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Current Alliances in International Intellectual Property Lawmaking: The Emergence and Impact of Mega-Regionals

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The Regulatory Framework for Digital Trade in the Trans-Pacific Partnership Agreement

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1. Introduction

The emergence of digital technologies and their wide adoption have triggered multiple changes in essentially all facets of societal life.¹ Trade too has been affected.² Online shopping is perhaps the first and most everyday example that comes to mind, but some transformations go deeper. The characteristics of digital technologies, which allow all types of information—be it text, picture, or video—to be expressed in binary digits, in a line of zeroes and ones, and the instantaneous communication to large and globally dispersed audiences that the internet enables, have had important effects on trade in services. We experience the process of “servicification,” whereby there is an increase in the use, output and sale of services, and these are also increasingly traded across borders.³ A related example particularly relevant to trade in information technology products has to do with the emergence of “global value chains” (GVCs), which mobilise a large number of producers and service providers based in different countries that are often remote from one another. Beyond these instances, it has been argued that digital technologies profoundly change the entire economy and innovation space.⁴ The importance of data, and now more recently Big Data, is critical in this transformation, and even greater changes are anticipated.⁵

Digitisation has had an impact on the economy, on social and cultural practices, but also on law and patterns of governance in general. Legal institutions face various challenges, related, among other things, to design and enforcement. Many of the existing rules no longer provide appropriate answers. Digital technology undermines, for instance, traditional perceptions of copyright on authorship and exclusivity. It renders classic distinctions between goods and services obsolete. It has also been observed that law in the conventional sense of acts of the legislature or treaties between sovereign nations has been challenged and often supplanted by new modes of control. Prominent among these new models is regulation through code, where diverse mechanisms controlling access and use are embedded directly into the software or the device and in effect enforce certain legal standards.⁶

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- 1 See e.g. Yochai Benkler, *The Wealth of Networks: How Social Production Transforms Markets and Freedom* (New Haven: Yale University Press, 2006); Jonathan L. Zittrain, *The Future of the Internet—and How to Stop It* (New Haven: Yale University Press, 2008); Richard S. Whitt, “A Deference to Protocol: Fashioning a Three-Dimensional Public Policy Framework for the Internet Age,” *Cardozo Arts and Entertainment Law Journal* 31 (2013): 689–768, at 717–729.
 - 2 See e.g. Mira Burri and Thomas Cottier (eds), *Trade Governance in the Digital Age* (Cambridge: Cambridge University Press, 2012); Anupam Chander, *The Electronic Silk Road: How the Web Binds the World in Commerce* (New Haven: Yale University Press, 2013). For a brief overview with regard to trade, see Joshua Paul Meltzer, “The Internet, Cross-Border Data Flows and International Trade,” *Asia and the Pacific Policy Studies* 2 (2015): 90–102.
 - 3 See e.g. Swedish National Board of Trade, *Everybody Is in Services: The Impact of Servicification in Manufacturing on Trade and Trade Policy* (Stockholm: National Board of Trade, 2012); Magnus Lodefalk, “The Role of Services for Manufacturing Firm Exports,” *Review of World Economics* 150 (2014): 59–82; Rainer Lanz and Andreas Maurer, “Services and Global Value Chains—Some Evidence on Servicification of Manufacturing and Services Networks,” *WTO Working Paper ERSD 3* (2015); Pierre Sauvé and Martin Roy (eds), *Research Handbook on Trade in Services* (Cheltenham: Edward Elgar, 2016).
 - 4 See e.g. Yochai Benkler, “Growth-Oriented Law for the Networked Information Economy: Emphasizing Freedom to Operate over Power to Appropriate,” in Kauffman Taskforce on Law, Innovation and Growth, *Rules for Growth: Promoting Innovation and Growth through Legal Reform* (pp. 313–342) (Kansas City: Kauffman Foundation, 2011); Urs Gasser and 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*, ed. Mira Burri and Thomas Cottier (pp. 123–153) (Cambridge: Cambridge University Press, 2012).
 - 5 James Manyika et al., *Big Data: The Next Frontier for Innovation, Competition, and Productivity* (Washington, DC: McKinsey Global Institute, 2011); Viktor Mayer-Schönberger and Kenneth Cukier, *Big Data: A Revolution That Will Transform How We Live, Work, and Think* (New York: Eamon Dolan/Houghton Mifflin Harcourt, 2013).
 - 6 Lawrence Lessig, *Code and Other Laws of Cyberspace* (New York: Basic Books, 1999); Lawrence Lessig, *Code: Version 2.0* (New York: Basic Books, 2006). Briefly, also, Mira Burri, “Controlling New Media (without the Law),” in *Handbook of Media Law*, ed. Monroe Price and Stefaan Verhulst (pp. 327–342) (Abingdon: Routledge, 2012).

Private ordering has also proliferated and created a new legal layer built around contractual, often asymmetrical, relationships (examples are the end-user agreements by large online platforms, such as Facebook or YouTube).⁷ Governance models have in general become less state-centred, and there are new regulatory forms that involve multiple stakeholders, with varied types of controlling functions entrusted to the state.⁸

Against this backdrop of broader economy and governance changes triggered by digital technologies, it is the purpose of this chapter to explore the Trans-Pacific Partnership (TPP) Agreement, as one of the most recent and big trade deals, and to see how it addresses digital trade issues. We also seek to contextualise the TPP provisions: that is why, in the first part of the chapter, we present the current state of World Trade Organization (WTO) law, as well as the progress made in other free trade agreements (FTAs) prior to the TPP. After a careful analysis of the different TPP provisions, we briefly compare these with what there is on the negotiating table of other “mega-regionals” by looking at the Transatlantic Trade and Investment Partnership (TTIP) Agreement and the Trade in Services Agreement (TiSA) and their provisions in the domain of digital commerce.⁹ The chapter concludes with a critical appraisal of the TPP and the current overall state of the governance of cross-border data flows.

2. The WTO: A Case of Failed Adaptation

While the TPP is the focus of this chapter, 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 and services and intellectual property (IP) protection.¹⁰ On the other hand, the TPP and other FTAs are in many senses only an addition to these rules.

The WTO Agreements, the fundamental bases of international trade law, were adopted during the Uruguay Round in 1994.¹¹ Despite a few updates—such as the Information Technology Agreement and the Fourth Protocol on Basic Telecommunications Services—the WTO rules have so far not reacted in a forward-looking manner to the various changes triggered by the internet. One could, of

7 See e.g. Yochai Benkler, “An Unhurried View of Private Ordering in Information Transactions,” *Vanderbilt Law Review* 53, no. 6 (2000): 2063–2080.

8 Viktor Mayer-Schönberger, “The Shape of Governance: Analyzing the World of Internet Regulation,” *Virginia Journal of International Law* 43 (2003): 605–673; Christopher T. Marsden, *Internet Co-Regulation: European Law, Regulatory Governance and Legitimacy in Cyberspace* (Cambridge: Cambridge University Press, 2011).

9 One could also mention 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). The chapter does not cover these agreements.

10 For an introduction to the law of the WTO and its most important tenets, see e.g. Peter van den Bossche and Werner Zdouc, *The Law and Policy of the World Trade Organization*, 3rd edn (Cambridge: Cambridge University Press, 2013); Petros C. Mavroidis, George A. Bermann and Mark Wu, *The Law of the World Trade Organization: Documents, Cases, and Analysis*, 2nd edn (Eagan, MN: West, 2013).

