

THE REGULATION OF DATA FLOWS THROUGH TRADE AGREEMENTS

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ABSTRACT

Cross-border data flows are essential to the contemporary digital economy. While states are eager to seize the opportunity of digitization as the fourth industrial revolution, they also often impose borders in the digital space, so as to protect vital interests, such as national security or privacy. Free trade agreements have gained new value in the last decade and shape the regulatory environment for digital data by overcoming some of the problems and inconsistencies of the multilateral regime of the World Trade Organization (WTO) and by active norm-creation in discrete fields of digital trade. The Article maps these developments by looking first at the legal foundations laid by the WTO and then at the many free trade agreements that regulate digital trade beyond the older multilateral rules. The Article examines their design and evolution with a particular focus on the models that the United States and the European Union have developed. The Article contextualizes and assesses the impact of free trade agreements for the burgeoning digital economy by highlighting the positive as well as the many negative sides such a proactive, power-driven norm-setting may have, in particular in an environment as fluid as the digital space.

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I. INTRODUCTION

Cross-border data flows are essential to the contemporary digital economy. They underlie all digital trade transactions, are globally dispersed and thus call for international cooperation. At the same time, data issues have become the new battlefield of sovereign states, which attempt to impose borders in the digital space, so as to protect vital interests, such as national security or privacy. In the last decade, trade agreements, and perhaps strangely so, became the center of digital data discussions. Trade agreements have helped overcome some of the problems and inconsistencies of the multilateral regime of the World Trade Organization (WTO) and resulted in new, active norm-creation in discrete fields of digital governance.

This Article will examine the free trade agreements (FTAs) adopted and under negotiation outside of the venue of the WTO, and analyze their rules of relevance for digital trade and more generally for the evolving digital economy. The enquiry has in this sense an essential descriptive part, which is to be complemented by an appraisal of this emergent international framework for digital trade flows. As rule-creation at the multilateral stage appears, at least for now, unlikely to progress, and as consent-based international law in general is in crisis, the patchwork of digital trade rules in multiple fora with constrained membership may be, if not the best, at least second-best option in the near future. While ideally one could conceive of a global harmonized framework, which operates across regions, countries, and economic sectors, and yields the optimal effects of free trade, such a framework is politically far removed from realization. It may be therefore very useful to contemplate these second-best solutions that can help advance the contemporary digital economy and data-driven innovation within the limitations of this given framework.

Though there is an undertone in the analyses of public international law and policy that states struggle to agree on common matters,¹ it is also true that during the past two decades, rules and regulatory fora of

1. 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, 7–10 (2014).

soft and hard,² and of formal and informal nature have proliferated.³ Regarding trade, the lack of progress within the WTO context drove and continues to drive countries to seek other venues that better reflect their interests and allow for speedier solutions. Global trade law and policy reflect this regime-shifting⁴ and can be distinguished by the great and growing number of preferential trade agreements, agreed upon bilaterally, regionally or between country groups.⁵ It is important to stress in this context that in many of these agreements, digital trade issues have formed an essential part of the reasoning behind seeking the FTA, as well as of the content of the FTA itself.

This Article does not intend to disentangle and analyze the entire “spaghetti bowl”⁶ of FTAs but looks at the emergent distinct features of pertinent FTA templates for digital trade and data flows in particular. The Article begins with a brief note on the state of WTO law and moves on to explore preferential trade. The focus is on the respective models of the United States and the European Union (EU). The Article diversifies the sample by analyzing the practice of Switzerland as a non-EU, highly innovative, and industrialized small country. Subsequently, the Article looks at the mega-regional trade deals by analyzing the Trans-Pacific Partnership Agreement (TPP)⁷ and by paying some attention to the ongoing negotiations of the Transatlantic Trade and Investment Partnership Agreement (TTIP)⁸ and the Trade in Services

2. See, e.g., Gregory C. Shaffer & Mark A. Pollack, *Hard vs. Soft Law: Alternatives, Complements, and Antagonists in International Governance*, 94 MINN. L. REV. 706, 712–17, 752–65 (2010).

3. See, e.g., Kal Raustiala, *Form and Substance in International Agreements*, 99 AM. J. INT’L L. 581 (2005); Joost Pauwelyn, *Informal International Lawmaking: Framing the Concept and Research Questions*, in *INFORMAL INTERNATIONAL LAWMAKING* (Joost Pauwelyn et al. eds., 2012), 13; Jean d’Aspremont, *From a Pluralization of International Norm-Making Processes to a Pluralization of Our Concept of International Law*, in *INFORMAL INTERNATIONAL LAWMAKING*, *id.*, 185.

4. See, e.g., J. P. SINGH, *NEGOTIATION AND THE GLOBAL INFORMATION ECONOMY* (2008); Laurence R. Helfer, *Regime Shifting in the International Intellectual Property System*, 7 PERS. ON POL. 39, 39 (2009).

5. See, e.g., WORLD TRADE ORG., *WORLD TRADE REPORT 2011: THE WTO AND PREFERENTIAL TRADE AGREEMENTS: FROM CO-EXISTENCE TO COHERENCE* (2011).

6. The notion of “spaghetti bowl” comes from Jagdish Bhagwati’s work on the negative effects of preferentialism due to, amongst other things, the lack of transparency and the increased complexity of overlapping trade rules. See JAGDISH BHAGWATI, *TERMITES IN THE TRADING SYSTEM* 61–71 (2008).

7. The Trans-Pacific Partnership Agreement Feb. 4, 2016, <https://ustr.gov/trade-agreements/free-trade-agreements/trans-pacific-partnership/tpp-full-text> [hereinafter TPP] (last visited May 20, 2017).

8. For updated information on the TTIP, as well as access to some of its chapters, see *EU Negotiating Texts*, EUR. COMMISSION, <http://trade.ec.europa.eu/doclib/press/index.cfm?id=1230> (last visited May 20, 2017) [hereinafter TTIP].

Agreement (TiSA).⁹ The Article concludes with a critical appraisal of the current situation and contemplates whether there are better models for regulating cross-border data flows and how politically feasible these are.

II. THE WTO: THE GOOD BUT OLD MULTILATERAL FORUM

While FTAs are the focus of this Article, we cannot simply ignore the multilateral forum of the WTO. On the one hand, WTO law matters in its own right as a set of hard and enforceable rules on trade in goods, services and intellectual property protection.¹⁰ On the other hand, FTAs are in many senses only an addition to these rules. Politically speaking, the failings of the multilateral system on certain issues have prompted action on those issues in the preferential venues, so there is a kind of matching between the two systems.¹¹

The WTO Agreements, the fundamental bases of international trade law, were adopted during the Uruguay Round in 1994.¹² Despite a few updates—such as the Information Technology Agreement (ITA)¹³ and the Fourth Protocol on Basic Telecommunications Services¹⁴—the WTO rules have so far not reacted in a forward-looking manner to the various changes triggered by the Internet, which enabled, amongst other things, instantaneous communication to millions, led to the emergence of a great variety of intangible products, and spurred online

9. See *infra* Section IV.C.

10. For an introduction to the law of the WTO and its most important tenets, see JOHN H. JACKSON, *THE WORLD TRADING SYSTEM* (2d ed. 1997); THE OXFORD HANDBOOK ON THE WORLD TRADE ORGANIZATION (Martin Daunton et al. eds., 2012); PETER VAN DEN BOSSCHE & WERNER ZDOUC, *THE LAW AND POLICY OF THE WORLD TRADE ORGANIZATION* (3d ed. 2013); PETROS C. MAVROIDIS ET AL., *THE LAW OF THE WORLD TRADE ORGANIZATION* (2d ed. 2013).

11. See, e.g., Thomas Cottier, *The Common Law of International Trade and the Future of the World Trade Organization*, 18 J. INT'L ECON. L. 3, 6–7, 14–19 (2015).

12. Marrakesh Agreement Establishing the World Trade Organization, Apr. 15, 1994, 1867 U.N.T.S. 154 (1994) [hereinafter Marrakesh Agreement]; General Agreement on Tariffs and Trade 1994, Apr. 15, 1994, 1867 U.N.T.S. 187 (1994) [hereinafter GATT 1994 or GATT]; General Agreement on Trade in Services, Apr. 15, 1994, 1869 U.N.T.S. 183 (1994) [hereinafter GATS]; Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, 1869 U.N.T.S. 299 (1994) [hereinafter TRIPS]. All are collectively referred to as the WTO Agreements.

13. See WTO, Ministerial Declaration on Trade in Information Technology Products, WT/MIN(96)/16, Dec. 13, 1996.

For the list of participants and the current state of implementation, see *Information Technology: Schedule of Concessions*, WORLD TRADE ORG., https://www.wto.org/english/tratop_e/inftec_e/itscheds_e.htm (last visited May 20, 2017).

14. Fourth Protocol to the General Agreement on Trade in Services, Apr. 30, 1996, Annex 1, WTO Doc. S/L/20 (entered into force Jan. 1, 1998).

services trade. One could of course argue that laws need not change with each and every new technological invention.¹⁵ Indeed, the law of the WTO may lend credence to such an argument because it possesses intrinsic flexibility and resilience, both in the substance and in the procedure. The WTO is based on powerful principles of non-discrimination, such as the most-favored nation (MFN) and the national treatment (NT) obligations,¹⁶ which could potentially address technological developments better than new made-to-measure regulatory acts (often adopted as a reaction to strong vested interests.)¹⁷ It also often tackles issues in a technologically neutral way, for example, with regard to the application of the basic principles, with regard to standards,¹⁸ trade facilitation,¹⁹ subsidies,²⁰ and government procure-

15. For a famous example, see Frank H. Easterbrook, *Cyberspace and the Law of the Horse*, 1996 U. CHIC. LEGAL F. 207 (1996).

16. The MFN principle is enshrined in GATT Article I, GATS Article II, and TRIPS Article 4. The NT obligation can be found in GATT Article III, GATS Article XVII, and TRIPS, Article III. GATT 1994, *supra* note 12, arts. I & III; GATS, *supra* note 12, arts. II & XVII; TRIPS, *supra* note 12, arts. 3 & 4.

17. Especially in the domain of intellectual property rights protection. See generally SUSAN SELL, *PRIVATE POWER, PUBLIC LAW: THE GLOBALIZATION OF INTELLECTUAL PROPERTY RIGHTS* (2003).

18. 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-discrimination and transparency norms as well as procedural safeguards. See 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, 1868 U.N.T.S. 120 (1994); Multilateral Agreements on Trade in Goods, Apr. 15, 1994, Marrakesh Agreement, *supra* note 12, Annex 1A, 1897 U.N.T.S. 187.

19. The WTO Agreement on Trade Facilitation, which was agreed upon in the 2013 Bali Ministerial Conference will be 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. For example, it requires 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 a one-stop-shop for documentation and the expedited release of goods through air cargo facilities. On trade facilitation under the WTO and the adoption of the protocol, see *Trade Facilitation*, WORLD TRADE ORG., http://www.wto.org/english/tratop_e/tradfa_e/tradfa_e.htm (last visited May 20, 2017).

