Data at the Docks: Modernizing International Trade Law for the Digital Economy

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ABSTRACT

The World Trade Organization (WTO) has been slow so far in responding to the various challenges arising from the integration of electronic commerce into cross-border trading activities. This slow response in the multilateral system is largely attributable to the complex, multifaceted nature of digital trade or electronic commerce, coupled with the conflict among countries on issues of Internet regulation and digital development. Nonetheless, international trade agreements, particularly at the WTO, play an important role in the creation of a secure, predictable, and trustworthy global regulatory framework for digital trade, and therefore, need to be reformed in a timely and meaningful manner to support the growth of the digital economy. Accordingly, this Article focuses on the limitations of the General Agreement on Trade in Services (GATS) in liberalizing the digital sector, eliminating new types of barriers to digital trade such as data localization, as well as addressing “new” regulatory issues pertaining to digital trade such as cross-border data flows, data protection, cybersecurity, and online consumer protection. Further, the introduction of comprehensive provisions on such issues in Electronic Commerce Chapters of Preferential Trade Agreements (PTAs) in recent years increases the possibility of a potential discord between PTA rules and the GATS. Moreover, since rules on digital trade are

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heterogeneous and often conflict across different PTAs, this discord can potentially fragment and disrupt the global framework for digital trade in the long run. Therefore, in the Authors’ view, WTO law should take a central role in facilitating a secure and stable legal regulatory environment for cross-border electronic commerce while undercutting the current upswing in digital protectionism.

To address the above deficiencies in the GATS, the Authors recommend extensive reforms within the existing multilateral framework rather than simply relying on WTO tribunals to creatively interpret existing rules. The Authors believe three broad areas of reform are necessary in the multilateral framework to promote the digital economy in a holistic and balanced manner—improving market access, addressing regulatory barriers in digital trade, and supporting developing countries to integrate faster into the digital economy. Several of the Member proposals on electronic commerce placed before the WTO Work Programme on Electronic Commerce in recent months provide a useful starting point for constructive dialogue and negotiations at the WTO, particularly in facilitating a sound regulatory framework for cross-border data flows, while enhancing consumer confidence and promoting interests of developing countries and small and medium-sized enterprises (SMEs). These reforms can be supported through incremental changes within the GATS framework (such as adoption of domestic regulations under GATS Article VI or development of a Reference Paper or Annex on Electronic Commerce) or through the adoption of a new WTO agreement. In the Authors’ view, although the second route is politically more challenging, it is better suited to address the cross-cutting nature of issues in digital trade, as well as to overcome the various challenges arising from the antiquated structure of the GATS. Irrespective of which route is taken for initiating these reforms, the WTO needs to creatively engage with the broader network of institutions dealing with digital trade and internet governance, including multistakeholder institutions, to contribute meaningfully to the formation of a coherent framework for digital trade.
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I. INTRODUCTION

The unprecedented growth of a highly digitalized economy marks the beginning of an extremely promising yet challenging era in international trade law and policy.1 Promising, because electronic commerce or digital trade2 can help integrate developing countries and micro, small, and medium-sized enterprises (MSMEs) into the digital economy and enable consumers to access globally competitive digital products;3 and challenging, because the current legal framework governing global trade is dated and thus woefully inadequate to address contemporary issues in digital trade.4 In recent years, a large amount of research has highlighted the promising future of digital trade and its role in promoting global economic welfare.5 According to the United Nations Conference on Trade and Development (UNCTAD), the global electronic commerce market amounted to a total of $22.1 trillion in 2015.6 Many of the issues related to the

1. See Nick Ashton-Hart, What Is the “Networked Economy”? in FUTURE OF THE GLOBAL TRADE ORDER 133, 133–35 (Carlos A. Primo Braga & Bernard Hoekman eds., 2016) (arguing that the term “digital economy” refers to all aspects of the Internet economy, and not just business-to-consumer uses). Ashton-Hart also argues that business-to-business services such as the cloud and supply chain management constitute 90 percent of the digital economy. Id. at 133.

2. The terms “digital trade” and “electronic commerce” are used interchangeably in this Article. Some experts argue that the ambit of digital trade is much broader than electronic commerce. See, e.g., Dig. Trade in the U.S. & Glob. Econs., Part 2, Inv. No. 32-540, USITC Pub. 4485, at 29 (Aug. 2014); Mira Burri, Designing Future-Oriented Multilateral Rules for Digital Trade, in RESEARCH HANDBOOK ON TRADE IN SERVICES 331, 331 (Pierre Sauvé & Martin Roy eds., 2016). However, the Authors are of the view that the WTO’s definition of electronic commerce—meaning “the production, distribution, marketing, sale or delivery of goods and services by electronic means”—is broad and generic enough to cover most kinds of modern-day trading activities carried by the Internet. See Gen. Council, Work Programme on Electronic Commerce, ¶ 1.3, WTO Doc. WT/L/274 (Sept. 30, 1998) [hereinafter Work Programme on E-Commerce]; see also Jia-Xiang Hu, When Trade Encounters Technology: The Role of the Technological Neutrality Principle in the Development of WTO Rules, in SCIENCE AND TECHNOLOGY IN INTERNATIONAL ECONOMIC LAW: BALANCING COMPETING INTERESTS 75, 76–77 (Bryan Mercurio & Kuei-Jung Ni eds., 2014).


regulation of e-commerce are multifaceted in nature and therefore require initiatives from different domestic and international institutions. Thus, the governance framework of digital trade is multilayered and complex, consisting of several kinds of institutions including trade, human rights, internet governance, and development institutions. Nonetheless, various governments\(^7\) and companies\(^8\) increasingly perceive international trade agreements as being at the heart of the regulation of the digital economy.\(^9\)

Although the initiation of the Work Programme on Electronic Commerce (“Work Programme”) in 1998 at the World Trade Organization (WTO)\(^10\) was a promising and timely initiative,\(^11\) ideological and political differences between WTO Members stalled

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9.  International trade agreements include multilateral, regional, and bilateral trade agreements.

10.  The Work Programme was set up to “examine all trade-related issues relating to global e-commerce.” *Work Programme on E-Commerce,* supra note 2, ¶ 1.1. In order to do so, different WTO committees were assigned the responsibility to investigate how the WTO agreements applied to different aspects of e-commerce—namely, the Council for Trade in Goods, the Council for Trade in Services, the Council for Trade-Related Aspects of Intellectual Property Rights, and the Committee for Trade and Development, all functioning under the General Council. *Id.* ¶¶ 2.1–5.1; see also World Trade Organization, Geneva Ministerial Declaration on Global Electronic Commerce, WTO Doc. WT/MIN(98)/DEC/2 (1998).

11.  For example, different WTO committees brought forth several pertinent issues to the discussion table at the Work Programme including classification of digital products, prohibiting customs duties on electronic transmissions, increasing participation of developing countries in e-commerce, and protection of privacy and public morals. *See Work Programme on E-Commerce,* supra note 2, ¶ 2.1.
the progress of the Work Programme.\textsuperscript{12} Outside of the WTO, the United States spearheaded the negotiation of Electronic Commerce Chapters in Preferential Trade Agreements (PTAs) since 2000,\textsuperscript{13} followed by others, such as Australia, Japan, and Singapore, and to a lesser extent, the European Union and other Asian countries.\textsuperscript{14} With time, demands for such provisions have become common, as seen in recent PTA negotiations including the Trade in Services Agreement (TISA), the Regional Comprehensive Economic Partnership (RCEP), and, most recently, the renegotiation of the North American Free Trade Agreement (NAFTA).\textsuperscript{15} Similarly, such demands could potentially surface in the free trade agreement between the United States and the Republic of Korea (KORUS FTA).\textsuperscript{16} Generally speaking, the multilateral system of the WTO is currently lagging behind PTAs in addressing issues of the digital economy. However, in the last year or so, several countries have shown interest in reviving the Work Programme and made various informal proposals to do so.\textsuperscript{17}

The underlying political economy behind these proposals is complex, since different governments perceive different costs and benefits arising from digital trade based on their level of economic and

\textsuperscript{12} See Hu, supra note 2, at 79–80.

\textsuperscript{13} Sacha Wunsch-Vincent, \textit{The Digital Trade Agenda of the U.S.: Parallel Tracks of Bilateral, Regional and Multilateral Liberalization}, 58 \textit{Aussenwirtschaft} 5, 7–8 (2003). For the purposes of this Article, PTAs include regional, bilateral, and megaregional trade agreements.


\textsuperscript{17} See infra Part IV.A.
technological development; sensitivity on issues of privacy, cybersecurity, and consumer protection; and even their domestic political ideology in internet governance.

This Article presents a detailed analysis of the multilateral framework governing digital trade today, and it argues why and how this framework can and should adapt to the needs of the modern digital economy. While extensive scholarship has already dealt with many aspects of electronic commerce and international trade law, this Article contributes to existing scholarship by evaluating the role and relevance of WTO agreements (more specifically, the General Agreement on Trade in Services (GATS)) in today’s digital economy by specifically focusing on the limitations of the GATS in addressing contemporary policy challenges in digital trade, including potential conflicts between the GATS and the evolving regime on electronic commerce in PTAs. After addressing these questions, the Article offers suggestions on areas and frameworks for reform in the multilateral trade system to support the growth of the digital economy. Electronic commerce is also related to other areas such as telecommunications, intellectual property rights, and even investment; however, those areas are excluded from the scope of this Article.


20. For a comprehensive discussion of these issues, see, for example, Council for Trade-Related Aspects of Intellectual Property Rights, Electronic Commerce and Copyright, WTO Doc. JOB/GC/113, JOB/IP/19 (Dec. 15, 2016) [hereinafter Electronic Commerce and Copyright]; Peter K. Yu, Trade Agreement Cats and the Digital Technology Mouse, in SCIENCE AND TECHNOLOGY IN INTERNATIONAL ECONOMIC LAW, supra note 2, at 185, 185–87.

not directly covered in this Article. Finally, the Article does not specifically cover issues related to trade in physical goods enabled through electronic commerce portals but more broadly focuses on services and products provided or delivered digitally.

Part II of this Article evaluates the political economy shaping the electronic commerce agenda at the WTO and other international trade platforms. Part III of the Article argues why the existing rules in the GATS are deficient in addressing the nature of legal and policy challenges in digital trade today. Further, that Part discusses the gaps and potential areas of discord between the rules governing digital trade in the GATS and PTAs. Part IV then recommends specific reforms within the WTO as follows. First, it sets out how the Work Programme is likely to evolve in the coming years to accommodate challenges in the digital economy. Second, it outlines ideas for reform in relation to three broad areas—improving market access, promoting regulatory reforms, and improving participation of developing countries in the digital economy. Finally, it describes the various avenues available for reform within the multilateral context.

