³ See Panel Report, *European Communities and Its Member States – Tariff Treatment of Certain Information Technology Products*, WTO Doc. WT/DS375/R, WT/DS376/R, WT/DS377/R (adopted Aug. 16, 2010) (in particular at paras 7.442-444).

Short of a complete ITA reform, the interim solution was political and reached at the Nairobi Ministerial Conference in December 2015,⁶⁴ when over fifty WTO Members agreed on the expansion of the ITA to cover additional 201 product lines that have been valued at over \$1.3 trillion per year.⁶⁵ Overall, despite the mentioned flaws, the ITA can be deemed as highly successful and has made a real difference in trade practice. It ultimately provided for a very liberal regime for trade in IT-related hardware, which spurred competition and benefited consumers.⁶⁶ Together with the far-reaching commitments in the telecommunication services sector, which this article for the sake of brevity does not address,⁶⁷ the ITA boosted the emergence of global value chains for IT trade and substantially facilitated the worldwide spread and adoption of technological advances and the emergence of the data economy.

B. *The WTO as Enabling Data Flows by Liberalizing Services*

1. *The General Agreement on Trade in Services*

The General Agreement on Trade in Services, similarly to the GATT, aims at protecting the equality of competitive opportunities for companies, regardless of their origin and the origin of their services, and at facilitating the progressive liberalization of services markets. The approach and structure of the GATS, however, differ from those of the GATT, since the object of regulation — services — is essentially

⁶⁴ *Information Technology Agreement*, WORLD TRADE ORG., https://www.wto.org/english/tratop_e/inftec_e/inftec_e.htm (last visited Oct. 7, 2017).

⁶⁵ *See id.* (reporting by the WTO on the occasion of the expansion of the ITA).

⁶⁶ COPENHAGEN ECONOMICS, EXPANDING THE INFORMATION TECHNOLOGY AGREEMENT (ITA): ECONOMIC AND TRADE IMPACTS (Oct. 2010).

⁶⁷ *See generally* Marco C.E.J. Bronckers & Pierre Larouche, *A Review of the WTO Regime for Telecommunications Services*, in *THE WORLD TRADE ORGANIZATION AND TRADE IN SERVICES* 319 (Kern Alexander & Mads Andenas eds., 2008); Kelly Cameron, *Telecommunications and Audio-Visual Services in the Context of the WTO: Today and Tomorrow*, in *THE WTO AND GLOBAL CONVERGENCE IN TELECOMMUNICATIONS AND AUDIO-VISUAL SERVICES* 21, 22 (Damien Geradin & David Luff eds., 2004); Damien Geradin & Michel Kerf, *Levelling the Playing Field: Is the WTO Adequately Equipped to Prevent Anti-Competitive Practices in Telecommunications?*, in *THE WTO AND GLOBAL CONVERGENCE IN TELECOMMUNICATIONS AND AUDIO-VISUAL SERVICES* 130 (Damien Geradin & David Luff eds., 2004); BOBJOSEPH MATTHEW, *THE WTO AGREEMENTS ON TELECOMMUNICATIONS* 52 (2003); Marco C.E.J. Bronckers & Pierre Larouche, *Telecommunications Services and the World Trade Organization*, 31 *J. WORLD TRADE* 5 (1997), at 5-7; Mira Burri, *The Law of the World Trade Organization and the Communications Law of the European Community: On a Path of Harmony or Discord?*, 41 *J. WORLD TRADE* 833, 840 (2007) [hereinafter Burri, *WTO & European Community Law*].

different from goods.⁶⁸ Indeed, services were for a long time thought non-tradable, as it is the very nature of many services that their provision coincides with the consumption and requires the physical proximity and interaction of the producer and the consumer (hairdressing is one of the textbook examples in this regard). Unlike goods, services cannot be stopped at the border, so what matters is not the tariff imposed but domestic regulation.⁶⁹ The legal design of the GATS reflects this specificity and includes more flexibilities than the GATT.⁷⁰

The GATS is a comprehensive agreement, which covers all services sectors,⁷¹ except for those services “supplied in the exercise of

⁶⁸ See generally A HANDBOOK OF INTERNATIONAL TRADE IN SERVICES (Aaditya Mattoo, Robert M. Stern & Gianni Zanini eds., 2007) (discussing the difference between trade and services); GATS AND THE REGULATION OF INTERNATIONAL TRADE IN SERVICES (Marion Panizzon, Nicole Pohl & Pierre Sauvé eds., 2008) (evaluating the regulation of international services trade in the context of GATS).

⁶⁹ See more extensively, Pierre Sauvé & Anirudh Shingal, *Reflections on the Nature of Preferences in Services*, in THE PREFERENTIAL LIBERALIZATION OF TRADE IN SERVICES 401-12 (Pierre Sauvé & Anirudh Shingal eds., 2014).

⁷⁰ See, e.g., Rudolf Adlung, *Trade Liberalisation Under the GATS: An Odyssey?*, in GATS AND THE REGULATION OF INTERNATIONAL TRADE IN SERVICES 209 (Marion Panizzon, Nicole Pohl & Pierre Sauvé eds., 2008) (discussing how governments have a “wider scope for regulatory intervention” under GATS); Juan A. Marchetti & Martin Roy, *Services Liberalization in the WTO and in PTAs*, in OPENING MARKETS FOR TRADE IN SERVICES: COUNTRIES AND SECTORS IN BILATERAL AND WTO NEGOTIATIONS 61, 63 (Juan A. Marchetti & Martin Roy eds., 2009) (discussing how services liberalization has proceeded under the WTO and whether and how things are different in free trade agreements); Gary Hufbauer & Sherry Stephenson, *Services Trade: Past Liberalization and Future Challenges*, 10 J. INT’L ECON. L. 605, 611-14 (2007) (exploring the specificities of liberalizing services markets and the regulatory challenges associated with it).

⁷¹ See GATS art. I. The services sectors under the GATS were classified according to the services sectoral classification list (the so-called ‘W/120’) that was compiled in 1991 with the purpose of facilitating the Uruguay Round negotiations and ensuring cross-country comparability and consistency of the undertaken commitments. The 160 sub-sectors in the W/120 are defined as aggregate of the more detailed categories contained in the United Nations Central Product Classification (“CPC”), which covers products that are an output of economic activities, including transportable goods, non-transportable goods, and services. The W/120 is based on the CPC in its version of 1991. U.N. DEP’T OF INT’L ECON. & SOC. AFFAIRS, PROVISIONAL CENTRAL PRODUCT CLASSIFICATION, at 26-157, U.N. Doc. ST/ESA/STAT/SER.M/77, U.N. Sales No. E.91.XVII.7 (1991); see also GATT Secretariat, *Services Sectoral Classification List*, GATT Doc. MTN.GNS/W/120 (July 10, 1991) [hereinafter *Services Sectoral Classification List*]. In Appellate Body Report, *United States – Measures Affecting the Cross-Border Supply of Gambling and Betting Services*, ¶¶ 197, 203-04, WTO Doc. WT/DS285/AB/R (Apr. 7, 2005) [hereinafter *U.S. – Gambling*], the Appellate Body determined that both the W/120 and the 1993 Scheduling Guidelines constitute

governmental authority.”⁷² The MFN is the core general obligation under the GATS and pursuant to Article II:1 GATS, each WTO Member is obliged to “accord immediately and unconditionally to services and service suppliers of any other Member treatment no less favourable than that it accords to like services and service suppliers of any other country.”⁷³ In contrast to the GATT, however, where the MFN principle admits no individual exemptions, the GATS allows for some flexibility. Members may specify that the MFN would not be applicable to certain measures, provided that those measures are listed in and meet the conditions of the Annex on Article II Exemptions (the so-called “opt-out” approach).⁷⁴

The general MFN obligation is supplemented by *specific* commitments accepted by individual Members and listed in the so-called “Schedules of Specific Commitments,” which are appended to the GATS. These schedules show the positive commitments (“opting-in”) of a Member with regard to *national treatment* and *market access*, and the conditions, terms, and limitations of these commitments.⁷⁵ “Market access” is articulated in Article XVI GATS and addresses

supplementary means of interpretation within the meaning of Article 32 of the Vienna Convention. They can be referred to in order to confirm the meaning of specific commitments resulting from the application of Article 31, or to determine the meaning of such commitments when the interpretation according to Article 31 leaves the meaning ambiguous or obscure.

⁷² GATS art. I, ¶ 3(b). Paragraph (c) clarifies that “a service supplied in the exercise of governmental authority” means any service which is supplied neither on a commercial basis, nor in competition with one or more service suppliers.” *Id.* art. I, ¶ 3(c). For interpretation, see Markus Krajewski, *Public Services and Trade Liberalization: Mapping the Legal Framework*, 6 J. INT’L ECON. L. 341, 350-54 (2003); Eric H. Leroux, *What Is a “Service Supplied in the Exercise of Governmental Authority” Under Article I:3(b) and (c) of the General Agreement on Trade in Services?*, 40 J. WORLD TRADE 345, 346-60 (2006).

⁷³ GATS art. II, ¶ 1.

⁷⁴ See GATS art. II, ¶ 2. The exemption is framed as a one-off opportunity to be used only until the date of entry into force of the WTO Agreement — that is Jan. 1, 1995, or for new Members, at the time of their accession to the WTO. At least in principle, the exemptions should not exceed a total duration of ten years, pursuant to Annex on Article II Exemptions, at para. 6, and should have thus expired by January 2005. This did not happen and it is the politically accepted status quo that exemptions can last indefinitely. *Id.* Annex on Art. II Exemptions.

⁷⁵ Pursuant to GATS Article XX: “Each Member shall set out in a schedule the specific commitments it undertakes under Part III of this Agreement. With respect to sectors where such commitments are undertaken, each Schedule shall specify: (a) terms, limitations and conditions on market access; (b) conditions and qualifications on national treatment; (c) undertakings relating to additional commitments; (d) where appropriate the time-frame for implementation of such commitments; and (e) the date of entry into force of such commitments.” *Id.* art. XX, ¶ 1.

quantitative restrictions to services trade.⁷⁶ The “national treatment” obligation, specified in Article XVII GATS, is of a broader, qualitative nature and bans discrimination between domestic and foreign services and service suppliers. Although only a specific commitment under GATS, the meaning of national treatment remains the same as under GATT.⁷⁷

In practice, the Members’ schedules represent a codification of the conditions in a specific national market upon which a foreign service provider can rely. These schedules provide, thus, also for legal certainty, because a Member can modify or withdraw a commitment only after a three-year period from the date it entered into force and has to bear the consequences of the modifications undertaken, possibly by making concessions in other areas.⁷⁸ This fairly flexible regime of the GATS allows for opening of services markets but also for keeping them completely or partially protected.

In terms of services sectors that are pertinent for the digital economy, one commonly reviews the telecommunications, the computer and related services, the audiovisual, as well as the financial services sectors.⁷⁹ In this article, we use a “shortcut” to exemplify the

⁷⁶ In those sectors where a Member has committed itself, it must refrain from adopting or maintaining six particular types of measures, unless otherwise specified in the schedules. These are defined exhaustively in paragraphs (a) through (f) of Article XVI:2 and encompass: (a) limitations on the number of service suppliers; (b) limitations on the total value of service transactions or assets; (c) limitations on the total number of service operations or on the total quantity of service output; (d) limitations on the total number of natural persons that may be employed; (e) measures which restrict or require specific types of legal entity or joint venture; and (f) limitations on foreign capital participation. *Id.* art. XVI, ¶ 2.

⁷⁷ Appellate Body Report, *European Communities – Regime for the Importation, Sale and Distribution of Bananas*, ¶ 221, WTO Doc. WT/DS27/AB/R (adopted Sept. 9, 1997). On the relationship between NT and market access, see Panel Report, *China – Certain Measures Affecting Electronic Payment Services*, WTO Doc. WT/DS413/R (adopted July 16, 2012) [hereinafter *China – Certain Measures*]; see also Rachel Block, *Market Access and National Treatment in China — Electronic Payment Services: An Illustration of the Structural and Interpretive Problems in GATS*, 14 *CHI. J. INT’L L.* 652, 660-67 (2014).

⁷⁸ GATS art. XII. The GATS provides also for the negotiation of *additional* commitments with respect to measures affecting trade in services not subject to scheduling under Article XVI GATS (market access) or Article XVII GATS (national treatment) — regarding, for instance, qualifications, standards, or licensing matters. *Id.* art. XVIII.

⁷⁹ See ERIK VAN DER MAREL, *DISENTANGLING THE FLOWS OF DATA: INSIDE OR OUTSIDE THE MULTINATIONAL COMPANY?* 2 (July 2015), <http://ecipe.org/app/uploads/2015/07/ECIPE-Data-Flows-final.pdf>. The paper reveals that data reliance is a complex issue. It shows that not only sectors such as telecommunications and data processing use data intensively, but that data is also heavily used as an input within multinational companies with regards to management decisions and with the aim of administering, overseeing, and operating

relevance of the WTO for data and data flows by looking briefly at the computer and related services sector.

2. Computer and Related Services

A deep intervention, which may substantially limit the regulatory space available, domestically comes from the GATS rules on computer and related services. Here, similarly to the telecom sector, industrial policy considerations have prevailed over national sensitivities and the sector was deeply liberalized during the Uruguay Round. This was not as politically contentious as with telecom, because computer and related services were a fairly new sector at the time and thus largely devoid of domestic regulation and trade barriers.⁸⁰ As a consequence, a great number of WTO Members have made far-reaching commitments for both market access and national treatment under the GATS.⁸¹ The EU has, for instance, committed to all the listed sub-sectors: (a) consultancy services related to the installation of computer hardware; (b) software implementation services; (c) data processing services; (d) database services, maintenance, and repair; and (e) other computer services.⁸² The EU has listed no limitations for the first three modes of supply (cross-border, consumption abroad, and commercial presence) and remains unbound only for the presence of natural persons (mode 4).⁸³ The latter constraint is typical in the field of services and relates to labor market and immigration considerations⁸⁴ — it does not directly impinge on data flows.

The implications of these commitments are real and the wiggle-room available for domestic regulators is severely constrained. If we imagine, for instance, a situation, where the EU would like to install

establishments across countries.

⁸⁰ SACHA WUNSCH-VINCENT, *THE WTO, THE INTERNET AND TRADE IN DIGITAL PRODUCTS: EC-US PERSPECTIVES 90-91* (2006); see also WTO Secretariat, *Computer and Related Services*, WTO Doc. S/C/W/45 (July 14, 1998).

⁸¹ See, e.g., Renee Berry & Matthew Reisman, *Policy Challenges of Cross-Border Cloud Computing*, 4(2) U.S. INT'L TRADE COMM'N 1, 20 (2012), https://www.usitc.gov/journals/policy_challenges_of_cross-border_cloud_computing.pdf. The authors state that sixty countries have commitments on “on-line information and/or data processing” and seventy-six have made commitments for “data processing.” *Id.* at 22.

⁸² *European Communities and their Member States, Schedule of Specific Commitments*, WTO Doc. GATS/SC/31 (Apr. 15, 1994).

⁸³ *Id.* This restriction has been somewhat relaxed during the Doha round of negotiations and selected EU Member States have inserted more liberal conditions for migrant workers in the sector, especially high-skilled workers.

⁸⁴ See, e.g., Marion Panizzon, *Migration and Trade: Prospects for Bilateralism in the Face of Skill-Selective Mobility Laws*, 12 MELBOURNE J. INT'L L. 1, 15-17 (2011).

new measures with regard to search engines that somehow limit the market access or discriminate against foreign companies and the services they offer, this may implicate a violation of WTO law – because search engines can be subsumed under “data processing services”⁸⁵ and because the EU is fully committed for this category of services. Localization requirements with regard to computer and related services, and to all sectors where specific commitments have been made, would be also GATS-inconsistent.⁸⁶

Unfortunately, at least so far, such situations have not been tested before a WTO panel. The EU and other WTO Members have often looked for an escape and a justification of their policies in this context by relying on one argument that has to do with the technical issue of services classification but is also linked to a charged political debate. Whenever they want to preserve policy space, WTO Members would argue that such digital services should be classified as “audiovisual services”⁸⁷ because of their inherent function as content platforms.⁸⁸ There is arguably room for interpretation and Members make use of the lack of clear distinctions in the existing classification schemes, which is extremely exacerbated by their pre-Internet origin.⁸⁹ In the

⁸⁵ See Henry Gao, *Googling for the Trade – Human Rights Nexus in China: Can the WTO Help?*, in *TRADE GOVERNANCE IN THE DIGITAL AGE* 247, 253-57 (Mira Burri & Thomas Cottier eds., 2012); see also WEBER & BURRI, *supra* note 44, at 58-59.

⁸⁶ See, e.g., CATHLEEN CIMINO, GARY CLYDE HUFBAUER & JEFFREY J. SCHOTT, PETERSON INST. INT’L ECON., *A PROPOSED CODE TO DISCIPLINE LOCAL CONTENT REQUIREMENTS* 1, 4 (2014), <https://piie.com/publications/pb/pb14-6.pdf>; Holger P. Hestermeyer & Laura Nielsen, *The Legality of Local Content Measures Under WTO Law*, 48 J. WORLD TRADE 553, 588-89 (2014).

⁸⁷ “Audiovisual services” include: motion picture and videotape production and distribution services; motion picture projection services; radio and television services; radio and television transmission services; and sound recording. See *Services Sectoral Classification List*, *supra* note 71, at 4.

⁸⁸ See, e.g., Submission from the European Communities, *Work Programme on Electronic Commerce*, ¶ 7, WTO Doc. WT/GC/W/497 (May 9, 2003).