20. 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 withdrawal of the subsidy or removal of its adverse effects, or 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. See Agreement on Subsidies and Countervailing Measures, Multilateral Agreements on Trade in Goods, Apr. 15, 1994, Marrakesh Agreement, *supra* note 12, Annex

ment.²¹ There are, additionally, horizontally applicable provisions, such as those regarding transparency (Article III GATS) and domestic regulation (Article VI GATS)²² that may have the (as yet untapped) potential to deal with many digital trade concerns.

Moreover, in terms of evolution of norms, it can be argued that the WTO possesses the unrivalled advantage of an effective dispute settlement system, often dubbed the “jewel in the crown” of the WTO architecture. 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.²³ The *US—Gambling*²⁴ case is illuminating in this context. Not only did this first “GATS only” case confirm that GATS commitments apply to electronically supplied services, but it also clarified key notions of services regulation, such as likeness and the scope of the “public morals/public order” defense under the general

1A, 1897 U.N.T.S. 187. There is no comparable agreement for trade in services but just a duty to negotiate under the GATS “built-in agenda.” See GATS, *supra* note 12, art. XV.

21. The WTO Government Procurement Agreement (GPA) seeks openness of procurement market. It is a plurilateral agreement that binds and benefits only its signatories (Switzerland as well as the EU are members). The revised GPA, which entered into force on 6 April 2014, is a farther reaching effort that establishes standards of non-discrimination, transparency, and procedural fairness in public procurement. See The Agreement on Government Procurement, Apr. 15, 1994, (1994), Marrakesh Agreement, *supra* note 12, Annex 4(b), 1989 U.N.T.S. 508 [hereinafter GPA]. For information on the history of the GPA and its subsequent revisions, see *Agreement on Government Procurement*, WORLD TRADE ORG., https://www.wto.org/english/tratop_e/gproc_e/gp_gpa_e.htm (last visited May 20, 2017).

22. See, e.g., GATS, *supra* note 12, art. VI; PANAGIOTIS DELIMATIS, *INTERNATIONAL TRADE IN SERVICES AND DOMESTIC REGULATIONS* (2007).

23. In fact, all major GATS cases have had a substantial Internet-related element. See Panel Report, *Mexico—Measures Affecting Telecommunications Services*, WTO Doc. WT/DS204/R (adopted Apr. 2, 2004) [hereinafter *Mexico—Telecommunications*]; 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 *U.S.—Gambling*]; Appellate Body Report, *United States—Measures Affecting the Cross-Border Supply of Gambling and Betting Services*, WTO Doc. WT/DS285/AB/R/Corr. 1 (adopted Apr. 7, 2005) [hereinafter *U.S.—Gambling Appeal*]; Panel Report, *China—Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products*, WTO Doc. WT/DS363/R/Corr. 1 (adopted Aug. 12, 2009) [hereinafter *China—Audiovisual Products*]; Appellate Body Report, *China—Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products*, WTO Doc. WT/DS363/AB/R (adopted Dec. 21, 2009) [hereinafter *China—Audiovisual Products Appeal*]; Panel Report, *China—Certain Measures Affecting Electronic Payment Services*, WTO Doc. WT/DS413/R (adopted Aug. 31, 2012) [hereinafter *China—Electronic Payment Services*].

24. In *U.S.—Gambling, id.*, Antigua brought a claim against the United States alleging its restrictions on cross-border gambling services violated its obligations under the GATS. The Panel and the Appellate Body’s findings focused on the violation of the U.S. obligations for market access under Article XVI.

exceptions of Article XIV of GATS.²⁵

Unfortunately, such a positive picture of the WTO's "adaptive governance"²⁶ does not reflect reality. Indeed, there are many causes for worry and skepticism. Some relate to the way WTO rules, in particular the provisions of GATS, were designed, allowing WTO Members to tailor their commitments.²⁷ Others relate to old (pre-Internet) classifications of goods, services, and sectors, upon which these commitments were based and which are becoming increasingly disconnected from trade practices.²⁸ Many of the contentious issues, which often block digital trade negotiations, stem however from more fundamental policy and cultural divergences. To use the WTO jargon, they translate into different "trade and . . ." pairs,²⁹ which render solution-finding processes hard and protracted, especially when the views of dominant actors—the United States and the European Union—diverge.³⁰

This situation has induced legal uncertainty. For instance, as the WTO law presently stands, we are unsure whether online games should be categorized as goods or services.³¹ Provided that no physical medium is involved and we decide consequently to apply the GATS, the classification puzzle is by no means solved. Online games, as a new type of content platform, could be potentially fitted into the discrete

25. Markus Krajewski, *Playing by the Rules of the Game? Specific Commitments after US—Gambling and Betting and the Current GATS Negotiations*, 32 *LEGAL ISSUES ECON. INTEGRATION* 417, 438 (2005); Sacha Wunsch-Vincent, *The Internet, Cross-Border Trade in Services, and the GATS: Lessons from US—Gambling*, 5 *WORLD TRADE REV.* 319, 322 (2006). For further analysis of the *U.S.—Gambling* case, see Panagiotis Delimatsis, *Don't Gamble with GATS—The Interaction Between Articles VI, XVI, XVII and XVIII GATS in the Light of the US—Gambling Case*, 40 *J. WORLD TRADE* 1059 (2006).

26. Rosie Cooney & Andrew T. F. Lang, *Taking Uncertainty Seriously: Adaptive Governance and International Trade*, 18 *EUR. J. INT'L L.* 523, 524 (2007); see also Andrew T. F. Lang & Joanne Scott, *The Hidden World of WTO Governance*, 20 *EUR. J. INT'L L.* 575-614 (2009).

27. See, e.g., Rudolf Adlung, *Trade Liberalisation under the GATS: An Odyssey?*, in *GATS AND THE REGULATION OF INTERNATIONAL TRADE IN SERVICES* 209, 209–31 (Marion Panizzon et al. eds., 2008); 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, 62–72 (Juan A. Marchetti & Martin Roy eds., 2008).

28. See *TRADE GOVERNANCE IN THE DIGITAL AGE* (Mira Burri & Thomas Cottier eds., 2012), *passim* and in particular Anupam Chander, *Principles for Trade 2.0*, at 17.

29. See, e.g., Andrew T. F. Lang, *Reflecting on "Linkage": Cognitive and Institutional Change in the International Trading System*, 70 *MOD. L. REV.* 523, 523–49 (2007).

30. The trade and culture debate is illustrative in this context. See, e.g., Mira Burri et al., *The Protection and Promotion of Cultural Diversity in a Digital Networked Environment: Mapping Possible Advances to Coherence*, in *THE PROSPECTS OF INTERNATIONAL TRADE REGULATION* 369, 369–93 (Thomas Cottier & Panagiotis Delimatsis eds., 2011).

31. See, e.g., ROLF H. WEBER & MIRA BURRI, *CLASSIFICATION OF SERVICES IN THE DIGITAL ECONOMY* (2012), at ch. 3.

categories of computer and related services, value-added telecommunications services, entertainment, or audiovisual services. We are 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.³²

Classification is by no means trivial,³³ as each category implies a completely different set of duties and/or flexibilities. If online platforms and the services they offer were classified as computer services, states would lack any wiggle-room whatsoever and would have to grant full access to foreign services and services suppliers and treat them as they treat domestic ones because of the high level of existing commitments under the GATS of virtually all WTO Members.³⁴ The evolutionary interpretation of schedules of specific commitments, as affirmed in *China—Audiovisual Products*, while genuinely a positive development, does not necessarily help much to achieve legal certainty in such situations.³⁵ Nor does the finding that the GATT and the GATS are not mutually exclusive and can overlap.³⁶

The classification dilemma as particularly critical for digital trade is an illuminating example of this state of paralysis but by far not the only one. Many other issues discussed in the framework of the 1998 WTO Work Programme on Electronic Commerce have been left without a solution or even a clarification.³⁷

32. 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 (2016).

33. See WEBER & BURRI, *supra* note 31, at 1–3.

34. This is true not only because of traditional media policies but also because of newly adopted ones. The promotion of local content in digitally delivered services is not limited to Europe either. The Chinese Ministry of Culture reportedly has classified online games as “cultural products” and has intensely supported the domestic industry. See *Digital Trade in the U.S. and Global Economies, Part 1*, USICT Pub. 4451, Inv. No. 332–531, at 5–7 (2013) [hereinafter USITC Digital Trade Investigation Part I].

35. In *China—Audiovisual Products*, the Appellate Body found that the terms in China’s Schedule “are sufficiently generic that what they apply to may change over time.” *China—Audiovisual Products Appeal*, *supra* note 23, ¶ 396.

36. See Appellate Body Report, *European Communities—Regime for the Importation, Sale and Distribution of Bananas*, WTO Doc. WT/DS27/AB/R (adopted Sept. 9 1997) [hereinafter *EC—Bananas*]; WTO Appellate Body Report, *Canada—Certain Measures Affecting the Automotive Industry*, WT/DS139/AB/R, WT/DS142/AB/R, (adopted May 31, 2000) [hereinafter *Canada—Autos*].

37. WORLD TRADE ORG., *Work Programme on Electronic Commerce*, WTO Doc. WT/L/274 (adopted Sept. 25, 1998) [hereinafter WTO E-Commerce Programme]. See 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, *supra* note 28, 181.

- Even on simple issues, such as confirming the applicability of WTO rules and commitments to electronically traded services, no results have been achieved at the negotiation table. This failure has been somewhat compensated by the *US—Gambling* case,³⁸ but there is plenty more to be settled.³⁹
- There is, for instance, 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 2015.⁴⁰ In addition, there is some disagreement as to the moratorium’s exact coverage, in particular whether it also applies to the content of the transmissions—that is, the songs, videos, or films that are being sold for download over the Internet.⁴¹
- Furthermore, WTO Members have so far not agreed upon a clear determination of whether the electronic cross-border delivery of a service is a service supplied through GATS mode 1 (cross-border) or mode 2 (consumption abroad). While in *US—Gambling*, both parties, as well as the Panel and the Appellate Body, implied the application of GATS mode 1,⁴² the reports did not formally examine the difference between the two modes of supply.
- Another fundamental question that has been left unanswered by the WTO E-Commerce Programme, and triggers controversies, is the finding of “likeness” for application of MFN obligations and national treatment commitments. The question is important because it affects the non-discriminatory treatment of offline and online services and the underlying concept of technological neutrality. In *US—Gambling*, the Panel confirmed elements of technologi-

38. See *U.S.—Gambling*, *supra* note 23.

39. Andrew D. Mitchell, *Towards Compatibility: The Future of Electronic Commerce Within the Global Trading System*, 4 J. INT’L ECON. L. 683, 723 (2001); Wunsch-Vincent, *supra* note 25, at 352.

40. World Trade Organization, Ministerial Draft Decision of 18 Dec. 2015, WTO Doc. WT/MIN(15)/42 (2015).

41. Aaditya Mattoo and Ludger Schuknecht have argued that the debate on the ban on duties may be missing the point because if a WTO Member has made a national treatment commitment for a particular sector, all discriminatory taxes are already prohibited. If there is no national treatment obligation, the state remains free to impose discriminatory internal taxes other than customs duties, which again renders the value of the ban small. Mattoo and Schuknecht recommend expansion of the GATS specific commitments as a more sensible and efficient way to liberalize electronic commerce. See Aaditya Mattoo & Ludger Schuknecht, *Trade Policies for Electronic Commerce* 2, 13–14 (WBG Pol’y Res., Working Paper No. 2380, 2000).