Part V of the Article concludes by arguing that the WTO can play an instrumental role in the digital economy by facilitating a secure and stable legal regulatory environment for cross-border electronic commerce as well as undercutting the current upswing in digital protectionism. While the WTO is an important platform to negotiate on issues related to digital trade, the growing network of PTAs can complement (but not replace) negotiations on electronic commerce at the WTO, provided that issues related to digital trade are selected and addressed in these PTAs in a balanced, coherent, and representative manner. Owing to the peculiar multistakeholder nature of the broader regulatory environment for cyberspace, open and transparent dialogues between governments, businesses, and civil society will remain critical in reforming international trade law pertaining to electronic commerce. While multistakeholder involvement at the WTO and other international trade institutions appears unusual and politically challenging, it is indispensable to achieve a delicate balance between liberalizing electronic commerce and protecting important policy concerns in the regulation of the cyberspace.

II. THE COMPLEX POLITICAL ECONOMY OF DIGITAL TRADE

The political economy of digital trade is driven by a complex set of factors representing the varied interests of stakeholders from the technology industry, governments, and civil society. Powerful corporate lobbies, governments with significant interests in the digital industry (such as the United States, China, and the European Union), and countries with a huge population base of untapped Internet consumers (such as India, China, Indonesia, and Vietnam) are emerging as the most significant players in the digital economy. The policy and ideological conflict between different groups of countries continues to stall the pace of regional and international trade negotiations (as well as legal developments in other international platforms). Since the early days of electronic commerce, the US government realized its comparative advantage in the digital sector and pushed for openness in digital markets through, for example, the Framework for Global Electronic Commerce—a proposal by the Clinton administration in 1997—and the inclusion of Electronic Commerce Chapters in PTAs under the Bush administration. Recent years have seen the US government taking a more targeted stance on various policy platforms, including international trade agreements, to counterweigh the rise of digital powers such as China as well as to push back on the proliferation of EU-type data protection policies.

While developing countries stand to gain from the growth of electronic commerce (particularly MSMEs operating in those countries), companies based in developed countries own the majority of the dominant Internet platforms and digital technologies. The only exception is that of China, which despite being a developing country

has emerged as a global powerhouse in the digital sector. Consequently, many developing countries face pressure from powerful lobbies to adopt regulations similar to developed countries, even when they have insufficient regulatory capacity. Further, despite the economic advantages of electronic commerce, many developing countries face challenges in maximizing their benefits from the global digital supply chain for reasons such as poor Internet infrastructure, lack of sufficient domestic technical expertise, low participation in technical innovation and standard setting, and the dominance of US companies in the technology industry.

The stiff digital war between China and the United States over the last decade or so is symptomatic of the fast-changing dynamics of the digital economy described above. The Chinese government has argued that, being a developing country, it has a “less favourable external environment for promoting innovation, and faces greater pressure to maintain economic and industrial security,” unlike the United States, which is disproportionately focused on industry interests. However, China is an exception among developing countries because companies such as Alibaba, Baidu, Huawei, and WeChat are strong contenders in the global market today. This growth was arguably a result of the strong protectionist policies of the Chinese government, giving these companies exclusive access to a domestic population of over one billion. China is now emerging as a champion of developing country interests, advocating issues such as trade facilitation for small and medium-sized enterprises (SMEs) and improving trade finance for electronic commerce at the WTO.

26. See infra text accompanying note 29.
31. See infra Part IV.A.3.
Simultaneously, however, Chinese domestic policies continue to dissuade foreign competition in the digital sector under the garb of national security or public order. Other developing countries that tend to support protectionist laws and policies in the digital industry include Indonesia, India, Russia, and Vietnam. However, developed countries are also adopting protectionist policies in the digital sector, as exemplified by the push for a local cloud in France and Germany.

In addition to governments and companies, civil society organizations—including Internet advocacy organizations—play an important role in influencing the public perception of international trade agreements and electronic commerce. During the negotiation of the Trans-Pacific Partnership Agreement (TPP), several civil society advocates criticized both the procedure under which the negotiations were conducted as well as the net impact of these provisions on user rights, domestic governance, and Internet governance. Particularly, their advocacy campaigns criticized the lack of adequate representation of interests of developing countries in the TPP negotiations and the predominance of US corporate interests. However, other groups including the Information Technology and Information Foundation and Digital Europe came out in strong support of the TPP, vindicating the use of international trade law to

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build a regulatory framework for electronic commerce\textsuperscript{37} and rejecting the use of so-called “tech populism.”\textsuperscript{38} While doing so, these organizations recommended new policies that give greater consideration to balancing innovation and liberalization with user interests and public policy considerations at the domestic and international levels.

Despite the nuances in the policy stance of various stakeholders in the digital economy, countries are converging on certain broad approaches in the regulation of electronic commerce based on shared political ideologies and economic interests. This Article categorizes these three broad approaches as the market-based approach, the interventionist approach, and the guarded approach.

Proponents of the market-based approach provide significant choice to the technology industry to implement user policies that balance consumer interests with commercial interests in electronic commerce and achieve more innovation and growth. Prominent examples include the United States and Japan. These countries typically also support a multistakeholder governance structure in cyberspace. However, critics argue that this approach is imbalanced and disproportionately favors the technology industry, especially in relation to enforcement of online intellectual property rights and the protection of user privacy.\textsuperscript{39} Recent years have also seen a rather public conflict between the US government and leading US technology companies on issues of online surveillance and encryption.\textsuperscript{40}

Proponents of the interventionist approach, meanwhile, favor a higher degree of regulatory intervention in electronic commerce (e.g.,
setting stronger legal requirements to protect consumers’ right to privacy in sensitive sectors such as health and finance), while generally acknowledging the benefits of liberalization in digital trade. Examples of countries that favor an interventionist approach include the European Union, Australia, Canada, Korea, and Taiwan—in varying degrees. In recent trade negotiations such as the TISA, the inclination of these countries toward an interventionist approach is reflected through their comprehensive proposals on data protection, consumer protection, and similar issues.41 Particularly in the European Union, civil society organizations (e.g., Internet advocacy organizations, consumer rights groups, and human rights organizations) play an important role in influencing the domestic policy agenda on digital trade.42 Despite the deep ideological divide between the European Union and the United States on data protection and privacy, they agreed upon a data-transfer mechanism known as the EU–US Safe Harbor (which was replaced by the Privacy Shield in 2016).43 However, the Privacy Shield remains susceptible to legal challenge and is often viewed with suspicion by European governments, even though the US administration has expressed its commitment to the agreement.44 Finally, proponents of a guarded approach tend to remain cautious regarding the regulation of the Internet and Internet-based services and aim to exercise strong control over policies related to data protection, online censorship, and cybersecurity to protect domestic interests.45 Many developing countries (e.g., Indonesia, China, and

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45. See, e.g., NIGEL CORY, INFO. TECH. & INNOVATION FOUND., THE WORST INNOVATION MERCANTILIST POLICIES OF 2016, at 1–2 (2017); Jon Stone, Theresa May Says the Internet Must
Russia) and more recently, certain developed countries (e.g., the United Kingdom and France) tend to follow this approach. While remaining very guarded toward the development of the Internet, these countries are also aware of the hidden potential of electronic commerce. For example, developing countries have collaborated as the Friends of E-Commerce for Development at the WTO (consisting of, *inter alia*, Argentina, Costa Rica, Kenya, Nigeria, Pakistan, and Sri Lanka), and China has expressed strong support for trade facilitation and trade finance for e-commerce SMEs.

On the other hand, certain other countries, such as several African countries, have openly opposed the inclusion of new electronic commerce issues at the ongoing negotiations at the WTO. A proposal from certain African countries before the Work Programme stated that “digital industrial policy” (including data localization and Internet filtering) might be necessary for developing countries to catch up with global leaders in technology, possibly drawing from the Chinese example. Further, this proposal suggests that the “digital trade agenda” at the WTO would “constrain the ability of governments to implement industrial policy and catch-up,” and thus expresses caution regarding the role of the WTO in areas such as spam, e-authentication, e-signatures, and consumer protection.

The divide in the ideologies and policy preferences of different countries is often reflected in the wording of provisions related to electronic commerce in PTAs. Although it is outside the scope of this Article to compare provisions on electronic commerce in various PTAs, different studies have revealed that the PTAs initiated by countries such as the United States and Japan tend to have more liberalizing


50. *Id. ¶ 1.10.*
provisions on digital trade and are thus inclined toward a more market-based approach, while EU PTAs tend to have more minimal disciplines on electronic commerce.\textsuperscript{51} Further, while certain recent Chinese PTAs have incorporated basic provisions on electronic commerce, they tend to avoid complex regulatory issues such as cross-border data flows.\textsuperscript{52} Due to these divergent approaches, it is harder to implement uniform trade rules at a multilateral level. Since electronic commerce issues are influenced by a complex political economy, policy coherence is necessary across different aspects, such as market access and liberalization commitments, protection of consumer interests, promotion of innovation, safeguarding of domestic security and public policy, and regulation of the Internet.\textsuperscript{53} To that extent, international trade platforms are essential but not sufficient to promote a coherent regulatory framework for the digital economy.\textsuperscript{54}

Despite these limitations, many WTO Members have expressed a strong desire to achieve significant progress on electronic commerce so that WTO agreements remain relevant in the age of the digital economy.\textsuperscript{55} The Director-General of the WTO, Roberto Azevêdo, has repeatedly emphasized that progress on the electronic commerce agenda is vital for the legitimacy of the WTO as an international trade institution.\textsuperscript{56} He has also shown public support for the Electronic World Trade Platform (eWTP) to enable SMEs to conduct cross-border digital trade—an initiative of Chinese Internet marketplace


\textsuperscript{54} See infra Parts IV, V.


Alibaba—which is an unusual development given the predominantly state-to-state nature of the WTO.\textsuperscript{57} Despite these initiatives, the existing legal agreements under the WTO, such as the GATS, remain largely ineffective in addressing contemporary challenges in digital trade as well as facilitating the liberalization of the digital sector, as discussed in the next Part.

III. IMPORTANT GAPS IN INTERNATIONAL TRADE LAW ON ELECTRONIC COMMERCE

A. GATS Disciplines Are Insufficient to Deal with New-Age Issues in Electronic Commerce

1. The Dated Structure of the GATS Does Not Help in Effective Liberalization Commitments

The GATS is the primary international trade agreement containing relevant rules for international trade in services across all sectors\textsuperscript{58} and four different modes of supply—cross-border supply “from the territory of one Member into the territory of another Member” (Mode 1); consumption abroad or “where a service consumer (e.g., tourist or patient) moves into another member’s territory to obtain a service” (Mode 2); commercial presence or “where a service supplier of one member establishes a territorial presence” in another’s territory to provide a service (Mode 3); and “presence of natural persons” or when “persons of one member enter the territory of another member to supply a service” (Mode 4).\textsuperscript{59}

The existing GATS framework is insufficient in promoting progressive realization of the digital economy for various reasons. First, the application of certain legal obligations under the GATS (such as national treatment\textsuperscript{60} and market access\textsuperscript{61}) is contingent on

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\textsuperscript{58} GATS, supra note 19, art. I:1. However, the GATS defines services to exclude “services supplied in the exercise of governmental authority.” Id. art I:3(b).

\textsuperscript{59} Id. art I:2; RAMGOPAL AGARWALA, INDIA 2050: A ROADMAP TO SUSTAINABLE PROSPERITY 111 (2014).

\textsuperscript{60} “National treatment” means that a country cannot provide preferential treatment to its domestic industry. See GATS, supra note 19, art. XVII.