11 Agreement Establishing the World Trade Organization with Understanding on the Rules and Procedures Governing the Settlement of Disputes and Trade Policy Review Mechanism, Marrakesh, 15 April 1994, 1867 U.N.T.S. 154; 33 I.L.M. 1144 (1994), entered into force 1 January 1995 (hereinafter the Marrakesh Agreement); General Agreement on Tariffs and Trade 1994, 1867 U.N.T.S. 187; 33 I.L.M. 1153 (1994), entered into force 1 January 1995 (hereinafter GATT); General Agreement on Trade in Services, 1869 U.N.T.S. 183; 33 I.L.M. 1167 (1994), entered into force 1 January 1995 (hereinafter GATS); Agreement on Trade-Related Aspects of Intellectual Property Rights, 1869 U.N.T.S. 299; 33 I.L.M. 1197 (1994), entered into force 1 January 1995 (hereinafter TRIPS), all collectively referred to as the WTO Agreements.

course, argue that laws need not change with each and every new technological invention.¹² 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 favoured nation (MFN) and the national treatment (NT) obligations,¹³ which could potentially address technological developments better than new made-to-measure regulatory acts that may often be adopted as a reaction to strong vested interests. WTO law also often tackles issues in a technologically neutral way—for instance, with regard to the application of the basic principles with regard to standards,¹⁴ trade facilitation,¹⁵ subsidies,¹⁶ and government procurement.¹⁷ There are, additionally, horizontally applicable provisions, such as those regarding transparency (Article III GATS) and domestic regulation (Article VI GATS)¹⁸ that may have the potential, if properly implemented, 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. 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.¹⁹ *The US – Gambling* case is illuminating in this context. Not only did this first “GATS only”

12 See, famously, Frank H. Easterbrook, “Cyberspace and the Law of the Horse,” *University of Chicago Legal Forum* (1996): 207–216.

13 The MFN principle is enshrined in Article I GATT, Article II GATS and Article IV TRIPS. The NT obligation can be found in Article III GATT, Article XVII GATS and Article III TRIPS.

14 The WTO does not have a standard-setting capacity itself but its Agreement on Technical Barriers to Trade (TBT) 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 respectively Articles 2.1 and 2.2 TBT, Articles 2.9, 2.10, 2.11, 2.12, 4.1 and 10 TBT.

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

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

17 The WTO Government Procurement Agreement (GPA) seeks openness of the procurement market. It is a plurilateral agreement that binds and benefits only its signatories (Switzerland as well as the European Union (EU) are members). The revised GPA, which entered into force on 6 April 2014, is a further reaching effort that establishes standards of non-discrimination, transparency and procedural fairness in public procurement. The text of the revised agreement is available at https://www.wto.org/english/tratop_e/gproc_e/gp_gpa_e.htm.

18 See e.g. Panagiotis Delimatsis, *International Trade in Services and Domestic Regulations: Necessity, Transparency, and Regulatory Diversity* (Cambridge: Cambridge University Press, 2007).

19 In fact, all major GATS cases have had a substantial internet-related element. See WTO Panel Report, *Mexico – Measures Affecting Telecommunications Services (Mexico – Telecommunications)*, WT/DS204/R, adopted 2 April 2004; Panel Report, *United States – Measures Affecting the Cross-Border Supply of Gambling and Betting Services (US – Gambling)*, WT/DS285/R, adopted 10 November 2004; Appellate Body Report, *United States – Measures Affecting the Cross-Border Supply of Gambling and Betting Services (US – Gambling)*, WT/DS285/AB/R, adopted 7 April 2005; Panel Report, *China – Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products (China –*

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” defence under the general exceptions of Article XIV GATS.²⁰

Unfortunately, such a positive picture of the WTO and its relevance for digital trade does not reflect reality. Indeed, there are many causes for worry and scepticism. Some relate to the ways WTO rules, in particular the GATS provisions, were designed, allowing WTO members to tailor their commitments.²¹ 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.²² Many of the contentious issues, which often block digital trade negotiations, stem however from more fundamental policy and cultural divergences. They translate into different “trade and ...” pairs,²³ which render solution-finding processes hard and protracted, especially when the views of dominant actors—the United States and the European Union—diverge.²⁴

This situation has induced legal uncertainty. For instance, as the WTO law presently stands, we are unsure whether online games should be categorised as goods or services.²⁵ Even where 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 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.²⁶

Classification is by no means trivial,²⁷ 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,

Publications and Audiovisual Products), WT/DS363/R, adopted 12 August 2009; Appellate Body Report, *China – Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products (China – Publications and Audiovisual Products)*, WT/DS363/AB/R, adopted 21 December 2009; WTO Panel Report, *China – Certain Measures Affecting Electronic Payment Services (China – Electronic Payment Services)*, WT/DS413/R, adopted 31 August 2012.

20 Markus Krajewski, “Playing by the Rules of the Game? Specific Commitments after *US – Gambling and Betting* and the Current GATS Negotiations,” *Legal Issues of Economic Integration* 32 (2005): 417–447; Sacha Wunsch-Vincent, “The Internet, Cross-Border Trade in Services, and the GATS: Lessons from *US – Gambling*,” *World Trade Review* 3 (2006): 1–37; 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*,” *Journal of World Trade* 40 (2006): 1059–1080.

21 See e.g. Rudolf Adlung, “Trade Liberalisation under the GATS: An Odyssey?” in *GATS and the Regulation of International Trade in Services*, ed. Marion Panizzon, Nicole Pohl and Pierre Sauvé (pp. 209–231) (Cambridge: Cambridge University Press, 2008); Juan A. Marchetti and 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*, ed. Juan A. Marchetti and Martin Roy (pp. 61–112) (Cambridge: Cambridge University Press, 2009).

22 See e.g. Burri and Cottier, *Trade Governance in the Digital Age*.

23 See e.g. Andrew T. F. Lang, “Reflecting on ‘Linkage’: Cognitive and Institutional Change in the International Trading System,” *Modern Law Review* 70, no. 4 (2007): 523–549.

24 The trade and culture debate is illustrative in this context. See e.g. Mira Burri, Christoph Graber and Thomas Steiner, “The Protection and Promotion of Cultural Diversity in a Digital Networked Environment: Mapping Possible Advances to Coherence,” in *The Prospects of International Trade Regulation*, ed. Thomas Cottier and Panagiotis Delimatsis (pp. 369–393) (Cambridge: Cambridge University Press, 2011).

25 See e.g. Rolf H. Weber and Mira Burri, *Classification of Services in the Digital Economy* (Berlin: Springer, 2012).

26 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,” *Journal of World Trade* 50, no. 1 (2016): 21–46.

27 See Weber and Burri, *Classification of Services in the Digital Economy*.

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.²⁸ The evolutionary interpretation of schedules of specific commitments, as affirmed in *China – Publications and Audiovisual Products*, while genuinely a positive development, does not necessarily help much to achieve legal certainty in such situations.²⁹

The classification dilemma, particularly critical for digital trade, is an illuminating example of this state of paralysis but far from 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.³⁰ 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 2015.³¹

It should be stressed in this context that addressing the issues raised by the Work Programme on E-Commerce may now be simply insufficient or even futile. Since the programme 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.³² This progress and 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.³³ The overall transformation relates to the new centrality of the internet as the essential foundation for innovation and its deep economic, social, and cultural implications.³⁴ These changes have also been associated with a new palette of measures that inhibit digital trade. An enquiry by the United States International Trade Commission compiled a useful taxonomy of such measures.³⁵ Some measures can be grouped under the so-called "digital trade localisation measures" or "localisation barriers to trade." They encompass, among others, requirements for localisation of data servers, certain local

28 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 United States International Trade Commission, *Digital Trade in the US and Global Economies*, Part 1 (Washington, DC: United States International Trade Commission, 2013), 5–7.