42. *U.S.—Gambling*, *supra* note 23, ¶ 3.29.

cal neutrality with regard to the different modes of supply and found 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).”⁴³ 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 strengthened the technological neutrality stance under the GATS.⁴⁴ These evolutionary case-law developments need yet to be clearly acknowledged by the WTO Members and integrated in the negotiating process.

These issues are, so to speak, “leftovers” of the WTO Work Programme on E-Commerce that manifest themselves on the one hand because of clear failures to reach agreement at the negotiation table and on the other hand because the law of the WTO, in particular the GATS, is in some senses “unfinished business”, as many rules are incomplete.⁴⁵ But focusing on these issues solely and recommending incrementally filling the existing gaps may in fact be out of touch with the existing reality of digital trade.

Since the Work Programme on E-Commerce was launched in 1998, the picture has changed in many critical respects. The significance of digital trade, both in its contribution to the economic growth of many countries and the preoccupation of governments with digital trade-related policies, has grown exponentially.⁴⁶ This progress and the changing interests relate to new, previously unknown or not fully developed technological applications, such as mobile telephony or cloud computing, which have become important platforms for business.⁴⁷ The overall transformation relates to the new centrality of the Internet as the essential foundation for innovation and its deep eco-

43. *Id.* ¶¶ 6.355, 7.2(b).

44. *China—Audiovisual Products* Appeal, *supra* note 23, ¶ 412. The most recent case, *China—Electronic Payment Services*, also provided for a broad definition of the services at issue. *See China—Electronic Payment Services*, *supra* note 23; *see also* Rolf H. Weber, *Electronic Payment Services—New Clarifications in GATS Classification Issues*, 10 SIC! 601, 601 (2012).

45. *See, e.g.*, GATS 2000: NEW DIRECTIONS IN SERVICES LIBERALIZATION (Pierre Sauvé & Robert M. Stern eds., 2000); RESEARCH HANDBOOK ON TRADE IN SERVICES (Pierre Sauvé & Martin Roy eds., 2016), *passim* and in particular Gabriel Gari, *Services Negotiations: Where Have We Been and Where Are We Heading?*, *id.*, at 579.

46. USITC Digital Trade Investigation Part I, *supra* note 34, at 5-1–5-35.

47. *See, e.g.*, 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).

conomic, social, and cultural implications.⁴⁸ The importance of data and now more recently, Big Data, as key aspects to essentially all societal activities is critical in this transformation⁴⁹ and is yet to gain full acknowledgement in policy circles.

These changes have been associated with a new palette of measures that inhibit digital trade. An enquiry by the United States International Trade Commission (USITC) compiled a useful taxonomy of such measures.⁵⁰ Some measures can be grouped under the so-called digital trade “localization requirement measures” or “localization barriers to trade.”⁵¹ They encompass, amongst others, requirements for localization of data servers, certain local content policies, or discrimination against not locally based digital services or providers.⁵² Other measures do not relate strictly to trade: censorship, divergent approaches to data privacy, and IP protection that different countries have adopted nonetheless disrupt digital trade, increase the cost of doing business, and hinder innovation.⁵³

Overall, 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 suffered. 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 rule-making has been seriously undermined and this has triggered forum-shopping—bilaterally, regionally, or through plurilateral initiatives.

48. See generally YOCHAI BENKLER, *THE WEALTH OF NETWORKS: HOW SOCIAL PRODUCTION TRANSFORMS MARKETS AND FREEDOM* (2006); ANUPAM CHANDER, *THE ELECTRONIC SILK ROAD: HOW THE WEB BINDS THE WORLD IN COMMERCE* (2013). For a brief overview with regard to trade, see Joshua Paul Meltzer, *The Internet, Cross-Border Data Flows and International Trade*, 2 ASIA & PAC. POL’Y STUD. 90 (2013).

49. VIKTOR MAYER-SCHÖNBERGER & KENNETH CUKIER, *BIG DATA: A REVOLUTION THAT WILL TRANSFORM HOW WE LIVE, WORK, AND THINK* (2013), *passim* and at 123–49.

50. See *Digital Trade in the U.S. and Global Economies, Part 2*, USITC Pub. 4485, Inv. No. 332–540 (2014).

51. *Id.* at 81 n. 132 (defining “localization barriers to trade”); *id.* at 208 (defining “localization requirements”).

52. For a country survey, see Anupam Chander & Uyên P. Lê, *Data Nationalism*, 64 EMORY L. J. 677 (2015).

53. *Id.* at 679–82, 713–38; USITC Investigation Part 1, *supra* note 34, at 5-1–5-28.

III. REGIONAL AND BILATERAL AGREEMENTS

A. U.S.-led FTAs

The United States has endorsed and attempted to ensure implementation of its so-called “Digital Agenda”⁵⁴ through the FTA channel. The agreements reached by the U.S. since 2002 with Australia,⁵⁵ Bahrain,⁵⁶ Chile,⁵⁷ Morocco,⁵⁸ Oman,⁵⁹ Peru,⁶⁰ Singapore,⁶¹ the Central American countries,⁶² and more recently with Panama,⁶³ Colombia,⁶⁴ and South Korea,⁶⁵ all contain critical WTO-plus provisions in the broader field of digital trade.⁶⁶ Importantly, the diffusion of the U.S. template is not limited to U.S. agreements, but can be found in other FTAs as well, such as Singapore–Australia, Thailand–Australia,⁶⁷ New Zealand–Singapore, India–Singapore, Japan–Singapore, and South

54. See Sacha Wunsch-Vincent, *The Digital Trade Agenda of the U.S.: Parallel Tracks of Bilateral, Regional and Multilateral Liberalization*, 1 *AUSSENWIRTSCHAFT* 7, 19 n. 54 (2003).

55. 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].

56. Agreement Between the Government of the United States of America and the Government of the Kingdom of Bahrain on the Establishment of a Free Trade Area, Bahr.–U.S., Sep. 14, 2004, 44 I.L.M. 544 (entered into force Dec. 7, 2005).

57. United States–Chile Free Trade Agreement, Chile–U.S., Sep. 3, 2003, 114 Stat. 1526 (entered into force Jan. 1, 2004) [hereinafter U.S.–Chile FTA].

58. United States–Morocco Free Trade Agreement, Morocco–U.S., June 15, 2004, 44 I.L.M. 544 (entered into force Jan. 1, 2006).

59. United States–Oman Free Trade Agreement, Oman–U.S., Jan. 18, 2006, K.A.V. 8673 (entered into force Jan. 1, 2009).

60. United States–Peru Trade Promotion Agreement, Peru–U.S., Apr. 12, 2006, K.A.V. 9736 (entered into force Feb. 1, 2009).

61. United States–Singapore Free Trade Agreement, Sing.–U.S., Sep. 3, 2003, 117 Stat. 948 (entered into force Jan. 1, 2004) [hereinafter U.S.–Singapore FTA].

62. See Dominican Republic–Central America–United States Free Trade Agreement, May 28, 2004, 43 I.L.M. 514. Referred to as DR-CAFTA, the agreement includes the U.S., the Dominican Republic, Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua. *Id.* at pmb1.

63. See United States–Panama Trade Promotion Agreement (entered into force Oct. 31, 2012) [hereinafter U.S.–Panama FTA].

64. See United States–Colombia Trade Promotion Agreement (entered into force May 15, 2012) [hereinafter U.S.–Colombia FTA].

65. United States–Korea Free Trade Agreement, S. Korea–U.S., June 30, 2007, 46 I.L.M. 642 (entered into force Mar. 15, 2012) [hereinafter KORUS FTA].

66. See Wunsch-Vincent & Hold, *supra* note 37, at 193–98.

67. For all Australian FTAs, see *Free Trade Agreements*, AUSTRALIAN GOV'T: DEP'T OF FOREIGN AFF., <http://dfat.gov.au/trade/agreements/Pages/trade-agreements.aspx> (last visited May 20, 2017).

Korea–Singapore.⁶⁸

The implemented U.S. template regulates key aspects of digital trade in: (i) specifically dedicated e-commerce chapters; (ii) the chapters on cross-border supply of services; as well as in (iii) ICT cooperation and (iv) intellectual property chapters.

1. E-Commerce Chapters

The first category of FTA chapters, which focuses exclusively on matters of electronic commerce, represents a clear attempt to compensate for the lack of progress in the WTO and remedy the ensuing uncertainties. These chapters directly or indirectly address many of the questions of the WTO E-commerce Programme⁶⁹ that have been discussed but still remain open.⁷⁰ This includes a clear definition of “digital products”, which treats digital products delivered offline equally as those delivered online, so that technological neutrality is ensured. The chapters also recognize the applicability of WTO rules to electronic commerce,⁷¹ and establish an express and permanent duty-free moratorium on the import or export of digital products by electronic transmission.⁷² Critically, the e-commerce chapters 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.”⁷³

68. For all FTAs of Singapore, see *Free Trade Agreements*, IE SINGAPORE, <https://www.iesingapore.gov.sg/Trade-From-Singapore/International-Agreements/Free-Trade-Agreements> (last visited May 20, 2017); see also Wunsch-Vincent & Hold, *supra* note 37, at 193–97.

69. *Work Programme on Electronic Commerce*, *supra* note 37.

70. See SACHA WUNSCH-VINCENT, *THE WTO, THE INTERNET AND DIGITAL PRODUCTS: EC - US PERSPECTIVES* (2006), 201–28.

71. See, e.g., U.S.–Singapore FTA, *supra* note 61, art. 14.1; Australia–U.S. FTA, *supra* note 55, art. 16.1.

72. See, e.g., U.S.–Singapore FTA, *supra* note 61, art. 14.3, ¶ 1; U.S.–Chile FTA, *supra* note 57, 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 e.g., Wunsch-Vincent & Hold, *supra* note 37, at 200.

73. See, e.g., U.S.–Singapore FTA, *supra* note 61, art. 14.3; Australia–U.S. FTA, *supra* note 55, art. 16.4. 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 37, at 201.

However, the seemingly far-reaching provisions of the e-commerce chapters need to be qualified. Importantly, they appear legally inferior to the rest of the agreement, as they are “subject to any other relevant provisions, exceptions, or non-conforming measures set forth in other Chapters or Annexes of this Agreement.”⁷⁴ In case of a conflict, the provisions of the e-commerce chapters will thus be overridden.

2. Chapters on Cross-Border Supply of Services

The depth of the commitments made in the e-commerce chapters is contingent on the services chapters. In most US-led FTAs, the chapters on cross-border trade in services are very liberal. 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,⁷⁵ it does indirectly tackle the problem of outdated (and politically contentious) classification issues, as well as ensures, in principle, coverage for future digital services. In addition, the FTAs address still existing MFN exemptions under the WTO regime, and ensure that these exemptions are dropped. Many of the FTAs also address and expressly ban the newer generation of digital trade barriers, which prescribe certain local content or presence elements, as we discuss in more detail below.