\textsuperscript{61} Id. art. XVI.
the scope of commitments inscribed by a country in its schedule.\textsuperscript{62} Even with respect to the most favored nation (MFN)\textsuperscript{63} obligation, a country can inscribe broad exceptions under the GATS.\textsuperscript{64} In other words, WTO Members enjoy a high degree of autonomy in determining the extent to which they are prepared to open up a specific sector to foreign companies, and further, are free to prescribe limitations in the opening up of a sector (for example, to comply with domestic licensing requirements, to limit the extent of foreign equity, or to require specific technical qualifications).\textsuperscript{65} Second, the boundaries between disciplines on domestic regulation\textsuperscript{66} and market access\textsuperscript{67} are unclear in the GATS. Particularly after the Appellate Body’s report in \textit{US—Gambling},\textsuperscript{68} Members are concerned that even qualitative restrictions on digital services (in this case, a restriction on online gambling, or what the WTO tribunal characterized as a “zero quota”) may constitute a prima facie breach of a country’s legal commitments under the GATS.\textsuperscript{69}

Second, although the Services Sectoral Classification List (the “W/120”)\textsuperscript{70} provides a reference point for WTO Members while making

\begin{itemize}
\item[62.] \textit{Id.} art. XX; see also \textit{id.} arts. XVI, XVII.
\item[63.] MFN means providing the same treatment to all trading partners. \textit{Id.} art. II.
\item[64.] \textit{Id.} art. II:2.
\item[65.] Tuthill, \textit{supra} note 18, at 374.
\item[66.] Provisions on domestic regulations set a requirement that any measure relating to qualification requirements and procedures, technical standards, and licensing requirements “do not constitute unnecessary barriers to trade in services.” See GATS, \textit{supra} note 19, art. VI:4.
\item[67.] \textit{Id.} art. XVI.
\item[70.] The W/120 contains a comprehensive list of service sectors and subsectors covered under the GATS. This list was prepared by the General Agreement on Tariffs and Trade (GATT) Secretariat in 1991. See GATT Secretariat, \textit{Services Sectoral Classification List}, GATT Doc. MTN.GNS/W/120 (July 10, 1991) [hereinafter \textit{Services Sectoral Classification List}]. The classification of sectors in the W/120 refers to the Central Product Classification (CPC) prepared by the United Nations, which is a product-based classification system that was first published in 1991 (then known as the Provisional CPC). See \textit{Central Product Classification (CPC)}, OECD: GLOSSARY OF STATISTICAL TERMS, https://stats.oecd.org/glossary/detail.asp?ID=309 (last visited Mar. 28, 2018). See generally \textit{Lietuvos Statistikos Departamentas} [LITH. DEPT OF
commitments under the GATS, this classification is almost three decades old and does not adequately represent business sectors of a digital economy. Many digital offerings are products of converging business models which increasingly combine telecommunications services with other services, including computer, audiovisual, banking, financial, and advertising services. These services are multifunctional in nature and use various forms of services to provide a comprehensive digital platform. For example, WeChat and Google combine various services such as communication, payments, web mapping, social networking, and cloud computing. However, in a country’s schedule, commitments on a service sector or subsector are exclusive; thus, a specific digital service (like the search engine services of Google) cannot be simultaneously classified under computer and related services (more specifically, data processing services), telecommunications services (online information and data processing services), and advertising services. In other words, for search engine services, the relevant commitments of a Member will be for one specific subsector and not several subsectors, although arguably search engine services might fit into the descriptions of various subsectors. Further, since comprehensive digital platforms were unimaginable during the inception of the GATS, legal uncertainty exists regarding whether these products fit into specified sectors in the W120 or constitute new sectors altogether.

Statistical


74. Over 95 percent of Google’s revenue comes from advertising and not through its search engines or email services, which are provided free of charge to Internet users. See Google Business Model, GOOGLE, https://sites.google.com/site/net205apples/google-business-model [https://perma.cc/PQ8S-XM79] (last visited Mar. 28, 2018).


76. Rolf H. Weber & Mira Burri, Classification of Services in the Digital Economy 49 (2012); Lee Tuthill & Martin Roy, GATS Classification Issues for Information and
example, developing countries tend to argue that services such as Facebook or Google are “new services” and outside the scope of the W/120, while most developed countries argue to the contrary. The Appellate Body has favored a technologically neutral interpretation of the commitments made by Members in their GATS Schedules, without stating so explicitly. As a result, it is arguable that few digital services would qualify as “new services,” although such an interpretation may affect countries that are highly sensitive regarding how the Internet and digital services should be regulated within their borders.

2. The GATS Cannot Effectively Address Cross-Border Data Flows and Related Issues

The cross-border flow of data via the Internet is the driving vehicle for all kinds of trading activity today. The majority of restrictions on Internet-based services are not customs duties but regulatory measures affecting data flows into and out of the borders of the country, such as measures related to privacy. The WTO legal framework acknowledges the importance of cross-border data flows to a limited extent. For instance, the GATS Annex on Telecommunications contains provisions that acknowledge the importance of maintaining free cross-border data flows while at the same time paying heed to considerations of privacy and data protection.
protection. Similarly, in the Understanding on Commitments in Financial Services, Members agree to not “prevent transfers of information or the processing of financial information, including transfers of data by electronic means.” However, the above rules only apply to services that fall within the scope of financial and telecommunications sectors; cross-border data flows for digital services in other sectors, including audiovisual services, computer and related services, and advertising services, are not explicitly protected. Finally, under the Work Programme, the WTO Members have renewed the moratorium on customs duties on electronic transmissions several times.

Lee Tuthill argues that the existing provisions in the GATS are sufficient to address measures restricting cross-border data flows for various reasons. First, a data localization requirement constitutes a “commercial presence” requirement under the GATS; thus, if WTO Members have not inscribed any limitations in Mode 3 supply in the relevant sectors, they would be in breach of national treatment obligations. Second, building on the views of Holger Hestermeyer and Laura Nielsen, Tuthill argues that data localization requirements could be considered to be a local content requirement (i.e., using local servers and resources). Because most WTO Members have not listed limitations for local content in their schedule of commitments for most information and communication technology services, these restrictions would be caught by the GATS. Finally, if nothing else, data localization requirements would be covered under the GATS provision on domestic regulation (Article VI:1).

On the other hand, Hosuk Lee-Makiyama argues that because the GATS was intended to liberalize voice communications (e.g., under the Annex on Telecommunications) rather than data transfers, it will
be largely ineffective in the context of the Internet. Legal obligations on nondiscriminatory cross-border data flows are subject to the specific commitments undertaken by the country in several sectors, including the telecommunications sector and computer and related services. In light of the fact that the classification of most modern day digital services is not crystal clear (although the GATS is theoretically applicable to measures restricting cross-border data flows), the lack of horizontal commitment on cross-border data flows under the GATS, coupled with the complexity in classification of digital services, makes the nature of legal commitments on cross-border data flows uncertain. As later discussed in Part III.A.3, the legal obligations on cross-border data flows are also subject to broad general exceptions under GATS Article XIV and XIVbis.

Moreover, temporary measures such as the WTO moratorium on customs duties on electronic transmissions may also turn out to be insufficient in the age of smart technologies and geolocation software. Briefly, the said moratorium was implemented to prohibit customs duties on the transmission of data but not the content of data. However, since the content of a digital product is represented by the digital codes that are transferred via the Internet, the distinction between taxing content and transmission may become ambiguous. For instance, if a tax is imposed on a digital service (e.g., Google’s search engine), it is unclear whether it constitutes a tax on data flows (which is impermissible under the moratorium) or a tax on the services provided by Google (which is subject to a country’s commitments under the GATS). Further, the widespread adoption of geolocation software might theoretically make it possible in the future

90. Lee-Makiyama, supra note 18, at 164.
91. Id. at 163. Given the globally networked nature of the Internet, data flows are not linear but rather flow through the most efficient path, making it harder for governments to predict or estimate the exact location and path of data flows without interfering with the network. See Ravi Malhotra, IP Routing 13–14 (Jim Sumser ed., 2002); Dennis D. Hirsch, In Search of the Holy Grail: Achieving Global Privacy Rules Through Sector-Based Codes of Conduct, 74 OHIO ST. L.J. 1029, 1037 (2013). For example, a digital service provider in country A serving consumers in country A may use cloud computing services that have servers located in country B (realistically, it is very likely that a company in country A would be accessing multiple servers in different countries). If the data collected by the service provider in country A are transferred to a server in country B, and then retransferred pursuant to a request from a consumer in country A, does that constitute a cross-border supply of a service? In other words, can customs duties be imposed on such data flows?
for countries to track data flows and levy a “byte tax” on foreign companies when digital data crosses borders. Such a tax also has deeper implications, such as compromising the privacy of individual users (because eventually governments will be taxing on the basis of the location of the users) and, at a broader level, interference with the free flow of information via the Internet.

3. Application of GATS Exceptions to Measures Affecting Digital Trade

A stable and coherent regulatory framework is essential for the regulation of both economic and sociocultural activities on the Internet. While countries should ideally not impose disproportionate restrictions on cross-border data transfer and thereby inhibit electronic commerce, certain important policy considerations such as privacy, cybersecurity, protection of online users, prevention of cybercrimes, and protection of public morals may be equally important to safeguard the Internet. Tuthill argues that the language available in general exceptions is sufficient to carve out limitations for data flows on security and privacy rationales. Similarly, Daniel Crosby argues that the language in GATS Article XIV is sufficient to justify restrictions on data flows (e.g., data localization measures) on grounds of privacy and data protection.

The application of the exceptions in GATS Articles XIV and XIVbis, however, is not as straightforward. Andrew Mitchell and Jarrod Hepburn argue that the application of both these exceptions to justify measures restricting flows of data necessitates an extensive and sophisticated legal analysis that would require WTO tribunals to consider issues such as the technical feasibility of the measure, the manner of operation of the measure, the extent to which other technical alternatives might be available to achieve equivalent levels of security and privacy, and the resources available domestically. In turn, this complicated legal analysis increases the level of legal uncertainty regarding Members’ measures to regulate the Internet or

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94. Tuthill, supra note 18, at 380.

95. DANIEL CROSBY, ANALYSIS OF DATA LOCALIZATION MEASURES UNDER WTO SERVICES TRADE RULES AND COMMITMENTS 9 (2016).

electronic commerce. Further, the language in GATS Article XIV may not cover all types of cybersecurity threats—particularly when the measure is not directly related to a war or a national emergency. Sacha Wunsch-Vincent and Arno Hold argue that the exceptions in GATS Articles XIV and XIVbis only “tolerate” derogations from GATS legal obligations on grounds of privacy, data protection, and consumer protection, while essentially these factors are “necessary conditions for spurring digital trade.”