29 In *China – Publications and Audiovisual Products* (at para. 396), the Appellate Body found that the terms in China's Schedule "are sufficiently generic that what they apply to may change over time."

30 Sacha Wunsch-Vincent and Arno Hold, "Towards Coherent Rules for Digital Trade: Building on Efforts in Multilateral versus Preferential Trade Negotiations," in *Trade Governance in the Digital Age*, ed. Mira Burri and Thomas Cottier (pp. 179–221) (Cambridge: Cambridge University Press, 2012), 181.

31 WTO, Ministerial Decision on Work Programme on Electronic Commerce, adopted on 19 December 2015 at the Tenth WTO Ministerial Conference in Nairobi, WT/MIN(15)/42 (2015).

32 United States International Trade Commission (USITC), *Digital Trade in the US and Global Economies, Part 1*, Investigation No. 332–531 (Washington, DC: USITC, 2013).

33 See e.g. WTO, Communication from the European Union and the United States: Contribution to the Work Programme on Electronic Commerce, S/C/W/338 (2011).

34 Benkler, *The Wealth of Networks*; Chander, *The Electronic Silk Road*.

35 See USITC, *Digital Trade in the US and Global Economies, Part 1*, as well as USITC, *Digital Trade in the US and Global Economies, Part 2*, Investigation No 332–540 (Washington, DC: USITC, 2014).

content policies, or discrimination against digital services or providers not locally based.³⁶ Other measures are not related strictly to trade: censorship, divergent approaches to data privacy, and IP protection adopted by different countries nonetheless disrupt digital trade, increase the cost of doing business, and hinder innovation.³⁷

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 not progressed. Despite the utility of the WTO's dispute settlement, judicial transplants cannot replace political consensus on the substance, particularly in a complex and highly technical domain such as digital trade. As the Doha negotiations continue to make little progress, the multilateral venue of legal rule-making has been seriously undermined and this has triggered forum-shopping: bilaterally, regionally, or through plurilateral initiatives. It can be argued that the TPP is the pinnacle of these efforts. Before we look at those provisions of the TPP that address digital trade issues, it can be useful to take a look at the previous FTAs. This will allow us to trace the origins of some digital trade rules and to understand the success and the failures of the TPP.

3. Experience Gathered in Regional and Bilateral Agreements Before the TPP

The regulatory environment for digital trade has been substantially influenced by FTAs, and in particular by those led by the United States. The United States has endorsed and attempted to ensure implementation of its so-called "Digital Agenda"³⁸ through the FTA channel. The agreements reached since 2002 with Australia, Bahrain, Chile, Morocco, Oman, Peru, Singapore, the Central American countries,³⁹ and more recently with Panama, Colombia and South Korea, all contain critical WTO-plus provisions in the broader field of digital trade.⁴⁰ The emergent regulatory template on digital issues is not, however, limited to US agreements but has diffused and can be found in other FTAs as well, such as Singapore–Australia, Thailand–Australia, Thailand–New Zealand, New Zealand–Singapore, India–Singapore, Japan–Singapore and South Korea–Singapore.⁴¹ The implemented US 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) information and communication technology (ICT) cooperation, and (iv) intellectual property chapters.

3.1 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

36 For a country survey, see Anupam Chander and Uyên P. Lê, "Data Nationalism," *Emory Law Journal* 64 (2015): 677–739.

37 USITC, Digital Trade in the US and Global Economies, Part 1; Chander and Lê, "Data Nationalism."

38 See Sacha Wunsch-Vincent, "The Digital Trade Agenda of the US: Parallel Tracks of Bilateral, Regional and Multilateral Liberalization," *Aussenwirtschaft* 1 (2003): 7–46.

39 The CAFTA-DR includes Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and the Dominican Republic.

40 Wunsch-Vincent and Hold, "Towards Coherent Rules for Digital Trade."

41 Wunsch-Vincent and Hold, "Towards Coherent Rules for Digital Trade."

WTO e-commerce programme⁴² that have been discussed but still remain open.⁴³ This includes a clear definition of "digital products," which treats digital products delivered offline equally with those delivered online, so that technological neutrality is ensured. The chapters also recognise the applicability of WTO rules to electronic commerce,⁴⁴ and establish an express and permanent duty-free moratorium on the import or export of digital products by electronic transmission.⁴⁵ 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 their "author, performer, producer, developer, or distributor is a person of another party or a non-party."⁴⁶

However, the seemingly far-reaching provisions of the e-commerce chapters need to be qualified. They appear legally inferior to the rest of the free trade 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."⁴⁷ In case of a conflict, the provisions of the e-commerce chapters will thus be overridden.

3.2 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. Among 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,⁴⁸ 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 will discuss in more detail later.

42 WTO General Council, Work Programme on Electronic Commerce, WT/L/274 (1998).

43 Sacha Wunsch-Vincent, *The WTO, the Internet and Digital Products: EC and US Perspectives* (Oxford: Hart, 2006).

44 See e.g. US–Singapore FTA, Article 14.1; US–Australia FTA, Article 16.1.

45 See e.g. US–Singapore FTA, Article 14.3, para. 1; US–Chile FTA, Article 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.

46 See e.g. US–Singapore FTA, Article 14.3; US–Australia FTA, Article 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 and Hold, "Towards Coherent Rules for Digital Trade," 201.

47 See e.g. US–Chile FTA, Article 15.2; US–Singapore FTA, Article 14.2.

48 Rudolf Adlung and Hamid Mamdouh, "How to Design Trade Agreements in Services: Top Down or Bottom Up?" *WTO Staff Working Paper 8* (2013). The authors suggest that what matters for the level of liberalisation is not negotiating or scheduling techniques, but the political impetus that the governments concerned are ready to generate; see also, in this sense, Submission by Switzerland: Possible Operationalization of a Hybrid Schedule, Really Good Friends – Meeting of 5 November 2012, Plurilateral Initiative on Trade in Services, 10 October 2012.

3.3 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.⁴⁹ These cover different cooperation initiatives in the broader information technology policy field, such as those for telecommunications policy, information technology standards and interoperability, cybersecurity, electronic signatures and payments, paperless trading, self-regulation and e-government projects. On the other hand, the joint understandings 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.⁵⁰ 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 protection⁵¹ and privacy standards, can be truly powerful and demand changes in domestic law and policies.

The US–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 details rights for 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.⁵² Next to these fairly solid safeguards against censorship and other types of constraints on access and use, the US–South Korea FTA provides for free cross-border information flows, obliging the parties, albeit in a non-binding manner, “to refrain from imposing or maintaining unnecessary barriers to electronic information flows across borders.”⁵³

3.4 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.⁵⁴ Over the past decade, FTAs have become a primary

49 Very often there are joint statements on e-commerce that are agreed upon bilaterally and regionally. See e.g. Asia-Pacific Economic Cooperation, “Statement to Implement APEC Policies on Trade and the Digital Economy,” Leader’s Declaration, 27 October 2002, Los Cabos.

50 Wunsch-Vincent and Hold, “Towards Coherent Rules for Digital Trade,” 204–211. For comparative data, see USITC, *Digital Trade in the US and Global Economies, Part 1*.