⁸⁹ See, e.g., Luff, *supra* note 45 (arguing that it is irrelevant today to distinguish between telecommunications services and audiovisual services); WEBER & BURRI, *supra* note 44, at 59 (listing and categorizing different computer services and exposing the regulatory challenges of classifications); THE WTO AND GLOBAL CONVERGENCE IN TELECOMMUNICATIONS AND AUDIO-VISUAL SERVICES 14-15 (Damien Geradin & David Luff eds., 2004); Rostam J. Neuwirth, *Global Market Integration and the Creative Economy: The Paradox of Industry Convergence and Regulatory Divergence*, 18 J. INT’L ECON. L. 21, 26-50 (2015) (discussing technological and industrial convergence and the categorizing problems that such convergence creates for the WTO). For a discussion of the application of technology neutrality to services classification, see Shin-yi Peng, *GATS and the Over-the-Top Services: A Legal Outlook*, 50 J. WORLD TRADE 21, 25-30 (2016).

sector of audiovisual services, almost no WTO Members have made any commitments and thus remain relatively free to sustain discriminatory measures and adopt new ones.⁹⁰ This is the result of a pronounced and politically charged contention between trade and cultural interests that unfolded during the Uruguay Round of negotiations.⁹¹ It was associated with a rupture between the key negotiating parties — the EU and the United States — on the question of how to regulate cultural matters and whether to make them subject to the rules of the WTO — the so-called “exception culturelle” debate.⁹²

The current round of trade negotiations — the Doha Development Agenda, launched in 2001 and originally to be completed by 2005⁹³ — holds no promise of changes in the status quo for audiovisual services.⁹⁴ Although the Doha round is not stalled because of audiovisual media services,⁹⁵ and the intensity of the trade versus culture clash within the WTO seems to have somewhat subsided since

⁹⁰ Council for Trade in Services, *Audiovisual Services*, WTO Doc. S/C/W/310 (Jan. 12, 2010); Martin Roy, *Audiovisual Services in the Doha Round: “Dialogue de Sourds, The Sequel?”*, 6 J. WORLD INV. & TRADE 923, 941 (2005); J. P. Singh, *Culture or Commerce? A Comparative Assessment of International Interactions and Developing Countries at UNESCO, WTO, and Beyond*, 8 INT’L STUD. PERSP. 36, 42 (2007).

⁹¹ The debate has to do with the dual nature of cultural products and services, which while being an object of trade can also be carriers of values and identities. The European Union, and especially France, have pushed for the exclusion of culture-related goods and services from the economically centered rules of the WTO and for their special treatment. The United States on the other hand has favored a trade-oriented approach that does not allow for any particular special treatment of cultural goods and services and subsumes them under the basic WTO rules. See, e.g., Mira Burri, *The European Union, the World Trade Organization and Cultural Diversity*, in CULTURAL GOVERNANCE AND THE EUROPEAN UNION: PROTECTING AND PROMOTING CULTURAL DIVERSITY IN EUROPE 195, 199-200 (Evangelia Psychogiopoulou ed., 2015) [hereinafter Burri, *Cultural Diversity*] (discussing the position of the EU in matters of cultural policy, in particular the concept of cultural diversity); Mira Burri, *Trade Versus Culture in the Digital Environment: An Old Conflict in Need of a New Definition*, 12 J. INT’L ECON. L. 17, 20, 48 (2008) [hereinafter Burri, *Trade Versus Culture*] (criticizing the trade and culture discourse and its path dependencies and how they may hinder solutions).

⁹² Burri, *Cultural Diversity*, *supra* note 91.

⁹³ World Trade Organization, Ministerial Declaration of 14 November 2001, WTO Doc. WT/MIN(01)/DEC/1 (2001).

⁹⁴ See, e.g., Lee Tuthill & Martin Roy, *GATS Classification Issues for Information and Communication Technology Services*, in TRADE GOVERNANCE IN THE DIGITAL AGE 157, 158, 167-78 (Mira Burri & Thomas Cottier eds., 2012).

⁹⁵ See, e.g., Robert Wolfe, *First Diagnose, Then Treat: What Ails the Doha Round?*, 14 WORLD TRADE REV. 7, 13 (2015).

the Uruguay Round, the present state of requests and offers⁹⁶ for the sector reveals precious few new commitments and no future-oriented rule design. Despite the recognition, widely shared by key WTO Members, that the audiovisual sector has changed dramatically,⁹⁷ in particular in the face of the sweeping transformations caused by the Internet, there is little agreement on the best way forward.⁹⁸ This is a major setback for trading data as content; it undermines the very liberal regime that the WTO has established with regard to infrastructure and some other services sectors like telecom, computer, and related services. It may also be valuable to keep in mind this specific case of trade versus culture, its negative spillover effects,⁹⁹ and how the distributional conflict between the United States and the EU has played out.¹⁰⁰ This situation may very well be replicated in the area of privacy protection, where too the positions of the two key stakeholders diverge, as explained in the next section.

C. *The WTO as Enabling Balance Between Economic and Non-Economic Interests*

As noted above, although the WTO law represents a “hard” form of international law, it does include certain mechanisms meant to

⁹⁶ Request-and-offer is a form of advancing services negotiations typical of the WTO. They may refer to: (i) the addition of new sectors; (ii) the removal of existing limitations or the introduction of bindings in modes that have so far been unbound; (iii) the undertaking of additional commitments under Article XVIII; and (iv) the termination of MFN exemptions. See WTO Secretariat, *Technical Aspects of Requests and Offers*, WTO 1, 2 (Feb. 20, 2002), https://www.wto.org/english/tratop_e/serv_e/requests_offers_approach_e.doc.

⁹⁷ Council for Trade in Services, *Communication from the European Union and the United States: Contribution to the Work Programme on Electronic Commerce*, WTO Doc. S/C/W/338 (July 13, 2011); see also Christoph Beat Graber, *Audio-Visual Policy: The Stumbling Block of Trade Liberalisation*, in *THE WTO AND GLOBAL CONVERGENCE IN TELECOMMUNICATIONS AND AUDIOVISUAL SERVICES* 165, 166-70 (Damien Geradin & David Luff eds., 2004); Roy, *supra* note 90, at 931-36.

⁹⁸ See, e.g., Council for Trade in Services, *Background Note by the Secretariat: Audiovisual Services*, WTO Doc. S/C/W/310 (Jan. 12, 2010); Council for Trade in Services, *Communication from the European Communities and its Member States: Draft consolidated GATS Schedule*, WTO Doc. S/C/W/273 (Oct. 9, 2006).

⁹⁹ See Mira Burri, Christoph Graber & Thomas Steiner, *The Protection and Promotion of Cultural Diversity in a Digital Networked Environment: Mapping Possible Advances to Coherence*, in *THE PROSPECTS OF INTERNATIONAL TRADE REGULATION* 359 (Thomas Cottier & Panagiotis Delimatsis eds., 2011); Burri, *Trade Versus Culture: Digital*, *supra* note 91.

¹⁰⁰ See, e.g., MARK A. POLLACK & GREGORY C. SHAFFER, *WHEN COOPERATION FAILS: THE INTERNATIONAL LAW AND POLITICS OF GENETICALLY MODIFIED FOODS* (2009); Shaffer & Pollack, *supra* note 34.

reconcile economic and non-economic interests, international commitments, and domestic values and sensitivities. Key amongst these mechanisms are the “general exceptions” formulated under the GATT Article XX and the GATS Article XIV.¹⁰¹ They permit WTO Members to adopt measures, which would otherwise violate their obligations and commitments, under the condition that these measures are not disguised restrictions on trade.¹⁰² Particularly interesting for this article’s discussion on data flows are the possibilities that Article XIV GATS opens for maintaining existing and adopting new data restrictions. While Article XIV enumerates different grounds as possible justifications, such as the protection of human, animal, or plant life or health,¹⁰³ especially pertinent for us are two categories: (i) those relating to public order or public morals¹⁰⁴ and (ii) those that are necessary to secure compliance with laws or regulations.¹⁰⁵ In the latter context, the GATS norm spells out that this may be the case in particular when necessary to secure compliance with laws or regulations relating to “the protection of the privacy of individuals in relation to the processing and dissemination of personal data and the protection of confidentiality of individual records and accounts.”¹⁰⁶ The focus here is on this provision and for the sake of revealing how it is relevant for data flows, it is assumed that the rules of the EU General Data Protection Regulation (“GDPR”)¹⁰⁷ are tested

¹⁰¹ Although there are textual differences between Article XX GATT and Article XIV GATS, their structure, function, and language are similar, and for most purposes they can be considered together. See *U.S. – Gambling*, *supra* note 71, at ¶¶ 291-92.

¹⁰² See, e.g., Glyn Ayres & Andrew Mitchell, *General and Security Exceptions under the GATT and GATS*, in *INTERNATIONAL TRADE LAW AND WTO* ch. 9 (Indira Carr, Jahid Bhuiyan & Shawkat Alam eds., 2012); MAVROIDIS & WU, *supra* note 19, at ch. 12; Lorand Bartels, *The Chapeau of the General Exceptions in the WTO GATT and GATS Agreements: A Reconstruction*, 109 *AM. J. INT’L L.* 95 (2015).

¹⁰³ GATS art. XIV(b).

¹⁰⁴ *Id.* art. XIV(a). For an analysis, see Panagiotis Delimatsis, *The Puzzling Interaction of Trade and Public Morals in the Digital Era*, in *TRADE GOVERNANCE IN THE DIGITAL AGE* 276-96 (Mira Burri & Thomas Cottier eds., 2010); Jeremy C. Marwell, Note, *Trade and Morality: The WTO Public Morals Exception after Gambling*, 81 *N.Y.U. L. REV.* 802, 807-24 (2006); Mark Wu, Note, *Free Trade and the Protection of Public Morals: An Analysis of the Newly Emerging Public Morals Clause Doctrine*, 33 *YALE J. INT’L L.* 215, 217-36 (2008).

¹⁰⁵ GATS art. XIV(c). For a commentary of GATS Article XIV, see Thomas Cottier, Panagiotis Delimatsis & Nicolas Diebold, *Article XIV GATS: General Exceptions*, in 6 *MAX PLANCK COMMENTARIES ON WORLD TRADE LAW TRADE IN SERVICES*, 287-328 (Rüdiger Wolfrum, Peter-Tobias Stoll & Clemens Feinäugle eds., 2008).

¹⁰⁶ GATS art. XIV(c)(ii).

¹⁰⁷ Council Regulation 2016/679, of the European Parliament and of the Council of 27 April 2016 on the Protection of Natural Persons with Regard to the Processing of

under it — because they were found to either violate the market access or the national treatment obligations of the EU under the GATS.¹⁰⁸

As it has been well documented,¹⁰⁹ the GDPR is a piece of EU legislation that is meant to provide for very high standards of protection of personal data as an expression of the fundamental rights of EU citizens to privacy and family life, as embedded in the Charter of Fundamental Rights of the EU.¹¹⁰ The GDPR formulates to this effect a set of heavy obligations for those controlling and processing personal information¹¹¹ and seeks to endorse this not only within the borders of the Union but also for cross-border data transfers containing personal data.¹¹²

Article XIV GATS, similarly to Article XX GATT, involves a number of legal tests that, applied to each individual case, seek to draw a line between measures that may be found permitted under WTO law despite their prima facie violation of certain WTO legal obligations. These legal tests were established by and have evolved through the WTO jurisprudence. It is outside of this Article's scope to explore this evolution of the legal practice and all the nuances implied and the uncertainties left by the panels and the Appellate Body in the application of the general exception clauses under the GATT and the GATS. We highlight here only the core legal questions asked and their sequencing before the quasi-judicial bodies of the WTO reach a decision: (i) the panels and the Appellate Body consider whether the measure falls within the scope of one of the listed objectives in the exception; (ii) the measure must address the relevant public interest at issue, with a sufficient nexus between the measure and the objective

Personal Data and on the Free Movement of Such Data and Repealing Council Directive 95/46/EC, 2016 O.J. (L 119) 1 [hereinafter GDPR].

¹⁰⁸ For a fully-fledged analysis of how this may occur, see KRISTINA IRION, SVETLANA YAKOVLEVA & MARIYA BARTL, *TRADE AND PRIVACY: COMPLICATED BEDFELLOWS?* 27-33 (2016); Rolf H. Weber, *Regulatory Autonomy and Privacy Standards Under the GATS*, 7 *ASIAN J. WTO & INT'L HEALTH L. & POL'Y* 25, 32-34 (2012).

¹⁰⁹ See, e.g., Mira Burri & Rahel Schär, *The Reform of the EU Data Protection Framework: Outlining Key Changes and Assessing Their Fitness for a Data-Driven Economy*, 6 *J. INFO. POL'Y* 479 (2016); Jacob M. Victor, *The EU General Data Protection Regulation: Toward a Property Regime for Protecting Data Privacy*, 123 *YALE L.J.* 513 (2013); Gregory W. Voss, *After Google Spain and Charlie Hebdo: The Continuing Evolution of European Union Data Privacy Law in a Time of Change*, 71 *BUS. LAW.* 281 (2016).

¹¹⁰ Charter of Fundamental Rights of the European Union, arts. 7–8, Mar. 30, 2010, 2010 O.J. (C 83) 393.

¹¹¹ See GDPR, *supra* note 107, at arts. 24–43.

¹¹² See *id.* at art. 3.

pursued;¹¹³ and (iii) the measure is examined under the chapeau (the introductory paragraph) of Article XIV GATS. With regard to the first step, there has been a wide margin of appreciation given to WTO Members in their choice of objectives that they seek to protect. The second step is much more complex and triggers the so-called “necessity” test. The Appellate Body has noted that there are different degrees of necessity. At one end of this continuum lies “necessary” understood as “indispensable,” while at the opposite side, “necessary” is taken to mean “making a contribution to.” The Appellate Body noted that a “necessary” measure is located significantly closer to the pole of “indispensable” than to simply “making a contribution.”¹¹⁴ The more important the interest that the measure is designed to protect and the greater the contribution to the objective, the easier it is to accept the measure as “necessary.”¹¹⁵ However, the Appellate Body has also stated that the requirement for measures “relating to” a goal (as is the case with the GATS privacy exception), is “more flexible textually” than a strict “necessity” requirement and may simply require a “substantial” or “reasonable” relationship of the measure to the objective pursued.¹¹⁶

Ultimately, it has also been clarified that this “weighing and balancing”¹¹⁷ of factors should include a comparison of the challenged measure and its possible alternatives.¹¹⁸ In order to show that the

¹¹³ *U.S. – Gambling*, *supra* note 71, at ¶ 292; *see also* Appellate Body Report, *Brazil – Measures Affecting Imports of Retreaded Tyres*, ¶¶ 119-24, WTO Doc. WT/DS332/AB/R (adopted Dec. 3, 2007).

¹¹⁴ Appellate Body Report, *Korea – Measures Affecting Imports of Fresh, Chilled and Frozen Beef*, ¶ 161, WTO Doc. WT/DS161/AB/R, WT/DS169/AB/R (adopted Dec. 11, 2000) [hereinafter *Korea – Beef*].

¹¹⁵ Panel Report, *Argentina – Measures Relating to Trade in Goods and Services*, ¶¶ 7.655, 7.685, 7.727, WTO Doc. WT/DS453/R (adopted Sept. 30, 2015) [hereinafter *Argentina – Goods*] (referring to *Korea – Beef*, *supra* note 114, at ¶¶ 162-63).

¹¹⁶ *Korea – Beef*, *supra* note 114, at ¶ 161 n.104 (first citing Appellate Body Report, *United States – Standards for Reformulated and Conventional Gasoline*, at 19, WTO Doc. WT/DS2/AB/R (adopted Apr. 29, 1996); then citing Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products*, ¶ 141, WTO Doc. WT/DS58/AB/R (adopted Oct. 12, 1998)).

¹¹⁷ *See U.S. – Gambling*, *supra* note 71, at ¶ 78; Panel Report, *China – Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products*, ¶ 4.439, WTO Doc. WT/DS363/R, (adopted Aug. 12, 2009) [hereinafter *China – Audiovisual Products*].

¹¹⁸ *U.S. – Gambling*, *supra* note 71, at ¶ 306; *Argentina – Goods*, *supra* note 115, at ¶ 7.684. There is a particular sequencing to this analysis: [T]he process begins with an assessment of the relative importance of the interests or values furthered by the challenged measure. A panel should then turn to the other factors that are to be weighed and balanced, which will in most cases include: (i) the contribution of the

measure does not meet the necessity test, a claimant can demonstrate that a less trade-restrictive alternative to the measure has been “reasonably available.”¹¹⁹ The alternative measure cannot pose prohibitive costs or substantial technical difficulties to implement.¹²⁰ A measure that has been provisionally justified under the above material requirements of Article XIV(c)(ii) GATS must also meet the chapeau test, which says that a measure should not be applied in a manner that would constitute a means of arbitrary or unjustifiable discrimination between countries where like conditions prevail, or is a disguised restriction on trade in services. Summing up existing practice,¹²¹ it appears that the panels and the Appellate Body have interpreted the chapeau as directed at preventing abuses or misuses of the right to invoke the exception¹²² and by evaluating the “consistency” of enforcement of the challenged measure.¹²³

Admittedly, these tests set a high hurdle for WTO Members, and the “success rate” for passing through them has been rather low.¹²⁴ Scholars have argued that if the EU would be challenged before a WTO panel, its General Data Protection Regulation (“GDPR”) may fail the test — on several particular grounds. Irion, Yakovleva, and Bartl have argued that the EU may face a problem with finding appropriate evidence on the performance of its data protection law.¹²⁵ For

measure to the realization of the ends pursued by it; and (ii) the restrictive effect of the measure on international commerce. Additional factors may be relevant in specific cases. See *China – Audiovisual Products*, *supra* note 117, at ¶ 4.439.

¹¹⁹ *Korea – Beef*, *supra* note 114, at ¶ 165 (quoting Report by the Panel, *United States – Section 337 of the Tariff Act of 1930*, ¶ 5.26, L/6439 – 36S/345 (Nov. 2, 1989) GATT (“[I]n cases where a measure consistent with other GATT provisions is not reasonably available, a contracting party is bound to use, among the measures reasonably available to it, that which entails the least degree of inconsistency with other GATT provisions.”).

¹²⁰ *Argentina – Goods*, *supra* note 115, at ¶ 7.729 (referring to *U.S. – Gambling*, *supra* note 71, at ¶ 308).

¹²¹ For a fully-fledged analysis, see Bartels, *supra* note 102, at 102.

¹²² See *Argentina – Goods*, *supra* note 115, at ¶ 7.743.

¹²³ See *U.S. – Gambling*, *supra* note 71, at ¶ 351. In *U.S. – Gambling*, the Appellate Body confirmed that the U.S. ban on online gambling did not meet the requirement of the chapeau of Article XIV GATS due to ambiguity in relation to the scope of one U.S. statute, which appeared to permit domestic suppliers to have remote betting services for horse racing. *Id.*

¹²⁴ Only one case has so far passed all the tests. See Appellate Body Report, *U.S. – Import Prohibitions of Certain Shrimp and Shrimp Products: Recourse to Article 21.5 DSU by Malaysia*, WTO Doc. WT/DS58/AB/RW (adopted Oct. 22, 2001). See generally Robert Howse, *The Appellate Body Rulings in the Shrimp/Turtle Case: A New Legal Baseline for the Trade and Environment Debate*, 27 COLUM. J. ENVTL. L. 491 (2002).