The application of general exceptions for privacy, consumer protection, and consumer fraud is designed from the perspective of international trade law, meaning it ensures WTO Members retain regulatory autonomy on issues pertinent to enforcement of domestic law. However, these exceptions may be unable to address all aspects of data flow restrictions. A measure that is discriminatory, arbitrary, or a disguised restriction on trade (as under the chapeau in GATS Article XIV) may nonetheless be essential to preserve trust and integrity of the Internet. For example, a measure may prevent or impose additional requirements on the import of digital products from countries with very poor records of cybersecurity or a known history of extensive government surveillance through forced technology transfers. Further, countries may also impose certain technical standards to protect consumers (e.g., mandatory requirements for privacy or security by design in digital products) even though these measures may have the effect of restricting imports of digital services from certain countries. In the Authors’ view, strict scrutiny of these measures under international trade law may lead to unsatisfactory outcomes because GATS Articles XIV and XIVbis are limited in scope and do not facilitate consideration of Internet trust issues holistically. Since electronic commerce is built on the foundation of a strong, reliable, and trustworthy Internet, issues of online consumer

97. GATS, supra note 19, art. XIVbis:1(b)(iii).
99. See GATS, supra note 19, art. XIV(c).
protection, privacy, data protection, and cybersecurity are fundamental in creating a global marketplace. Recent PTAs and informal proposals submitted to the WTO take these factors into consideration and propose considerable changes and additions to the existing framework of the GATS.

4. WTO Dispute Settlement Is Not Sufficiently Used for Digital Trade Disputes

Despite the increasing number of regulatory barriers in digital trade, the dispute settlement of the WTO has been used sparingly to address such measures. The reluctance to use the dispute settlement system is not only due to the existing deficiencies in the GATS (as described in the previous Sections) but is also related to the complex political economy of digital trade. As described in Parts I and II, electronic commerce is cross-cutting in nature, not only affecting international trade but also touching upon delicate political issues such as human rights, Internet governance, and economic development. Due to the uncertainty surrounding how WTO rules apply to digital trade, many Members are reluctant to bring digital trade disputes before the WTO (e.g., challenging a ban on a search engine like Google or a social networking service like Facebook) as such a dispute might adversely affect domestic regulation on online censorship, data protection, and even Internet governance.

Further, Members that adopt a guarded or interventionist approach in electronic commerce regulation tend to be warier of the limits of the GATS framework in taking account of domestic policy concerns (e.g., addressing privacy or consumer protection concerns or protecting public order).

Consequently, other solutions are sought—for

101. See generally China—Publications and Entertainment Products Appellate Body Report, supra note 78 (dealing with restrictions placed by China on importation and circulation of publications and audiovisual content, including in electronic form); US—Gambling Appellate Body Report, supra note 68 (dealing with the US domestic law restrictions on cross-border supply of gambling and betting services); Panel Report, China—Certain Measures Affecting Electronic Payment Services, WTO Doc. WT/DS413/R (adopted Aug. 31, 2012) (dealing with the restrictions placed by China on foreign electronic payment service providers); Mexico—Telecoms Panel Report, supra note 71 (involving a case not directly related to electronic services but to the interconnection between Mexican and US telecommunications networks).


103. Relatedly, negotiations of the Transatlantic Trade and Investment Partnership (TTIP) revealed the European Union’s reluctance to negotiate on standards of data protection in
example, negotiating bilateral solutions such as the Privacy Shield between the European Union and the United States or relevant rules in PTAs within a smaller group of like-minded countries.104

B. Bridging the Gaps Between the GATS and PTAs

In contrast to the slow progress at the WTO, provisions on electronic commerce are increasingly becoming mainstream in PTAs. PTAs can be useful in transposing “domestic regulatory approaches to trading partners,” as was seen in the early US free trade agreements (FTAs) with Chile and Singapore.105 Most of these early US PTAs, however, achieved “minimal and geographically limited harmonization” and remained “incapable of addressing the key digital trade challenges and of ensuring free digital flows globally.”106 Brian Bieron and Usman Ahmed argue that the Electronic Commerce Chapters in these PTAs “[took] a very narrow view of the issues that they have sought to tackle.”107 As discussed earlier in Part III.A.3, recent PTAs contain deeper and more comprehensive provisions on digital trade. For example, the TPP contains several new provisions to address the twin objectives of its Electronic Commerce Chapter—namely, “promot[ing] consumer confidence in electronic commerce” and removing “unnecessary barriers” to electronic commerce.108 These developments indicate that the role and contribution of PTAs to the international legal framework for digital trade is growing. However, given the haphazard and often conflicting nature of rules on digital trade across different PTAs,109 these rules can also potentially fragment and disrupt the global framework for digital trade.


104. Burri, supra note 2, at 343–44.
105. Wunsch-Vincent, supra note 13, at 33.
106. Burri, supra note 2, at 347.
108. TPP Agreement, supra note 35, art. 14.2(1); see also Agreement Between Japan and Mongolia for an Economic Partnership, Japan-Mong., art. 9.1(2), Mar. 10, 2015 [hereinafter Japan-Mongolia EPA], http://www.mofa.go.jp/a_o/c_m2/mn/page3e_000298.html [https://perma.cc/ZPQ5-YSW3].
1. Addressing New-Age Digital Trade Issues in PTAs

Generally, the provisions of the Electronic Commerce Chapters in PTAs tend to be more liberalizing because, unlike the GATS, they introduce horizontal disciplines on electronic commerce applicable across all sectors of the economy. Further, many PTAs contain a “ratchet mechanism” that increases the degree of liberalization. However, broadly worded nonconforming measures and sectoral exemptions in the Electronic Commerce Chapter (e.g., health, finance, and public services) can deteriorate the extent of liberalization achieved through PTAs. Further, certain PTAs (most prominently, EU and Asian FTAs) contain less comprehensive disciplines on electronic commerce. Some of the most important disciplines on electronic commerce introduced in recent PTAs (particularly aimed at addressing gaps in the GATS) include the following:

(i) Customs duties on electronic transmissions: Many PTAs impose a permanent moratorium on customs duties on electronic transmissions, thus overcoming a major deficiency of the GATS. Internal taxes may, however, still be imposed on cross-border electronic transmissions. This may disadvantage suppliers of foreign digital services and interfere with the integrity of the internet as a free, global marketplace.

(ii) Nondiscrimination: Many PTAs (particularly those following a US-style negative listing approach) contain strong nondiscrimination (i.e., both national treatment and MFN) obligations in relation to electronic commerce—unlike the GATS, where national treatment is subject to the individual commitments of the country. The recent US and Japanese proposals before the Work Programme also recommend extending national treatment to electronic commerce in WTO law. However, an extensive list of nonconforming measures in the Electronic Commerce or Trade in Services Chapters may substantially negate the effect of this provision. For example, under the Australia–United States Free Trade Agreement (AUSFTA), comprehensive nonconforming

111. See Wu, supra note 75, at 7–8; Huang, supra note 52, at 320–22. As of 2017, moreover, no least developed country has signed a PTA with an Electronic Commerce Chapter. See Wu, supra note 75, at 7.
113. See discussion infra Part IV.A.
114. Wunsch-Vincent & Hold, supra note 18, at 201–02.
measures were set out in relation to audiovisual services, which effectively reduces cross-border trade in several digital content services.\footnote{115}

(iii) Cross-border data flows and data localization: Unlike the GATS, few PTAs contain provisions that directly deal with cross-border data flows in electronic commerce. The TPP contains provisions mandating cross-border flows of data and banning data localization measures, although both of these provisions are subject to an exception for legitimate public policy purposes.\footnote{116} The Japan–Mongolia Economic Partnership Agreement (EPA) also imposes a prohibition on data localization measures,\footnote{117} although there is no binding legal obligation for cross-border information flows.\footnote{118} The TPP Electronic Commerce Chapter is not applicable to financial services and government services. Some countries in the TISA negotiations have also recommended similarly worded provisions. Previously, the KORUS FTA contained a nonbinding provision to enable cross-border data flows between Korea and the United States.\footnote{119} Further, both the KORUS FTA and the European Union–South Korea Free Trade Agreement (the “EU–Korea FTA”)\footnote{120} contain a provision in their Financial Services Chapter to enable transfer of data processing required in the “ordinary course of business.”\footnote{121} However, unlike the KORUS FTA, the EU–Korea FTA contains a strong safeguard for “protection of privacy, in particular with regard to the transfer of personal data.”\footnote{122}

(iv) Privacy and data protection: Several of the recent PTAs acknowledge the importance of privacy and data protection measures in electronic commerce. For example, the ASEAN–Australia–New Zealand Free Trade Agreement

\footnote{116. See, e.g., TPP Agreement, supra note 35, arts. 14.11, 14.13.}
\footnote{117. Japan-Mongolia EPA, supra note 108, art. 9.10.}
\footnote{118. Id. art. 9.12(5); see also Tratado de Libre Comercio Entre Los Estados Unidos Mexicanos y la República de Panamá, Mex.-Pan., art. 14.10, Apr. 3, 2014, http://www.sice.oas.org/TPD/MEX_PAN/Draft_MEX_PAN_FTA_s/Index_PDF_09.05.2014_s.asp.}
\footnote{119. KORUS, supra note 16, art. 15.8.}
\footnote{121. Id. art. 7.43(a); KORUS, supra note 16, Annex 13-B, § B.}
\footnote{122. EU-Korea FTA, supra note 120, art. 7.43(b).}
and the China–South Korea Free Trade Agreement (the “China–Korea FTA”) impose a general obligation to protect the personal information of electronic commerce users. In the EU–Korea FTA, the parties “agree that the development of electronic commerce must be fully compatible with the international standards of data protection, in order to ensure the confidence of users of electronic commerce.” Both the TPP and the Japan–Mongolia EPA require parties to adopt a legal framework of protection of personal information; although, under the TPP, the legal framework is defined very broadly to include “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.” The approach in the TPP is different from that in the EU–Korea FTA, which specifically refers to international standards on data protection as laid down by the Organization for Economic Cooperation and Development (OECD). However, under the TPP, parties are also encouraged to develop mechanisms to promote compatibility between the privacy regimes of different members (e.g., through mutual arrangements or an international framework), thus acknowledging that the lack of interoperability of domestic regimes of partner countries is a barrier to digital trade. Additionally, the TPP and Japan–Mongolia EPA also prohibit forced disclosure of source code; this provision not only protects vital digital assets of companies but also prevents

125. EU-Korea FTA, supra note 120, art. 7.48(2).
126. TPP Agreement, supra note 35, art. 14.8(2) n.6.
128. See TPP Agreement, supra note 35, art. 14.8(5).
governments from conducting unauthorized surveillance on the activities of Internet users.\textsuperscript{129}

(v) Consumer confidence enhancing measures: Several PTAs contain provisions aimed at enhancing the confidence of electronic commerce consumers, such as provisions related to electronic signatures and authentication, measures to enable consumer protection, measures to enable paperless trading, and others. Particularly with respect to online consumer protection, several PTAs require at least cooperation between partner countries\textsuperscript{130} or mandate the adoption of a legal framework for consumer protection pertaining to online commercial activities.\textsuperscript{131} Certain PTAs also refer to international standards such as the 2003 \textit{OECD Guidelines for Protecting Consumers from Fraudulent and Deceptive Commercial Practices Across Borders}\textsuperscript{132} and the \textit{UNCITRAL Model Law on Electronic Commerce}.\textsuperscript{133}