51 The US–Australia FTA includes, for instance, detailed additional obligations on cross-border consumer protection, also referring to the 2003 OECD Guidelines for Protecting Consumers from Fraudulent and Deceptive Commercial Practices across Borders (see US–Australia, Chapter 14 on competition-related matters, Article 2). The same is true for the US–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.

52 US–South Korea, Article 15.7.

53 US–South Korea, Article 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.”

54 See e.g. John Braithwaite and Peter Drahos, “Ratcheting Up and Driving Down Global Regulatory Standards,” *Development* 42, no. 4 (1999): 109–114; Susan K. Sell, “The Global IP Upward Ratchet, Anti-Counterfeiting and Piracy Enforcement Efforts: The State of Play,” *PJIP Research Paper* 15 (2010): 1–22; Neil W. Netanel, “Why Has Copyright Expanded? Analysis and Critique,” in *New Directions in Copyright Law: Vol. 6*, ed. Fiona Macmillan (pp. 3–34) (Cheltenham: Edward Elgar, 2007).

venue for implementing IP rules to protect content online.⁵⁵ The level of detail and the strength of protection have steadily increased—from the early US-led agreements, such as US–Jordan, to more recent ones, such as the US–South Korea FTA.⁵⁶

The IP chapters secure adherence to, or at least compliance (without formal ratification) with the WIPO Internet Treaties.⁵⁷ Going even further than the WIPO Copyright Treaty, the bilateral and regional agreements ensure implementation of technical protection measures and digital rights management systems to prevent unauthorised digital copying. The flexibility in the implementation of the WIPO Copyright Treaty is in many senses reduced as the FTAs demand legal remedies against circumventing technical protection measures, as well as against devices used for that purpose (independent of the intended use of the device). Many of the FTAs also regulate the liability of internet service providers (ISPs) and contain additional provisions on the enforcement of copyright online.⁵⁸

3.5 Looking at Some Non-US Agreements

The United States has clearly been leading as a legal entrepreneur with regard to digital trade. While, as noted, the US template and different provisions from it have spread in non-US agreements, it is fair to add that not all countries have strategies with regard to digital issues. Many remain involved, although not actively, in the WTO e-commerce programme but do not pursue insertion of digital trade provisions in FTAs. This is true for many developing countries because of their limited regulatory capacities but it is also true for developed countries, such as the European Free Trade Association members. The European Union has been more proactive but certainly not to the extent of the US.

Apart from the generic differences between the EU and the US approaches to FTAs, the EU template with regard to digital trade is not as coherent as that of the United States.⁵⁹ It has also developed and changed over time, with regard to both dedicated provisions on electronic commerce, as well as services and IP rules of relevance to digital trade.

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 chapter⁶⁰ and in the fields of information technology, information society and telecommunications.⁶¹ In more recent agreements, such as the EU–South Korea FTA (signed in 2009), the language is much more concrete

55 Netanel, "Why Has Copyright Expanded?"

56 Wunsch-Vincent and Hold, "Towards Coherent Rules for Digital Trade," 211.

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

58 Wunsch-Vincent and Hold, "Towards Coherent Rules for Digital Trade," 211–215.

59 EU FTAs tend, for instance, to cover more WTO-plus areas but have less liberal commitments. For detailed analysis, see Henrik Horn, Petros C. Mavroidis and André Sapir, *Beyond the WTO? An Anatomy of EU and US Preferential Trade Agreements* (Brussels: Bruegel Print, 2009).

60 EU–Chile FTA, Article 102. The agreement states: "The inclusion of this provision in this Chapter is made without prejudice of the Chilean position on the question of whether or not electronic commerce should be considered as a supply of services."

61 EU–Chile FTA, Article 37.

and binding. It imitates some of the provisions of the US template and confirms the applicability of the WTO Agreements to measures affecting electronic commerce, as well as subscribing to a permanent duty-free moratorium on electronic transmissions.⁶² Particularly insistent on data protection policies, the EU has also sought commitment of its FTA partners to compatibility with the international standards of data protection.⁶³ 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.⁶⁴

The most recent EU agreement with Canada—the Comprehensive Economic and Trade Agreement (CETA)⁶⁵—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.⁶⁶ The EU has succeeded in deepening the privacy commitments. The CETA has a specific provision discussing trust and confidence in electronic commerce, which obliges the parties to adopt or maintain laws, regulations or administrative measures for the protection of personal information of users engaged in electronic commerce in consideration of international data protection standards.⁶⁷

With regard to cross-border trade in services, the EU's traditional approach has been to follow the GATS model and only make positive (and relatively conservative) commitments, whereby different services sectors and subsectors 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 US, the EU has not gone substantially GATS-plus in its FTAs. For telecommunications services, an additional commitment on number portability is included.⁶⁸ For the computer services sector, the provisions foresee deep liberalisation of all computer and related services at the two-digit Central Product Classification (CPC) 84 level, while excluding core content services delivered electronically (e.g., financial or audiovisual services).⁶⁹ The EU experimented with a negative list of commitments for the first time with the CETA. This marks a turn in the EU's FTA 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; for Canada, the caveat relates to its

62 EU–South Korea FTA, Article 7.48.

63 EU–South Korea FTA, Article 7.48.

64 EU–South Korea FTA, Article 7.49.

65 CETA was signed in 2014 and adopted by the Council and signed at the EU–Canada Summit on 30 October 2016. CETA's consolidated text is available at <http://data.consilium.europa.eu/doc/document/ST-10973-2016-INIT/en/pdf>.

66 CETA, Article 16.5.

67 CETA, Article 16.4.

68 CETA, Article 15.10. Number portability has been a common commitment in all FTAs, while missing from the WTO Reference Paper on Basic Telecommunications Services.

69 EU–South Korea FTA, Article 7.25, in a way identical to the EU's Doha Round offer; see WTO, Understanding on the Scope of Coverage of CPC 84—Computer and Related Services, Communication from Albania, Australia, Canada, Chile, Colombia, Croatia, the European Communities, Hong Kong China, Japan, Mexico, Norway, Peru, the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu, Turkey and the United States, TN/S/W/60, S/CSC/W/51 (2007).

"cultural industries."⁷⁰ In addition, there is an annex attached to the services chapter which sets out an understanding on new services not classified in the UN Provisional 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.⁷¹ 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.⁷² This is an extremely cautious approach to future innovation, as it prevents coverage being automatic and may also involve a burdensome and costly administration of the FTA. It also diverges from the current US practice.

The convergence between the EU and the US templates is most pronounced with regard to the chapters on intellectual property protection. Since the EU–Chile FTA, and in particular in the EU–CARIFORUM⁷³ and EU–South Korea, the EU has included a number of TRIPS-plus provisions.⁷⁴ 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.⁷⁵

4. The Trans-Pacific Partnership Agreement

It is clear from this discussion that the TPP did not come out of the blue but was meant to build upon existing FTA provisions. The expectations for the TPP in its legal design and impact were great, however. It was supposed to be a "twenty-first century" trade agreement that would match contemporary global trade better than the mercantilist and bricks-and-mortar WTO Agreements.⁷⁶ It was only logical, in this sense, that sizeable weight was given in the negotiations to digital trade. In terms of the breadth and depth of the commitments, the United States Trade Representative strove to substantially exceed the "gold standard" created by the US–South Korea FTA. The final text of the TPP entails some successes in this regard, as well as some failings.

70 CETA, Chapter 32 "Exceptions." If we compare this with the W/120 classification for audiovisual services, which includes motion picture and video tape 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.