¹²⁵ See IRION ET AL., *supra* note 108, at 36-39; see also Diane A. MacDonald &

instance, the invalidated EU-U.S. Safe Harbor agreement¹²⁶ was in fact not particularly stringent, as it gave a lot of space for voluntary measures, did not bind U.S. governmental authorities, and provided for neither supervision nor remedies.¹²⁷ These faults give a good basis for one to argue that the contribution of the challenged measure to securing compliance with EU data protection law is seriously undermined. Second and this is a critical argument, the potential claimant can maintain that there are less trade restrictive measures that are reasonably available for the attainment of EU's desired level of data protection. The GDPR is, in many senses, excessively burdensome and with sizeable extraterritorial effects.¹²⁸ Especially if compared with other data protection rules around the world, it may be difficult to prove that privacy cannot be otherwise protected.¹²⁹ Even if the WTO panel and the Appellate Body would deem the provisions on the transfer of personal data to third countries necessary in order to secure compliance with the GDPR, there is an argument to be made that these provisions have not been consistently implemented by the EU and would ultimately fail the chapeau test. If the EU has denied a third country's application for adequacy assessment or a request to negotiate a sectoral scheme similar to that of the EU-U.S. Safe Harbor, or its newer version of the Privacy Shield,¹³⁰ it seems that the chapeau

Christine M. Streatfeild, *Personal Data Privacy and the WTO*, 36 HOUS. J. INT'L L. 625, 640-50 (2014).

¹²⁶ Commission Decision 2000/520/EC of July 26, 2000, Pursuant to Directive 95/46/EC of the European Parliament and of the Council on the Adequacy of the Protection Provided by the Safe Harbour Privacy Principles and Related Frequently Asked Questions Issued by the U.S. Department of Commerce, 2000 O.J. (L 215) 7.

¹²⁷ Case C-362/14, *Schrems v. Data Prot. Comm'r*, ECLI:EU:C:2015:650 ¶¶ 93-98 (Oct. 6, 2015), <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:62014CJ0362&from=EN>.

¹²⁸ See, e.g., Burri & Schär, *supra* note 109; Stephen J. Kobrin, *Safe Harbours Are Hard to Find: The Trans-Atlantic Data Privacy Dispute, Territorial Jurisdiction and Global Governance*, 30 REV. INT'L STUD. 111 (2004); Christopher Kuner, *Reality and Illusion in EU Data Transfer Regulation Post Schrems*, 18 GERMAN L.J. 881 (2017); Future of Privacy Forum, *Overextended: Jurisdiction and Applicable Law Under the EU General Data Protection Regulation* (Jan. 2013), <https://fpf.org/wp-content/uploads/FINAL-Future-of-Privacy-Forum-White-Paper-on-Jurisdiction-and-Applicable-Law-January-20134.pdf>.

¹²⁹ See, e.g., LEE BYGRAVE, *DATA PRIVACY LAW: AN INTERNATIONAL PERSPECTIVE* (2014).

¹³⁰ *Commission Communication on Transatlantic Data Flows: Restoring Trust Through Strong Safeguards*, COM (2016) 117 final (Feb. 29, 2016); Commission Implementing Decision of XXX pursuant to Directive 95/46/EC of the European Parliament and of the Council on the Adequacy of Protection Provided by the EU-U.S. Privacy Shield, Draft, <http://www.politico.eu/wp-content/uploads/2016/06/Privacy-shield-text-for-opinion-and->

test requirements are hard to meet. The EU may be effectively discriminating between different countries in finding adequate levels of protection there and in engaging in cooperation with them, so that these standards can be secured in terms of substance and procedure.¹³¹

Overall, the general exception clause under Article XIV GATS is a good example of both the flexibility of WTO law, as well as of its potential to intervene in domestic matters in an attempt to discipline WTO Members, drawing a line between licit and illicit protection. Whether this suffices to make a claim that the WTO is potent and adaptable, is the question asked by the following sections.

D. *The WTO as Failed Legal Adaptation*

The state of WTO law as analyzed above is the one currently valid and enforced. Despite a few updates — such as the Information Technology Agreement — the WTO rules have so far not reacted in a forward-looking manner to the various changes triggered by the Internet. In this sense, data and data flows have not been addressed deliberately. One could argue that laws need not change with each and every new technological invention.¹³² Indeed, the law of the WTO may lend credence to such an argument because it is intrinsically flexible but also stable in the substantive and procedural rules. The WTO is based on powerful principles of non-discrimination, which could potentially address technological developments better than new made-to-measure regulatory acts that may often be adopted as a reaction to strong vested interests.¹³³ WTO law also often tackles issues in a technologically neutral way — for instance, with regard to the application of the basic principles, with regard to standards,¹³⁴ trade

annexes.pdf. For an overview, see European Commission Memorandum MEMO/16/434, EU-U.S. Privacy Shield: Frequently Asked Questions (Feb. 29, 2016); European Commission Press Release IP/16/433, Restoring Trust in Transatlantic Data Flows Through Strong Safeguards: European Commission Presents EU-U.S. Privacy Shield, (Feb. 29, 2016).

¹³¹ IRION ET AL., *supra* note 108, at 36-39.

¹³² See Frank H. Easterbrook, *Cyberspace and the Law of the Horse*, 1996 U. CHI. LEGAL F. 207, 208.

¹³³ Especially in the domain of intellectual property rights protection. See, e.g., WILLIAM PATRY, *MORAL PANICS AND THE COPYRIGHT WARS* (2009); SUSAN SELL, *PRIVATE POWER, PUBLIC LAW: THE GLOBALIZATION OF INTELLECTUAL PROPERTY RIGHTS* (2003).

¹³⁴ The WTO does not have a standard-setting capacity itself, but its Agreement on Technical Barriers to Trade (“TBT Agreement”) assesses the compatibility of domestic regulations and standards with WTO law. Overall, the TBT Agreement limits the regulatory space available to states to implement standards as barriers to trade. Next to encouraged subscription to international standards, it includes far-reaching non-

facilitation,¹³⁵ subsidies,¹³⁶ and government procurement.¹³⁷ There are additionally, horizontally applicable provisions, such as those regarding transparency (Article III GATS)¹³⁸ and domestic regulation (Article VI GATS)¹³⁹ that may have, if properly implemented and

discrimination and transparency norms, as well as procedural safeguards. *See, e.g.*, Agreement on Technical Barriers to Trade arts. 2.1, 2.2, 2.9, 2.10, 2.11, 2.12, 4.1, 10, Apr. 15, 1994, https://www.wto.org/english/docs_e/legal_e/17-tbt.pdf.

¹³⁵ The WTO Agreement on Trade Facilitation, which was agreed upon in the 2013 Bali Ministerial Conference is an important customs reform that reduces the burden of administrative and customs controls at the border and makes procedures and officials more transparent, efficient, and accountable. It requires, for example, WTO Members to publish information on all laws, regulations, and procedures affecting trade, including transit procedures, duty rates, and import fees. Most of this information must be made available on the Internet. The agreement would also speed up procedures by providing, for instance, for a one-stop-shop for documentation and for expedited release of goods through air cargo facilities. The Trade Facilitation Agreement entered into force on February 22, 2017. *See* WTO General Council, *Protocol Amending the Marrakesh Agreement Establishing the World Trade Organization*, WTO Doc. WT/L/940 (Nov. 27, 2014). On trade facilitation under the WTO, *see Trade Facilitation*, WTO, http://www.wto.org/english/tratop_e/tradfa_e/tradfa_e.htm (last visited July 8, 2017).

¹³⁶ The WTO Agreement on Subsidies and Countervailing Measures disciplines the use of subsidies and regulates the actions countries can take to counter the effects of subsidies. Under the agreement, a country can use the WTO's dispute-settlement procedure to seek the withdrawal of the subsidy or the removal of its adverse effects. Alternatively, the country can launch its own investigation and ultimately charge extra duty ("countervailing duty") on subsidized imports that are found to be hurting domestic producers. There is no comparable agreement for trade in services; just a duty to negotiate under the GATS "built-in agenda." GATS art. XV.

¹³⁷ *See Agreement on Government Procurement*, *supra* note 54.

¹³⁸ GATS art. III, ¶ 1. GATS requires governments to promptly publish all laws, regulations, and other measures that apply and that pertain to, or affect the operation of, the GATS (except in emergency situations) by the time of their entry into force (except in emergency situations). Where publication is not practicable, Members are required to find another way to ensure that Members and the public at large can access them.

¹³⁹ *Id.* art. VI, ¶ 1. GATS provides that, in services sectors where a government has made specific pledges, "each Member shall ensure that all measures of general application affecting trade in services are administered in a reasonable, objective and impartial manner." *Id.* art. VI, ¶ 2(a). GATS requires that all WTO Members "maintain or institute as soon as practicable judicial, arbitral or administrative tribunals or procedures which provide, at the request of an affected service supplier, for the prompt review of, and where justified, appropriate remedies for, administrative decisions affecting trade in services. Where such procedures are not independent of the agency entrusted with the administrative decision concerned, the Member shall ensure that the procedures in fact provide for an objective and impartial review." *Id.* For more detailed analysis, *see* PANAGIOTIS DELIMATIS, *INTERNATIONAL TRADE IN SERVICES AND DOMESTIC REGULATIONS: NECESSITY, TRANSPARENCY, AND REGULATORY DIVERSITY* (2008).

further developed, the potential to deal with many digital trade concerns.

Moreover, the WTO arguably possesses the unrivalled advantage of an effective dispute settlement that fosters legal evolution.¹⁴⁰ There is strong evidence in the WTO jurisprudence for both the capacity of the dispute settlement system and for the relevance of the Internet in trade conflicts.¹⁴¹

The path of solution finding through the judicial arm of the WTO has worked fairly well in the digital trade domain, in clarifying the WTO law and advancing it further, settling some of these difficult issues upon which the 100 plus WTO Members could not reach a compromise. The *U.S. – Gambling*¹⁴² and the *China – Audiovisual Products*¹⁴³ cases stand out in this context. The *U.S. – Gambling* case was the first GATS-only dispute and looked at the consistency of the U.S. online gambling ban with its commitments under the GATS. The Panel and the Appellate Body applied with no hesitation the rules of the GATS to electronic cross-border delivery of services, therewith already casting aside some existing uncertainties of WTO law's applicability to situations online. After clarifying that the U.S. had indeed made commitments for the sub-sector of gambling services, the Panel found that the U.S. regulations violated its market access commitments under Article XVI:1(a) and (c) GATS, as these “[constitute] a zero quota for, respectively, one, several or all of those means of delivery.”¹⁴⁴ The Panel and the Appellate Body, without an express statement, applied the cross-border supply of services (mode 1), and subscribed to a very strict non-discrimination standard that showed less deference to the U.S. regulatory autonomy.¹⁴⁵ Such a deep

¹⁴⁰ See, e.g., THE WTO AT TEN, *supra* note 31; Bernauer, Elsig & Pauwelyn, *supra* note 31; Davey, *supra* note 31, at 17.

¹⁴¹ In fact, all major GATS cases have had a substantial Internet-related element. See *China – Certain Measures*, *supra* note 77; Appellate Body Report, *China – Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment*, WTO Doc. WT/DS363/AB/R, (adopted Dec. 21, 2009); *China – Audiovisual Products*, *supra* note 117; Panel Report, *United States – Measures Affecting the Cross-Border Supply of Gambling and Betting Services*, WTO Doc. WT/DS285/R, (adopted Nov. 10, 2004) [hereinafter Panel Report, *U.S. – Gambling*]; *U.S. – Gambling*, *supra* note 71; Panel Report, *Mexico – Measures Affecting Telecommunications Services*, WTO Doc. WT/DS204/R (adopted Apr. 2, 2004).

¹⁴² Panel Report, *U.S. – Gambling*, *supra* note 141; *U.S. – Gambling*, *supra* note 71.

¹⁴³ *China – Audiovisual Products*, *supra* note 117.

¹⁴⁴ Panel Report, *U.S. – Gambling*, *supra* note 141, at ¶¶ 6.363, 6.367, 6.370; *U.S. – Gambling*, *supra* note 71, at ¶ 265.

¹⁴⁵ Joost Pauwelyn, *Rien ne Va Plus? Distinguishing Domestic Regulation from Market Access in GATT and GATS*, 4 WORLD TRADE REV. 131, 132, 163 (2005).

form of intervention can arguably be of importance to newer situations where states adopt, for instance, (prohibitively) high standards of data and privacy protection that hinder trade¹⁴⁶ — as discussed above. *U.S. – Gambling* made it also clear that the general exceptions under Article XIV GATS are applicable and that WTO Members can — despite full specific commitments under the GATS — rely on this provision to exempt them from their GATS obligations, when seeking to attain vital public policy objectives. When considering the ban on online gambling under the public morals/public order exception, the Appellate Body did not apply an exceedingly restrictive “necessity test.”¹⁴⁷ The U.S. measure failed only to satisfy the chapeau of Article XIV GATS, that is the trade protectionism test referring to the manner in which the measure is applied.¹⁴⁸

The *China – Audiovisual Products* case was another GATS case,¹⁴⁹ which, in addition to significant clarifications of systemic importance to the general WTO law,¹⁵⁰ made a few critical advances with regard to digital flows rules. In particular, *China – Audiovisual Products* attempted for the first time to draw a line between the GATS and the GATT, and the underlying definition of what constitutes a good and

¹⁴⁶ Weber, *supra* note 108; see also MacDonald & Streatfeild, *supra* note 125.

¹⁴⁷ The Panel and the Appellate Body clarified also the criteria to be applied in the Article XIV necessity test, making a reference to the GATT practice, as developed in Appellate Body Report, *Korea – Various Measures on Beef*, WTO Doc. WT/DS161/AB/R, WT/DS169/AB/R (adopted Dec. 11, 2000). They referred to the importance of interests or values that the challenged measure is intended to protect; the extent to which the challenged measure contributes to the realization of the end pursued by that measure; and the trade impact of the challenged measure.

¹⁴⁸ For a detailed analysis, see generally Panagiotis Delimatsis, *Don't Gamble with GATS – The Interaction between Articles VI, XVI, XVII and XVIII GATS in the Light of the U.S. – Gambling Case*, 40 J. WORLD TRADE 1059 (2006); Markus Krajewski, *Playing by the Rules of the Game? Specific Commitments after U.S. – Gambling and Betting and the Current GATS Negotiations*, 32 LEGAL ISSUES ECON. INTEGRATION 417 (2005); Sacha Wunsch-Vincent, *The Internet, Cross-Border Trade in Services, and the GATS: Lessons from U.S. – Gambling*, 5 WORLD TRADE REV. 319 (2006); see also Rolf H. Weber, *Digital Trade in WTO-Law – Taking Stock and Looking Ahead*, 5 ASIAN J. WTO & INT'L HEALTH L. & POL'Y 1, 15-16 (2010).

¹⁴⁹ The measures at issue in the case restricted the capacity of foreign companies to import and distribute publications and audiovisual products and introduced more burdensome content review requirements on foreign products. The products included books, newspapers, periodicals, electronic publications, DVDs, sound recordings, and films for theatrical release. China attempted the use of the public morals exception. The United States could prove that there is a less trade restrictive measure. See *China – Audiovisual Products*, *supra* note 117, at ¶¶ 26-28, 129-31.

¹⁵⁰ See Joost Pauwelyn, Case Note, *Squaring Free Trade in Culture with Chinese Censorship: The WTO Appellate Body Report on China – Audiovisuals*, 11 MELBOURNE J. INT'L L. 1, 1-2 (2008).

what constitutes a service. While the analysis may not be complete, the Appellate Body did define “goods” (as opposed to “services”) using the criterion of “physical tangibility.”¹⁵¹ More crucially, the *China – Audiovisual Products* case addressed the controversial question of likeness that would trigger violation of non-discriminatory treatment of offline and online services. In *U.S. – Gambling*, the Panel had confirmed only elements of technological neutrality with regard to the different modes of supply in finding that a “prohibition on one, several or all of the means of delivery included in mode 1 . . . constitutes a limitation on the total number of service operations . . . within the meaning of Article XVI:2(c).”¹⁵² In *China – Audiovisual Products*, the Appellate Body made it clear that distribution can cover both physical delivery as well as online delivery (unless otherwise specified) and ultimately strengthened the technological neutrality stance under the GATS.¹⁵³

In this sense, the evolution through the quasi-judicial practice of the WTO has been important and with palpable effects on the legal conditions of digital trade; perhaps even entering into an area of “judicial activism.”¹⁵⁴ But is this adaptation¹⁵⁵ sufficient? The answer is a clear “no,” at least for two reasons. First, because it is patchy and fails to contribute to a sufficient level of legal certainty. The aforementioned classification dilemma, which is particularly critical for the legal categorization of data flows,¹⁵⁶ exposes vividly the

¹⁵¹ *Id.* at 5-14.

¹⁵² Panel Report, *U.S. – Gambling*, *supra* note 141, at ¶¶ 6.355, 7.2(b).

¹⁵³ *China – Audiovisual Products*, *supra* note 117, at ¶ 412. The most recent case, *China – Electronic Payment Services*, also provided for a broad definition of the services at issue. See Rolf H. Weber, *Electronic Payment Services – New Clarifications in GATS Classification Issues*, 10 *SIC!* 601, 602-04 (2012).

¹⁵⁴ Shin-yi Peng, *Regulating New Services through Litigation? Electronic Commerce as a Case Study on the Evaluation of “Judicial Activism” in the WTO*, 48 *J. WORLD TRADE* 1189 (2014).

¹⁵⁵ See, e.g., Rosie Cooney & Andrew T.F. Lang, *Taking Uncertainty Seriously: Adaptive Governance and International Trade*, 18 *EUR. J. INT’L L.* 523 (2007) (describing the processes unfolding in the different bodies that shape the discourse and ultimately lead to legal adaptation).