(vi) Cybersecurity and spam control: Cybersecurity concerns have become important in recent years, particularly with increased threats of malware and spam attacks, massive data breaches, and, more recently, theft of trade secrets and disruption of critical infrastructure in certain countries. Cybersecurity is also closely aligned with national security issues. Recent PTAs, such as the TPP and the Japan–Mongolia EPA, contain provisions to encourage greater interstate cooperation on cybersecurity issues and spam control.\textsuperscript{134} For instance, outside of the Electronic Commerce Chapter, the TPP also sets out provisions on promoting innovation in encryption in technology

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\textsuperscript{129} \textit{See id. art. 14.17; Japan-Mongolia EPA, supra note 108, art. 9.11.}

\textsuperscript{130} \textit{E.g., EU-Korea FTA, supra note 120, art. 7.49(1)(d); KORUS, supra note 16, art. 15.5; see also Japan-Mongolia EPA, supra note 108, art. 9.6 (recognizing the importance of cooperation between countries to enhance consumer protection but not requiring such cooperation); AUSFTA, supra note 115, art. 16.6 (same).}

\textsuperscript{131} \textit{E.g., TPP Agreement, supra note 35, art. 14.8(2); AANZFTA, supra note 123, ch. 10, art. 6; see also Agreement Between Australia and Japan for an Economic Partnership, Austl.-Japan., art. 13.7, signed 8 July 2014, [2015] A.T.S. 2 (entered into force 15 January 2015) [hereinafter Japan-Australia EPA] (recognizing the importance of adopting such a framework).}

\textsuperscript{132} \textit{AUSFTA, supra note 115, art. 14.6(2)(b).}


\textsuperscript{134} \textit{TPP Agreement, supra note 35, art. 14.16; Japan-Mongolia EPA, supra note 108, arts. 9.7, 9.12(2). For spam coverage, see also Japan-Australia EPA, supra note 131, art. 13.10(2); EU-Korea FTA, supra note 120, art. 7.49(1)(c); AANZFTA, supra note 123, ch. 10, art. 9(1)(c).}
\end{flushleft}
products\textsuperscript{135} and criminalizes the theft of trade secrets.\textsuperscript{136} None of these provisions are currently contained in WTO agreements, although recent proposals at the WTO have raised many of these issues.\textsuperscript{137}

(vii) Enabling regional and international cooperation: Several PTAs aim to foster cooperation on a range of issues affecting electronic commerce, including recognition of electronic signatures, resolving online disputes related to electronic commerce, liability of Internet intermediaries, consumer protection, addressing cybercrimes, development of technical standards, and promotion of digital SMEs.\textsuperscript{138} Other bodies such as the Asia–Pacific Economic Cooperation (APEC) and the OECD have also played an instrumental role in developing policies and guidelines on several of the above issues.\textsuperscript{139} In the PTA between Japan and Switzerland, for example, the parties agreed to “cooperate in relevant international organisations and fora to contribute to the development of the international framework for electronic commerce.”\textsuperscript{140} While these mechanisms operate on political goodwill, they are essential for countries to develop a shared understanding of concerns as well as to provide technical assistance to trading partners as and when necessary (e.g., provisions related to providing assistance to SMEs\textsuperscript{141} or knowledge-sharing on developing regulations on privacy, cybersecurity, consumer signature, e-government, and signatures).\textsuperscript{142} However, interstate cooperation is also

\textsuperscript{135} TPP Agreement, supra note 35, Annex 8-B.
\textsuperscript{136} Id. art. 18.78.
\textsuperscript{137} See discussion infra Part IV.
\textsuperscript{138} TPP Agreement, supra note 35, art. 14.15; Japan-Mongolia EPA, supra note 108, art. 9.12; EU-Korea FTA, supra note 120, art. 7.49; AANZFTA, supra note 123, ch. 10, art. 9; US-Chile FTA, supra note 112, art. 15.5.
\textsuperscript{140} Agreement on Free Trade and Economic Partnership Between Japan and the Swiss Confederation, Japan-Switz., art. 82(4), Feb. 19, 2009, 2642 U.N.T.S 3.
\textsuperscript{141} See, e.g., TPP Agreement, supra note 35, art.14.15(a).
\textsuperscript{142} See, e.g., id. art. 14.15(b).
sometimes viewed as a tool for powerful countries to exert pressure on their weaker trading partners.143

Thus, generally speaking, disciplines in PTAs progress significantly over the WTO legal framework on electronic commerce by (a) addressing issues which are pending from the Work Programme; (b) enabling greater regulatory cooperation, coordination, or mutual recognition arrangements, or at least enhancing dialogue between partner countries on regulatory measures, all of which act as barriers to digital trade; (c) enhancing prospects for digital innovation by protecting vital digital assets of technology companies; and (d) fostering means by which trading partners can provide technical assistance and share knowledge on issues of digital trade.

2. Conflict Between Electronic Commerce Chapters in PTAs and the GATS

The potential conflict between the Electronic Commerce Chapter of PTAs and WTO agreements such as the GATS has received very little academic attention.144 This is not surprising, as several PTAs do not contain binding provisions in their Electronic Commerce Chapter and, further, because the dispute settlement process is often not applicable to the Electronic Commerce Chapter of PTAs.145 However, under the TPP and other recent FTAs, the dispute settlement process is applicable to the Electronic Commerce Chapter.146 Several studies highlight that the dispute settlement system in PTAs (where available) has been sparingly used compared to that of the WTO.147 Further, while most developing country


144. However, the intricate relationship between WTO agreements and PTAs has been the subject of extensive scholarship in international trade law and policy. See Jennifer Hillman, Conflicts Between Dispute Settlement Mechanisms in Regional Trade Agreements and the WTO—What Should the WTO Do?, 42 CORNELL INT’L L.J. 193, 194 (2009).

145. EU PTAs, for example, generally exclude application of dispute settlement processes to the Electronic Commerce Chapter. For examples of PTAs containing such provisions, see AANZFTA, supra note 123, ch. 17, art. 3; KORUS, supra note 16, art. 22.4; AUSFTA, supra note 115, art. 21.2. But see Association Agreement Between the European Union and Its Member States, of the One Part, and Ukraine, of the Other Part, May 29, 2014, art. 322(1), [2014] O.J. (L 161) 3 (applying a dispute settlement procedure to, inter alia, disputes arising out of electronic commerce).

146. See TPP Agreement, supra note 35, art. 14.18. As of 2017, not a single dispute has arisen under the Electronic Commerce Chapter of any relevant PTAs.

Members usually rely on the WTO dispute settlement system, developed country Members tend to prefer the relevant PTA tribunal in case of a dispute.\textsuperscript{148} A large number of scholars support the use of the WTO over PTAs to settle trade disputes for various reasons, including the multilateral, representative nature of the WTO vis-à-vis the more “power oriented” nature of PTAs; the long successful experience of the WTO dispute settlement system in resolving trade disputes; and the refined nature of the WTO dispute resolution procedures that allow the possibility of third-party participation in the WTO and an established appellate mechanism.\textsuperscript{149} Others take the view that a synergistic relationship is possible between the respective dispute settlement mechanisms of the WTO and the PTAs.\textsuperscript{150} Given that a larger number of PTAs contain specific rules on electronic commerce (or \textit{lex specialis}), it is possible to argue that more complainants may resort to PTA tribunals despite the obvious advantages of the WTO dispute settlement system. Typically, complainants are likely to consider several factors in choosing the forum, including the applicable rules to the measure at issue, the nature of the relationship with the PTA trading partners, and the nature of remedies available under the PTA vis-à-vis the WTO.

An overlap in jurisdiction of the WTO and the PTA tribunals on disputes pertaining to electronic commerce is likely to give rise to interesting and complex questions.\textsuperscript{151} For example, can the

\textsuperscript{148} James H. Cassing, \textit{Trade Dispute Diversion: The Economics of Conflicting Dispute Settlement Procedures Between Regional Trade Agreements and the WTO, in 17 Frontiers of Economics and Globalization} 303, 306 (Hamid Beladi & E. Kwan Choi eds., 2009); Drahos, \textit{supra} note 24, at 3, 6.

\textsuperscript{149} Cassing, \textit{supra} note 148, at 327; Peter Drahos, \textit{Weaving Webs of Influence: The United States, Free Trade Agreements and Dispute Resolution}, 41 \textit{J. World Trade} 191, 191 (2007).

\textsuperscript{150} See, e.g., Malebakeng Agnes Forere, \textit{The Relationship of WTO Law and Regional Trade Agreements in Dispute Settlement} 223–32 (2015); Son, \textit{supra} note 147, at 135.

\textsuperscript{151} See \textit{Marc Bacchetta et al., World Trade Org., World Trade Report 2011: The WTO and Preferential Trade Agreements: From Co-existence to Coherence} 173 (2011). Different PTAs contain different sets of rules for resolving jurisdiction overlap with WTO. \textit{See id. at} 187; Amelia Porges, \textit{Dispute Settlement, in Preferential Trade Agreement Policies for Development: A Handbook} 809, 826 (Jean-Pierre Chauffour & Jean-Christophe Maur eds., 2011). For example, while most PTAs allow the complaining party to choose a forum of its choice (either a WTO or PTA tribunal), some PTAs may exclude the jurisdiction of the WTO either partially (for example, Article 104 of NAFTA can be settled under Chapter 20 of that Agreement) or completely with respect to issues covered by the rules of the PTA. Porges, \textit{supra}, at 826. Others, such as the EU–Chile FTA (Article 189(4)), necessitate the use of the WTO's dispute settlement process when the subject matter of a dispute is covered by both PTA and WTO rules. \textit{Id. at} 862. Older PTAs typically do not have in place a comprehensive dispute settlement system, while new-generation PTAs tend to emulate the WTO dispute settlement model. \textit{Id.}
enforcement of legal obligations in the Electronic Commerce Chapter of the PTAs indirectly result in a violation of the GATS? What happens if a specific measure is in violation of a PTA but is consistent with the GATS, or vice versa? What happens when a WTO tribunal has overlapping jurisdiction with a PTA tribunal on a dispute related to electronic commerce? Should the more specific provisions in the Electronic Commerce Chapter in the PTA be given precedence? Further, to what extent will WTO law be relevant in the interpretation of Electronic Commerce Chapters of PTAs? The way these issues will be addressed and resolved will also be very critical in facilitating security, predictability, and coherence in the global framework for digital trade.

A conflict between Electronic Commerce Chapters in the PTAs and the GATS creates a high degree of legal uncertainty in dispute settlement. For example, if a PTA requires countries to adopt measures implementing a specific international standard on privacy or consumer protection (e.g., adhering to the OECD or APEC framework), what happens when such a measure is challenged before the WTO by a non-PTA party? The WTO tribunal does not need to consider the legal obligations under the specific PTA vis-à-vis a non-PTA party.152 If the measure is found to be in violation of the GATS (e.g., if it fails to satisfy GATS Article XIV), the respondent may be required to modify its domestic laws, which might make the law susceptible to legal challenge under the PTA. Alternatively, countries that are likely to be in this position may engage in a series of bilateral arrangements with major non-PTA trading partners to avoid such complications, resulting in a complex web of regulations.