71 CETA, Annex 9-B – Understanding on new services not classified in the United Nations provisional central product classification (CPC), 1991, para. 1.

72 It is clarified that this regime does not apply to an existing service that could be classified under the CPC but that could not previously be provided on a cross-border basis due to lack of technical feasibility. CETA, Annex 9-B, para. 4.

73 In October 2008, Antigua and Barbuda, the Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, Saint Lucia, Saint Vincent and the Grenadines, Saint Kitts and Nevis, Surinam, Trinidad, Tobago, and the Dominican Republic signed with the EU the CARIFORUM–EU Economic Partnership Agreement. Haiti signed the agreement in December 2009, but is not yet applying it pending ratification.

74 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*, ed. Estelle Derclaye (pp. 574–612) (Cheltenham: Edward Elgar, 2009); Josef Drexler, Henning Grosse Ruse-Khan and Souheir Nadde-Phlix (eds), *EU Bilateral Trade Agreements and Intellectual Property: For Better or Worse?* (Berlin: Springer, 2014).

75 Wunsch-Vincent and Hold, "Towards Coherent Rules for Digital Trade"; Grosse Ruse-Khan, "Access to Knowledge"; Drexler, Grosse Ruse-Khan and Nadde-Phlix, *EU Bilateral Trade Agreements and Intellectual Property*.

76 See e.g. Claude Barfield, "The Trans-Pacific Partnership: A Model for Twenty-First-Century Trade Agreements?" *International Economic Outlook 2*, American Enterprise Institute, June 2011. The United States Trade Representative (USTR) had various such references on its dedicated TPP website—these have now been removed.

4.1 The IP Chapter

Among its successes, the TPP heightened standards in the field of intellectual property protection.⁷⁷ For instance, and borrowing from earlier US agreements such as NAFTA,⁷⁸ 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.⁷⁹ The TPP also provides for heightened protection of trade secrets,⁸⁰ particularly mentioning that unauthorised and wilful misappropriation and the fraudulent disclosure of a trade secret, "including by means of a computer system," are to be criminalised in the domestic laws of all TPP countries.⁸¹

The IP chapter particularly aims to facilitate "legitimate digital trade," and diffuses the digital copyright rules, as applied in the US especially through the Digital Millennium Copyright Act (DMCA).⁸² 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,⁸³ 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 that with South Korea, and are prescribed by the 1996 WIPO Internet Treaties and, later on, by the Anti-Counterfeiting Trade Agreement (ACTA).⁸⁴ 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 provide "online public access to a reliable and accurate database of contact information concerning domain name registrants in accordance with each Party's law and relevant administrator policies regarding protection of privacy and personal data." This has been controversial because of online harassment issues and can be interpreted as a serious intervention into the area of internet governance, which is based on a more open, multi-stakeholder approach.⁸⁵ The practical effect of having this norm is, however, as yet uncertain.

The changes in the regulation of internet service providers⁸⁶ are also important to note, as ISPs are critical intermediaries in the online environment that enable and condition the access and distribution

77 TPP, Chapter 18. See also Sean M. Flynn, Brook Baker, Margot Kaminski and Jimmy Koo, "The US Proposal for an Intellectual Property Chapter in the Trans-Pacific Partnership Agreement," *American University International Law Review* 28, no. 1 (2012): 105–202.

78 North American Free Trade Agreement (NAFTA), 32 I.L.M. 289 (1993) and 32 I.L.M. 605 (1993), at Chapter XVII. See also NAFTA and Imtiaz Hussain, *Reevaluating NAFTA: Theory and Practice* (Berlin: Springer, 2012), esp. 83–92.

79 Article 9.1. TPP.

80 Article 18.78 TPP.

81 Article 18.78(2) TPP.

82 Pub. L. No. 105-304, 112 Stat. 2860, 28 October 1998.

83 TPP, Chapter on Intellectual Property, at Introduction.

84 Flynn, Baker, Kaminski and Koo, "The US Proposal"; also David S. Levine, "Bring in the Nerds: Secrecy, National Security, and the Creation of International Intellectual Property Law," *Cardozo Arts and Entertainment Journal* 30 (2012): 105–151.

85 See e.g. Mira Burri, "The WTO as an Actor of Global Internet Governance," in *The Institutions of Global Internet Governance*, ed. William Drake and Mira Burri (Cambridge: Cambridge University Press, forthcoming).

86 An ISP is defined broadly as (a) a provider of online services for the transmission, routing, or providing of connections for digital online communications, between or among points specified by a user, of material of the user's choosing, undertaking the function in Article 18.82.2(a) (Legal Remedies and Safe Harbours); or (b) a provider of online services undertaking the functions in Article 18.82.2(c) or Article 18.82.2(d). For greater certainty, Internet Service Provider includes a provider of the services listed above that engages in caching carried out through an automated process. See Article 18.82.1 TPP.

of information.⁸⁷ The TPP framework for “legal remedies and safe harbours” requires putting in place “legal incentives” for ISPs to deter or to take action to deter “unauthorised storage and copying of copyrighted materials.”⁸⁸ The ISPs are required to expeditiously remove or disable access to material residing on their networks or systems that infringes copyright once they have received information or knowledge regarding such infringement or where there are facts or circumstances from which the infringement is apparent, such as when they receive a notice.⁸⁹ The TPP in effect harmonises the “notice and takedown” system of administering ISPs’ liability for copyright infringement for all TPP countries, very much in line with existing US standards imposed by the DMCA. There is still an exception for the somewhat softer “notice and notice” regime of Canada,⁹⁰ as well as for the notification system followed by Chile.⁹¹ Countries without such a system so far, like Brunei, Malaysia, Mexico, New Zealand and Vietnam, would need to adopt the “notice and takedown” mechanism.

The TPP does include some language with regard to the link between ISP liability and privacy protection but the relationship seems to work to the benefit of the copyright holder. On the one hand, Article 18.82.7 says that legal procedures for administering ISP liability should be “consistent with the principles of due process and privacy”; on the other hand, the provision permits “a copyright owner that has made a legally sufficient claim of copyright infringement to obtain expeditiously from an Internet Service Provider information in the provider’s possession identifying the alleged infringer in cases in which the information is sought for the purpose of protection or enforcing that copyright.”⁹²

4.2 The E-Commerce Chapter

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 US 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.⁹³ We will go on to look more closely at them.

The TPP explicitly seeks to restrict the use of data localisation measures. Article 14.13(2) prohibits the parties from requiring a “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 US–South Korea on free data flows is now framed as a hard rule: “Each Party shall allow the cross-border transfer of information by electronic means, including personal information, when this activity is

87 See e.g. Jack M. Balkin “Media Access: A Question of Design,” *George Washington Law Review* 76, no. 4 (2008): 101–118; Jeremy F. De Beer and Christopher D. Clemmer, “Global Trends in Online Copyright Enforcement: A Non-Neutral Role for Network Intermediaries?” *Journal of Law, Science and Technology* 49 (2009): 375–409; also Sonia S. Katyal, “Filtering, Piracy, Surveillance and Disobedience,” *Columbia Journal of Law and the Arts* 32, no. 4 (2009): 401–426; Urs Gasser and Wolfgang Schulz (eds), *Governance of Online Intermediaries: Observations from a Series of National Case Studies* (Cambridge, MA: Berkman Center for Internet and Society, 2015).