3. ICT Cooperation

In addition to the topics of market access and equal treatment that are core to trade agreements, many FTA partners have sought the conclusion of additional understandings on e-commerce, as part of the e-commerce chapters or in a discrete form.⁷⁶ These cover different cooperation initiatives in the broader information technology (IT)

74. See, e.g., U.S.–Chile FTA, *supra* note 57, art. 15.2; U.S.–Singapore FTA, *supra* note 61, art. 14.2.

75. Rudolf Adlung & Hamid Mamdouh, *How to Design Trade Agreements in Services: Top Down or Bottom Up* 7, (World Trade Org., Econ. Res. & Stat. Division, Working Paper No. 8, 2013). Adlung and Mamdouh suggest that what matters for the level of liberalization is not negotiating or scheduling techniques but the political impetus that the governments concerned are ready to generate. *Id.* at 17; see also Plurilateral Initiative on Trade and Services, *Submission by Switzerland: Possible Operationalization of a Hybrid Schedule, Really Good Friends—Meeting of 5 November 2012* (Oct. 10, 2012) [hereinafter *Swiss Submission—RGF Meeting*].

76. Very often there are joint statements on e-commerce agreed upon bilaterally and regionally. See, e.g., *2002 Leaders' Declaration, ASIA PAC. ECON. COOPERATION* (Oct. 27, 2002)

policy field, such as those for telecommunications policy, IT standards and interoperability, cyber-security, electronic signatures and payments, paperless trading, self-regulation and e-government projects. The joint understandings also try to achieve some common ground rules for the digital marketplace, where increasingly inadequate and incompatible national regulations are seen as an important digital trade barrier.⁷⁷ There is no uniform format for attaining this objective. Some of the agreed digital trade principles are general, while others are fairly detailed and far-reaching. In particular the provisions on authentication mandating certain technological and legal requirements, interoperability and non-discrimination, work on mutual recognition and international standards, as well as on consumer protection,⁷⁸ and privacy standards, 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.⁷⁹ 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, albeit in a non-binding manner, “to refrain from imposing or maintaining unnecessary barriers to electronic information flows across borders.”⁸⁰

(implementing APEC policies on trade and the digital economy), http://www.apec.org/Meeting-Papers/Leaders-Declarations/2002/2002_aelm.aspx (last visited May 20, 2017).

77. Wunsch-Vincent & Hold, *supra* note 37, at 204–11. For comparative data, see USITC Digital Investigation Part I, *supra* note 34, at 5-1–5-26.

78. For instance, the Australia–U.S. FTA includes 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 55, art. 14.2. 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 at Article 16.6. See KORUS FTA, *supra* note 65, arts. 15.5, 16.6.

79. KORUS FTA, *supra* note 65, art. 15.7.

80. *Id.* 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.”).

4. Intellectual Property Chapters

Many relevant digital trade provisions are to 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.⁸¹ Over the past decade, FTAs have become a primary venue for implementing IP rules to protect content online.⁸² 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 the U.S.–South Korea FTA.⁸³

The IP chapters secure adherence to, or at least compliance (without formal ratification) with, the WIPO Internet Treaties.⁸⁴ Going even further than the WIPO Copyright Treaty (WCT), the bilateral and regional agreements 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.⁸⁵

Overall, the U.S. FTA provisions on digital trade ensure a fairly liberal regime with substantial GATS-plus commitments⁸⁶ and detailed rule-making of relevance to cross-border delivery of electronic services,

81. See, e.g., Susan K. Sell, *The Global IP Upward Ratchet, Anti-Counterfeiting and Piracy Enforcement Efforts: The State of Play* 3–4 (Am. U. Wash. C. of L., Program on Info. Just. & Intell. Prop. Res. Paper Series, No. 15, 2010); see also Neil W. Netanel, *Why Has Copyright Expanded? Analysis and Critique*, in 6 *NEW DIRECTIONS IN COPYRIGHT LAW* 3, 7 (Fiona Macmillian ed., 2007); Kimberlee Weatherall, *Intellectual Property in the TPP: Not "The New TRIPS"*, 17 *MELB. J. INT. LAW* 1 (2016).

82. See Netanel, *supra* note 81, at 6–10; Annette Kur, *From Minimum Standards to Maximum Rules*, in *TRIPS PLUS* 20 133, 146–47 (Hanns Ullrich, Reto M. Hilty, Matthias Lamping & Josef Drexel eds., 2016).

83. Wunsch-Vincent & Hold, *supra* note 37, at 211.

84. The WIPO Internet Treaties encompass the WIPO Copyright Treaty and the WIPO Performance and Phonograms Treaty. See WIPO Copyright Treaty, Dec. 20 1996, WIPO Publication No. 226 (1997), 36 ILM 65 (entered into force Mar. 6, 2002); WIPO Performances and Phonograms Treaty, Dec. 20, 1996, WIPO Publication No. 227 (1997), 36 ILM 76 (entered into force May 20, 2002).

85. Wunsch-Vincent & Hold, *supra* note 37, at 211–15.

86. It should be added, however, that only a detailed look at the individual sectors and the non-conforming measures will reveal 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, and in many senses, this reduces the value of the trade agreement. For instance, some of the U.S. FTAs, such as U.S.–Australia, contain a limitation

such as strengthened transparency and domestic regulation requirements.⁸⁷ In addition, certain non-trade issues are addressed in an attempt to achieve a basic level of harmonization, or at least legal interoperability,⁸⁸ in the field of digital governance. This ultimately leads to the creation of a new tailored regime for digital trade.

That said, this new digital trade regime is not comprehensive and there are still a number of exceptions. 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,⁸⁹ in the audiovisual context, 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.⁹⁰ Very often however these measures are “frozen” at their present level,⁹¹ and could relate only to conventional “offline” technologies. It is evident also that the leeway given to the U.S. partners with respect to trade in cultural products “reflect[s] quite accurately the negotiating capacity of the [s]tates involved.”⁹² Thus, the smaller the country, the more concessions it admits. Australia, as the most affluent of the U.S. FTA partners, managed to preserve existing

specifying all existing non-conforming measures of U.S. states are exempted. *See* Wunsch-Vincent & Hold, *supra* note 37, at 203.

87. *Id.* 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, 45–47 (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, 17.

88. On legal interoperability, *see* 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* *supra* note 28, at 123.

89. *See, e.g.*, 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, 24 n.42, 27 n.60 (2008) (internal citations omitted).

90. Australia–U.S. FTA, *supra* note 55, art. 16.4.

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

92. Ivan Bernier, *The Recent Free Trade Agreements of the United States as Illustration of Their New Strategy Regarding the Audiovisual Sector* 15 (unpublished manuscript) (2004), http://www.coalitionsuisse.ch/doss/unesco_ccd/bernier_us_ftas_and_av_sector1.pdf (last visited May 20, 2017).

quotas for local content in commercial broadcasting.⁹³ It also remains free to maintain existing measures and adopt new ones in the areas of (a) multi-channelled free-to-air commercial television broadcasting services; (b) free-to-air commercial television broadcasting services; (c) subscription television broadcasting services; (d) free-to-air radio broadcasting services; (e) interactive audio and/or video services; (f) spectrum and licensing; and (d) subsidies or grants.⁹⁴ This ample policy space is subject to certain limitations pertaining either to not exceeding the existing ceilings or to applying certain criteria for assessing future measures.⁹⁵ Despite these limitations, the freedom granted to Australia in shaping its present and future cultural policy for the media is substantial and unprecedented, especially considering the typical U.S. position on these matters. Singapore and Chile were also able to include relatively significant reservations, as did 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 there is little room for new domestic policy initiatives.⁹⁶

B. EUFTAs

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.⁹⁷ It has also developed and changed over time—both with regard to dedicated provisions on electronic commerce, as well as with regard to services and IP rules of relevance to digital trade. This can be explained by the EU's new-found stress on digital technologies as part of its innovation and growth strategy, and with its new foreign policy orientation subsequent to the Lisbon Treaty, which includes FTAs as an essential strategic element.⁹⁸

93. Australia–U.S. FTA, *supra* note 55, Annex I.

94. *Id.* Annex II.

95. 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 55% of programming. *See* U.S.–Australia FTA, *supra* note 55, Annex II.

96. *See, e.g.*, Bernier, *supra* note 92, at 11–15.

97. EU FTAs tend, for instance, to cover more WTO-plus areas but have less liberal commitments. For detailed analysis, *see* HENRIK HORN ET AL., BRUEGEL BLUEPRINT SERIES: BEYOND THE WTO? AN ANATOMY OF EU AND U.S. PREFERENTIAL TRADE AGREEMENTS (2009).

98. EU PREFERENTIAL TRADE AGREEMENTS: COMMERCE, FOREIGN POLICY, AND DEVELOPMENT ASPECTS (David Kleimann ed., 2013).

The agreement with Chile (signed in 2002) was the first to include substantial e-commerce provisions but the language was cautious and limited to soft cooperation pledges in the services chapter⁹⁹ and in the fields of information technology, information society, and telecommunications.¹⁰⁰ In more recent agreements, such as the EU–South Korea FTA (signed in 2010),¹⁰¹ the language is much 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.¹⁰² Particularly insistent on data protection policies, the EU has also sought commitment of its FTA partners to comply with the international standards of data protection.¹⁰³ 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.¹⁰⁴

The most recent EU agreement with Canada—the Comprehensive Economic and Trade Agreement (CETA)¹⁰⁵—goes a step further. The CETA provisions concern commitments ensuring (a) clarity, transparency, and predictability in their domestic regulatory frameworks; (b) interoperability, innovation, and competition in facilitating electronic commerce; as well as (c) facilitating the use of electronic commerce by small and medium sized enterprises.¹⁰⁶ 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 administra-

99. 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 art. 104, Nov. 11, 2002, 352 O.J.L. 3 (2002) (stating that “[t]he 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.”) [hereinafter EU-Chile FTA].

100. *Id.* art. 37.

101. Free Trade Agreement Between the European Union and its Member States, of the One Part, and the Republic of Korea, of the Other Part, Oct. 6, 2010, 127 O.J.L. 6 (2011) [hereinafter EU-South Korea FTA].

102. *Id.* art. 7.48.

103. *Id.* art. 7.48.

104. *Id.* art. 7.49.

105. Comprehensive Economic and Trade Agreement Between Canada of the One Part, and the European Union and its Member States, of the Other Part, Sept. 14, 2016, 2016/206 (NLE), (consolidated text) [hereinafter CETA], <http://data.consilium.europa.eu/doc/document/ST-10973-2016-INIT/en/pdf> (last visited May 20, 2017).

106. *Id.* art. 16.5.

tive measures for the protection of personal information of users engaged in electronic commerce in consideration of international data protection standards.¹⁰⁷

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, whereby different services sectors and sub-sectors are listed and the commitments for national treatment and market access specified. The level of commitments has largely mirrored the offers made by the EU during the Doha Round, so 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.¹⁰⁸ For the computer 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 (e.g., financial or audiovisual services).¹⁰⁹ 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 and it remains to be seen whether this will be a continued effort or 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.¹¹⁰ For Canada, the caveat relates to its "cultural industries," which are defined as (a) the publication, distribution or sale of books, magazines, periodicals, or newspapers in print or machine-readable form; (b) the production, distribution, sale, or exhibition of film or video recordings; the production, distribution, sale, or exhibition of audio or video music recordings; the publication, distribution, or sale of music in print or machine-readable form; or (c) radio-

107. *Id.* art. 16.4.