Both the WTO and PTA tribunals (depending on the forum before which the complainant initiates the dispute) can contribute toward “systemic integration” of international trade law, if only to a limited extent.153 If a trade dispute related to electronic commerce arises between two parties that are also signatories of a PTA with a comprehensive Electronic Commerce Chapter, the WTO tribunals may take the relevant provisions in the PTA into account as a part of the “relevant normative environment.”154 For example, the WTO tribunal


154. See Lanyi & Steinbach, supra note 153 (manuscript at 3–4).
may take into account that an otherwise GATS-consistent data localization measure may be specifically prohibited under the terms of a PTA. On the other hand, WTO jurisprudence can also inform the interpretation of provisions in Electronic Commerce Chapters in PTAs. For example, the TPP prohibits its members from imposing requirements on foreign companies to submit source code for their digital products as a condition of market access, with certain exceptions for critical infrastructure or information necessary under the patent law of a member.\textsuperscript{155} Although a similar provision is missing in the GATS, it is possible that under GATS Article XIV, a member could argue that the modification of source code can be “necessary to secure compliance” with domestic laws or regulations (e.g., protecting data security and privacy or preventing malware in commercial software products)\textsuperscript{156}—thus justifying digression from the said TPP provision. Given that GATS Article XIV is incorporated \textit{mutatis mutandis} into the TPP,\textsuperscript{157} the general exceptions in the GATS can usefully inform the extent to which the exceptions for involuntary provision of source code in the TPP might apply. Similarly, GATS Articles XIV and XIV\textit{bis} could also help define the “legitimate public policy objectives” available to parties to justify measures that restrict cross-border data transfers or impose data localization.\textsuperscript{158}

In the Authors’ view, as legal provisions pertinent to electronic commerce become more commonplace in PTAs (as appears to be the trend), synergy between disciplines under the WTO and the PTAs will be necessary to promote a secure and predictable framework for digital trade. Although international trade tribunals can partially address conflicts in the parallel trade regimes of PTAs and the GATS, their capacity to do so is likely to be curtailed by conflicting rules in Electronic Commerce Chapters of various PTAs coupled with the slow progress of multilateral negotiations on electronic commerce. In the future, it is likely that PTA parties may choose to apply dispute settlement procedures to Electronic Commerce Chapters because of the absence of relevant rules in the WTO law. For example, in the case of renegotiated NAFTA and KORUS FTA, the proposed digital trade provisions are highly likely to be subject to the dispute resolution process (like those in the TPP). The same could be true in the case of the Transatlantic Trade and Investment Partnership (TTIP) or TISA. Of course, whether complainants would choose to bring such disputes before the PTA tribunal would depend on a

\begin{footnotes}
\item 155. TPP Agreement, \textit{supra} note 35, art. 14.17(1).
\item 156. See GATS, \textit{supra} note 19, art. XIV(c).
\item 157. TPP Agreement, \textit{supra} note 35, art. 29.1(3).
\item 158. \textit{E.g.}, \textit{id.} arts. 14.11(3), 14.13(3).
\end{footnotes}
variety of factors, as discussed above. If rules on electronic commerce in PTAs are incompatible with the multilateral framework (such as under the GATS and the Agreement on Trade-Related Aspects of Intellectual Property Rights (the “TRIPS Agreement”)), then in the long run, the global framework for digital trade may become fragmented, thereby disrupting the seamless nature of a digital economy.

3. Contribution of PTAs to the Digital Trade Regime

Provisions on electronic commerce in PTAs play an important role in the creation of the international legal framework governing digital trade. As previously discussed, due to the lex specialis nature of provisions on electronic commerce in PTAs, such provisions are increasingly significant when disputes arise between relevant PTA partners. Additionally, PTAs contribute to the development of domestic law and policy. For example, the TPP requires all member countries to enforce domestic laws on privacy and online consumer protection, and bans data localization measures and measures mandating disclosure of source code. Further, related obligations under the Intellectual Property Chapter require TPP members to adopt laws on criminalization of trade secret thefts and Internet intermediary liability.

The above policy developments are significant for the multilateral system as well. In future trade negotiations at the WTO or elsewhere, TPP parties are likely to demand provisions supporting a more market-based approach (as is already evident in the TISA negotiations), as compared to the more interventionist approach taken by the European Union or the guarded approach of China. For example, the privacy laws in Korea and the European Union are potentially in conflict with the existing legal framework of the TPP.

160. TPP Agreement, supra note 35, art. 14.8(2).
161. Id. art. 14.7.
162. See id. art. 14.13(2).
163. Id. art. 14.17.
164. Id. art. 18.78.
165. Id. art. 18.82.
166. See Mitchell & Hepburn, supra note 18, at 186 & n.8. However, Korea recently joined the APEC Cross-Border Privacy Rules (CBPR) system to facilitate data transfers. See Elaine Ramirez & George Lynch, South Korea Joins Asia-Pacific Data Transfer System, BLOOMBERG L. (June 27, 2017), https://www.bna.com/south-korea-joins-n73014461300/ [https://perma.cc/C2WQ-74P3].
Similarly, many countries have adopted data localization policies that do not adhere to the legal standards in the TPP, although they may arguably be compatible with the GATS. In particular, the European Union and China have been extremely reluctant to adopt legal commitments on data localization. Additionally, several developing countries do not have in place a sound regulatory framework for online privacy, consumer protection, and cybersecurity due to lack of sufficient domestic knowledge and resources. Since the absence of such regulations does not violate the GATS in any manner, many of these countries do not have an incentive to support a comprehensive TPP-type agenda. Due to the divergence in provisions regulating electronic commerce across PTAs, sole reliance on the PTA framework for regulation of digital trade can be detrimental in the long run, as it may reinforce ideological divides between countries and fragment the international legal framework necessary for global trading activities.

Lior Herman argues that the formation of international trade law on electronic commerce will be a product of “bottom-up multilateralisation extend[ing] [PTAs'] e-commerce undertakings and provisions to a larger number of trade partners” and “top-down multilateralisation,” which can “advance[] e-commerce provisions, commitments and common learning at the WTO level.” PTAs can perform the role of “experimental laboratories,” especially given the strong ideological divide between countries on several digital trade issues. When a particular template is widely referred to or used in the negotiation of other PTAs, it is likely to be more widely accepted at the multilateral level. Further, negotiation of PTAs provides an opportunity for countries to identify both easy and challenging areas for the future agenda on electronic commerce at the WTO, as well as achieve a rough consensus on principles related to trade in the digital economy. High-level principles proposed by the OECD, APEC, and others have informed several PTAs initiated by developed countries (e.g., the Japan–Mongolia EPA, TPP, and EU–Korea FTA). The United States has adopted the Digital Dozen principles, which inform its PTA negotiations and include principles such as a free and open Internet, prohibiting customs duties on digital products, preventing discrimination, ensuring cross-border data flows and prohibition on

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167. See discussion infra Part IV.A.1.
168. However, not all developing countries are opposed to an electronic commerce agenda. See discussion infra Part IV.A.1.
169. Wu, supra note 75, at 28; Wunsch-Vincent & Hold, supra note 18, at 201–02.
170. See Herman, supra note 14, at 4.
171. Id. at 6.
data localization, barring forced technology transfers, and promoting choice of technology.\textsuperscript{172} These principles could assist in the formation of the multilateral framework for digital trade while also providing autonomy to domestic governments to adopt domestic rules that are best suited to their regulatory capacity and local needs.

However, certain developing countries (for instance, South Africa and India) oppose the inclusion of electronic commerce in international trade agreements.\textsuperscript{173} In this regard, the negotiation of the TISA may be an important first step in arriving at a consensus on sensitive digital trade issues at a plurilateral level before attempting to multilateralize those disciplines. In particular, the operation of deep Electronic Commerce Chapters in these agreements will enable developing countries to observe their costs and benefits and accordingly prepare themselves before committing to an international trade agreement on electronic commerce. Conclusively, it is emphasized that given the global nature of the digital economy, a consistent legal framework is indispensable at the multilateral level; however, in the short run, PTAs can help plug gaps in the GATS, instigate development of new disciplines suited to the digital economy, and generally advance the digital trade agenda among countries.

IV. REFORMING INTERNATIONAL TRADE LAW

In the previous Parts, the Authors argue that the existing international legal framework on digital trade is deficient in several respects in addressing the important policy challenges of the modern digital economy. Further, the network of PTAs only play a short-term, complementary role to the multilateral system; thus, the trade regime needs timely and meaningful reform. This Part identifies and discusses the significant policy areas and avenues for reform of international trade law governing digital trade at the multilateral level. First, the Authors discuss how and why the Work Programme can facilitate deliberations on critical issues in digital trade, thereby improving prospects for development of new rules at the WTO.


Second, the Authors discuss three important areas or issues that require policy action at the multilateral level—improving market access, addressing regulatory barriers, and supporting developing countries to integrate faster into the digital economy. Finally, the Authors discuss the different avenues available for reform of international trade law—developing a new agreement under the WTO on electronic commerce, amending the GATS to include more relevant disciplines on electronic commerce, and developing multilayered institutional frameworks to deal with digital trade. This Part concludes that the multilateral framework of the WTO should remain central in the development and reform of international trade law governing electronic commerce. However, multilateral disciplines on electronic commerce need to become more variegated and flexible in order to accommodate the cross-cutting nature of the digital economy. Patchy reforms within the existing structure of the GATS might be inadequate, and WTO Members should aim to develop more comprehensive and up-to-date rules on electronic commerce.

A. Evolution of the Work Programme on Electronic Commerce

Although the Work Programme has made slow progress thus far, it is perhaps the most important platform in a multilateral context to deliberate on suitable rules for digital trade. In the Authors’ view, the progress of the Work Programme is dependent on promoting dialogues on emerging and contemporary policy challenges of the digital economy, which have also been outlined in several proposals submitted to the WTO in recent months. On the other hand, outdated or irrelevant issues persisting on the Work Programme agenda since 1998 should be put aside. For example, although some Members demand a comprehensive and up-to-date definition of electronic commerce, this issue is largely futile as electronic commerce is a broad, evolving economic activity. Rather, the extent to which the scope of an Electronic Commerce Chapter is curtailed, either in existing PTAs or in any future agreements of the WTO (e.g., exclusion of financial or public sector), is more critical in the current context. Similarly, the issue of classification of digital products has also reached an impasse—namely, determining whether digital products are goods, services, or both. WTO tribunals have not arrived at a definitive distinction between goods and services, while several PTAs

174. The existing WTO definition of “electronic commerce” is “production, distribution, marketing, sale or delivery of goods and services by electronic means.” See Work Programme on E-Commerce, supra note 2, ¶ 1.3.
also take a contradictory stand on this issue.\footnote{175} The dilemma regarding the classification of digital products resulted in a temporary moratorium on imposing customs duties on electronic transmissions, which has been renewed several times since 1999.\footnote{176} Given that many recent digital innovations combine different kinds of digital content with both services and physical devices, the debate on the equivalence of physical products (e.g., books and CDs containing programs or music) and electronic products (e.g., downloadable e-books, music, or software) is practically irrelevant in the digital age. Any proposals aimed at addressing such issues, such as the Russian proposal circulated in July 2017, only reinforce a very guarded approach and could unnecessarily stall progress within the Work Programme.\footnote{177} On the other hand, more market-oriented proposals from the United States and Japan suggesting the removal of customs duties on all kinds of digital products (irrespective of the media or classification) appear more pragmatic.\footnote{178}

The majority of the recent proposals on electronic commerce circulated by WTO Members in recent years tend to focus on regulatory barriers to digital trade. In particular, they emphasize digital protectionism. Additionally, these proposals outline policy areas for further discussion, reform, and regulatory cooperation in order to achieve a more stable and coherent global framework for electronic commerce. Further, some of these proposals (particularly from developing country Members) add another important layer to the ongoing work on electronic commerce: use of trade facilitation measures to enable digital SMEs in developing countries, providing technical assistance to developing country governments, and improving trade finance opportunities for MSMEs. Some of the key emerging policy areas in electronic commerce identified in the most recent WTO proposals, which provide useful bases for future


\footnote{176} \textit{See}, e.g., World Trade Organization, Ministerial Decision of 19 December 2015, ¶ 3, WTO Doc. WT/MIN(15)/42, WT/L/977 (2015).