88 Article 18.82.1(a) TPP.

89 Article 18.82.3(a) TPP.

90 TPP, Annex 18-E.

91 TPP, Annex 18-F.

92 Article 18.82.7 TPP.

93 TPP Articles 14.5, 14.8, 14.12, 14.13, 14.14, 14.17 and 14.18 respectively.

for the conduct of the business of a covered person."⁹⁴ The rule has a broad scope and most data transferred over the internet are 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 localisation 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."⁹⁵ 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.⁹⁶ 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."⁹⁷ 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 localisation measures is somewhat softened with regard to financial services and institutions.⁹⁸ 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.⁹⁹ Government procurement is also excluded.¹⁰⁰

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.¹⁰¹ This means that tailor-made products will be excluded, as well as software used for critical infrastructure and those in commercially negotiated contracts.¹⁰² The aim of this provision is to protect software companies and address their concerns about loss of IP or cracks in the security of their proprietary code,¹⁰³ its real effect is, however, hard to predict.

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

94 Article 14.11(2) TPP.

95 Article 14.11(3) TPP.

96 See e.g. Henrik Andersen, "Protection of Non-Trade Values in WTO Appellate Body Jurisprudence: Exceptions, Economic Arguments, and Eluding Questions," *Journal of International Economic Law* 18 (2015): 383–405.

97 Article 14.11(3) TPP.

98 See the definition of "a covered person" in Article 14.1, which is said to exclude a "financial institution" and a "cross-border financial service supplier."

99 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."

100 Article 14.8(3) TPP.

101 Article 14.17(2) TPP.

102 Article 14.17(2) TPP.

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

generally anticipated from trade agreements. Rather, they shape the regulatory space domestically and may actually lower certain standards. Commitments to lower standards of protection are particularly palpable in the field of privacy and data protection.

Article 14.8(2) requires every TPP party to “adopt or maintain a legal framework that provides for the protection of the personal information of the users of electronic commerce.” No standards or benchmarks for the legal framework have been specified, except for a general requirement that TPP parties “take into account principles or guidelines of relevant international bodies.”¹⁰⁴ A footnote provides some clarification in saying: “For 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.”¹⁰⁵

Parties are also invited to promote compatibility between their data protection regimes, by essentially treating lower standards as equivalent.¹⁰⁶ Overall, the goal seems to be to prioritise trade over privacy rights. This commitment is clearly pushed by the US, 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 the European Union that struck down the EU–US Safe Harbor Agreement.¹⁰⁷

While attention is (understandably) focused on data protection, it should be noted that the TPP provisions on consumer protection¹⁰⁸ and spam control¹⁰⁹ 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.

Net neutrality is another important digital economy topic that has been given specific attention in the TPP, although the rules so created are non-binding in nature. Article 14.10 titled “Principles on Access to and Use of the Internet for Electronic Commerce” states:

Subject to applicable policies, laws and regulations, the Parties recognise the benefits of consumers in their territories having the ability to: (a) access and use services and applications of a consumer’s choice available on the Internet, subject to reasonable network management; (b) connect the end-user devices of a consumer’s choice to the Internet, provided that such devices do not harm the network; and (c) access information on the network management practices of a consumer’s Internet access service supplier.

While it is commendable that net neutrality is endorsed, this comes with many reservations, as evidenced by this provision, from the domestic laws of TPP countries; from undefined situations

104 Article 14.8(2) TPP.

105 Article 14.8(2) TPP, footnote 6.

106 Article 14.8(5) TPP.

107 C-362/14, *Maximilian Schrems v. Data Protection Commissioner*, judgment of 6 October 2015, ECLI:EU:C:2015:650.

108 Article Article 14.7 TPP..

109 Article 14.14 TPP.

that call for “reasonable network management;”¹¹⁰ 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 a uniform approach with regard to net neutrality across TPP countries.

4.3 Provisions Scattered in Other TPP Chapters That Matter for Digital Trade

The presentation so far is not exhaustive and there are a number of other provisions scattered in the chapters of the TPP that matter for digital trade. In general, the higher level of liberalisation achieved in some of the services sectors relevant for digital trade, such as telecommunications, computer and related, and media services, matters.¹¹¹ We only highlight here a few of those norms in the context of telecommunications and technical barriers to trade.

The TPP telecommunications chapter is very comprehensive and goes beyond what we have under the GATS with the Annex on Telecommunications and the Reference Paper.¹¹² It is very detailed and seeks to ensure a level playing field for telecommunication services and service suppliers. There is a general recognition of the liberal approach towards regulation, whereby the TPP parties recognise the value of competitive markets to deliver a wide choice in the supply of telecommunications services and to enhance consumer welfare, and that economic regulation may not be needed if there is effective competition or if a service is new to a market.¹¹³ The provisions on access and use of public telecommunications services are strengthened by including, for instance, number portability¹¹⁴ and enhanced transparency requirements.¹¹⁵ Article 13.23 is new and seeks to ensure flexibility in the choice of technology. Suppliers of public telecommunications services choose “the technologies they wish to use to supply their services, subject to requirements necessary to satisfy legitimate public policy interests, provided that any measure restricting that choice is not prepared, adopted or applied in a manner that creates unnecessary obstacles to trade.”¹¹⁶

The second provision to mention comes from Chapter 18 on technical barriers to trade and relates to encryption standards. It is a reaction to a practice by several countries that impose direct bans on encrypted products or set specific technical regulations that restrict the sale of encrypted products.¹¹⁷ China is a prominent, but not the only example in this context with its attempt to enforce an indigenous standard for wireless networks: the WAPI standard, which was a proprietary standard

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

111 TPP, Chapters 10 and 13.

112 For analysis of the WTO rules on communications services, see e.g. Mira Burri, “The Law of the World Trade Organization and the Communications Law of the European Community: On a Path of Harmony or Discord?” *Journal of World Trade* 41 (2007): 833–878.

113 Article 13.3 TPP.

114 Article 13.5.4 TPP.

115 Article 13.22 TPP.

116 Paragraph 2 clarifies that when a party finances the development of advanced networks, it may make its financing conditional on the use of technologies that meet its specific public policy interests. It is clarified further in a footnote that “advanced networks” includes broadband networks.

117 See generally Branislav Hazucha, “Technical Barriers to Trade in Information and Communication Technologies,” in *Research Handbook on the WTO and Technical Barriers to Trade*, ed. Tracey Epps and Michael J. Trebilcock (pp. 525–565) (Cheltenham: Edward Elgar, 2013).

diverging from the internationally agreed upon Wi-Fi.¹¹⁸ It is apparent that such measures create barriers to trade, increase compliance costs, may lead to forced disclosure of IP, or other data, and may overall harm innovation.

Annex 8-B, Section A.3 addresses such concerns. Pursuant to it, with respect to a product that uses cryptography and is designed for commercial applications,

no Party shall impose or maintain a technical regulation or conformity assessment procedure that requires a manufacturer or supplier of the product, as a condition of the manufacture, sale, distribution, import or use of the product, to: (a) transfer or provide access to a particular technology, production process or other information, for example, a private key or other secret parameter, algorithm specification or other design detail, that is proprietary to the manufacturer or supplier and relates to the cryptography in the product, to the Party or a person in the Party's territory; (b) partner with a person in its territory; or (c) use or integrate a particular cryptographic algorithm or cipher, other than where the manufacture, sale, distribution, import or use of the product is by or for the government of the Party.

The provision does not prevent law enforcement actions¹¹⁹ and does not apply to networks owned or controlled by the government,¹²⁰ or to government measures related to supervision, investigation, or examination of financial institutions or markets.¹²¹ Despite these exceptions, by banning the forced provision of encryption keys or the adoption of indigenous standards, the TPP seems to properly address this newer kind of digital trade barrier and cater well for the growing concerns of large companies like IBM and Microsoft that thrive on free data flows with less governmental intervention.