108. *Id.* art. 15.10. Number portability has been a common commitment in all FTAs, while missing from the WTO Reference Paper on Basic Telecommunications Services, https://www.wto.org/english/tratop_e/serv_e/telecom_e/tel23_e.htm (last visited May 20, 2017).

109. Article 7.25 of the EU-South Korea FTA is in a way identical to the EU's Doha round offer. EU-South Korea FTA, *supra* note 101, art. 7.25; *see also* Council for Trade in Services, Committee on Special Commitments, Special Session, *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).

110. Some air transport and air transport related services, as well as financial services are also excluded. *See* CETA, *supra* note 105, art. 9.2.

communications in which the transmissions are intended for direct reception by the general public, and all radio, television, and cable broadcasting undertakings and all satellite programming and broadcast network services.¹¹¹ In addition, there is an Annex attached to the services chapter, which sets out an understanding on new services not classified in the U.N. Provisional Central Product Classification (CPC) in its 1991 version as used during the Uruguay Round negotiations. The Understanding specifies that the commitments made do not apply in respect to any measure relating to a new service that cannot be classified under the CPC.¹¹² 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.¹¹³ This is an extremely cautious approach to future innovation, as it prevents automatism in the coverage and may also relate to a burdensome and costly administration of the FTA. It also diverges from the current U.S. practice, which, as described above, permits open, future-oriented interpretation of services sectors.

The convergence between the EU and the U.S. templates is most pronounced with regard to the chapters on intellectual property protection. Since the EU–Chile FTA, and in particular in the EU–CARIFORUM and EU–South Korea, the EU has included a number of TRIPS-plus provisions.¹¹⁴ Digital copyright norms (compliance with the WIPO Internet Treaties; provisions on technological protection measures and ISP liability) have become an intrinsic element of the EU deals too.¹¹⁵

111. *See id.* ch. 32. If we compare with the W/120 classification for audiovisual services, which includes motion picture and videotape production and distribution services; motion picture projection service; radio and television services; radio and television transmission services and sound recording, the scope of “cultural industries” is somewhat broader.

112. *Id.* Annex 9-B, ¶ 1 (understanding on new services not classified in the United Nations Provisional Central Product Classification (CPC), 1991).

113. 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.* ¶ 4.

114. 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 575, 605 (Estelle Derclaye ed., 2009); EU BILATERAL TRADE AGREEMENTS AND INTELLECTUAL PROPERTY: FOR BETTER OR WORSE? (Josef Drexel et al. eds., 2014), *passim* and in particular Souheir Nadde-Phlix, *IP Protection in EU Free Trade Agreements vis-à-vis IP Negotiations in the WTO*, *id.*, at 133.

115. Wunsch-Vincent & Hold, *supra* note 37, at 211–15; Grosse Ruse-Khan, *supra* note 114, at 610.

C. *Switzerland's FTAs*

In addition to the European Free Trade Association (EFTA) Convention and the Free Trade Agreement with the EU of 1972, Switzerland has a network of twenty-eight FTAs with some thirty-eight partners. Most of its agreements have been concluded together with its EFTA partners (Norway, Iceland and Liechtenstein).¹¹⁶ Switzerland has also completed bilateral agreements in its own right, so far with Japan¹¹⁷ and China.¹¹⁸ Switzerland has followed the EU model in most essential aspects, but in application of its own policy agenda. Yet, there are some clear differences too. The most striking one is that Switzerland has not formulated and implemented a distinct strategy with regard to digital trade in its FTAs.

Many of the existing agreements have no discrete e-commerce chapters; nor is cooperation on information technology and Internet matters explicitly formulated (except in the field of telecommunications services). Even in the IP chapters, while there is a reference to the WIPO Internet Treaties, no obligations with regard to the application of technological protection matters and/or the liability of ISPs are spelled out. This is true also for recent FTAs, such as those with Hong Kong and with Bosnia and Herzegovina (in force since 2012 and 2015 respectively).¹¹⁹ One explanation for this may be that these deals are

116. The European Free Trade Association (EFTA) states include Iceland, Liechtenstein, Norway, and Switzerland. *The EFTA States*, EUR. FREE TRADE ASS'N, <http://www.efta.int/about-efta/the-efta-states> (last visited May 20, 2017); *see also Free Trade Agreements*, EUR. FREE TRADE ASS'N, <http://www.efta.int/free-trade/free-trade-agreements> (last visited May 20, 2017).

117. *See* Agreement on Free Trade and Economic Partnership Between the Swiss Confederation and Japan, Japan–Switz., Feb. 19, 2009, https://www.seco.admin.ch/seco/en/home/Aussenwirtschaftspolitik_Wirtschaftliche_Zusammenarbeit/Wirtschaftsbeziehungen/Freihandelsabkommen/Partner_weltweit/japan.html [hereinafter Switzerland–Japan FTA] (last visited May 20, 2017). For information on all of Switzerland's FTAs with other countries, *see* FTA, STATE SECRETARIAT FOR ECON. AFF., https://www.seco.admin.ch/seco/en/home/Aussenwirtschaftspolitik_Wirtschaftliche_Zusammenarbeit/Wirtschaftsbeziehungen/Freihandelsabkommen.html (last visited May 20, 2017).

118. *See* Free Trade Agreement Between the Swiss Confederation and the People's Republic of China, China–Switz., Aug. 5, 2013 (entered into force Jan. 7, 2014) [hereinafter Switzerland–China FTA], https://www.seco.admin.ch/seco/en/home/Aussenwirtschaftspolitik_Wirtschaftliche_Zusammenarbeit/Wirtschaftsbeziehungen/Freihandelsabkommen/Partner_weltweit/china/Abkommenstexte.html (last visited May 20, 2017).

119. *See* Free Trade Agreement Between the EFTA States and Hong Kong, China, June 21, 2011 (entered into force Oct. 1, 2012 for Hong Kong, Iceland, Liechtenstein and Switzerland; Nov. 1, 2012 for Norway) [hereinafter EFTA–Hong Kong FTA], <http://www.efta.int/free-trade/free-trade-agreements/hong-kong> (last visited May 20, 2017); *see also* Free Trade Agreement Between the EFTA States and Bosnia and Herzegovina, June 24, 2013 (entered into force Jan. 1,

the result of the joint negotiations with the EFTA partners and must reflect their common stance. This is contrasted with Switzerland's agreement with Japan (in force since 2009¹²⁰), which contains a detailed chapter on electronic commerce.¹²¹ It is framed along the EU model however, with a few specificities that reflect rather the Japanese approach towards e-commerce issues.

The common features relate to the provisions on electronic signatures, paperless trade administration, consumer protection online, as well as the protection of personal data.¹²² The non-discrimination obligation included may, however, have a broader scope as it is linked to a liberal definition of "digital products" as products such as computer programs, texts, plans, designs, video, images and sound recordings or any combinations thereof, that are digitally encoded and transmitted electronically.¹²³ Finally, the e-commerce chapter includes a comprehensive cooperation pledge that encompasses (a) data privacy; (b) fight against unsolicited commercial messages; (c) consumer confidence in electronic commerce; (d) cyber-security; (e) intellectual property; (f) electronic government; and (g) public morals, in particular ethics for young generations.¹²⁴ It also makes reference to the need to include multistakeholder approaches in the governance of digital trade, as well as cooperation on efforts to develop the international framework for electronic commerce.¹²⁵ This is an innovative feature of the Swiss FTA with Japan, which relates to broader issues of Internet governance. The more recent agreement with China lacks entirely such an e-commerce chapter.¹²⁶

In terms of services commitments, Switzerland has used both positive and negative list approaches. For instance, while with China the committed sectors are expressly listed, the FTAs with Hong Kong and Japan follow a negative list model.¹²⁷ In the latter cases, Switzerland has ensured that its regulatory space in some digital trade domains—

2015), <http://www.efta.int/media/documents/legal-texts/free-trade-relations/bosnia-and-herzegovina/bosnia-and-herzegovina-fta.pdf> (last visited May 20, 2017).

120. Switzerland–Japan FTA, *supra* note 117.

121. *Id.* ch. 8.

122. Switzerland–Japan FTA, *supra* note 117, arts. 73–79.

123. *Id.* art. 72(A). An additional note to this article specifies that for the purposes of Chapter 8, digital products do not include those that are fixed on a carrier medium, which are covered by Chapter 2 on trade in goods.

124. *Id.* art. 82.

125. *Id.* arts. 82(3)–(4).

126. *See* Switzerland–China FTA, *supra* note 118.

127. *Supra* notes 119 and 117 respectively.

notably audiovisual services—is well preserved. It not only lists all excluded sub-sectors in a detailed manner that mirrors the current situation in Switzerland, but secures some wiggle-room for adopting measures in the future. These flexibilities are ensured through a discrete category “new services” but also through an additional qualification in a number of sectors.¹²⁸ So, for instance, Switzerland has reserved the right to maintain, modify or adopt any measures restricting market access and national treatment with respect to broadcasting services.¹²⁹ There is also a new generic category introduced—that of “Internet-based services”—for which Switzerland reserves its right to introduce measures with respect to the protection of youth or to the prevention of addiction or compulsive behavior and other mental health hazards.¹³⁰

IV. THE “MEGA-REGIONALS” AND PLURILATERAL AGREEMENTS

Next to the dense web of bilateral and regional trade agreements, there is a new drive to agree upon more comprehensive “mega-regional” deals that, if adopted, would cover the bulk of global trade. Presently, in addition to the Trade in Services Agreement (TiSA), which is discussed below, there are two important trade deals¹³¹ that may radically change both global trade flows, as well as their regulation. The first is the Transatlantic Trade and Investment Partnership Agreement (TTIP), currently negotiated between the EU and the United States.¹³² The second, the Trans-Pacific Partnership Agreement (TPP),¹³³ between the United States and eleven countries in the

128. See, e.g., Switzerland–Japan FTA, *supra* note 117, Annex 3 (Lists of Reservations).

129. EFTA–Hong Kong FTA, *supra* note 119, List of Reservations of Switzerland, Annex X, app. 5, ¶ 31, June 21, 2011, <http://www.efta.int/media/documents/legal-texts/free-trade-relations/hong-kong-china/annexes/Annex%20X%20Appendix%20Switzerlands%20List%20of%20Reservations%20Services.pdf> (last visited May 20, 2017).

130. *Id.* ¶ 100.

131. The Regional Comprehensive Economic Partnership (RCEP), which is a negotiation led by the Association of Southeast Asian Nations (ASEAN) aiming to enhance economic integration and cooperation between the ten members of ASEAN and six countries with which ASEAN has FTAs (Australia, China, India, Japan, Korea and New Zealand). See *Trade and Investment: Regional Comprehensive Economic Partnership*, ASIA REGIONAL INTEGRATION CTR., <https://aric.adb.org/fta/regional-comprehensive-economic-partnership> (last visited May 20, 2017); see also *Free Trade Agreements with Dialogue Partners*, ASIAN ASS'N. OF SOUTHEAST ASIAN NATIONS, <http://asean.org/asean-economic-community/free-trade-agreements-with-dialogue-partners/> (last visited May 20, 2017) (listing the countries with which ASEAN has FTAs).