¹⁵⁶ Online games, for instance, as a new type of content platform, could fit into the discrete categories of computer and related services, value-added telecommunications services, entertainment, or audiovisual services — each of which implies a completely different set of duties and/or flexibilities. See WEBER & BURRI, *supra* note 44, at ch. 3. We are further unsure when there is an electronic data flow intrinsic to the service, whether to classify this flow separately, or as part of the traditional services. See Peng, *supra* note 89.

disconnectedness of trade rules from trade practices.¹⁵⁷ It is however not the only illustration of the state of paralysis in the WTO. Many other issues discussed in the framework of the 1998 WTO Work Program on Electronic Commerce have been left without a solution or even clarification.¹⁵⁸ For instance, there is still no agreement on a permanent duty-free moratorium on electronic transmissions and their content. The moratorium has only been temporarily extended several times; the last time for a period of two years following a decision taken during the Nairobi Ministerial Conference in 2015.¹⁵⁹

Second, the WTO has not kept an adequate pace with digital trade developments, because the way its adaptation occurs is unfitting. It is incapable of addressing many of the contentious issues, which block digital trade negotiations, because they stem from more fundamental policy and cultural divergences. They translate into different “trade and . . .” pairs — such as trade and culture, trade and privacy, and trade and human rights,¹⁶⁰ which render solution-finding processes hard and protracted, especially when the views of dominant actors — the United States and the European Union — diverge.¹⁶¹ Critically, incremental legal adaptation that seeks to address the issues raised by the Work Program on E-Commerce may simply be insufficient or even futile by now. Since the Program was launched in 1998, the picture has changed in many critical respects. The significance of digital trade and the centrality of data for economic processes, both as a contribution to the economic growth of many countries and as

¹⁵⁷ See, e.g., Mira Burri & Thomas Cottier, *Introduction: Digital Technologies and International Trade Regulation*, in *TRADE GOVERNANCE IN THE DIGITAL AGE 1* (Mira Burri & Thomas Cottier eds., 2012). This is one of the first studies that examines the effects of the Internet in different fields of international trade regulation.

¹⁵⁸ Sacha Wunsch-Vincent & Arno Hold, *Towards Coherent Rules for Digital Trade: Building on Efforts in Multilateral Versus Preferential Trade Negotiations*, in *TRADE GOVERNANCE IN THE DIGITAL AGE* 179, 181 (Mira Burri & Thomas Cottier eds., 2012); Andrew D. Mitchell, *Towards Compatibility: The Future of Electronic Commerce Within the Global Trading System*, 4 *J. INT'L ECON. L.* 683, 690-721 (2001).

¹⁵⁹ The ministerial decision was adopted at the Tenth WTO Ministerial Conference in Nairobi. *Work Programme on Electronic Commerce: Ministerial Decision of 19 December 2015: WT/MIN(15)/42 — WT/L/977*, WTO, https://www.wto.org/english/thewto_e/minist_e/mc10_e/1977_e.htm.

¹⁶⁰ See, e.g., Andrew T.F. Lang, *Reflecting on “Linkage”: Cognitive and Institutional Change in the International Trading System*, 70 *MOD. L. REV.* 523 (2007) (discussing the connections between trade and other topics, such as the protection of the environment and labor, and how these shape debates and institutions).

¹⁶¹ The trade and culture debate is illustrative in this context. See Burri et al., *supra* note 99.

preoccupation of governments with digital trade-related policies, has grown exponentially, as highlighted in the beginning of this article.¹⁶²

To sum up, while it can be maintained that the WTO Agreements have fairly comprehensive rules and that digital trade *can* be subsumed under the law of the GATT and the GATS, it is also evident that legal adaptation under the auspices of the WTO has not progressed. Despite the utility of the WTO's dispute settlement, judicial transplants cannot replace political consensus on the substance, particularly in a complex and highly technical domain, such as digital trade. As the Doha negotiations continue to make little progress, the multilateral venue of legal rule-making has been seriously undermined and this has triggered forum-shopping — bilaterally, regionally, or through plurilateral initiatives.

The next sections address the solutions found in free trade agreements which, on the one hand, compensate for the failed adaptation of the WTO and, on the other hand, provide some deliberate responses to the regulation of data flows. We seek to understand the origins of some discrete digital trade rules as well as their evolution.

II. EXPERIENCE GATHERED IN U.S. FREE TRADE AGREEMENTS

The regulatory environment for digital trade has been substantially influenced by FTAs and in particular by those led by the United States. The United States has sought implementation of its so-called “Digital Agenda,”¹⁶³ with which it formulated for the first time concrete and expansive objectives in the domain of digital trade, through the FTA channel. The agreements reached by the United States since 2002 with Australia,¹⁶⁴ Bahrain,¹⁶⁵ Chile,¹⁶⁶ Morocco,¹⁶⁷ Oman,¹⁶⁸ Peru,¹⁶⁹

¹⁶² See MANYIKA ET AL., *supra* note 1; HENKE ET AL., *supra* note 1.

¹⁶³ Bipartisan Trade Promotion Authority Act of 2002 (section 2102(b)(2) on services, 2102(b)(4) on intellectual property rights, 2102(b)(7)(B) and 2103(d) on IT products, 2102(b)(8) on regulatory practices, and 2102(b)(9) on e-commerce). See also Sacha Wunsch-Vincent, *The Digital Trade Agenda of the U.S.: Parallel Tracks of Bilateral, Regional and Multilateral Liberalization*, 58 *AUSSENWIRTSCHAFT* 7 (2003).

¹⁶⁴ United States–Australia Free Trade Agreement, with Annexes and Related Exchange of Letters, Austl.-U.S., May 18, 2004, 43 *I.L.M.* 1248 [hereinafter *Australia–U.S. FTA*].

¹⁶⁵ United States–Bahrain Free Trade Agreement, Bahr.-U.S., Sep. 14, 2004, 44 *I.L.M.* 544.

¹⁶⁶ United States–Chile Free Trade Agreement Implementation Act, Pub. L. No. 108-77 (2003) [hereinafter *U.S.–Chile FTA*].

¹⁶⁷ United States–Morocco Free Trade Agreement, Morocco-U.S., June 15, 2004, 44

Singapore,¹⁷⁰ the Central American countries,¹⁷¹ and more recently with Panama,¹⁷² Colombia,¹⁷³ and South Korea,¹⁷⁴ all contain critical WTO-plus provisions in the broader field of digital trade.¹⁷⁵ Importantly, the U.S. template has also diffused and can be found in other FTAs as well, such as Singapore–Australia, Thailand–Australia,¹⁷⁶ New Zealand–Singapore, India–Singapore, Japan–Singapore, and South Korea–Singapore.¹⁷⁷ The implemented U.S. template regulates key aspects of digital trade in dedicated e-commerce chapters. The chapters on cross-border supply of services and on intellectual property are equally important, as they shape the overall regulatory environment for data flows and often too create specific rules in this regard.

I.L.M. 544.

¹⁶⁸ United States–Oman Free Trade Agreement, Oman-U.S., Jan. 1, 2006, <https://ustr.gov/trade-agreements/free-trade-agreements/oman-fta/final-text> (last visited July 8, 2017).

¹⁶⁹ United States–Peru Trade Promotion Agreement, Peru-U.S., Apr. 12, 2006, <https://ustr.gov/trade-agreements/free-trade-agreements/peru-tpa/final-text> (last visited July 8, 2017).

¹⁷⁰ United States–Singapore Free Trade Agreement, Sing.-U.S., Sept. 3, 2003, 117 Stat. 948 [hereinafter *U.S.–Singapore FTA*].

¹⁷¹ See Dominican Republic–Central America–United States Free Trade Agreement, May 28, 2004, 43 I.L.M. 514, <https://ustr.gov/trade-agreements/free-trade-agreements/cafta-dr-dominican-republic-central-america-fta>. Referred to as DR-CAFTA, the agreement includes the U.S., the Dominican Republic, Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua. *Id.* at pmbl.

¹⁷² See United States–Panama Trade Promotion Agreement, Oct. 31, 2012, <https://ustr.gov/trade-agreements/free-trade-agreements/panama-tpa/final-text> (last visited Aug. 30, 2017).

¹⁷³ See United States–Colombia Trade Promotion Agreement, May 15, 2012, <https://ustr.gov/trade-agreements/free-trade-agreements/colombia-fta/final-text> (last visited Aug. 30, 2017).

¹⁷⁴ United States–Korea Free Trade Agreement, S. Kor.-U.S., Apr. 1, 2007, 46 I.L.M. 642 [hereinafter *KORUS FTA*].

¹⁷⁵ See Wunsch-Vincent & Hold, *supra* note 158, at 193-98.

¹⁷⁶ For all Australian FTAs, see *Free Trade Agreements*, AUSTL. GOV'T: DEP'T FOREIGN AFF. & TRADE, <http://dfat.gov.au/trade/agreements/Pages/trade-agreements.aspx> (last visited July 8, 2017).

¹⁷⁷ For all FTAs of Singapore, see *Singapore Free Trade Agreements*, INT'L ENTER. SING., <https://www.iesingapore.gov.sg/Trade-From-Singapore/International-Agreements/free-trade-agreements/Singapore-FTA> (last visited Aug. 30, 2017); see also Wunsch-Vincent & Hold, *supra* note 158, at 193-97.

A. *E-Commerce Chapters*

The electronic commerce chapters represent first a distinct attempt to compensate for the lack of progress in the WTO and remedy the ensuing uncertainties. They directly or indirectly address many of the questions of the WTO E-Commerce Program that have been discussed but still remain open.¹⁷⁸ This includes a clear definition of “digital products,” which treats digital products delivered offline equally as those delivered online, so that there is a measure of technological neutrality secured. The chapters also recognize the applicability of WTO rules to electronic commerce,¹⁷⁹ and establish an express and permanent duty-free moratorium on the import or export of digital products by electronic transmission.¹⁸⁰ The e-commerce chapters further ensure both MFN and NT for digital products trade; discrimination is banned on the basis that digital products are “created, produced, published, stored, transmitted, contracted for, commissioned, or first made available on commercial terms, outside [the country’s] territory” or whose “author, performer, producer, developer, or distributor . . . is a person of another Party or a non-Party.”¹⁸¹

The e-commerce chapters do also include rules that go beyond the WTO. These cover different issues in the broader IT policy field, such as telecommunications policy, IT standards and interoperability, cyber-security, electronic signatures and payments, paperless trading, self-regulation, and e-government projects. Importantly for data flows, they seek to achieve some common ground rules for the digital marketplace, where increasingly inadequate and incompatible national regulations are seen as a significant digital trade barrier.¹⁸² There is no

¹⁷⁸ SACHA WUNSCH-VINCENT, *THE WTO, THE INTERNET AND TRADE IN DIGITAL PRODUCTS: E.C.-U.S. PERSPECTIVES* 35-100 (2006).

¹⁷⁹ See, e.g., *U.S.–Singapore FTA*, *supra* note 170, at art. 14.1; *Australia–U.S. FTA*, *supra* note 164, at art. 16.1.

¹⁸⁰ See, e.g., *U.S.–Singapore FTA*, *supra* note 170, at art. 14.3, ¶ 1; *U.S.–Chile FTA*, *supra* note 166, at art. 15.3. It is also clear that the zero duty obligation applies to the content of the digital transmission, namely digital products. It appears however that the moratorium does not apply to digitally-delivered services. See Wunsch-Vincent & Hold, *supra* note 158, at 200.

¹⁸¹ See, e.g., *Australia–U.S. FTA*, *supra* note 164, at art. 16.4, ¶ 1; *U.S.–Singapore FTA*, *supra* note 170, at art. 14.3, ¶ 3. In many FTAs digital products must not be fully produced and exported through one of the contracting parties of the bilateral FTAs to benefit from the non-discrimination obligations. This is an interesting way to avoid complex rules of origin. See Wunsch-Vincent & Hold, *supra* note 158, at 201.

¹⁸² See Wunsch-Vincent & Hold, *supra* note 158, 204-11. For comparative data, see USITC (2013), *supra* note 14.

uniform format for attaining this objective. Some of the agreed digital trade principles are general, while others are fairly detailed and far-reaching. The provisions on mutual recognition and international standards, as well as on consumer protection,¹⁸³ can be truly powerful and demand changes in domestic law and policies.

The U.S.–South Korea FTA is perhaps the most advanced in this regard. It includes “Principles on Access to and Use of the Internet for Electronic Commerce,” which detail rights for the consumers to: (a) access and use services and digital products of their choice; (b) run applications and services of their choice; (c) connect their choice of devices to the Internet; and (d) have the benefit of competition among network providers, application and service providers, and content providers.¹⁸⁴ Next to these fairly solid safeguards against censorship and other types of constrained access and use, the U.S.–South Korea FTA provides for free cross-border information flows and obliges the parties, although in a non-binding manner, “to refrain from imposing or maintaining unnecessary barriers to electronic information flows across borders.”¹⁸⁵

These seemingly far-reaching provisions of the e-commerce chapters need to be qualified. They appear legally inferior to the rest of the agreement, since they are subject to any other relevant provisions, exceptions, or non-conforming measures set forth in other Chapters or Annexes of this Agreement.¹⁸⁶ In case of a conflict, the provisions of the e-commerce chapters will thus be overridden.

B. *Chapters on Cross-Border Supply of Services*

The depth of the commitments made in the e-commerce chapters is contingent on the commitments in the services chapters. In most U.S.–

¹⁸³ The U.S.–Australia FTA includes, for instance, detailed additional obligations on cross-border consumer protection, also referring to the 2003 OECD Guidelines for Protecting Consumers from Fraudulent and Deceptive Commercial Practices across Borders. See *Australia–U.S. FTA*, *supra* note 164, at art. 14.6. The same is true for the U.S.–South Korea agreement, which, next to Article 15.5 on online consumer protection, includes detailed rules in its chapter on competition. See *KORUS FTA*, *supra* note 174, at art. 16.6.

¹⁸⁴ See *KORUS FTA*, *supra* note 174, at art. 15.7.

¹⁸⁵ *Id.* at art. 15.8 (“Recognizing the importance of the free flow of information in facilitating trade, and acknowledging the importance of protecting personal information, the Parties shall endeavor to refrain from imposing or maintaining unnecessary barriers to electronic information flows across borders.”)

¹⁸⁶ See, e.g., *U.S.–Chile FTA*, *supra* note 166, at art. 15.2; *U.S.–Singapore FTA*, *supra* note 170, at art. 14.2.

led FTAs, the chapters on cross-border trade supply of services provide for high levels of liberalization.¹⁸⁷ Amongst other things, and pertinently for our discussion, they use a negative-list approach for the undertaking of commitments. This means that no measures inconsistent with national treatment are maintained, except where specifically provided for. While the negative approach does not in itself influence the content or the quality of the obligations undertaken,¹⁸⁸ it does indirectly tackle the problem of outdated (and politically contentious) classification issues, and ensures therewith coverage for future digital services. In addition, the FTAs address still existing MFN exemptions under the WTO regime, and provide that these exemptions are dropped. Transparency and domestic regulation requirements have also been increasingly strengthened.¹⁸⁹ Often there are sector-specific rules that deliberately address data issues — one should be careful here to consult the annexes to the agreements. So, for instance, the financial services chapter of the U.S.–Korea FTA provides specifically that both parties “shall allow a financial institution of the other Party to transfer information in electronic or other form, into and out of its territory, for data processing where such processing is required in the institution’s ordinary course of business.”¹⁹⁰ This is a far-reaching obligation, which is in line with existing U.S. law, but demands a change of Korea’s data privacy rules that required financial services companies to locate their data servers in Korea and prevented data from being transferred outside of the country for processing.¹⁹¹

¹⁸⁷ See WILLIAM H. COOPER & REBECCA M. NELSON, U.S. FOREIGN TRADE IN SERVICES: TRENDS AND U.S. POLICY CHALLENGES 15-17 (2014).

¹⁸⁸ See Rudolf Adlung & Hamid Mamdouh, *How to Design Trade Agreements in Services: Top Down or Bottom Up?* (WTO, Staff Working Paper ERSD-2013-08, 2013) (suggesting that what matters for the level of liberalization are “not negotiating or scheduling techniques, but the political impetus that the governments concerned are ready to generate.”); see also Plurilateral Initiative on Trade in Services, Submission by Switzerland: Possible Operationalization of a Hybrid Schedule, Really Good Friends – Meeting of 5 November 2012 (Oct. 10, 2012).

¹⁸⁹ Wunsch-Vincent & Hold, *supra* note 158, at 202; see also Aaditiya Mattoo & Pierre Sauvé, *The Preferential Liberalization of Services Trade: Economic Insights*, in THE PREFERENTIAL LIBERALIZATION OF TRADE IN SERVICES 37-67 (Pierre Sauvé & Anirudh Shingal eds., 2014); Martin Roy, *Services Commitments in Preferential Trade Agreements: Surveying the Empirical Landscape*, in THE PREFERENTIAL LIBERALIZATION OF TRADE IN SERVICES 15-36 (Pierre Sauvé & Anirudh Shingal eds., 2014).

¹⁹⁰ *KORUS FTA*, *supra* note 174, at annex 13-B, sec. B.

¹⁹¹ Korea was granted a two-year period to ensure compliance. See MacDonald & Streatfeild, *supra* note 125, at 629-30.

The services framework has still a few exceptions.¹⁹² An exception that is key for our discussion is within the field of audiovisual services. Particularly noteworthy is that despite its inflexible and adamant position in the WTO context,¹⁹³ the U.S. has shown deference to the culturally inspired measures of its FTA partners, and granted the policy space needed for these measures. In this sense, some FTAs specify that the parties are not prevented from adopting or maintaining measures in the audio-visual and broadcasting sectors and that the non-discrimination provision does not apply to measures affecting the electronic transmission of so-called linear, point-to-multipoint traditional broadcasting services.¹⁹⁴ Very often these measures are frozen at their present level,¹⁹⁵ and could relate only to conventional “offline” technologies. Also importantly, not all partners have been treated equally. Australia, as the most affluent of the U.S. FTA partners, managed to preserve existing quotas for local content in commercial broadcasting.¹⁹⁶ It remains free to maintain existing measures and adopt new ones in the area of broadcasting services, to grant subsidies, and to control spectrum and licensing,¹⁹⁷ subject to certain ceilings or criteria for assessing future measures.¹⁹⁸ Similar concessions were given to Singapore, Chile, Costa Rica, the Dominican Republic, and Morocco. On the other hand, Guatemala, Honduras, El Salvador, and Nicaragua left their audiovisual sectors in practice open to imports and have little room for new domestic policy initiatives in the media domain.¹⁹⁹

¹⁹² The devil is often in the detail and only a detailed look at the individual sectors and the non-conforming measures reveals the actual depth of the market opening and the burden imposed on foreign services suppliers. In some cases, it appears that what is exempted from the commitments made may be truly substantial. For instance, some of the U.S. FTAs, such as U.S.–Australia, contain a limitation specifying all existing non-conforming measures of U.S. states are exempted. See Wunsch-Vincent & Hold, *supra* note 158, at 203.