5. Comparing the TPP With Other “Mega-Regionals”

5.1 Transatlantic Trade and Investment Partnership Agreement

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. A key cross-cutting trade issue to both the TPP and the TTIP, next to comprehensive and robust market liberalisation, has been the quest for regulatory convergence that promotes more seamless and efficient trade among the partners and ensures competitiveness and business facilitation.¹²² 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.¹²³ They wish to develop rules, principles and new

118 See Christopher S. Gibson, “Globalization and the Technology Standards Game: Balancing Concerns of Protectionism and Intellectual Property in International Standards,” *Berkeley Technology Law Journal* 22 (2007): 1403–1484, at 1475. The case did not reach the WTO dispute settlement and was settled diplomatically, as China decided to forbear from mandating the WAPI standard.

119 TPP, Annex 8-B, Section A.5.

120 TPP, Annex 8-B, Section A.4.

121 TPP, Annex 8-B, Section A.4.

122 See e.g. Jonathan B. Wiener and Alberto Alemanno, “The Future of International Regulatory Cooperation: TTIP as a Learning Process toward a Global Policy Laboratory,” *Law and Contemporary Problems* 78 (2015): 103–136.

123 Wiener and Alemanno, “The Future of International Regulatory Cooperation.”

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

Yet, there are many areas of contestation, some affecting digital trade.¹²⁴ Traditionally, ever since the days of the France-led "exception culturelle" campaign during the Uruguay Round of the WTO negotiations,¹²⁵ a major battlefield between the US and the EU has been audiovisual services.¹²⁶ 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.¹²⁷ Public services in general have been a major source of preoccupation in recent debates in Europe.¹²⁸ Another hotly discussed and contentious topic facing intense civil society objections is intellectual property rights. The fear from the EU side is that the IP maximalist agenda of the Anti-Counterfeiting Trade Agreement,¹²⁹ as well as that of the domestically unsuccessful US legislative initiatives, the Stop Online Piracy Act and the Protect IP Act,¹³⁰ will in many aspects be replicated in the TTIP.¹³¹ Digital copyright is part of these efforts and it remains to be seen how far-reaching the adopted rules will be, especially if we consider the current efforts of the EU to reform its own copyright rules as part of its Digital Single Market Strategy.¹³² While on some issues, such as intermediaries' liability, there seems to be a move towards current US legal practice, on other issues, such as publishers' rights,¹³³ 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 US and EU towards the protection

124 See e.g. Andrea Renda and Christopher Yoo, "Telecommunications and Internet Services: The Digital Side of the TTIP," *CEPS Special Report* No. 112, July 2015.

125 See e.g. Mira Burri, "Trade versus Culture: The Policy of Cultural Exception and the World Trade Organization," in *Palgrave Handbook of European Media Policy*, ed. Karen Donders, Caroline Pauwels and Jan Loisen (pp. 478–492) (Basingstoke: Palgrave Macmillan, 2013).

126 Burri, "Trade versus Culture."

127 European Parliament, Resolution on EU Trade and Investment Negotiations with the United States of America (2013/2558(RSP)), paras 11–12.

128 See e.g. Markus Krajewski and Britta Kynast, *Impact of the Transatlantic Trade and Investment Partnership (TTIP) on the Legal Framework for Public Services in Europe* (Düsseldorf: Hans-Böckler-Stiftung, 2014).

129 Peter K. Yu, "ACTA and Its Complex Politics," *WIPO Journal* 3 (2011): 1–16; 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*, ed. Mira Burri and Thomas Cottier (pp. 323–343) (Cambridge: Cambridge University Press, 2012); Levine, "Bring in the Nerds."

130 Stop Online Piracy Act (SOPA), H.R. 3261 and Protect IP Act (Preventing Real Online Threats to Economic Creativity and Theft of Intellectual Property Act, or PIPA), S. 968. The SOPA/PIPA legislation aimed in essence to expand the ability of US law enforcement to fight online trafficking, also beyond the US national jurisdiction. After opposition by academics, corporations and civil society representatives, both bills were dropped. See e.g. Mark A. Lemley, David S. Levine, and David G. Post, "Don't Break the Internet," *Stanford Law Review* 64 (2012): 34–38.

131 Flynn, Baker, Kaminski and Koo, "The US Proposal."

132 European Commission, A Digital Single Market Strategy for Europe, COM(2015) 192 final, 6 May 2015.

133 See European Commission, Proposal for a Directive of the European Parliament and of the Council on copyright in the Digital Single Market, COM(2016) 593 final.

of privacy are at this stage hardly reconcilable.¹³⁴ The new EU General Data Protection Regulation,¹³⁵ 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. It seeks to endorse this not only within the borders of the Union but also for cross-border data transfers containing personal data.¹³⁶ The leaked TTIP text exposes yet again the divergence between the US and the EU on data protection. There is no agreement on data flows between the negotiating parties, despite signals of US 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-labelling (setting standards for providing product information to consumers in electronic format that replaces 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 on the practical reality of digital trade.

5.2 Trade in Services Agreement

A third important digital trade agreement evolving outside the WTO umbrella is the Trade in Services Agreement (TiSA) currently being negotiated. The TiSA is meant to provide deeper market access in the services sector, where liberalisation is still quite low, despite the substantial gains from trade expected.¹³⁷ TiSA, launched in early 2013, has been supported by the United States, the EU, Japan, and other countries that are part of the group "Really good friends of services."¹³⁸ The impact of TiSA can be substantial because not only do some of the most important market economies support TiSA, in effect covering over 70 percent of world services trade, but TiSA also aims at high market access commitments and at adding a layer of deeper regulatory arrangements.¹³⁹

Despite a number of leaks,¹⁴⁰ as well as publication of some countries' offers,¹⁴¹ the final outcome is uncertain. It appears so far that TiSA has adopted a hybrid approach towards commitments. This entails a negative type of commitment for MFN and NT but positive for market access. Parties are also discussing the inclusion of so-called "standstill" and "ratchet" clauses. Under a standstill clause, members would agree not to create new obstacles to services trade and preserve the

134 See e.g. Paul M. Schwartz, "The EU–US Privacy Collision: A Turn to Institutions and Procedures," *Harvard Law Review* 126 (2013): 1966–2009; Paul M. Schwartz and Daniel J. Solove, "Reconciling Personal Information in the United States and European Union," *California Law Review* 102 (2014): 877–916.

135 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), OJ L [2016] 119/1.

136 See e.g. Mira Burri and Rahel Schär, "The Reform of the EU Data Protection Framework: Outlining Key Changes and Assessing Their Fitness for a Data-Driven Economy," *Journal of Information Policy* 6 (2016): 479–511.

137 For an overview, see Juan A. Marchetti and Martin Roy (eds), *Opening Markets for Trade in Services: Countries and Sectors in Bilateral and WTO Negotiations* (Cambridge: Cambridge University Press, 2009).

138 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 US and the EU.

139 Juan A. Marchetti and Martin Roy, "The TiSA Initiative: An Overview of Market Access Issues," *WTO Staff Working Paper ERSD-2013-11* (2013), 27.