132. See TTIP, *supra* note 8.

133. TPP, *supra* note 7.

Asia-Pacific region,¹³⁴ is complete and awaits domestic ratification.

A. TPP

The expectations for the TPP, as far as its legal design and its impact are concerned, have been great. It was supposed to be a “twenty-first century” trade agreement that would match contemporary global trade better than the mercantilist and brick-and-mortar WTO Agreements.¹³⁵ It 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.

In the former sense, the TPP has in general achieved a higher level of liberalization in some of the sectors relevant for digital trade, such as telecommunications, computer and related, and media services.¹³⁶ The TPP has also certainly heightened the standards in the field of intellectual property protection.¹³⁷ For instance, the TPP defines “intellectual property” as an asset that can be subject to the investor-state dispute settlement, which essentially envisages an opportunity for companies to sue states for introducing rules that may harm the exploitation of IP rights.¹³⁸ The TPP also provides for the heightened protection of trade secrets,¹³⁹ 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.¹⁴⁰

The IP chapter particularly aims to facilitate “legitimate digital trade” and diffuses the digital copyright rules, as applied in the United States,

134. Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, and Vietnam.

135. See, e.g., Claude Barfield, *The Trans-Pacific Partnership: A Model for Twenty-First-Century Trade Agreements?*, 2 INT’L ECON. OUTLOOK, no. 2, (2011), at 7, <https://www.aei.org/wp-content/uploads/2011/10/IEO-2011-02-g.pdf> (last visited May 20, 2017).

136. See TPP, *supra* note 7, at chs. 10, 13.

137. *Id.* 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, 122 (2012).

138. TPP, *supra* note 7, art. 9.1.

139. *Id.* art. 18.78.

140. *Id.* art. 18.78(2).

especially through the Digital Millennium Copyright Act (DMCA).¹⁴¹ 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,¹⁴² 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 later on, by the Anti-Counterfeiting Trade Agreement (ACTA).¹⁴³ In contrast, reflecting the strong influence of the IP lobby, Article 18.28(1)(b) TPP does include a novelty by requiring that each Party's system for the management of its country-code top-level domain (ccTLD) names provides "online public access to a reliable and accurate database of contact information concerning domain name registrants, in accordance with each Party's law and, if applicable, relevant administrator policies regarding protection of privacy and personal data."¹⁴⁴ This has been controversial because of online harassment issues and can be interpreted as a serious intervention into the area of Internet governance, which is based on a more open, multi-stakeholder approach.¹⁴⁵ The practical effect of having this norm is, however, as yet uncertain.

The TPP chapter on e-commerce is clearly the most comprehensive so far. It comprises 18 articles and includes new features that in effect signal an expansion of the U.S. template for digital trade. New issues covered by the TPP include provisions on domestic electronic transactions framework, personal information protection, Internet interconnection charge sharing, location of computing facilities, unsolicited commercial electronic messages, source code, and dispute settlement.¹⁴⁶ We look more closely at them below.

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

141. Digital Millennium Copyright Act of 1998, Pub. L. No. 105-304, 112 Stat. 2860 (codified as amended in scattered sections of 17 U.S.C.).

142. TPP, *supra* note 7, at ch. 18.

143. Flynn et al., *supra* note 137, at 113–14; *see also* David S. Levine, *Bring in the Nerds: Secrecy, National Security, and the Creation of International Intellectual Property Law*, 30 CARDOZO ARTS & ENT. L.J. 105, 133 (2012).

144. TPP, *supra* note 7, art. 18.28.1(b).

145. *See, e.g.*, Mira Burri, *The WTO as an Actor of Global Internet Governance*, in THE INSTITUTIONS OF GLOBAL INTERNET GOVERNANCE (manuscript at 5–6, 23) (William Drake & Mira Burri eds., forthcoming 2017), <https://ssrn.com/abstract=2792219> (last visited May 20, 2017).

146. TPP, *supra* note 7, arts. 14.5, 14.8, 14.12, 14.13, 14.14, 14.17, 14.18.

“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 U.S.–South Korea 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.”¹⁴⁷ 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.”¹⁴⁸ These non-discriminatory conditions are similar to the strict test formulated by the GATS Article XIV and GATT Article XX, a test that is supposed to balance trade and non-trade interests but is also extremely hard to pass.¹⁴⁹ 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, the TPP provides no such enumeration and simply speaks of a “legitimate public policy objective.”¹⁵⁰ 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.¹⁵¹ 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 or confidentiality of individual records, or for prudential reasons.¹⁵² Government procurement is also

147. *Id.* art. 14.11(2).

148. *Id.* art. 14.11(3).

149. *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. 383–84 (2015).

150. TPP, *supra* note 7, art. 14.11(3).

151. *See id.* art. 14.1 (defining “a covered person,” which is said to exclude a “financial institution” and a “cross-border financial service supplier.”).

152. TPP, *supra* note 7, Annex 11-B, ¶ B (The provision reads: “Each Party shall allow a financial institution of another Party to transfer information in electronic or other form, into and out of its territory, for data processing if such processing is required in the institution’s ordinary course of business. Nothing in this Section restricts the right of a Party to adopt or maintain measures to: (a) protect personal data, personal privacy and the confidentiality of individual

excluded.¹⁵³

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 applies, however, only to mass-market software or products containing such software.¹⁵⁴ This means that tailor-made products will be excluded, as well as software used for critical infrastructure and those in commercially negotiated contracts.¹⁵⁵

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.”¹⁵⁶ 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.”¹⁵⁷ 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.”¹⁵⁸

Parties are also invited to promote compatibility between their data protection regimes, by essentially treating lower standards as equivalent.¹⁵⁹ Overall, the goal seems to be to prioritize trade over privacy

records and accounts; or (b) require a financial institution to obtain prior authorisation from the relevant regulator to designate a particular enterprise as a recipient of such information, based on prudential considerations, provided that this right is not used as a means of avoiding the Party's commitments or obligations under this Section.”).

153. *Id.* art. 14.2.3(a).

154. *Id.* art. 14.17(2).

155. *Id.*

156. *Id.* art. 14.8(2).

157. *Id.*

158. *Id.* n. 6.

159. *Id.* art. 14.8(5).

rights. This commitment is clearly pushed by the U.S., which subscribes to relatively weak and patchy protection of privacy, and could lose 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.¹⁶⁰

While the attention is (understandably) focused on data protection, it should be noted that the TPP provisions on consumer protection¹⁶¹ and spam control¹⁶² 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.¹⁶³

Net neutrality is another important digital economy topic that has been given specific attention in the TPP, although the so created rules are of non-binding nature. 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.”¹⁶⁴ While it is commendable that net neutrality is endorsed, this comes with many reservations, as evidenced from the above provision, from the domestic laws of TPP countries; from undefined situations that call for “reasonable network management;”¹⁶⁵ or from exclusive services. The obligations are ultimately weak and not linked to legal remedies for situations, such as blocking or filtering content. It is unlikely that the TPP would lead to uniform approach with regard to net neutrality across TPP countries.

160. Case C-362/14, *Schrems v. Data Prot. Comm’r*, Judgment of the Court, COM(2015) 566 final, Nov. 6 2015. ¶, 21–23.

161. TPP, *supra* note 7, art. 14.17.

162. *Id.* art. 14.14.

163. *Id.* art. 14.16.

164. *Id.* art. 14.10.

165. *Id.* art. 14.10(a), n. 6 (“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.”).

In sum, the TPP is the FTA with the most comprehensive rules on digital trade. Not only does it address a greater variety of digital economy issues, but it also clearly bans localization measures and subscribes to a binding norm on free data flows with a potentially broad scope of application. Legal certainty may nonetheless be somewhat lacking, primarily because the TPP does not provide answers to some of the intrinsic digital space contestations, such as that between free data flows and data protection. Nor does it put forward a clear exceptions rule that may reconcile economic and non-economic interests, while ensuring non-discrimination.

Ultimately and apart from the digital trade discussions, it should be noted that the future of the TPP is uncertain. Despite the considerable and concerted effort of the twelve negotiation partners, only Japan has ratified the treaty so far. It is now clear that the U.S. will withdraw from it and this puts the whole project in under question.¹⁶⁶ In this sense, as well as in terms of newer, or different rule-creation, it will be interesting and important to see what common solutions the U.S. and the EU would find in the TTIP.

B. *TTIP*

There is great ambition, as well as plenty of uncertainty as to the contents of the trade deal between the big trading powers of the United States and the EU. In view of this uncertainty, our analysis here is rather cautious.

A key cross-cutting trade issue to both the TPP and the TTIP, next to comprehensive and robust market liberalization, has been the quest for regulatory convergence that promotes more seamless and efficient trade amongst the partners and ensures competitiveness and business facilitation.¹⁶⁷ 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.¹⁶⁸ They wish to develop rules, principles and new modes

166. White House Office of the Press Secretary, 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> (last visited May 20, 2017).

167. 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, 107–8 (2015).

168. *Id.* at 112.

of cooperation on issues of global concern, including intellectual property and market-based disciplines addressing state-owned enterprises and discriminatory localization barriers to trade.

Yet, there are many areas of contestation, some affecting digital trade.¹⁶⁹ Traditionally, ever since the days of the France-led “exception culturelle” campaign during the Uruguay Round of the WTO negotiations, a major battlefield between the U.S. and the EU have been audiovisual services.¹⁷⁰ 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.¹⁷¹ Public services in general have been a major source of preoccupation in recent debates in Europe.¹⁷² Another hotly discussed and contentious topic facing intense civil society objection are intellectual property rights. The fear from the EU side is that the IP maximalist agenda of the Anti-Counterfeiting Trade Agreement (ACTA),¹⁷³ as well as that of domestically unsuccessful U.S. legislative initiatives, SOPA and PIPA,¹⁷⁴ will in many aspects be replicated in the TTIP.¹⁷⁵ Digital copyright is part of

169. See, e.g., Andrea Renda & Christopher Yoo, *Telecommunications and Internet Services: The Digital Side of the TTIP* 1–3 (Ctr. for European Pol’y Stud., TIPP in Balance Project, Paper No. 8, 2015), <https://www.ceps.eu/system/files/SR112%20Renda%20and%20Yoo%20Telecoms%20TTIP.pdf> (last visited May 20, 2017).

170. See, e.g., Mira Burri, *Trade Versus Culture: The Policy of Cultural Exception and the World Trade Organization*, in THE PALGRAVE HANDBOOK OF EUROPEAN MEDIA POLICY 479, 481 (Karen Donders et al. eds., 2013).

171. Resolution on EU Trade and Investment Negotiations with the United States of America, EUR. PARL. DOC. 2013/2558(RSP) ¶¶ 11–12 (2013).

172. 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*, HANS-BÖCKLER-STIFTUNG 13, 15 (2014), http://www.boeckler.de/pdf_fof/91413.pdf (last visited May 20, 2017).