¹⁹³ See, e.g., Burri, *Cultural Diversity*, *supra* note 91, at 199-200; Burri, *Trade Versus Culture: Digital*, *supra* note 91, at 242-47.

¹⁹⁴ See *Australia–U.S. FTA*, *supra* note 164, at art. 16.4.

¹⁹⁵ Wunsch-Vincent, *supra* note 163, at 15-16; see Tania Voon, *A New Approach to Audiovisual Products in the WTO: Rebalancing GATT and GATS*, 14 UCLA ENT. L. REV. 1, 25-26 (2007).

¹⁹⁶ See *Australia–U.S. FTA*, *supra* note 164, at annex I.

¹⁹⁷ See *id.* at annex II.

¹⁹⁸ For example, the U.S.–Australia FTA specifies that transmission quotas for local content imposed on free-to-air commercial analogue and digital television broadcasting services shall not exceed fifty-five percent of programming. See *id.*

¹⁹⁹ See, e.g., IVAN BERNIER, *THE RECENT FREE TRADE AGREEMENTS OF THE UNITED STATES AS ILLUSTRATION OF THEIR NEW STRATEGY REGARDING THE AUDIOVISUAL SECTOR*

C. Intellectual Property Chapters

Many relevant digital trade provisions can be found in the IP chapters of FTAs. These include a number of TRIPS-plus (i.e., standards that go beyond TRIPS) and TRIPS-extra (i.e., new areas previously not covered by TRIPS) provisions.²⁰⁰ As the literature has well documented over the past decade, FTAs have become a primary venue for implementing IP rules to protect content online.²⁰¹ The level of detail and the strength of protection have steadily increased — from the early U.S.-led agreements, such as U.S.–Jordan, to more recent ones, such as U.S.–South Korea FTA.²⁰²

The IP chapters secure adherence to, or at least compliance with (without formal ratification), the WIPO Internet Treaties.²⁰³ Going even further than the WIPO Copyright Treaty (“WCT”), the FTAs ensure implementation of technical protection measures (“TPMs”) and digital rights management systems to prevent unauthorized digital copying. The flexibility in the implementation of the WCT is in many senses reduced as the FTAs demand legal remedies against circumventing TPMs, as well as against devices used for that purpose (independent of the intended use of the device). Many of the FTAs also regulate Internet service providers’ (“ISPs”) liability and contain additional provisions on the enforcement of copyright online.²⁰⁴

11-12 (Apr. 2004), http://www.coalitionsuisse.ch/doss_sc/unesco_ccd/bernier_us_ftas_and_av_sector1.pdf (last visited July 8, 2017); Burri, *International Digital Trade Framework*, *supra* note 39, at 57.

²⁰⁰ See, e.g., Susan K. Sell, *The Global IP Upward Ratchet, Anti-Counterfeiting and Piracy Enforcement Efforts: The State of Play*, (Program on Info. Justice & Intellectual Prop., Research Paper No. 15 2010); Neil W. Netanel, *Why Has Copyright Expanded? Analysis and Critique*, in 6 *NEW DIRECTIONS IN COPYRIGHT LAW* 3, 8-10 (Fiona Macmillan ed., 2007) (discussing anti-circumvention provisions); Kimberlee Weatherall, *Intellectual Property in the TPP: Not “The New TRIPS,”* 17 *MELBOURNE J. INT’L L.* 257 (2016) (discussing enforcement of copyright and patent rights).

²⁰¹ See Netanel, *supra* note 200, at 10; see also Annette Kur, *From Minimum Standards to Maximum Rules*, in *TRIPS PLUS 20: FROM TRADE RULES TO MARKET* 146-47 (Hanns Ullrich, Reto M. Hilty, Matthias Lamping & Josef Drexler eds., 2016).

²⁰² Wunsch-Vincent & Hold, *supra* note 158, at 211.

²⁰³ The WIPO Internet Treaties encompass the WIPO Copyright Treaty and the WIPO Performance and Phonograms Treaty. See WIPO Copyright Treaty art. 21, WIPO Publication No. 226, Dec. 20, 1996, 36 I.L.M. 65; WIPO Performances and Phonograms Treaty art. 30, WIPO Publication No. 227, Dec. 20, 1996, 36 I.L.M. 76.

²⁰⁴ Wunsch-Vincent & Hold, *supra* note 158, at 211-15.

D. A Look at Some Non-U.S. Agreements

The United States has clearly been leading as a legal entrepreneur with regard to digital trade. While the U.S. template and different provisions from it have spread in non-U.S. agreements, it is fair to add that not all countries have strategies with regard to digital issues. Many remain involved, although not actively, in the WTO E-Commerce Program but do not pursue insertion of digital trade provisions in FTAs. This is true for many developing countries because of their constrained regulatory capacities, but is also true for developed countries, such as the Members of the European Free Trade Association (“EFTA”).²⁰⁵ The European Union has been more proactive but certainly not to the extent of the United States.

Apart from the generic differences between the EU and the U.S. approaches to FTAs, the EU template with regard to digital trade is not as coherent as that of the United States.²⁰⁶ It is indeed somewhat minimalistic, although we have observed changes over time and associated willingness to employ the trade avenue to tackle digital trade issues.

The 2002 agreement with Chile was the first to include substantial e-commerce provisions. The language, however, was cautious and only limited to soft cooperation pledges in the services chapter,²⁰⁷ and in the fields of information technology, information society, and telecommunications.²⁰⁸ In more recent agreements, such as the 2009 EU–South Korea FTA, the language is more concrete and binding. It imitates some of the provisions of the U.S. template and confirms the applicability of the WTO Agreements to measures affecting electronic commerce, as well as subscribes to a permanent duty-free moratorium on electronic transmissions.²⁰⁹ Particularly insistent on data protection

²⁰⁵ The EFTA states include Iceland, Liechtenstein, Norway, and Switzerland. See *The EFTA States*, EFTA, <http://www.efta.int/about-efta/the-efta-states> (last visited July 8, 2017). For all EFTA trade agreements, see *Free Trade Agreements*, EFTA, <http://www.efta.int/free-trade/free-trade-agreements> (last visited July 8, 2017).

²⁰⁶ EU FTAs tend, for instance, to cover more WTO-plus areas but have less liberal commitments. For detailed analysis, see generally HENRIK HORN, PETROS C. MAVROIDIS & ANDRÉ SAPIR, *BEYOND THE WTO? AN ANATOMY OF EU AND US PREFERENTIAL TRADE AGREEMENTS* (2009).

²⁰⁷ Agreement Establishing an Association Between the European Community and its Member States, of the One Part, and the Republic of Chile, of the Other Part, Chile-EU, art. 104, Nov. 18, 2002, 352 O.J.L. 3 (“The inclusion of this provision in this Chapter is made without prejudice of the Chilean position on the question of whether or not electronic commerce should be considered as a supply of services.”).

²⁰⁸ See *id.* at art. 37.

²⁰⁹ Free Trade Agreement Between the European Union and its Member States, of

policies, the EU has also sought commitment of its FTA partners to comply with the international standards of data protection.²¹⁰ Cooperation is increasingly framed in more concrete terms and includes mutual recognition of electronic signatures certificates, coordination on Internet service providers' liability, consumer protection, and paperless trading.²¹¹

The most recent EU agreement with Canada — the Comprehensive Economic and Trade Agreement (“CETA”)²¹² — goes a step further. The CETA provisions concern commitments ensuring (i) clarity, transparency and predictability in their domestic regulatory frameworks; (ii) interoperability, innovation, and competition in facilitating electronic commerce; as well as (iii) facilitating the use of electronic commerce by small and medium sized enterprises.²¹³ The EU has succeeded in deepening the privacy commitments. The CETA has a specific provision discussing trust and confidence in electronic commerce, which obliges the parties to adopt or maintain laws, regulations, or administrative measures for the protection of personal information of users engaged in electronic commerce in consideration of international data protection standards.²¹⁴

With regard to cross-border trade in services, the EU's traditional approach has been to follow the GATS model and only positively (and relatively conservatively) commit. This involves the standard GATS-like listing of commitments for national treatment and market access in different services sectors and sub-sectors. The level of commitments largely mirror the offers made by the EU during the Doha Round. Unlike the United States, the EU has not gone substantially GATS-plus in its FTAs. For telecommunications services, there is an additional commitment on number portability included.²¹⁵ For the computer

the One Part, and the Republic of Korea, of the Other Part, EU-S. Korea, art. 7.48, May 14, 2011, 127 O.J.L. 6 [hereinafter *EU-South Korea FTA*].

²¹⁰ *Id.*

²¹¹ *Id.* at art. 7.49.

²¹² Comprehensive Economic and Trade Agreement Between Canada of the One Part, and the European Union and its Member States, of the Other Part, Can.-E.U., Sept. 14, 2016, 2016/206 (NLE) [hereinafter CETA], <http://data.consilium.europa.eu/doc/document/ST-10973-2016-INIT/en/pdf> (last visited July 8, 2017).

²¹³ *Id.* at art. 16.5.

²¹⁴ *Id.* at art. 16.4.

²¹⁵ *Id.* at art. 15.10. Number portability has been a common commitment in all FTAs, while missing from the WTO Reference Paper on Basic Telecommunications Services. *Telecommunications Services: Reference Paper — Negotiating Group on Basic Telecommunications*, WTO (Apr. 24, 1996), https://www.wto.org/english/tratop_e/serv_e/telecom_e/tel23_e.htm.

services sector, the provisions foresee deep liberalization of all computer and related services at the two-digit CPC 84 level, while excluding core content services delivered electronically, such as financial or audiovisual services.²¹⁶ The EU experimented with a negative list of commitments for the first time with the CETA. This marks a turn in the EU's FTAs strategies but it remains uncertain whether this will be a continued effort, or whether it was merely suitable for Canada as a trading partner with similar priorities and sensitivities. It should be stressed that even in this case and as a reflection of Canada's and the EU's continuing pro-cultural stance, some sectors are a priori excluded. For the EU, these are audiovisual services; for Canada, the caveat relates to its "cultural industries."²¹⁷ In addition, there is an Annex attached to the services chapter, which sets out an understanding on new services not classified in the UN Provisional Central Product Classification ("CPC") in its 1991 version as used during the Uruguay Round negotiations.²¹⁸ The understanding specifies that the CETA commitments do not apply in respect to any measure relating to a new service that cannot be classified under the CPC.²¹⁹ Parties have an obligation to notify the other party about such new services and enter into negotiations to incorporate the new service into the scope of the Agreement, at the request of one of the Parties.²²⁰ This is an extremely cautious approach to future innovation, as it prevents automatism in the coverage and may potentially relate to a burdensome and costly administration of the FTA. It also diverges from the current U.S. practice.

The convergence between the EU and the U.S. FTA templates is most pronounced with regard to the chapters on intellectual property

²¹⁶ *E.U.-South Korea FTA*, *supra* note 209, at art. 7.25. This is identical to the EU's Doha round offer. See Special Session of the Council for Trade in Services, *Communication from Albania, Australia, Canada, Chile, Colombia, Croatia, the European Communities, Hong Kong, China, Japan, Mexico, Norway, Peru, the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu, Turkey and the United States: Understanding on the Scope of Coverage of CPC 84 — Computer and Related Services*, WTO Doc. TN/S/W/60 S/CSC/W/51 (Jan. 26, 2007).

²¹⁷ See CETA, *supra* note 212, at art. 12.2, ¶ 2(b). If we compare with the W/120 classification for audiovisual services, which includes motion picture and video tape production and distribution services; motion picture projection services; radio and television services; radio and television transmission services; and sound recording, the scope of "cultural industries" is somewhat broader.

²¹⁸ *Id.* at annex 9-B.

²¹⁹ *Id.* at ¶ 1.

²²⁰ It is clarified that this regime does not apply to an existing service that could be classified under the CPC but that could not previously be provided on a cross-border basis due to lack of technical feasibility. *Id.* at ¶ 4.

protection. Since the EU–Chile FTA, and in particular in the EU–CARIFORUM and EU–South Korea FTAs, the EU has included a number of TRIPS-plus provisions.²²¹ Digital copyright norms, covering compliance with the WIPO Internet Treaties, provisions on technological protection measures, and ISP liability, have become an intrinsic element of the EU deals, too.²²²

Overall and despite the commitment to higher standards in the field of IP, the EU has not been proactive but rather defensive in addressing digital trade issues in FTAs, reacting in particular in trade domains, where it seeks to protect its policy space, such as audiovisual services and data protection.²²³ The EU might be under pressure, however, both internally²²⁴ and externally. In the latter context, we find some evidence in the recent trade deal with Japan.

The EU and Japan are currently negotiating in parallel a strategic partnership as well as a trade agreement.²²⁵ The EU aims at removing substantial barriers to trade and at shaping global trade rules through the alliance with one of the most advanced industrialized economies in the world. From the perspective of specific digital trade rule creation, the trade deal is interesting because Japan has always been very proactive on digital issues, has supported the endorsement of far-reaching digital rules under the TPP, and has sought their diffusion in other venues. On July 6, 2017, the EU and Japan reached an agreement in principle on the main elements of the EU–Japan Economic Partnership Agreement. Parts of the draft treaty text have been made available by the European Commission, including the relevant e-commerce provisions, which form part of the Title on *Trade in Services, Investment and E-commerce*. The rules on electronic

²²¹ See Henning Grosse Ruse-Khan, *Access to Knowledge Under the International Copyright Regime, the WIPO Development Agenda and the European Communities' New External Trade and IP Policy*, in RESEARCH HANDBOOK ON THE FUTURE OF EU COPYRIGHT 574, 599 (Estelle Derclaye ed., 2009); EU BILATERAL TRADE AGREEMENTS AND INTELLECTUAL PROPERTY: FOR BETTER OR WORSE? 136 (Josef Drexl, Henning Grosse Ruse-Khan & Souheir Nadde-Phlix eds., 2014).

²²² See Wunsch-Vincent & Hold, *supra* note 158, at 212; Grosse Ruse-Khan, *supra* note 221, at 601; Drexl et al, *supra* note 221, at 177.

²²³ See, e.g., MIRA BURRI, CURRENT AND EMERGING TRENDS IN DISRUPTIVE TECHNOLOGIES: IMPLICATIONS FOR THE PRESENT AND FUTURE OF EU'S TRADE POLICY 21-27 (2017).

²²⁴ See, e.g., Rep. of the Comm. on Int'l Trade, Towards a Digital Trade Strategy, 2017/2065(INI) (Sept. 4, 2017).

²²⁵ *EU-Japan Economic Partnership Agreement*, EUROPEAN COMM'N (last updated Aug. 2, 2017), <http://ec.europa.eu/trade/policy/in-focus/eu-japan-economic-partnership-agreement/> (last visited August 18, 2017).

commerce are fairly comprehensive and clustered in a dedicated chapter.²²⁶ There are some general norms, whereby, for instance, the parties recognize the principle of technological neutrality in electronic commerce,²²⁷ as well as clearly commit to not imposing customs duties on electronic transmissions.²²⁸ Similarly to under the TPP, as we explain later, the EU and Japan ban the requirements on the transfer of, or access to, source code of software.²²⁹ The rules on electronic contracts, electronic signatures, as well as on consumer protection and spam, are better developed than in previous EU trade deals.²³⁰ Finally, we have the very interesting Article 12 of the agreement, which under the title “Free Flow of Data” says that: “The Parties shall reassess the need for inclusion of an article on the free flow of data within three years of the entry into force of this Agreement.” This is novel and signals that the topic of free data flows has been intensely discussed between the two partners.²³¹ It shows also more generally that the discourse on data flows is evolving and that we are bound to see more deliberate action and commitments in future trade agreements, as also signaled by one of the recent communications of the European Commission.²³²

III. THE TRANS-PACIFIC PARTNERSHIP AGREEMENT

The TPP²³³ was supposed to be different from previous trade deals — a “21st century” trade agreement that would match contemporary global trade better than the brick-and-mortar WTO Agreements.²³⁴ It

²²⁶ EU-Japan Economic Partnership Agreement (draft text), ch. VI.

²²⁷ *Id.* at ch. VI, art. 1(3).

²²⁸ *Id.* at ch. VI, art. 3.

²²⁹ *Id.* at ch. VI, art. 4.

²³⁰ *See id.* at ch. VI, arts. 7, 8, 9, 10.

²³¹ *Id.* at ch. VI, art. 12.

²³² *See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the Mid-Term Review on the Implementation of the Digital Single Market Strategy A Connected Digital Single Market for All*, at 22-23, COM (2017) 228 final (May 10, 2017).

²³³ Trans-Pacific Partnership Agreement, Feb. 4, 2016, <https://ustr.gov/trade-agreements/free-trade-agreements/trans-pacific-partnership/tpp-full-text> [hereinafter TPP].

²³⁴ *See, e.g.*, Claude Barfield, *The Trans-Pacific Partnership: A Model for Twenty-First-Century Trade Agreements?* (American Enterprise Institute International Economic Outlook Series Paper No. 2, 2011) <https://www.aei.org/wp-content/uploads/2011/10/IEO-2011-02-g.pdf>; *see also* Tania Voon, *Introduction: National Regulatory Autonomy and the Trans-Pacific Partnership Agreement*, in *TRADE LIBERALISATION AND INTERNATIONAL CO-OPERATION: A LEGAL ANALYSIS OF THE TRANS-PACIFIC PARTNERSHIP AGREEMENT 1* (Tania Voon ed., 2013). The USTR had various

was only logical in this sense that there was sizeable weight in the negotiations given to digital trade. In terms of the breadth and depth of the commitments, the United States Trade Representative (“USTR”) strived for substantially exceeding the “golden standard” created by the U.S.–South Korea FTA. The final text of the TPP entails some successes in this regard, as well as some failings.