140 See Wikileaks, at <https://wikileaks.org/tisa/>.

141 See e.g. for Switzerland, the information provided by the State Secretariat for Economic Affairs, https://www.seco.admin.ch/seco/de/home/Aussenwirtschaftspolitik_Wirtschaftliche_Zusammenarbeit/Wirtschaftsbeziehungen/Internationaler_Handel_mit_Dienstleistungen/TISA/Schweiz_und_TiSA.html.

current level of liberalisation. With the ratchet clause, in cases where one participating member improves services market access on its own, that newly liberalised access would then be accorded to other parties to the deal, and become permanent.¹⁴²

In terms of the depth of liberalisation, 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 is that, despite the far-reaching US FTAs, past FTA negotiations involving other TiSA participants have not made significant progress in liberalising sensitive sectors, such as audiovisual services. The EU and Canada are highly unlikely to give up their policy space in these sectors,¹⁴³ which again brings back the "old" GATS problems and the trade versus culture dilemma of the Uruguay Round of negotiations.¹⁴⁴ The Swiss initial offer under TiSA confirms this, as Switzerland has tabled no GATS-plus commitments for audiovisual services.¹⁴⁵

Regarding digital trade specifically, there is a willingness to curb protectionism and ban localisation requirements, be it with regard to presence, technology or content. We see expressions of this willingness in the texts of the annex on telecommunications, which reiterates and goes beyond the WTO Annex on Telecommunications and the Reference Paper. The negotiations have also evolved over time and this is discernible in the newer texts of the chapter on electronic commerce and the annex on localisation 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 US, together with Japan and Canada, suggest: "No 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."¹⁴⁶ Many countries consider exceptions or conditions to this ban, so as to allow more domestic flexibility. For instance, Hong Kong has proposed: "There should be a balance between free movement of information across borders and protection of personal data. Advancing the former cause should be without prejudice to safeguarding the latter right."¹⁴⁷ 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 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.¹⁴⁸ The

142 For a good explanation, see Submission by Switzerland: Possible Operationalization of a Hybrid Schedule, as well as Submission by Switzerland: Provisions on Scheduling of Commitments, Really Good Friends—Meeting of 29 April to 3 May 2013, Agreement on Trade in Services (TiSA), 30 April 2013.

143 Marchetti and Roy, *Opening Markets for Trade in Services*, 18.

144 Burri, "Trade versus Culture."

145 See Switzerland, Swiss Initial Offer, Really Good Friends, Trade in Services Agreement, 30 January 2014.

146 Article 2.1 TiSA chapter on Electronic Commerce.

147 Article 2.1 TiSA chapter on Electronic Commerce, proposal by Hong Kong.

148 Article 2.2 TiSA chapter on Electronic Commerce. 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 Services, 13 February 2013.

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.¹⁴⁹ While the language on spam is similarly, as under the TPP, rather weak,¹⁵⁰ 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.¹⁵¹ Article 7 proposes:

Each Party recognises 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.¹⁵²

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.¹⁵³ Again, the provision is under debate. There seems to be more agreement with regard to the prohibition of customs 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 localisation measures. While it is framed in a broader, technologically neutral manner, it addresses important digital economy issues and the localisation requirement increasingly used in this context. The annex seeks to ban local presence, local context, and other performance requirements. To allow such far-reaching commitments, the annex provides for a "grandfathering" clause for those localisation measures that are inscribed in the schedules of specific commitments, as well as for exceptions on security grounds, for financial services, and government procurement.¹⁵⁴

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.

6. Appraisal of the TPP in the Context of Digital Trade Governance

In the preceding sections, we saw that in the face of failing legal adaptation under the auspices of the WTO, much has happened in preferential trade venues, and the TPP has been the most ambitious effort to address digital economy issues. It includes a number of WTO-plus commitments and detailed rule-making of relevance to cross-border delivery of electronic services. In addition

149 Articles 3 and 4 TiSA chapter on Electronic Commerce.

150 Article 5 TiSA chapter on Electronic Commerce.

151 Articles 7 and 8 TiSA chapter on Electronic Commerce.

152 Article 7 TiSA chapter on Electronic Commerce.

153 Article 8 TiSA chapter on Electronic Commerce.

154 Articles X.4 and X.5 TiSA annex on Localization Measures.

and perhaps more importantly, certain non-trade issues, such as consumer protection, privacy, and safeguards for the free flow of data, are addressed in an attempt to achieve a basic level of harmonisation, or at least legal interoperability, in the field of digital governance. When compared with the ongoing negotiations under the auspices of TTIP and TiSA, it can be argued that the TPP standards are particularly high and unlikely to be reached by the mentioned agreements. The TPP template with regard to digital trade is distinct not only in its high standards but also in the breadth of issues covered that matter more or less immediately for the contemporary digital economy. The TPP has also been innovative. Some research shows that the language of the TPP electronic commerce chapter overlaps only some 27 percent with the language of previous US FTAs.¹⁵⁵ Although quantity is not a direct signal as to quality, in the depth of the commitments undertaken we did see some new as well as far-reaching provisions. The clear ban on localisation measures and the subscription to a binding norm on free data flows with a potentially broad scope of application are unprecedented. Restrictions on forced disclosure of source code and on encryption requirements are entirely novel.

Despite all these virtues, legal certainty may nonetheless be lacking, primarily because the TPP does not provide answers to some of the contestations intrinsic to the digital space, such as that between free data flows and data protection. Nor does it put forward a clear exceptions rule that may appropriately reconcile economic and non-economic interests, while ensuring non-discrimination.

Apart from this legal design critique, it should be pointed out that the nature of the digital economy and its demands for seamlessness and interoperability¹⁵⁶ is such that the multilateral forum makes 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 multilateralise the progress made there.¹⁵⁷ Now, after the withdrawal of the United States from the TPP,¹⁵⁸ there may be a window of opportunity opening in this regard. The efforts under the WTO e-commerce programme may be reinigorated towards some actual results.¹⁵⁹ The TPP template for digital trade will probably diffuse, even if these efforts yet again prove futile, as signalled by the recent amendment of the Singapore–Australia FTA,¹⁶⁰ which imitates the TPP electronic commerce chapter. We can only hope that in future agreements the line between data protection and data protectionism will be more clearly drawn, so as to allow digital innovation while safeguarding important public interest objectives, such as the protection of privacy.¹⁶¹

155 Todd Allee and Andrew Lugg, "Who Wrote the Rules for the Trans-Pacific Partnership?" *Research and Politics* (2016): 1–9.

156 Gasser and Palfrey, "Fostering Innovation and Trade."

157 Herman suggests "bottom-up multilateralisation," whereby FTAs' e-commerce undertakings and provisions are extended to a larger number of partners, and "top-down multilateralisation," which advances e-commerce provisions, commitments and common learning to the WTO level. See Lior Herman, "Multilateralising Regionalism: The Case of E-Commerce," *OECD Trade Policy Working Paper* 99 (2010); also Robert Howse, "Regulatory Cooperation, Regional Trade Agreements, and World Trade Law: Conflict or Complementarity?" *Law and Contemporary Problems* 78 (2015): 137–151.

158 The White House Office of the Press Secretary, Presidential Memorandum Regarding Withdrawal of the United States from the Trans-Pacific Partnership Negotiations and Agreement, 23 January 2017, <https://www.whitehouse.gov/the-press-office/2017/01/23/presidential-memorandum-regarding-withdrawal-united-states-trans-pacific>.

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

160 See Agreement to Amend the Singapore–Australia Free Trade Agreement (signed 13 October 2016), Chapter 14, <http://dfat.gov.au/trade/agreements/safta/official-documents/Pages/default.aspx>.

161 Chander and Lê, "Data Nationalism."