173. Anti-Counterfeiting Trade Agreement (2011), http://www.mofa.go.jp/policy/economy/i_property/pdfs/acta1105_en.pdf (last visited May 20, 2017); see also Peter K. Yu, *ACTA and its Complex Politics*, 3 WIPO J. 1, 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 *supra* note 28, 323; Levine, *supra* note 28, at 110.

174. 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 Stop Online Piracy Act, H.R. 3261, 112th Cong. ¶ 205 (2011); Protect IP Act of 2011, S. 968, 112th Cong. ¶ 3 (2011); see also Mark A. Lemley et al., *Don’t Break the Internet*, 64 STAN. L. REV. ONLINE 34, 35–36 (2012).

175. Flynn et al., *supra* note 137, at 192.

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 Digital Single Market Strategy.¹⁷⁶ 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,¹⁷⁷ there is clear divergence.

Data protection will likely be the most contentious question with possible spillover effects to other issue areas. Here, the approaches of the U.S. and EU towards the protection of privacy are at this stage hardly reconcilable.¹⁷⁸ The new EU General Data Protection Regulation,¹⁷⁹ which will be enforced as of May 2018, subscribes to a particularly high standard of privacy protection, as embedded in the Charter of Fundamental Rights of the EU.¹⁸⁰ It seeks to endorse this not only within the borders of the Union but also for cross-border data transfers containing personal data.¹⁸¹ The leaked TTIP text exposes yet again the divergence between the U.S. and the EU on data protection. There is no agreement on data flows between the negotiating parties, despite signals of U.S. willingness 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. 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 disabilities) seem to be the low hanging fruit but these are issues of very little impact to practical reality of digital trade.

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

177. *See Commission Proposal for a Directive of the European Parliament and of the Council on Copyright in the Digital Single Market*, COM (2016) 593 final (Sept. 14, 2016).

178. *See, e.g.*, Paul M. Schwartz, *The EU–U.S. Privacy Collision: A Turn to Institutions and Procedures*, 126 HARV. L. REV. 1966 (2013). *But see* Paul M. Schwartz & Daniel J. Solove, *Reconciling Personal Information in the United States and European Union*, 102 CALIF. L. REV. 877 (2014).

179. 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 Personal Data and on the Free Movement of Such Data, and Repealing Directive 95/46/EC (General Data Protection Regulation), 2016 O.J. L 119/1-2.

180. 2000 O.J. (C 364) 1.

181. *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, 498 (2016).

C. *TiSA*

The third important digital trade agreement that evolves outside the WTO umbrella is the currently negotiated Trade in Services Agreement (TiSA). 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.¹⁸² TiSA, launched in early 2013, has been qualified as “the single most significant development to have emerged in the trade negotiating arena over the last couple of years,”¹⁸³ at least for trade in services.

TiSA has been supported by the United States, the EU, Switzerland, and other countries that are part of the group “Really Good Friends of Services,”¹⁸⁴ and there is already sizeable progress.¹⁸⁵ The impact of TiSA can be substantial because not only do some of the most important market economies support TiSA, which in effect cover over 70% of world services trade, but TiSA also aims at high market access commitments and adding a layer of deeper regulatory arrangements.¹⁸⁶

If one is in search of swift solutions in digital trade, the TiSA approach may make more sense than advancing under the conventional WTO negotiations, as it would bind only those states that are ready to make the concessions and may diminish the cost of bargaining across issue-areas. It may also be sensible to address services questions as a whole rather than by taking a piece-meal approach. It is, for instance, apparent from some submissions made during the Doha round that new types of barriers to digital trade, namely the lack of access to technology distribution channels and information networks, have been felt in non-IT areas, such as those of aviation, tourism and logistics.¹⁸⁷ With the increasing importance of data and Big Data for all economic sectors, these spillover effects are only to be felt more

182. For an overview of TiSA, see Marchetti & Roy, *supra* note 27.

183. Juan A. Marchetti & Martin Roy, *The TiSA Initiative: An Overview of Market Access Issues* 27, (WTO Staff Working Paper No. ERSD-2013-11) (2013).

184. *Id.* at 3. 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. See e.g., *Trade in Services Agreement (TiSA)*, EUR. COMMISSION, <http://ec.europa.eu/trade/policy/in-focus/tisa/> (last visited May 20, 2017).

185. See Marchetti & Roy, *supra* note 183, at 4.

186. *Id.*

187. See, e.g., Special Session, *Communication by Hong Kong—Logistics and Related Services*, WTO Doc. S/CSS/W/68 (March 28, 2001) [hereinafter Hong Kong Proposal].

strongly.¹⁸⁸

Despite the promise of TiSA, it is fair to note that negotiations are still ongoing. Despite a number of leaks,¹⁸⁹ as well as publication of some country's offers,¹⁹⁰ the final outcome is uncertain. It appears so far that TiSA has adopted a hybrid approach of committing. This entails a negative type of committing for MFN and NT but positive 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.¹⁹¹

In terms of the depth of liberalization, there is an effort to reach the level of best FTA commitments in all 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,¹⁹² which again brings back the "old" GATS problems and the trade versus culture dilemma of the Uruguay Round of negotiations.¹⁹³ The Swiss initial offer under TiSA confirms this, as Switzerland has tabled no GATS-plus commitments for audiovisual

188. JAMES MANYIKA ET AL., MCKINSEY GLOBAL INSTITUTE, *BIG DATA: THE NEXT FRONTIER FOR INNOVATION, COMPETITION, AND PRODUCTIVITY* 23–26 (2011), https://bigdatawg.nist.gov/pdf/MGI_big_data_full_report.pdf (last visited May 20, 2017); MAYER-SCHÖNBERGER & CUKIER, *supra* note 49.

189. *See, e.g., Trade in Services Agreement: October 14, 2016 Publication*, WIKILEAKS (Oct. 14, 2016), <https://wikileaks.ch/tisa/> (last visited May 20, 2017).

190. For information provided by the State Secretariat for Economic Affairs of Switzerland on the first, second and the second revised Swiss offers, *see* https://www.seco.admin.ch/seco/en/home/Aussenwirtschaftspolitik_Wirtschaftliche_Zusammenarbeit/Wirtschaftsbeziehungen/Internationaler_Handel_mit_Dienstleistungen/TISA/Schweiz_und_TiSA.html (last visited May 20, 2017).

191. For a good explanation of the "standstill" and "ratchet" clauses, *see Swiss Submission—RGF Meeting 2* (Oct. 10, 2012) ("The present proposal by Switzerland presents one possible technique of 'hybridization' which [*inter alia*] integrates the concepts of standstill and ratchet, while using a flexible technique mindful that the positions of friends are sometimes difficult to reconcile[.]"); *Agreement on Trade in Services (TiSA), Submission by Switzerland: Provisions on Scheduling of Commitments, Really Good Friends—Meeting of 29 April to 3 May 2013*, at 1 (Apr. 30, 2013).

192. Marchetti & Roy, *supra* note 183, at 18.

193. Burri, *supra* note 145, at 479; Burri, *supra* note 89, at 48 (internal citation omitted).

services.¹⁹⁴

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.¹⁹⁵ The negotiations have also evolved over time 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 softer language in this respect. There is still much contestation on the article on the movement of information. The United States, together with Japan and Canada, suggests 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.”¹⁹⁶ 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.”¹⁹⁷ In Hong Kong, the Personal Data Ordinance requires that certain conditions (e.g., written consent) be met before a transfer of personal data to a place outside Hong Kong can be made. Switzerland subscribes to a

194. See Trade in Services Agreement (TiSA), *Switzerland—Swiss Initial Offer, Really Good Friends*, at 2 (Jan. 30, 2014). Switzerland’s revised offer lists as limitation on national treatment all audiovisual services. See Trade in Services Agreement (TiSA), *Switzerland—Second Revised Offer, Really Good Friends*, at 8 (Oct. 21, 2016).

195. For analysis of the WTO rules on communications services, see 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 (2007).

196. Draft Annex of the Trade in Services Agreement (TiSA), Annex on Electronic Commerce 3 (classified Sept. 3, 2013) [hereinafter leaked TiSA E-Commerce Annex], https://wikileaks.org/tisa/document/20151001_Annex-on-Electronic-Commerce/20151001_Annex-on-Electronic-Commerce.pdf (last visited May 20, 2017). This classified document was intended to be declassified five years from the entry into force of TiSA, but was leaked in October 2016 and made publicly available by the WikiLeaks organization. See WIKILEAKS, *supra* note 189.

197. Leaked TiSA E-Commerce Annex, *supra* note 196, at 3.

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.¹⁹⁸ 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.¹⁹⁹ While the language on spam is similarly as under the TPP rather weak,²⁰⁰ 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.²⁰¹

Article 7 proposes that “[e]ach Party recognizes that consumers in its territory, subject to applicable laws, and regulations, should be able to: (a) access and use services and applications of their choice available on the Internet, subject to reasonable network management; (b) connect their choice of devices to the Internet, provided that such devices do not harm the network; and (c) have access to information on network management practices of their Internet access service suppliers.”²⁰² This language, if it survives the negotiations, has stronger elements on net neutrality than the accepted TPP norm. 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.²⁰³ 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 requirement. The Annex seeks to ban local presence, local context, and other performance requirements. To allow

198. *Id.* See also *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 Service 2* (Feb.13, 2013).

199. *Leaked TiSA E-Commerce Annex, supra* note 196, at 4–5 (drft. arts. 3 & 4).

200. *Id.* at 5 (drft. art. 5).

201. *Id.* at 6–7 (drft. arts. 7 & 8).

202. *Id.* at 6 (drft. art. 7).

203. *Id.* at 6–7 (drft. art. 8).

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 for government procurement.²⁰⁴

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. However, as many controversial questions remain open and as the political climate is hard to predict, the outcome of the TiSA negotiations is uncertain.

V. APPRAISAL OF THE STATE OF INTERNATIONAL TRADE LAW ON MATTERS OF DIGITAL TRADE AND DATA FLOWS IN PARTICULAR

In the preceding sections we saw that in the face of failing legal adaptation under the auspices of the WTO, much has happened in bilateral and regional venues. The FTAs have added new commitments, some of which build upon the existing WTO rules. Others address completely new and strictly speaking not “trade” issues, such as consumer protection, mutual recognition, and safeguards for the free flow of data. In essence, the FTAs create a tailored regime for digital trade.

FTA partners benefit from the deeper, as well as often clearer, provisions.²⁰⁵ It appears that FTAs work better (albeit not always) for reconciling diverging interests on long-standing trade topics, such as classification, and in politically charged domains, such as audiovisual services. FTAs are also in a better position to address the new generation of trade barriers, such as localization measures. Despite these virtues, it should be stressed that the developments with regard to digital trade are incremental. They are catching up with technological advances in discrete fields (especially where business interests were pressing, such as in the IP domain) and permitting little room for innovative legal design. The mega-regionals, while going deeper and binding more countries on more issues, have not created a completely new template for the governance of digital trade. The results of the TTIP remain to be seen, but a breakthrough seems unlikely, especially

204. Draft Annex of the Trade in Services Agreement (TiSA), Annex on Localization Measures, at 4–5 (classified Sept 16, 2013), https://wikileaks.org/tisa/document/201606_TiSA_Annex-on-Localisation/201606_TiSA_Annex-on-Localisation.pdf (last visited May 20, 2017), drft. arts. X.4 & X.5. This classified document was intended to be declassified five years from the entry into force of TiSA, but was leaked in October 2016 and made publicly available by the WikiLeaks organization. See WIKILEAKS, *supra* note 189.