A. *The IP Chapter*

In the former sense, the TPP heightened the standards in the field of intellectual property protection.²³⁵ For instance, borrowing from earlier U.S. agreements like NAFTA,²³⁶ the TPP defines “intellectual property rights” as an asset that can be subject to the investor-state dispute settlement, which essentially envisions an opportunity for companies to sue states for introducing rules that may harm the exploitation of IP rights.²³⁷ The TPP also provides for the stronger protection of trade secrets,²³⁸ particularly mentioning that unauthorized and willful misappropriation and the fraudulent disclosure of a trade secret, “including by means of a computer system,” are to be criminalized in the domestic laws of all TPP countries.²³⁹

The IP chapter aims in particular to facilitate “legitimate digital trade” and diffuses the digital copyright rules, as applied in the United States. Yet, while the USTR claims that the TPP is the first FTA to clarify that IP enforcement should be available against infringement in the digital environment,²⁴⁰ this is merely a promotional statement rather than something that reflects the truth. In fact, many of the measures, such as the prevention of circumvention of technological protection mechanisms, have been spelled out in other trade agreements, such as with South Korea, and are prescribed by the 1996 WIPO Internet Treaties and by the Anti-Counterfeiting Trade Agreement (“ACTA”).²⁴¹ In contrast, reflecting the strong influence of

such references on its dedicated TPP website — these have been now removed.

²³⁵ See TPP, *supra* note 233, at ch. 18; see also Sean M. Flynn et al., *The U.S. Proposal for an Intellectual Property Chapter in the Trans-Pacific Partnership Agreement*, 28 AM. U. INT’L L. REV. 105, 185 (2012).

²³⁶ North American Free Trade Agreement ch. 17, Dec. 17, 1992, 32 I.L.M. 605.

²³⁷ TPP, *supra* note 233, at art. 9.1.

²³⁸ *Id.* at art. 18.78.

²³⁹ *Id.* at art. 18.78(2).

²⁴⁰ TPP, Chapter Summary on Intellectual property, at 6, <https://ustr.gov/sites/default/files/TPP-Chapter-Summary-Intellectual-Property.pdf>.

²⁴¹ See Flynn et al., *supra* note 235, at 146-47; see also David S. Levine, *Bring in the*

the IP lobby, Article 18.28(1)(b) of the TPP does include a novelty. It requires that all TPP parties in the administering of their country-code top-level domain (“ccTLD”) names, provide “online public access to a reliable and accurate database of contact information concerning domain name registrants in accordance with each Party’s law and relevant administrator policies regarding protection of privacy and personal data.” This has been controversial because of online harassment issues and can be interpreted as a serious intervention into the domain of Internet governance, which is based on a more open, non-state-centric multi-stakeholder approach.²⁴² The practical effect of having this norm, however, remains uncertain.

The changes in the regulation of Internet service providers²⁴³ are also important to note, since ISPs are critical intermediaries in the online environment that enable and condition the access and distribution of information.²⁴⁴ The TPP framework for “legal remedies and safe harbor” requires putting in place “legal incentives” for ISPs to deter or to take action to deter “unauthorized storage and copying of copyrighted materials.”²⁴⁵ The ISPs are required to expeditiously remove or disable access to material residing on their networks or systems that infringes copyright once they have received information or knowledge regarding such infringement or where there are facts or circumstances from which the infringement is apparent, such as when

Nerds: Secrecy, National Security, and the Creation of International Intellectual Property Law, 30 CARDOZO ARTS & ENT. J. 105, 133 (2012).

²⁴² See, e.g., Mira Burri, *The WTO as an Actor of Global Internet Governance*, in THE INSTITUTIONS OF GLOBAL INTERNET GOVERNANCE 20-21 (William Drake & Mira Burri eds., forthcoming 2017).

²⁴³ ISPs are defined broadly as: “(a) a provider of online services for the transmission, routing, or providing of connections for digital online communications, between or among points specified by a user, of material of the user’s choosing, undertaking the function in Article 18.82(2)(a) (Legal Remedies and Safe Harbours); or (b) a provider of online services undertaking the functions in Article 18.82(2)(c) or Article 18.82(2)(d). For greater certainty, Internet Service Provider includes a provider of the services listed above that engages in caching carried out through an automated process.” TPP, *supra* note 233, at art. 18.81.

²⁴⁴ See, e.g., Jack M. Balkin, *Media Access: A Question of Design*, 76 GEO. WASH. L. REV. 933, 946 (2008) (providing an explanation of the Internet’s functioning and how the concept of access changes); Jeremy F. De Beer & Christopher D. Clemmer, *Global Trends in Online Copyright Enforcement: A Non-Neutral Role for Network Intermediaries?*, 49 J.L. SCI. & TECH. 375, 405-06 (2009) (describing intermediaries’ positions); see also URS GASSER & WOLFGANG SCHULZ, GOVERNANCE OF ONLINE INTERMEDIARIES: OBSERVATIONS FROM A SERIES OF NATIONAL CASE STUDIES 25 (2015); Sonia S. Katyal, *Filtering, Piracy, Surveillance and Disobedience*, 32 COLUM. J.L. & ARTS 401, 404, 408-09 (2009).

²⁴⁵ TPP, *supra* note 233, at art. 18.82(1)(a).

they receive a notice.²⁴⁶ Thus, the TPP in effect harmonizes the “notice and takedown” system of administering ISPs’ liability for copyright infringement for all TPP countries, very much in line with existing U.S. standards imposed by the Digital Millennium Copyright Act (“DMCA”).²⁴⁷ There is still an exception for the somewhat softer “notice and notice” regime of Canada,²⁴⁸ as well as for the notification system followed by Chile.²⁴⁹ Countries, which did not have such a system so far, like Brunei, Malaysia, Mexico, New Zealand, and Vietnam, would need to adopt the “notice and takedown” mechanism.

The TPP does include some language with regard to the link between ISP liability and privacy protection but the relationship seems to work to the benefit of the copyright holder. On one hand, Article 18.82.7 says that legal procedures for administering ISP liability should be “consistent with the principles of due process and privacy.” On the other hand, the provision permits “a copyright owner that has made a legally sufficient claim of copyright infringement to obtain expeditiously from an Internet Service Provider information in the provider’s possession identifying the alleged infringer in cases in which the information is sought for the purpose of protection or enforcing that copyright.”²⁵⁰

B. *The E-Commerce Chapter*

The TPP chapter on e-commerce is clearly the most comprehensive of all FTAs so far. It comprises eighteen articles and includes new features²⁵¹ that in effect signal an expansion of the U.S. template for digital trade. We look more closely at the key novelties below.

The TPP explicitly seeks to restrict the use of data localization measures. Article 14.13(2) prohibits the parties from requiring a

²⁴⁶ *Id.* at art. 18.82(3)(a).

²⁴⁷ Digital Millennium Copyright Act, Pub. L. No. 105-304, 112 Stat. 2860 (1998) [hereinafter DMCA].

²⁴⁸ *Id.* at annex 18-E, annex to section J, ¶ 1. For a clarification, see Michael Geist, *The Trouble with TPP’s Copyright Rules*, in *THE TRANS-PACIFIC PARTNERSHIP AND CANADA* 158, 167 (Scott Sinclair & Stuart Trew eds., 2017).

²⁴⁹ DMCA, *supra* note 247, at annex 18-F.

²⁵⁰ *Id.* at art. 18.82(7).

²⁵¹ New issues covered by the TPP include domestic electronic transactions, personal information protection, Internet interconnection charge sharing, location of computing facilities, unsolicited commercial electronic messages, source code, and dispute settlement. *Id.* respectively at arts. 14.5 (Domestic Electronic Transactions), 14.8 (Personal Information Protection), 14.12 (Internet Interconnection Charge Sharing), 14.13 (Location of Computing Facilities), 14.14 (Unsolicited Commercial Electronic Messages), 14.17 (Source Code), 14.18 (Dispute Settlement).

“covered person to use or locate computing facilities in that Party’s territory as a condition for conducting business in that territory.” The soft language from the U.S.–South Korea FTA on free data flows is now framed as a hard rule: “[e]ach Party *shall* allow the cross-border transfer of information by electronic means, including personal information, when this activity is for the conduct of the business of a covered person.”²⁵² The rule has a broad scope and most data that is transferred over the Internet is likely to be covered, although the word “for” may suggest the need for some causality between the flow of data and the business of the covered person.

Measures restricting digital flows or localization requirements under Article 14.13 TPP are permitted only if they do not amount to “arbitrary or unjustifiable discrimination or a disguised restriction on trade” and do not “impose restrictions on transfers of information greater than are required to achieve the objective.”²⁵³ These non-discriminatory conditions are similar to the strict test formulated by the GATS Article XIV and GATT Article XX, as explained earlier — a test that is supposed to balance trade and non-trade interests but is also extremely hard to pass.²⁵⁴ The TPP test differs from the WTO norms in one significant element: while there is a list of public policy objectives in the GATT and the GATS (such as the protection of public morals, public order, human, animal, or plant life or health), the TPP provides no such enumeration and simply speaks of a “legitimate public policy objective.”²⁵⁵ This permits more regulatory autonomy for the TPP signatories. However, it also may lead to abuses and overall legal uncertainty.

Further, it should be noted that the ban on localization measures is somewhat softened with regard to financial services and institutions.²⁵⁶ An annex to the Financial Services chapter has a separate data transfer requirement, whereby certain restrictions on data flows may apply for the protection of privacy, confidentiality of

²⁵² *Id.* at 14.11(2) (emphasis added).

²⁵³ *Id.* at 14.11(3).

²⁵⁴ See, e.g., Henrik Andersen, *Protection of Non-Trade Values in WTO Appellate Body Jurisprudence: Exceptions, Economic Arguments, and Eluding Questions*, 18 J. INT’L ECON. L. 383, 384 (2015) (stating that the balance must be guided by the respective language of the members and “non-trade values must be covered by one of the non-trade policy objectives . . .”).

²⁵⁵ TPP, *supra* note 233, at art. 14.11(3).

²⁵⁶ See *id.* at art. 14.1 (providing a definition of “a covered person” which excludes a “financial institution” and a “cross-border financial service supplier”).

individual records, or for prudential reasons.²⁵⁷ Government procurement is also excluded from the reach of the localization ban.²⁵⁸

Pursuant to Article 14.17, a TPP Member may not require the transfer of, or access to, source code of software owned by a person of another Party as a condition for the import, distribution, sale, or use of such software, or of products containing such software, in its territory. The prohibition appears far-reaching but applies only “to mass-market software or products containing such software.”²⁵⁹ This means that tailor-made products are excluded, as well as software used for critical infrastructure, and those in commercially negotiated contracts.²⁶⁰ The aim of this provision is to protect software companies and address their concerns about loss of IP or cracks in the security of their proprietary code.²⁶¹ Its real effect, however, is hard to predict.

All these provisions illustrate an interesting development because it is evident that they do not simply entail a clarification of existing bans on discrimination, nor do they merely set higher standards, as is generally anticipated from trade agreements. Rather, they shape the regulatory space domestically and may actually lower certain standards. A commitment to lower standards of protection is particularly palpable in the field of privacy and data protection.

Article 14.8(2) requires every TPP party to “adopt or maintain a legal framework that provides for the protection of the personal information of the users of electronic commerce.” No standards or benchmarks for the legal framework have been specified, except for a general requirement that TPP parties “take into account principles or guidelines of relevant international bodies.”²⁶² A footnote provides some clarification in saying that: “[f]or greater certainty, a Party may comply with the obligation in this paragraph by adopting or maintaining measures such as a comprehensive privacy, personal information or personal data protection laws, sector-specific laws covering privacy, or laws that provide for the enforcement of voluntary undertakings by enterprises relating to privacy.”²⁶³

²⁵⁷ *Id.* at annex 11-B.

²⁵⁸ *Id.* at art. 14.8(3).

²⁵⁹ *Id.* at art. 14.17(2).

²⁶⁰ *Id.*

²⁶¹ It is interesting to note that China does demand access to source code from software producers selling in its market, so the provision may be interpreted as a reaction to this.

²⁶² TPP, *supra* note 233, at art. 14.8(2).

²⁶³ *Id.* at art. 14.8(2) n.6.

TPP Parties are also invited to promote compatibility between their data protection regimes, by essentially treating lower standards as equivalent.²⁶⁴ Overall, prioritizing trade over privacy rights seems to be the goal. This commitment has been inspired and clearly pushed by the United States, which subscribes to relatively weak and patchy protections of privacy, and could have lost the privilege of free transatlantic data transfer as a consequence of the judgment of the Court of Justice of European Union (“CJEU”) that struck down the EU–U.S. Safe Harbor Agreement.²⁶⁵

While the attention is (understandably) focused on data protection, it should be noted that the TPP provisions on consumer protection²⁶⁶ and spam control²⁶⁷ are also fairly weak. The same is true for the newly introduced rules on cybersecurity. Article 14.16 is non-binding and identifies a relatively limited scope of activities for cooperation, in situations of “malicious intrusions” or “dissemination of malicious code,” and capacity-building of governmental bodies dealing with cybersecurity incidents.²⁶⁸

Net neutrality is another important digital economy topic that has been given specific attention in the TPP, although the rules are non-binding. Article 14.10, titled “Principles on Access to and Use of the Internet for Electronic Commerce,” states that “[s]ubject to applicable policies, laws and regulations, the Parties recognize the benefits of consumers in their territories having the ability to: (a) access and use services and applications of a consumer’s choice available on the Internet, subject to reasonable network management; (b) connect the end-user devices of a consumer’s choice to the Internet, provided that such devices do not harm the network; and (c) access information on the network management practices of a consumer’s Internet access service supplier.” While it is commendable that net neutrality is endorsed, this comes with reservations, as evidenced from the above provision, from the domestic laws of TPP countries; from undefined situations that call for “reasonable network management”;²⁶⁹ or from

²⁶⁴ *Id.* at art. 14.8(5).

²⁶⁵ Case C-362/14, *Schrems v. Data Prot. Comm’r*, ECLI:EU:C:2015:650 ¶¶ 93-98 (Oct. 6, 2015), <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:62014CJ0362&from=EN>.

²⁶⁶ TPP, *supra* note 233, at art. 14.7.

²⁶⁷ *Id.* at art. 14.14.

²⁶⁸ *Id.* at art. 14.16(b).

²⁶⁹ *Id.* at art. 14.10(a). Footnote 7 to this paragraph specifies: “The Parties recognise that an Internet access service supplier that offers its subscribers certain content on an exclusive basis would not be acting contrary to this principle.” *Id.* at art. 14.10(a) n.7.

exclusive services.²⁷⁰ The obligations are ultimately weak and not linked to legal remedies for situations, such as throttling, blocking, or filtering content — they certainly fail short of the high standards established in the United States with the Federal Communications Commission’s Open Internet Order.²⁷¹ It is therefore unlikely that the TPP would lead to uniform approach with regard to net neutrality across TPP countries.

C. *Provisions Scattered in Other TPP Chapters That Matter for Digital Trade*

The above presentation is not exhaustive and there are a number of other provisions scattered in the chapters of the TPP that matter for digital trade.²⁷² In general, there is a higher level of liberalization achieved in some of the services sectors relevant for digital trade, such as telecommunications, computer and related, and media services matters.²⁷³ We only highlight here a few of these norms in the context of telecommunications and technical barriers to trade.

The TPP Telecommunications Chapter is comprehensive and goes beyond what we have under the GATS with the Annex on Telecommunications and the Reference Paper.²⁷⁴ It is very detailed and seeks to ensure a level playing field for telecommunication services and service suppliers. There is a general recognition of the liberal approach towards regulation, whereby the TPP Parties recognize the value of competitive markets to deliver a wide choice in the supply of telecommunications services to enhance consumer welfare. Regulation is deemed unnecessary if there is effective competition, or if a service is new to a market.²⁷⁵ The provisions on access and use of public telecommunications services are strengthened by including number portability²⁷⁶ and enhanced transparency requirements.²⁷⁷ Article 13.23 is new and seeks to ensure flexibility in the choice of

²⁷⁰ *Id.*

²⁷¹ Federal Communications Commission, *Preserving the Open Internet*, 76 F.R. 59232 (Sept. 23, 2011).

²⁷² For a fully-fledged analysis, see Neha Mishra, *The Role of the Trans-Pacific Partnership Agreement in the Internet Ecosystem: Uneasy Liaison or Synergistic Alliance?*, 20 J. INT’L ECON. L. 31 (2017).

²⁷³ TPP, *supra* note 233, at chs. 10, 13.

²⁷⁴ See, e.g., Burri, *WTO & European Community Law*, *supra* note 67, at 839 (providing an analysis of the WTO rules on communications services).

²⁷⁵ TPP, *supra* note 233, at art. 13.3.

²⁷⁶ *Id.* at art. 13.5(4).

²⁷⁷ *Id.* at art. 13.22.

technology: suppliers of public telecommunications services choose “the technologies they wish to use to supply their services, subject to requirements necessary to satisfy legitimate public policy interests, provided that any measure restricting that choice is not prepared, adopted or applied in a manner that creates unnecessary obstacles to trade.”²⁷⁸

The second TPP provision to mention comes from Chapter 8 on technical barriers to trade and relates to encryption standards. It is a reaction to a practice by several countries that impose direct bans on encrypted products or set specific technical regulations that restrict the sale of encrypted products.²⁷⁹ China is a prominent, but not the only, example in this context with its attempt to enforce an indigenous standard for wireless networks — the WAPI standard, which was a proprietary standard diverging from the internationally agreed upon Wi-Fi.²⁸⁰ It is apparent that such measures create barriers to trade, increase compliance costs, may lead to forced disclosure of IP or other data, and may ultimately harm innovation.

Annex 8-B, Section A.3 addresses such concerns. Pursuant to it, with respect to a product that uses cryptography and is designed for commercial applications, Parties are banned from imposing or maintaining a technical regulation or conformity assessment procedure as a condition of the manufacture, sale, distribution, import, or use of the product. The provision does not prevent law enforcement actions²⁸¹ and does not apply to networks owned or controlled by the government,²⁸² or to government measures related to supervision, investigation, or examination of financial institutions or markets.²⁸³ Despite these exceptions, by banning the forced provision of encryption keys or the adoption of indigenous standards, the TPP

²⁷⁸ *Id.* at art. 13.23(1). Paragraph 2 clarifies that when a Party finances the development of advanced networks, it may make its financing conditional on the use of technologies that meet its specific public policy interests. It is clarified further in a footnote that “advanced networks” includes broadband networks. *Id.* at art. 13.23(2).

²⁷⁹ See generally Branislav Hazucha, *Technical Barriers to Trade in Information and Communication Technologies*, in RESEARCH HANDBOOK ON THE WTO AND TECHNICAL BARRIERS TO TRADE 525 (Tracey Epps & Michael J. Trebilcock eds., 2013).