\footnote{177} For the Russian proposal recommending to resolve the definition and scope of electronic commerce, see Communication from the Russian Federation, \textit{Ways to Move Forward}, WTO Doc. JOB/GC/131 (July 14, 2017) [hereinafter \textit{Ways to Move Forward}].

\footnote{178} \textit{See}, e.g., Communication from Japan, \textit{Possible Way Forward on Electronic Commerce}, Annex, WTO Doc. JOB/GC/130 (July 14, 2017); \textit{Non-Paper from the United States}, ¶ 2.1, WTO Doc. JOB/GC/94 (July 4, 2016).
negotiations at the WTO, include cross-border data flows, building a sound regulatory environment for electronic commerce, promoting developing country interests, enhancing innovation in technical standards, and institutional improvements.\textsuperscript{179}

1. Cross-Border Data Flows

Several WTO Members have categorically identified the importance of cross-border data flows and preventing discriminatory measures such as data localization. For example, the US proposal outlines that any barriers to the free flow of information “stifles competition and disadvantages digital entrepreneurs” and is therefore essential from the point of view of both technology companies and consumers.\textsuperscript{180} Thus, trade rules should be designed to “combat such discriminatory barriers by protecting the movement of data, subject to reasonable safeguards like the protection of consumer data when exported.”\textsuperscript{181} Similarly, Japan has shown strong support for preventing “digital protectionism”\textsuperscript{182} and promoting strong provisions on cross-border data flows.\textsuperscript{183} These proposals reflect a characteristic market-oriented approach to electronic commerce regulation.

Data localization measures are one of the most common regulatory tools used to block cross-border data transfers.\textsuperscript{184} Therefore, unsurprisingly, the United States has been emphatic at the WTO (and many other platforms) that data localization measures are economically inefficient in the age of cloud computing and electronic commerce. “Trade rules should “promote access to networks and efficient data processing.”\textsuperscript{185} The link between data processing and digital trade is particularly relevant to enable big data processing. Bans on data localization further ties in with the broader aim of keeping the Internet free and open for “all legitimate commercial

\begin{itemize}
  \item \textsuperscript{179} See, e.g., Non-Paper from the United States, supra note 178, ¶¶ 2.3, 2.11, 2.15. Not all proposals are available online as they are JOB documents. This Section is thus developed based on online-accessible proposals and press releases.
  \item \textsuperscript{180} Id. ¶ 2.3.
  \item \textsuperscript{181} Id.
  \item \textsuperscript{182} Non-Paper for the Discussions on Electronic Commerce/Digital Trade from Japan, ¶ 2.2, WTO Doc. JOB/GC/100 (July 25, 2016) [hereinafter Non-Paper from Japan].
  \item \textsuperscript{183} Id. ¶ 4.2B.
  \item \textsuperscript{184} CORY, supra note 45, at 2–4.
  \item \textsuperscript{185} Non-Paper from the United States, supra note 178, ¶ 2.5; see Communication from the United States, Ensuring That Trade Rules Support Innovative Advances in Computer Applications and Platforms, Such as Mobile Applications and the Provision of Cloud Computing Services, pt. III.10, WTO Doc. S/C/W/339 (Sept. 20, 2011).
\end{itemize}
purposes.” Further, restrictions on data flows also reduce users’ choice of technology and services on the Internet.

However, certain other WTO Members including Canada, Korea, Singapore, Taiwan, and the European Union have taken a more interventionist approach regarding cross-border data flows. They argue that legal provisions on cross-border data flows and data localization and local content requirements should be subject to appropriate public policy exceptions. These proposals, however, do not specifically outline whether the WTO agreements (particularly the GATS) are sufficient in dealing with cross-border data flows, or whether new disciplines would be necessary for the same. On the other hand, the proposal by Brazil is categorically clear that the existing GATS structure adequately covers obligations on data flows and that no new disciplines are necessary. Generally speaking, these Members remain very cautious in their proposals for balancing legal commitments on cross-border data flows with other aspects, such as enforcing domestic privacy and consumer protection laws or imposing restrictions to protect the security of networks (unlike the US proposal, which has a weak exception for data protection).

Unsurprisingly, a recent proposal from China does not discuss data localization or directly address issues related to cross-border data flows, such as privacy and cybersecurity.

2. Building a Sound Regulatory Environment for Electronic Commerce

Another theme that is common to several of the recent WTO Members’ proposals on electronic commerce is building an open, secure, and reliable regulatory environment for electronic commerce. The following regulatory issues, termed “consumer confidence

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186. Non-Paper from the United States, supra note 178, ¶ 2.4; see Non-Paper from Brazil, ¶ 4.1, WTO Doc. JOB/GC/98 (July 20, 2016).
188. Id. ¶ 19; Communication from the Separate Customs Territory of Taiwan, Penghu, Kinmen & Matsu, Protection of Personal Information and Development of Electronic Commerce, ¶¶ 1.5–1.6, WTO Doc. S/C/W/360 (May 13, 2015) [hereinafter Protection of Personal Information and Development of Electronic Commerce].
189. See Non-Paper from Brazil, supra note 186, ¶ 4.9.
190. Trade Policy, the WTO, and the Digital Economy, supra note 187, ¶ 4.2; see Non-Paper from the United States, supra note 178, ¶ 2.3.
enhancing measures” by some WTO Members, appear in many of the recent proposals: privacy, consumer protection, regulation of spam, electronic authentication and signature services, and cybersecurity. Many of these proposals have been circulated by Members that support an interventionist approach in electronic commerce in order to safeguard public interests, such as Canada, Chile, South Korea, Singapore, Brazil, Taiwan, and the European Union. Expectedly, these proposals set out much stricter standards on consumer protection and privacy compared to the United States and China. However, unlike the US proposal, the Japanese proposal strongly endorses the importance of “[t]ransparent and effective measures,” protection of online consumers “from fraudulent and deceptive commercial practices,” and enabling a “secure environment in online commercial activities.”

3. Promoting Developing Country Interests

Proposals from China on electronic commerce are different from many other proposals discussed above because they are primarily aimed at highlighting the importance of digital inclusion and promoting developing country interests in digital trade. While these proposals champion the cause of developing countries and least

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192. See, e.g., Trade Policy, the WTO, and the Digital Economy, supra note 187, ¶ 4.2; Non-Paper from Brazil, supra note 186, ¶ 4.3; see also Non-Paper from Japan, supra note 182, ¶ 4.2A.


194. See generally Trade Policy, the WTO, and the Digital Economy, supra note 187; Non-Paper from Brazil, supra note 186; Protection of Personal Information and Development of Electronic Commerce, supra note 188.

195. Compare Non-Paper from the United States, supra note 178, and Aiming at the 11th Ministerial Conference, supra note 47, with Trade Policy, the WTO, and the Digital Economy, supra note 187, and Non-Paper from Brazil, supra note 186. While the United States may be largely doing so to promote market-driven regulation in electronic commerce, China’s stance could be attributed to its general lack of transparency in these policy areas, particularly to dissuade foreign players from entering the market.

196. Non-Paper from Japan, supra note 182, ¶ 4.2A; see also An Enabling Environment to Facilitate Online Transactions, supra note 193, ¶ 2.1.

developed countries (LDCs) on issues such as trade facilitation, logistics, and online payments—particularly in order to facilitate participation of MSMEs in digital trade—they do not otherwise expand on facilitating an open and transparent regulatory environment for electronic commerce.\textsuperscript{198} Being the leader of electronic commerce in the Asia-Pacific region, China’s proposal before the WTO is significant. In addition to China, other developing country Members have supported the development dimension of electronic commerce. This is particularly the case in the following areas: the role of trade facilitation in enabling electronic commerce, trade assistance to developing countries to focus on infrastructure gaps in electronic commerce, enabling greater access to online payments, and building cooperation between countries to enhance trust and fighting cybercrimes.\textsuperscript{199} The above proposals pertaining to trade facilitation and trade finance to support SMEs in developing countries have drawn significant interest among developing country Members in the WTO\textsuperscript{200} as well as the wider policy community.\textsuperscript{201}

4. Enhancing Innovation in Technical Standards\textsuperscript{202}

In order to safeguard the interests of private companies, certain digital leaders, such as the United States and Japan, have also included proposals to enhance private sector innovation in technical standards (e.g., standards related to privacy and security) and safeguard digital assets of companies, such as source code and other trade secrets. For example, the United States has proposed that forced transfers of technology, production processes, or “other proprietary information” should be prohibited by trade rules.\textsuperscript{203} Further, the United States has proposed that trade rules should prevent a government from requiring foreign companies to hand over source code or proprietary algorithms to regulators or adopt prescribed

\textsuperscript{198.} See, e.g., Aiming at the 11th Ministerial Conference, supra note 47.

\textsuperscript{199.} Non-Paper from Colombia et al., Electronic Commerce and Development, ¶ 1.4, WTO Doc. JOB/GC/101/Rev.1 (July 28, 2016); see also Communication from Bangladesh, Draft Ministerial Decision on Electronic Commerce, at 1, WTO Doc. JOB/GC/152/Rev.1 (Nov. 20, 2017); Trade Policy, the WTO, and the Digital Economy, supra note 187, ¶¶ 1.1, 4.2.

\textsuperscript{200.} See MARC AUBOIN ET AL., WORLD TRADE ORG., WORLD TRADE REPORT 2016: LEVELLING THE TRADING FIELD FOR SMEs 4 (2016).


\textsuperscript{202.} Brazil circulated a separate proposal on the importance of copyright issues in electronic commerce in 2017. See Electronic Commerce and Copyright, supra note 20.

\textsuperscript{203.} Non-Paper from the United States, supra note 178, ¶ 2.6.
technical standards to access new markets—unless necessary to “obtain access . . . in order to protect health, safety, or other legitimate regulatory goals.” Finally, the United States has proposed that trade rules should promote innovation in encryption products. Japan’s proposals are very similarly worded and show strong commitment to protecting digital assets of businesses, including protecting trade secrets from cyberattacks. Although these proposals highlight the importance of market-driven standards in promoting better quality of digital products, they also touch upon issues related to Internet governance; however, none has highlighted specific mechanisms for implementation and coordination with relevant Internet governance bodies.