205. See, e.g., HORN ET AL., *supra* note 97, at 16.

given the divergences between the United States and the EU on data protection.

FTAs' benefits may also be offset by the fact that a patchwork of multiple and overlapping FTAs exacerbates the world's asymmetric wealth distribution and rule fragmentation. They also do not contribute to the free cross-border flow of information on a global scale. In addition, FTAs may be substantially undermining the value and impact of multilateral venues²⁰⁶ and the role of international law in general.²⁰⁷ While it is beyond the aim and scope of this Article to engage in the debate over preferentialism versus multilateralism, purely from the perspective of the digital economy and its demands for seamlessness and interoperability, the multilateral forum does make more sense. So, states acting as legal entrepreneurs must contemplate ways of testing discrete rules and arrangements with regard to digital trade in FTAs and subsequently multilateralize the progress made there.²⁰⁸

Beyond the narrow question of FTAs' suitability to address digital trade, there is a broader one on appropriate legal design. The Internet has been, on various occasions and on different grounds, heralded as a revolutionary technological development. Warschauer and Matuchniak frame it as the "fourth revolution in the means of production of knowledge following the three prior revolutions of language, writing, and print."²⁰⁹ They argue that its emergence and spread are idiosyncratic and particularly swift as they occur simultaneously with the transition from an industrial to an informational economy.²¹⁰ Another way of thinking about the multiple and multifaceted effects of the Internet, as well as of conceptualizing its nature, is to refer to it as a

206. See generally RICHARD BALDWIN & PATRICK LOW, MULTILATERALIZING REGIONALISM: CHALLENGES FOR THE GLOBAL TRADING SYSTEM (2009); Andrew G. Brown & Robert M. Stern, *Free Trade Agreements and Governance of the Global Trading System*, 34 WORLD ECON. 331 (2011).

207. See, e.g., Krisch, *supra* note 1, at 2–7.

208. Lior Herman suggests "bottom-up multilateralization," whereby "RTAs 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 at the WTO level." Lior Herman, *Multilateralising Regionalism: The Case of E-Commerce 4*, (OECD Trade Pol'y Papers, Paper No. 99, 2010); see also Robert Howse, *Regulatory Cooperation, Regional Trade Agreements, and World Trade Law: Conflict or Complementarity?*, 78 L. & CONTEMP. PROBS. 137 (2015).

209. Mark Warschauer & Tina Matuchniak, *New Technology and Digital Worlds: Analyzing Evidence of Equity in Access, Use, and Outcomes*, 34 REV. RES. IN ED. 179, 179 (2010) (quoting Stevan Harnad, *Post-Gutenberg Galaxy: The Fourth Revolution in the Means of Production and Knowledge*, 2 PUB.-ACCESS COMPUTER SYS. REV. 39, 39 (1991)) (internal quotation marks and citations omitted). See also KLAUS SCHWAB, *THE FOURTH INDUSTRIAL REVOLUTION* (2016).

210. *Id.*, at 179, referring to MANUEL CASTELLS, *THE RISE OF THE NETWORK SOCIETY* (1996).

“general purpose technology.”²¹¹ Such technologies are widely adopted, have many uses, and many spillover effects. As such a technology, it has been argued that the Internet generates enormous value, serves as an engine of innovation and economic growth, and is a conduit for the free flow of information.²¹² These benefits of the Internet as an enabling platform are however not given and have to do with its openness, messiness, unpredictability, and generativity embedded in its original design.²¹³ As Benkler aptly sums up, innovation in the networked environment is typified by change and complexity, rather than predictability and “well behaved” change; innovation and growth, rather than efficiency and optimization; “scruffy” adaptive learning systems that do better than slower-moving, optimized systems; and open 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.²¹⁴ The innovation policy literature has explored different aspects of how innovation occurs and evolves under such conditions, the related causality effects, and ultimately the policy framework that can best accommodate them.²¹⁵

Trade policy, be it domestic or international, has not (or rarely) been linked to these debates, except for discussions in the field of intellectual property rights protection.²¹⁶ One can argue that while such a discourse disconnect is not infrequent in complex fields of policy-making with different origins and actors,²¹⁷ it is unfortunate. Especially because at the same time, policy-makers have highly prioritized innovation as the key driver of economic growth and global welfare, and made digital trade an important item in these agendas.

211. See, e.g., Boyan Jovanovic & Peter L. Rousseau, *General Purpose Technologies*, in, HANDBOOK OF ECONOMIC GROWTH 1182, 1182 (Aghion & Steven N. Durlauf eds., 2005).

212. Richard S. Whitt, *A Deference to Protocol: Fashioning a Three-Dimensional Public Policy Framework for the Internet Age*, 31 CARDOZO ARTS & ENT. L. J. 689, 717–29 (2013).

213. JONATHAN L. ZITTRAIN, *THE FUTURE OF THE INTERNET AND HOW TO STOP IT* (2008).

214. 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 (Kauffman Taskforce on Law, Innovation and Growth, ed., 2011).

215. For a good overview and references to the important sources, see Whitt, *supra* note 212.

216. See, e.g., Peter K. Yu, *Trade Agreement Cats and Digital Technology Mouse*, in SCIENCE AND TECHNOLOGY IN INTERNATIONAL ECONOMIC LAW: BALANCING COMPETING INTERESTS 185, 185 (Brian Mercurio & Ni Kuei-Jung eds., 2014).

217. See generally 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 (2015).

The question is how these aspirations can be reconciled with the analogue and offline core of international trade law, which still very much “thinks” in terms of trade crossing borders through brick-and-mortar customs houses and incremental innovation through protected investments in production.²¹⁸ This is in spite of the wish to foster free trade and strengthen it institutionally, as well as the acknowledged need for cooperation in various areas. Also of importance is the balance between containing protectionism and possibilities for safeguarding public interests of importance to domestic constituencies. Skeptics have argued that the failure of world trading rules to keep abreast with the contemporary, non-territorial global marketplace, defined by global supply chains and private businesses as key actors, lies deep.²¹⁹ It stems from the mercantilist nature of the WTO, its monolinear conception of production and trading patterns, and its state-centric, top-down paradigm of rule-making.²²⁰ “These three factors combine to create 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.”²²¹ These trends appear to be 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.²²²

On the other hand, the newly emerged rhetoric of data flows that has been specifically endorsed in recent preferential trade negotiations may help.²²³ It has a positive connotation and the potential to link technical and legal discussions in a meaningful way. Data is clearly now an asset, so different policy circles have been mobilized.

218. See Mira Burri & Thomas Cottier, *Introduction: Digital Technologies and International Trade Regulation*, in TRADE GOVERNANCE IN THE DIGITAL AGE *supra* note 28, 1; Sungjoon Cho & Claire R. Kelly, *Are World Trading Rules Passé?*, 53 VA. J. INT’L L. 623, 626–29 (2013).

219. See, e.g., Anu Bradford, *When the WTO Works, and How It Fails*, 51 VA.J. INT. LAW 1 (2010).

220. Cho & Kelly, *supra* note 218, at 7–14.

221. *Id.*, 626 (citing Chris Brummer, *How International Financial Law Works (and How It Doesn’t)*, 99 GEO. L.J. 257, 282 (2011)).

222. See, e.g., Shaffer & Pollack, *supra* note 2, at 795; see also JOHN BRAITHWAITE & PETER DRAHOS, *GLOBAL BUSINESS REGULATION* (2000); DANIEL W. DREZNER, *ALL POLITICS IS GLOBAL: EXPLAINING INTERNATIONAL REGULATORY REGIMES* (2007); David A. Lake, *Regional Hierarchies: Authority and the Local Production of International Order*, 35 REV. INT’L STUD. 35, 35 (2009).

223. The rhetoric of data flows is not necessarily new but now very present in trade discussions. For a historical account, see William J. Drake, *Background Paper for the Workshop on Data Localization and Barriers to Transborder Data Flows* (World Econ. F., Geneva, Sept. 14–16, 2016) (on file with author).

Important governance questions still remain to be addressed. The first is how the state as a global governance actor reacts and positions itself in this fluid environment. The second asks how the state can enable innovation that is global and decoupled from the nation state, while at the same time cater for the essential interests of its citizenry. The third question relates to the appropriate decision-making processes of bringing about these changes and of moving forward towards apt and sustainable legal design for digital trade. There is some urgency attached to this endeavor, as even in seemingly technical decision-making, such as for classification, localization requirements, or demands on interoperability, essential rights and values such as freedom of expression, fairness, equality of opportunity and justice, are affected.²²⁴

States' records so far have not been great in appropriately answering (or even asking) these questions. The original, and in many aspects libertarian, nature of the Internet has increasingly been challenged by assertions of power and jurisdiction or the development of rules that restrict the ability of companies and individuals to access and use the Internet and for data to freely move across borders.²²⁵ States may have also been erring in their ways to approach digital trade and online creativity, as they settle for incremental rule adjustment, often driven by the vested interests of incumbent stakeholders. "The benefits of crisply defined and enforced appropriation models [may be] outweighed by the fact that in order to secure that appropriability, the law has set up a set of rules that, in protecting yesterday's actors, limits to too great an extent the freedom of new innovators to operate today."²²⁶

This does not mean that simply by embracing the Internet's utopian design,²²⁷ innovation will unfold and policy challenges will be miraculously solved.²²⁸ Governments do have the right and the responsibility to protect interests and values important to their citizens, such as privacy and data protection. At the same time, they have a variety of tools available to achieve these goals and many of them are congruent with the functional nature of the Internet. As Chander and Lê convinc-

224. See generally Anupam Chander & Uyên P. Lê, *Free Speech*, 100 IOWA L. REV. 501 (2013).

225. See, e.g., Laura DeNardis, *Internet Points of Control as Global Governance*, in ORGANIZED CHAOS: REIMAGINING THE INTERNET 31, 43 (Mark Raymond & Gordon Smith eds., 2014).

226. Benkler, *supra* note 214, at 314.

227. See, e.g., John Perry Barlow, *A Declaration of the Independence of Cyberspace*, ELECTRONIC FRONTIER FOUND. (Feb. 9, 1996), <https://www.eff.org/cyberspace-independence> (last visited May 20, 2017).

228. Whitt, *supra* note 217, at 730.

ingly argue, “[w]e must insist on data protection without data protectionism. A better, safer Internet for everyone should not require breaking it apart.”²²⁹ For international legal scholars, it will be particularly important to stress the dangers of data protectionism, often under the guise of legitimate objectives, such as national security or privacy protection. We should seek to find the right language that can frame opportunities to balance these conflicting goals, so that data can indeed flow across borders to foster trade and innovation. Our voices have to be particularly strong and our arguments well put. We face on the one hand a new U.S.-EU battlefield with regard to data protection that is likely to have strong effects on other issue areas. On the other hand, we may encounter a generally unfriendly atmosphere against free trade and globalization, as the current domestic discourses on CETA, TPP, and the TTIP illustrate.

229. Chander & Lê, *supra* note 52, at 739.