²⁸⁰ See Christopher S. Gibson, *Globalization and the Technology Standards Game: Balancing Concerns of Protectionism and Intellectual Property in International Standards*, 22 BERKELEY TECH. L.J. 1403, 1475 (2007). The case did not reach the WTO dispute settlement and was settled diplomatically, as China decided to forbear from mandating the WAPI standard. *Id.* at 1483.

²⁸¹ TPP, *supra* note 233, at art. 8, annex 8-B, ¶ 5.

²⁸² *Id.* at annex 8-B, ¶ 4.

²⁸³ *Id.*

seems to properly address this newer kind of digital trade barriers and caters well to the growing concerns of large companies like IBM and Microsoft that thrive on free data flows with less governmental intervention.²⁸⁴

D. Comparing the TPP with Other “Mega-Regionals”

The significance of the TPP can only be properly understood when compared with other existing “mega-regional” initiatives that may matter for the conditions of global digital trade. The following two sections provide a brief overview of the current state of affairs of ongoing negotiations of the trade deal between the EU and the United States — the Transatlantic Trade and Investment Partnership (“TTIP”), and of the grand effort amongst major stakeholders to revolutionize services regulation under the Trade in Services Agreement (“TiSA”).

1. TTIP

The Transatlantic Trade and Investment Partnership is to be based on three pillars: (i) market access for goods and services; (ii) regulatory cooperation; and (iii) rules, including investment, competition, intellectual property, and government-to-government dispute settlement. A key cross-cutting trade issue common to both the TPP and the TTIP, next to comprehensive and robust market liberalization, has been the quest for regulatory convergence.²⁸⁵ The TTIP negotiators have repeatedly underscored this goal and have sought to reduce the differences in regulations and standards by promoting greater compatibility, transparency, and cooperation, while maintaining high levels of health, safety, and environmental protection.²⁸⁶ They wish to develop rules, principles and new modes of cooperation on issues of global concern, including intellectual property and market-based disciplines addressing state-owned enterprises and discriminatory localization barriers to trade.

²⁸⁴ For a detailed analysis, see Han-Wei Liu, *Inside the Black Box: Political Economy of the Trans-Pacific Partnership’s Encryption Clause*, 51 J. WORLD TRADE 309, 309-20 (2017).

²⁸⁵ See, e.g., Jonathan B. Wiener & Alberto Alemanno, *The Future of International Regulatory Cooperation: TTIP as a Learning Process Toward a Global Policy Laboratory*, 78 LAW & CONTEMP. PROBS. 103, 103-05 (detailing steps taken to coordinate regulation across countries).

²⁸⁶ *Id.*

Despite this great ambition, there are many areas of contestation; some of them affect digital trade.²⁸⁷ Traditionally, ever since the days of the France-led “exception culturelle” campaign during the Uruguay Round of the WTO negotiations,²⁸⁸ a major battlefield between the United States and the EU has been audiovisual services.²⁸⁹ These (including online media services) are presently excluded from the negotiating mandate of the European Commission, as a result of the sizeable pressure of the European Parliament. As maintained by the Parliament, this exclusion is necessary to safeguard the “cultural exception” and protect the cultural and linguistic diversity of the EU countries.²⁹⁰ Public services in general have been a major source of preoccupation in recent debates in Europe.²⁹¹ Another hotly discussed and contentious topic facing intense civil society objection is intellectual property rights. The fear from the EU side is that the IP maximalist agenda of the ACTA,²⁹² as well as that of domestically unsuccessful U.S. legislative initiatives, SOPA and PIPA,²⁹³ will in

²⁸⁷ See, e.g., ANDREA RENDA & CHRISTOPHER YOO, TELECOMMUNICATIONS AND INTERNET SERVICES: THE DIGITAL SIDE OF THE TTIP 112 (2015) (describing issues affecting digital trade in the TTIP).

²⁸⁸ See, e.g., Mira Burri, *Trade Versus Culture: The Policy of Cultural Exception and the World Trade Organization*, in PALGRAVE HANDBOOK OF EUROPEAN MEDIA POLICY 478, 481 (Karen Donders, Caroline Pauwels & Jan Loisen eds., 2013) (“[T]hese included motion picture and videotape production and distribution services; motion picture projection services; radio and television services; radio and television transmission services; and sound recording.”) [hereinafter Burri, *Trade Versus Culture: Cultural Exception*].

²⁸⁹ *Id.*

²⁹⁰ Resolution on EU Trade and Investment Negotiations with the United States of America, EUR. PARL. DOC. B7 0187/2013 (2013), ¶¶ 10-12.

²⁹¹ See, e.g., MARKUS KRAJEWSKI & BRITTA KYNAST, IMPACT OF THE TRANSATLANTIC TRADE AND INVESTMENT PARTNERSHIP (TTIP) ON THE LEGAL FRAMEWORK FOR PUBLIC SERVICES IN EUROPE 1-35 (Oct. 1, 2014), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2576079 (discussing the TTIP and its effect on public services).

²⁹² On ACTA, see, for example, Peter K. Yu, *ACTA and Its Complex Politics*, 3 WIPO J. 1 (2011); Daniel Gervais, *Country Clubs, Empiricism, Blogs and Innovation: The Future of International Intellectual Property Norm Making in the Wake of ACTA*, in TRADE GOVERNANCE IN THE DIGITAL AGE 323, 324 (Mira Burri & Thomas Cottier eds., 2015); Levine, *supra* note 241, at 135.

²⁹³ See Stop Online Piracy Act (SOPA), H.R. 3261, 112th Cong. (2011); Protect IP Act (Preventing Real Online Threats to Economic Creativity and Theft of Intellectual Property Act, or PIPA), S. 968, 112th Cong. (2011). The SOPA/PIPA legislation aimed in essence to expand the ability of U.S. law enforcement to fight online trafficking, also beyond the U.S. national jurisdiction. After opposition by academics, corporations, and civil society representatives, both bills were dropped. See, e.g., Mark A. Lemley, David S. Levine & David G. Post, *Don't Break the Internet*, 64 STAN. L. REV. ONLINE 34 (2012) (arguing SOPA would have granted IP rights holders “vigilante-style

many aspects be replicated in the TTIP.²⁹⁴ Digital copyright is part of these efforts and it remains to be seen how far-reaching the adopted rules will be, especially if we consider the current efforts of the EU to reform its own copyright rules as part of its Single Digital Market Strategy.²⁹⁵ While on some issues, such as intermediaries' liability, there seems to be a move towards current U.S. legal practice on other issues, such as publishers' rights,²⁹⁶ there is clear divergence.

Data protection will likely be the most controversial question with possible spillover effects to other issue areas. Here, the approaches of the United States and EU towards the protection of privacy are at this stage hardly reconcilable.²⁹⁷ The new EU General Data Protection Regulation,²⁹⁸ which will be enforced as of May 2018, subscribes to a particularly high standard of privacy protection and seeks to endorse it beyond the EU borders.²⁹⁹ The leaked TTIP text exposes yet again the divergence between the United States and the EU on data protection.³⁰⁰ There is no agreement on data flows between the negotiating parties, despite signals of the willingness of the United States to tolerate the exclusion of audiovisual media services from the scope of the trade deal. Overall, the leaked TTIP reveals no substantial progress on digital issues so far.³⁰¹ E-labeling (setting standards for providing product information to consumers in electronic format that replace labels) and e-accessibility (facilitating ICT use for people with

against allegedly offending sites”).

²⁹⁴ See, e.g., Flynn et al., *supra* note 235.

²⁹⁵ See *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: A Digital Single Market Strategy for Europe*, COM (2015) 192 final (May 6, 2015).

²⁹⁶ See *Proposal for a Directive of the European Parliament and of the Council on Copyright in the Digital Single Market*, COM (2016) 593 final (Sep. 9, 2016).

²⁹⁷ See, e.g., Paul M. Schwartz, *The EU-U.S. Privacy Collision: A Turn to Institutions and Procedures*, 126 HARV. L. REV. 1966 (2013) (arguing new conflicts in information privacy will arise between the United States and EU); Paul M. Schwartz & Daniel J. Solove, *Reconciling Personal Information in the United States and European Union*, 102 CALIF. L. REV. 877 (2014) (“U.S. and EU privacy law diverge greatly . . . [i]n the United States, privacy law focuses on redressing consumer harm and balancing privacy with efficient commercial transactions[,] [i]n the European Union, privacy is hailed as a fundamental right that can trump other interests.”).

²⁹⁸ GDPR, *supra* note 107.

²⁹⁹ See, e.g., Burri & Schär, *supra* note 109.

³⁰⁰ *Analysis of Leaked TTIP Chapters and Papers*, GREENPEACE NETHERLANDS (May 2, 2016), <https://www.ttip-leaks.org>.

³⁰¹ See *Tactical State of Play of the TTIP Negotiations*, GREENPEACE NETHERLANDS (March 2016), <https://trade-leaks.org/?s=Tactical+State+of+Play> (stating in the leaked Tactical State of Play document, “[d]iscussions on e-commerce covered all proposals except for the provisions on data flows and computing facilities”).

disabilities) seem to be the low hanging fruit but these are issues of very little impact to the practical reality of digital trade.

It should also be mentioned that the EU proposal aims for including horizontal provisions on the right to regulate, pursuant to which each party retains the right to adopt, maintain, and enforce the measures necessary to pursue legitimate policy objectives, consistent, however, with the core TTIP disciplines. In addition, the EU proposes a general exception clause for services, very much in the sense of Article XIV GATS.³⁰²

2. TiSA

Another important digital trade agreement that evolves outside the WTO umbrella is the currently negotiated Trade in Services Agreement. The TiSA is meant to provide deeper market access in the services sector, where liberalization is still quite low, despite the substantial gains from trade expected.³⁰³ The United States, the EU, Japan, and other countries that are part of the group “Really good friends of services” have supported TiSA, launched in early 2013.³⁰⁴ The impact of TiSA can be substantial because some of the most important market economies, which in effect cover over seventy percent of world services trade, support it. TiSA also aims at high market access commitments and at adding a layer of deeper regulatory arrangements.³⁰⁵

Despite a number of leaks,³⁰⁶ as well as publication of some country’s offers,³⁰⁷ the final outcome is uncertain. It appears so far that

³⁰² See EUROPEAN COMM’N, TRANSATLANTIC TRADE AND INVESTMENT PARTNERSHIP: TRADE IN SERVICES, INVESTMENT AND E-COMMERCE 51 (2015), http://trade.ec.europa.eu/doclib/docs/2015/july/tradoc_153669.pdf.

³⁰³ For the gains from services trade, see generally Bernard Hoekman & Aaditya Mattoo, *Services Trade and Growth*, in OPENING MARKETS FOR TRADE IN SERVICES: COUNTRIES AND SECTORS IN BILATERAL AND WTO NEGOTIATIONS 21 (Juan A. Marchetti & Martin Roy eds., 2009).

³⁰⁴ See Juan A. Marchetti & Martin Roy, *The TiSA Initiative: An Overview of Market Access Issues* 3 (WTO Staff Working Paper No. ERSD-2013-11, 2013) (current negotiating parties include: “Australia, Canada, Chile, Chinese Taipei (Taiwan), Colombia, Costa Rica, Hong Kong, Iceland, Israel, Japan, Liechtenstein, Mexico, New Zealand, Norway, Pakistan, Panama, Paraguay, Peru, South Korea, Switzerland, Turkey, the U.S. and the EU”).

³⁰⁵ *Id.* at 27.

³⁰⁶ WIKILEAKS, <https://wikileaks.org/tisa/> (last visited July 8, 2017).

³⁰⁷ See, e.g., *Switzerland and TISA*, STATE SECRETARIAT FOR ECON. AFFAIRS, https://www.seco.admin.ch/seco/en/home/Aussenwirtschaftspolitik_Wirtschaftliche_Zusammenarbeit/Wirtschaftsbeziehungen/Internationaler_Handel_mit_Dienstleistung

TiSA has adopted a hybrid approach of committing. This entails a negative type of committing for MFN and NT but positive type of committing for market access. Parties discuss also the inclusion of the so-called “standstill” and “ratchet” clauses. Under a standstill clause, Members would agree not to create new obstacles to services trade and preserve the current level of liberalization. With the ratchet clause, in cases where one participating Member improves services market access on its own, that newly liberalized access would then be accorded to other parties to the deal, and become permanent.³⁰⁸

In terms of the depth of liberalization, there is an effort to reach the level of best FTA commitments in all services sectors. Even if this is achieved, it may not be sufficient to address the pertinent digital trade issues. The reason for this is that, despite the far-reaching U.S. FTAs, past FTA negotiations involving other TiSA participants have not made significant progress in liberalizing sensitive sectors, such as audiovisual services. The EU and Canada are highly unlikely to give up their policy space in these sectors,³⁰⁹ which again brings back the “old” GATS problems and the trade versus culture dilemma of the Uruguay Round of negotiations.³¹⁰ One of the few publicly available TiSA offers, that of Switzerland, confirms this, as Switzerland has tabled no GATS-plus commitments for audiovisual services.³¹¹ The EU remains also skeptical as to the inclusion of “new services” under the agreement.³¹²

Regarding digital trade specifically, there is a willingness to curb protectionism and ban localization requirements, be it with regard to presence, technology, or content. We see expressions of this willingness in the texts of the Annex on Telecommunications, which reiterates and goes beyond the WTO Annex on Telecommunications and the Reference Paper. The negotiations have also evolved over time

en/TISA/Schweiz_und_TiSA.html (last visited July 8, 2017) (providing Switzerland’s publication of offer by the State Secretariat for Economic Affairs (“SECO”).

³⁰⁸ See State Secretariat for Economic Affairs, *Submission by Switzerland: Possible Operationalization of a Hybrid Schedule, Really Good Friends – Meeting of 5 November 2012 – Plurilateral Initiative on Trade in Services* (Oct. 10, 2012); State Secretariat for Economic Affairs, *Submission by Switzerland: Provisions on Scheduling of Commitments, Really Good Friends – Meeting of 29 April to 3 May 2013, Agreement on Trade in Services (TiSA)* (April 30, 2013) (explaining the ratchet clause).

³⁰⁹ Marchetti & Roy, *supra* note 304, at 18.

³¹⁰ Burri, *Trade Versus Culture: Cultural Exception*, *supra* note 288, at 481.

³¹¹ See State Secretariat for Economic Affairs, *Swiss Initial Offer, Really Good Friends, Trade in Services Agreement* (Jan. 30, 2014).

³¹² *Report of the 21st TiSA Negotiation Round*, EUROPEAN COMM’N 2 (Nov. 17, 2016), http://trade.ec.europa.eu/doclib/docs/2016/november/tradoc_155095.pdf.

and this is discernible in the newer texts of the Chapter on Electronic Commerce and the Annex on Localization Measures.

The Chapter on Electronic Commerce has a broad scope and should apply to measures affecting trade in services using or enabled by electronic means. Financial services and government procurement are likely to be excluded, although the United States is pushing for a softer language in this respect. There is still much contestation on the article about the movement of information. The United States, together with Japan and Canada, suggest that “[n]o Party may prevent a service supplier of another Party from transferring, accessing processing or storing information, including personal information, within or outside the Party’s territory, where such activity is carried out in connection with the conduct of the service supplier’s business.”³¹³ Many countries consider exceptions or conditions to this ban, so as to allow more domestic flexibility. For instance, Hong Kong has proposed that “[t]here should be a balance between free movement of information across border and protection of personal data. Advancing the former cause should be without prejudice to safeguarding the latter right.”³¹⁴ In Hong Kong, the Personal Data Ordinance requires that certain conditions (e.g., written consent) are satisfied before a transfer of personal data to a place outside Hong Kong can be made. Switzerland subscribes to a more general, but also very broad, exception in the sense that each party can apply its own regulatory regime concerning the transfer of data and personal data by electronic means.³¹⁵ The diverging approaches between the TiSA parties with regard to data protection are further exposed in the following provisions on online consumer protection and personal information protection.³¹⁶ While the language on spam is similarly, as under the TPP, rather weak,³¹⁷ the provisions on open networks, network access and use, and on location of computing facilities, although still contentious, reveal an effort to create more binding rules.³¹⁸

³¹³ *TiSA Annex on Electronic Commerce*, WIKILEAKS (Oct. 1, 2015), https://wikileaks.org/tisa/document/20151001_Annex-on-Electronic-Commerce/.

³¹⁴ *Id.*

³¹⁵ *Id.* at arts. 2.3, 2.4; see also State Secretariat for Economic Affairs, *Submission by Switzerland: Provisions on Trade-Related Principles for Information and Communication Technology Services (ICT Principles)*, *Really Good Friends – Meeting of 18 March 2013*, *Plurilateral Initiative on Trade in Services* (Feb. 13, 2013).

³¹⁶ *TiSA Annex on Electronic Commerce*, *supra* note 313, at arts. 3, 4.

³¹⁷ *Id.* at art. 5.

³¹⁸ *Id.* at arts. 7, 8.

Article 7 TiSA refers to the basic principles of network neutrality in trying to establish non-discrimination of devices and content as well as transparency about network management practices. This language, if it survives the negotiations, is identical with the accepted TPP norm.³¹⁹ With regard to the location of computing facilities addressed in Article 8, the United States is pushing for a ban on requiring a service supplier, as a condition for supplying a service, to use or locate computing facilities in the Party's territory.³²⁰ Again, the provision is under debate. There seems to be more agreement with regard to the prohibition of custom duties imposed on electronic transactions (Article 10), as well as to the softer norms on international cooperation (Article 11), and on electronic authentication and signatures (Article 9).

An important breakthrough in the TiSA negotiations with regard to digital trade has been the Annex on Localization Measures. While it is framed in a broader, technologically neutral manner, it addresses important digital economy issues and the increasingly used in this context localization requirements. The Annex seeks to ban local presence, local context, and other performance requirements. To allow such far-reaching commitments, the Annex provides for a "grandfathering" clause for those localization measures that are inscribed in the schedules of specific commitments, as well as for exceptions on security grounds, for financial services, and government procurement.³²¹

Overall, there is much promise in these provisions to horizontally address core issues of digital trade and provide for legal certainty for the free flow of data; some of them are comparable to the TPP but also potentially binding on key players including the EU. However, as many controversial questions remain open and as the political climate is hard to predict, the outcome of the TiSA negotiations is uncertain.

³¹⁹ TPP, *supra* note 233, at art. 14.10.

³²⁰ *Id.* at art. 8 ("No Party may require a service supplier, as a condition for supplying a service . . .").

³²¹ *Trade in Services Agreement Annex on Localization Provisions*, WIKILEAKS arts. X.4, X.5 (June 2016), https://wikileaks.org/tisa/document/201606_TiSA_Annex-on-Localisation/201606_TiSA_Annex-on-Localisation.pdf.

IV. THE GOVERNANCE OF DATA AND DATA FLOWS IN TRADE AGREEMENTS: THE PITFALLS OF LEGAL ADAPTATION

A. *The Slow Changes of Brick-And-Mortar Trade Rules*

This Article sought to map the international trade rules that affect cross-border data flows, as well as the policy space that domestic regulators have to enact data-related regulation. We were eager to identify any deliberate responses triggered by the sweeping changes brought about by digital technologies, the Internet, and the overall contemporary data economy. It is evident from the above analyses that adaptation has been slow, patchy, and not terribly innovative. Despite the great potential of the WTO as an institutionalized multilateral forum that regulates all trade and provides fine mechanisms for disciplining members and for calibrating rules, the WTO has not been in a position to formulate any deliberate and appropriate legal responses. Whatever adjustment and clarification have happened, they have unfolded through the adjudicative channel, as illustrated by a few seminal cases of the Appellate Body.

Against this backdrop of failing legal adaptation under the auspices of the WTO, much has happened in preferential trade venues. Although not in a manner of a revolutionary change, there is a new emergent regime for digital trade. It includes a number of WTO-plus commitments and clarifies some issues that the WTO Members could not agree on, such as a duty-free regime for electronic transactions. The FTAs tackle also, and perhaps more importantly, certain “non-trade” or WTO-extra issues, such as consumer protection, privacy, and safeguards for the free flow of data. The TPP stands out with regard to digital trade not only due to its high standards but also because of the breadth of issues covered that matter more or less immediately for the digital economy. The TPP is also in many aspects innovative. Some research shows that the language of the TPP Electronic Commerce Chapter overlaps only some twenty-six percent with the language of previous FTAs.³²² The clear ban on localization measures and the subscription to a binding norm on free data flows with a potentially broad scope of application are unprecedented. Restrictions on forced disclosure of source code and on encryption requirements are entirely novel. It should also be noted that the TPP appears to take a first, although somewhat vague and insecure, step towards reconciling economic and non-economic interests, as it

³²² Todd Allee & Andrew Lugg, *Who Wrote the Rules for the Trans-Pacific Partnership?*, RES. & POL., July–Sept. 2016, at 7 tbl.2.

attempts some sort of a balance between free data flows and data protection.³²³ When compared with the ongoing negotiations under the TTIP and TiSA, it also appears, at least so far, that the high TPP standards are unlikely to be outmatched by the mentioned agreements.

Overall, it can be maintained that preferential venues do have their advantages. FTA partners benefit from swifter solutions, clearer provisions, as well as often deeper commitments.³²⁴ It appears that FTAs work better, although not always, for reconciling diverging interests — on long-standing trade topics, such as classification, and in politically charged domains, such as audiovisual services.³²⁵ FTAs are also in a better position to address the new generation of trade barriers, such as localization measures. Yet, the benefits of an FTA deal may be offset by the fact that a patchwork of multiple and overlapping agreements does not contribute to the free cross-border flow of information on a global scale. FTAs only exacerbate rule fragmentation and the world's asymmetric wealth distribution. FTAs may indeed be substantially undermining the value and impact of multilateral venues,³²⁶ and the role of international law in general.³²⁷ Without engaging in the debate of preferentialism versus multilateralism,³²⁸ purely from the perspective of digital trade and its

³²³ Chander & Lê, *supra* note 11.

³²⁴ See, e.g., HORN, MAVROIDIS & SAPIR, *supra* note 206, at 19-20.

³²⁵ See, e.g., *Australia–U.S. FTA*, *supra* note 164, at art. 16.4(4) (available from US Government at https://ustr.gov/sites/default/files/uploads/agreements/fta/australia/asset_upload_file508_5156.pdf; available from Australian Government at <http://dfat.gov.au/trade/agreements/ausfta/official-documents/Pages/official-documents.aspx>).

³²⁶ See generally MULTILATERALIZING REGIONALISM: CHALLENGES FOR THE GLOBAL TRADING SYSTEM (Richard Baldwin & Patrick Low eds., 2009); Andrew G. Brown & Robert M. Stern, *Free Trade Agreements and Governance of the Global Trading System*, 34 *WORLD ECON.* 331, 311 (2011) (“[T]he new wave of regional and bilateral free trade agreements (FTAs) was beginning to gather strength . . . [and] emerged as a threat to the central role of the WTO as manager of the trading system and even to presage the fading of an era of multilateralism in trade relations.”).

³²⁷ See, e.g., Nico Krisch, *The Decay of Consent: International Law in an Age of Global Public Goods*, 108 *AM. J. INT’L L.* 1, 39 (2014) (“Treaty making has developed more, rather than less, inclusive processes, and among international institutions, only a few have undergone a major transformation in their powers beyond their initial delegatory frames.”).

³²⁸ See, e.g., Sungjoon Cho, *Defragmenting World Trade*, 27 *NW. J. INT’L L. & BUS.* 39, 40-58 (2006); JAGDISH BHAGWATI, *TERMITES IN THE TRADING SYSTEM: HOW PREFERENTIAL AGREEMENTS UNDERMINE FREE TRADE* (2008).

demands on seamlessness and interoperability,³²⁹ the multilateral forum appears more sensible a solution.³³⁰

Generally speaking, and as the preceding overview of different forums shows, international trade law is at the crossroads. In terms of the way forward for digital trade, there is too great a deal of uncertainty. The fate of the TPP, after the withdrawal of the United States,³³¹ is unknown and we may never see the implementation of the TPP model to the fullest. We do, however, see efforts under the WTO that relate to it and extend the discourse on the free flow of data.³³² The TPP template for digital trade will also probably diffuse, as the recent amendment of the Singapore–Australia FTA,³³³ which imitates the TPP Electronic Commerce Chapter, signals. A more fundamental question that needs to be posed in this regard is whether this is indeed the path we want to pursue; whether trade agreements, in particular preferential trade deals, are the optimal way to secure the appropriate conditions for free data flows. The Article’s concluding section seeks to address this question.

³²⁹ Urs Gasser & John Palfrey, *Fostering Innovation and Trade in the Global Information Society: The Different Facets and Roles of Interoperability*, in *TRADE GOVERNANCE IN THE DIGITAL AGE* 123, 142-43 (Mira Burri & Thomas Cottier eds., 2012).

³³⁰ See Lior Herman, *Multilateralising REGIONALISM: The Case of E-Commerce* (OECD Trade Policy Working Paper No. 99, 2010) (suggesting “bottom-up multilateralisation,” whereby FTAs’ e-commerce undertakings and provisions are extended to a larger number of partners, and “top-down multilateralization,” which advances e-commerce provisions, commitments, and common learning to the WTO level); see also Robert Howse, *Regulatory Cooperation, Regional Trade Agreements, and World Trade Law: Conflict or Complementarity?*, 78 *LAW & CONTEMP. PROBS.* 137, 151 (2015).

³³¹ WHITE HOUSE OFFICE OF THE PRESS SEC’Y, PRESIDENTIAL MEMORANDUM REGARDING WITHDRAWAL OF THE UNITED STATES FROM THE TRANS-PACIFIC PARTNERSHIP NEGOTIATIONS AND AGREEMENT (Jan. 23, 2017), <https://www.whitehouse.gov/the-press-office/2017/01/23/presidential-memorandum-regarding-withdrawal-united-states-trans-pacific>.

³³² See, e.g., WTO Work Programme on E-Commerce, *Non-Paper from the United States*, WTO Doc JOB/GC/94 (2016); WTO Work Programme on E-Commerce, *Non-Paper from Brazil*, WTO Doc JOB/GC/98 (2016); WTO Work Programme on E-Commerce, *Communication from Canada, Chile, Colombia, Côte d’Ivoire, the European Union, the Republic of Korea, Mexico, Paraguay and Singapore, Trade Policy, the WTO and the Digital Economy*, WTO Doc JOB/GC/97/Rev.1 (2016).

³³³ See Agreement to Amend the Singapore–Australia Free Trade Agreement, ch. 14, Oct. 13, 2016, <http://dfat.gov.au/trade/agreements/safta/official-documents/Pages/default.aspx>.

B. *Assessing the Suitability of Trade Forums to Address Data Issues*

International trade law, as noted earlier, was intended to regulate trade in goods. The basic idea of the GATT 1947 was to make sure that when a good was imported into a country, it would not be treated worse than another country's product and would not face horrendous tariffs at the border, thus allowing it to compete with other foreign, as well as with domestic, products. Overall, the system has worked well.³³⁴ Yet, and this is not to be forgotten, this system of trade regulation is in its nature, in its very core, a *physical, analog* one. This nature has not changed over time, despite the increased complexity of trade and the globalized economy it is a part of, and despite the update of the GATT regime by adding on rules on services and intellectual property rights.³³⁵ The WTO remains profoundly mercantilist; it has a monolinear conception of production and trading patterns, and is based upon a state-centric, top-down paradigm of rule-making.³³⁶ It still very much "thinks" in terms of trade crossing borders through brick-and-mortar customs houses and incremental innovation through protected investments in production.³³⁷

This is true not only for the multilateral forum of the WTO but also for the multiple regional and bilateral trade venues, where power can matter even more. We find ourselves in ". . . a system that officially claims to embrace free trade, yet still pits one political interest against another in a quest to seize protectionist rents. Powerful lobbies, such as domestic producers, capture trade negotiators and replace national interests with those of their own."³³⁸ Indeed, this has been well illustrated by the evolution of the digital trade regime in general, which has been driven by the United States and clearly reflects the priorities spelled out in its Digital Agenda, as early as 2002. More concretely in the framework of FTAs, we observed the insertion of specific provisions — such as the ban on encryption or rules on

³³⁴ In spite of its scant institutional framework, the GATT was very successful in reducing tariffs on trade in goods. In eight negotiation rounds between 1947 and 1994, the average level of tariffs imposed by developed countries on industrial products was brought down from over forty percent to less than four percent. *See, e.g.,* PETROS C. MAVROIDIS, *TRADE IN GOODS*, 1-55 (2d ed. 2012).

³³⁵ *See generally* Debra P. Steger, *The Culture of the WTO: Why It Needs to Change*, 10 J. INT'L ECON. L. 483 (2007).

³³⁶ Sungjoon Cho & Claire R. Kelly, *Are World Trading Rules Passé?*, 53 VA. J. INT'L L. 623, 623-27 (2013).

³³⁷ Thomas J. Bollyky & Petros C. Mavroidis, *Trade, Social Preferences, and Regulatory Cooperation: The New WTO-Think*, 20 J. INT'L ECON. L. 1, 2 (2017).

³³⁸ Cho & Kelly, *supra* note 336, at 626.

intermediaries' liability — that are the result of the concerted efforts of well-organized industry lobbies. While bargaining across issue areas and economic sectors may still be a valid way of moving ahead in negotiations and striking a deal, it is hardly conducive to providing holistic solutions to complex multidimensional problems like digital trade.

Another remnant of the analog age is the way negotiations proceed in trade venues — in a secretive, non-transparent, and non-inclusive manner.³³⁹ States and only states are the actors at the scene;³⁴⁰ other stakeholders or the broader public are utterly excluded from the debates.

Against this backdrop, we find ourselves faced with an extremely difficult task — to match these analog regulatory venues with the unpredictable, scruffy, dynamic, and open innovation of digital platforms³⁴¹ and data that flows regardless of state borders.³⁴² At the same time, and this only makes our task more challenging, it is evident that the regulatory framework that will be chosen will have immense effects on innovation.³⁴³ Moreover, beyond the province of the economy and even in seemingly technical decision-making —

³³⁹ See, e.g., Levine, *supra* note 241; Panagiotis Delimatsis, *TTIP, CETA, TiSA Behind Closed Doors: Transparency in the EU Trade Policy* (TILEC, Discussion Paper No. 20, 2016).

³⁴⁰ “Who and what is the WTO? It is the governments who are its members, nothing more, nothing less. That is why their perceptions of what the WTO is, and how it should function, are critical. There is no institutional counterbalance to the collectivity of the members, except for the dispute settlement system.” See Steger, *supra* note 335, at 486.

³⁴¹ As Benkler aptly sums up, innovation in the networked environment is typified by: “Change and complexity, rather than predictability and “well behaved” change; [i]nnovation and growth, rather than efficiency and optimization; “[s]cruffy,” adaptive learning systems . . . that do better than . . . slower-moving, optimized systems; [and o]pen systems, which emphasize freedom to operate on standardized interfaces among different actors and components, that do better than closed systems that emphasize control and well-ordered . . . interaction among components and actors.” See Yochai Benkler, *Growth-oriented Law for the Networked Information Economy: Emphasizing Freedom to Operate Over Power to Appropriate*, in *RULES FOR GROWTH: PROMOTING INNOVATION AND GROWTH THROUGH LEGAL REFORM* 313, 320 (2011); see also JONATHAN L. ZITTRAIN, *THE FUTURE OF THE INTERNET — AND HOW TO STOP IT* (2008); Peter K. Yu, *Trade Agreement Cats and the Digital Technology Mouse*, in *SCIENCE AND TECHNOLOGY IN INTERNATIONAL ECONOMIC LAW: BALANCING COMPETING INTERESTS* 185 (Brian Mercurio & Kuei-Jung Ni eds., 2014).

³⁴² MANYIKA ET AL., *supra* note 1.

³⁴³ See Anupam Chander, *How Law Made Silicon Valley*, 63 EMORY L.J. 639, 642-44 (2014) (discussing the innovation-enabling function of law); see also Chander and Lé, *supra* note 11, at 677-739. See generally ZITTRAIN, *supra* note 341.

such as for classification or localization requirements for foreign operators — essential rights and values like freedom of expression, privacy, fairness, equality of opportunity, and justice, will be affected.³⁴⁴

While addressing this governance challenge is beyond the humble scope of the present Article, we consider some steps that may be essential in tackling it. First, there is a distinct need for understanding trade rules better and how they operate in the data economy — not only in terms of the content of the rules (as clarified to some extent by this Article) but also in terms of their impact on the ground (for which there is still insufficient data). We may need to confront Senator Millikin’s prediction in this regard that, “Anyone who reads GATT is likely to have his sanity impaired,”³⁴⁵ and attempt to link the often-disconnected discourses on trade and Internet governance. The newly emerged rhetoric of data flows that has been specifically endorsed in recent preferential trade negotiations may help. It has a positive connotation and the potential to bridge technical and legal discussions in a meaningful way. Data is clearly now an asset, so different policy circles can be mobilized.

Second, there is a need to understand what trade forums can and cannot do, and how we may want to shape the existing rules towards a regulatory environment that on the one hand, reflects the practical reality of digital trade and data flows, and on the other, the interests of sovereign states to protect values that are important to their citizens, such as privacy and national security. The debate on the boundaries of the WTO is not new and the writings on the desirability of including new issues under the WTO umbrella³⁴⁶ and on the feasibility of the WTO institution, and its law to address different areas that demand cooperation,³⁴⁷ are still relevant today. They show that the WTO has the capability to, and overall good record in, disciplining protectionism.³⁴⁸ This can be useful in the context of digital trade — we saw that the WTO has given a level of legal certainty by binding

³⁴⁴ See, e.g., Anupam Chander & Uyên P. Lê, *Free Speech*, 100 IOWA L. REV. 501 (2015).

³⁴⁵ Senator Millikin at the 1951 Hearings held by the Senate Finance Committee, as cited by JOHN H. JACKSON, *WORLD TRADE AND THE LAW OF GATT* vii (1969).

³⁴⁶ See, e.g., José E. Alvarez & Steve Charnovitz, *Triangulating the World Trade Organization*, 96 AM. J. INT’L. L. 28, 29 (2002). See generally Symposium, *The Boundaries of the WTO*, 96 AM. J. INT’L. L. 1 (2002).

³⁴⁷ See Anu Bradford, *When the WTO Works, and How It Fails*, 51 VA. J. INT’L L. 1, 6 (2010).

³⁴⁸ Bollyky & Mavroidis, *supra* note 337, at 2-3.

the liberalization levels in telecom and computer services and by providing for tariff-free trade in IT products. This can potentially work well also with a ban on localization measures that can easily be added as a horizontal commitment in the Member's schedule or as an additional commitment under Article XVIII GATS.

The data economy places, however, higher demands on regulatory cooperation.³⁴⁹ We saw quite clearly that the evolution of the digital trade templates in FTAs has occurred to satisfy, at least partially, precisely these demands — by making sure that national regulation does not turn into a barrier and by interfacing domestic regimes. Enhanced regulatory cooperation is absolutely essential for moving forward on data issues because they often would entail the need for reconciling different interests and the need for oversight. Only then can “. . . concerns about diminishing cherished social preferences [that] would make the already difficult politics of trade liberalization unworkable” be addressed.³⁵⁰ We see an example for these needs in the EU-U.S. Privacy Shield — indeed, as the tensions between data flows and privacy protection are likely to increase,³⁵¹ regulatory cooperation may be the only thing that works. While the paths for engaging in and advancing regulatory cooperation would ideally be followed in the multilateral forum,³⁵² preferential trade venues can serve as governance laboratories, as we show in this Article. Looking at the present political economy of trade agreements, and despite the so far leading role of the United States as a legal entrepreneur for the digital economy, it may now be time for the European Union to step up as an active global governance actor.³⁵³

³⁴⁹ Bollyky and Mavroidis discuss the need for regulatory competition in the context of global value chains; their argument is only strengthened in the domain of overall digital trade and data flows. *See id.* at 11-13.

³⁵⁰ *Id.* at 14.

³⁵¹ *See, e.g.,* Gasser, *supra* note 3; *see also* Viktor Mayer-Schönberger, *Beyond Privacy, Beyond Rights — Toward a “Systems” Theory of Information Governance*, 98 CALIF. L. REV. 1853, 1883 (2010).

³⁵² Bollyky & Mavroidis, *supra* note 337, at 21.

³⁵³ *See generally* MIRA BURRI, CURRENT AND EMERGING TRENDS IN DISRUPTIVE TECHNOLOGIES: IMPLICATIONS FOR THE PRESENT AND FUTURE OF EU'S TRADE POLICY (2017), [http://www.europarl.europa.eu/RegData/etudes/STUD/2017/603845/EXPO_STU\(2017\)603845_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2017/603845/EXPO_STU(2017)603845_EN.pdf).