5. Institutional Improvements

Some of the recent proposals by WTO Members on electronic commerce also deliberate on potential avenues for institutional improvements, both at the domestic and global level. For example, the United States recognizes the importance of “strong commitments on transparency, stakeholder participation, coordination, and impact assessment for new regulatory measures, standards, and conformity assessment procedures” in electronic commerce. The European Union, Canada, and a host of other WTO Members recognize the significance of enhanced dialogue between countries under the aegis of the WTO to exchange information on “good practices.” Other improvements recommended by these Members are the inclusion of electronic commerce as an issue in the Trade Policy Review Mechanism and the exchange of information through WTO committees. Many of the above proposals also acknowledge the significance of the work on digital trade carried out by other international

204. Id. ¶¶ 2.8, 2.11.
205. Id. ¶ 2.7.
206. Id. ¶ 2.11.
207. Non-Paper from Japan, supra note 182, ¶¶ 4.2C, 4.2D.
208. See id. ¶¶ 4.2D, 4.2G.
209. Non-Paper from the United States, supra note 178, ¶¶ 2.15, 2.16.
institutions. For example, Japan highlights the significance of APEC initiatives on digital trade and how such initiatives can guide the development of multilateral disciplines on electronic commerce at the WTO.\footnote{See Non-Paper from Japan, supra note 182, ¶ 5.1.} Similarly, a handful of WTO Members highlight the recommendations from UNCTAD as being pertinent to enabling better regulation of electronic commerce in developing countries.\footnote{See, e.g., Reinvigorating Discussions on Electronic Commerce, supra note 193, ¶ 4.1.} Further, high-level principles on data transfer and privacy have been developed by the OECD.\footnote{OECD Privacy Guidelines (2013), supra note 139.} Unlike many other proposals, however, a recent Russian proposal suggests that the WTO should “remain the only universal platform for the development of multilateral rules and in particular multilateral rules for the e-commerce regulation,” indicating Russia’s inherent suspicion of multistakeholder institutions.\footnote{Ways to Move Forward, supra note 177, ¶ 1.5.}

As discussed below in Part IV.C.3, several linkages to the WTO will be critical in addressing the cross-cutting nature of policy challenges in the digital economy, including linkages between the WTO and, for example, the Internet Corporation for Assigned Names and Numbers (ICANN) on Internet domain names; the United Nations Commissions on International Trade Law (UNCITRAL) on electronic signatures and electronic contracts; the International Telecommunications Union (ITU) on cybersecurity standards; the Internet Governance Forum (IGF) and Internet Society (ISOC) on Internet policy issues; and UNCTAD on electronic commerce and development issues.

In the Authors’ view, the recent proposals by different WTO Members on electronic commerce reflect important needs of the current digital economy, especially the cross-cutting, multidimensional nature of electronic commerce.\footnote{See, e.g., Communication from Australia, Canada, Colombia, Qatar and Singapore, Advancing Work on the E-Commerce Work Programme, WTO Doc. JOB/GC/132, ¶ 1.3 (July 14, 2017) [hereinafter Advancing Work on the E-Commerce Work Programme].} These proposals aim not only to address existing barriers in digital trade (e.g., data localization measures and lack of permanent moratorium on customs duties on electronic transmissions) but also to help facilitate the growth of a healthier policy environment for electronic commerce by looking at broader issues such as privacy, consumer protection, spam regulation, Internet openness, and cybersecurity. The development dimension of electronic commerce (e.g., providing support to SMEs and assisting developing countries in building a regulatory framework
for digital trade)\textsuperscript{218} will also be an important complement to the Work Programme in terms of both economic development and digital inclusion. Considering several of these proposals below, the Authors identify areas and avenues for reform in international trade law to facilitate digital trade.

\section*{B. Areas for Reform in International Trade Law}

The WTO Members identified four clear objectives of electronic commerce regulation at the start of the Work Programme that remain relevant even today: “creat[ing] conditions in which [digital] technology will flourish,” achieving a fine balance between legitimate public policy objectives and technical innovation, finding global solutions for some of the prevailing policy challenges, and protecting the special needs of developing countries.\textsuperscript{219} In order to implement these objectives, this Section suggests three broad areas of reform in the multilateral trade framework: improving market access for digital trade, addressing regulatory barriers to digital trade, and integrating developing countries into the digital trade system.

\subsection*{1. Improving Market Access for Digital Trade}

The discord between Member states on the definition of digital products, classification of digital services, and the political sensitivity of the audiovisual sector and, more recently, the cloud computing sector, has prevented any meaningful liberalization in digital trade for most of the last two decades.\textsuperscript{220} Further, the failure to improve commitments in Mode 4 supply has also slowed down the growth of the digital sector.\textsuperscript{221} With the exception of the Information Technology Agreement, no other initiative at the WTO has successfully enhanced prospects for deepening liberalization in digital trade.\textsuperscript{222} Thus, the

\begin{itemize}
\item \textsuperscript{218} See generally WTO SECRETARIAT, E-COMMERCE IN DEVELOPING COUNTRIES: OPPORTUNITIES AND CHALLENGES FOR SMALL AND MEDIUM-SIZED ENTERPRISES (2013), https://www.wto.org/english/res_e/booksp_e/ecom_brochure_e.pdf [https://perma.cc/K8UE-P82L].
\item \textsuperscript{220} See discussion supra Part III.A.1.
\item \textsuperscript{222} For a discussion on the liberalization achieved by the Information Technology Agreement, see Michael Anderson & Jacob Mohs, The Information Technology Agreement: An Assessment of World Trade in Information Technology Products, 2011 J. INT’L COM. & ECON. 109,
existing multilateral framework has failed to sufficiently incentivize WTO Members to improve market access in digital trade or to reduce discriminatory barriers to digital trade. However, access to larger markets is essential to increasing profitability of digital trade as it lowers marginal costs and increases economies of scale.\textsuperscript{223}

The structure of the GATS provides considerable autonomy to Members to undertake commitments in digital services sectors in relation to market access and national treatment. Most developing countries are hesitant to expand their commitments, particularly in the digital service industry, due to a variety of motives including lack of regulatory capacity and covert protectionism of the domestic digital sector. While developed country Members have shown greater support for a formulaic approach in inscribing commitments in schedules or inscribing commitments at the two-digit level,\textsuperscript{224} most developing country Members prefer a less liberalizing, disaggregated approach or, alternatively, argue that most new types of digital trade fall outside the service sectors classified under the W/120.\textsuperscript{225} Lee Tuthill and Shin-yi Peng argue that the principle of technological neutrality may be instructive in interpreting existing commitments of Members more broadly.\textsuperscript{226} Even if the existing commitments of Members are read in a technologically neutral manner to include evolving business models in the digital sector, significant uncertainty continues to exist because these commitments are dated and often do not include subsectors where liberalization is essential for the growth of electronic commerce.

Issues related to the classification of digital services and expansion of Members’ commitments in the digital sector are complex and often intractable. Therefore, other types of reforms in international trade law are necessary to create a more consistent,

\textsuperscript{149} https://www.usitc.gov/publications/332/journals/05_andersonmohs_itagreement.pdf [https://perma.cc/C345-PPP6].

\textsuperscript{223} See CORY, supra note 45, at 3.

\textsuperscript{224} See, e.g., Gen. Agreement on Trade in Serv.: Examination of S. Am. Trading Partners’ Schedules of Commitments, Inv. No. 332-367, USITC Pub. 3007, at 11-1 n.2 (Dec. 1996). A two-digit level inscription refers to a general “sector”—such as business services or communication services—and a specific “subsector” then typically refers to a higher digit level (e.g., three-digit, four-digit, or five-digit level). See generally Services Sectoral Classification List, supra note 70.


\textsuperscript{226} See Tuthill, supra note 18, at 379; Peng, supra note 78, at 427–28.
secure, and predictable legal and policy framework for digital trade. In the long run, a better regulatory environment will also encourage more Members to enhance their commitments in service sectors related to electronic commerce (e.g., computer and related services and telecommunication services). This is particularly true for developing countries wary of making deep commitments in service sectors because of a lack of sufficient domestic regulatory capacity and a deep-seated suspicion of foreign commercial interests.

2. Addressing Regulatory Barriers to Digital Trade

The regulatory framework (both at the domestic and international levels) for digital trade should be secure, stable, transparent, interoperable, and predictable. As discussed in Part IV.B.1 above, many Members have already identified important policy areas where WTO rules are necessary in order to facilitate digital trade. Many PTAs also recognize the importance of regulatory frameworks in electronic commerce that support “industry-led development.” In circumstances where regulatory frameworks across countries are in conflict with each other, companies engaging in digital trade face disproportionate costs in customizing their business models and thereby face barriers to trade. For example, the adoption of divergent regulatory approaches to data protection often increases compliance costs for companies operating across different markets. Further, certain governments adopt unclear and ambiguous regulations to control the Internet within their borders for various reasons, including protecting public morals and security.

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228. See, e.g., CHAFTA, supra note 133, art. 12.5.


230. See Burri, supra note 2, at 334–35.


Many companies (particularly MSMEs) find it cumbersome or unprofitable to navigate these complex regulations and might be effectively deterred from operating in these countries. Experts have argued that the issue of cross-border data flows should ideally be covered by horizontal commitments rather than on a sector-by-sector basis in order to enable the digital economy as a whole. Further, companies across all sectors of the economy find it difficult to conduct digital trade in markets with a poor domestic regulatory framework in critical areas such as data protection, cybersecurity, and online consumer protection.

A question therefore arises surrounding the role that international trade agreements can play in improving the regulatory framework for digital trade and the extent to which these issues should be addressed by WTO agreements. This Article argues that WTO law needs to directly or indirectly address the above regulatory barriers to improve the regulatory framework for digital trade. Not only the substance but also the process through which rules on electronic commerce are negotiated will be critical in the development of sound and well-balanced disciplines on electronic commerce. Developing countries are likely to favor the use of the WTO, as compared to PTAs, to engage in deeper discussions on regulatory reforms. For example, in 2013, Taiwan had recommended the use of the WTO platform to discuss “experiences and best practices in international cooperation on the cross-border transfer and protection of personal information.” Some key regulatory issues that are likely to arise in the context of the regulation of digital trade by international trade law (particularly in relation to cross-border data

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234. See, e.g., INT’L DIG. ECON. ALL., supra note 98, at 8.

235. See ORG. FOR ECON. CO-OPERATION & DEV., supra note 3, at 63; Skyes, supra note 229, at 51, 59.


237. See Protection of Personal Information and Development of Electronic Commerce, supra note 188, ¶ 1.2.
flows) include protection of consumer interests in the online context; developing interoperable standards for electronic signatures, paperless trading, and cloud computing; preventing measures on data localization without compromising on other goals such as privacy and cybersecurity; protecting vital digital assets of technology companies while protecting individual users; and generally promoting a free and open Internet, which provides choice of technology to internet users worldwide.\footnote{Konstantinos Karachalios & Karen McCabe, Standards, Innovation, and Their Role in the Context of the World Trade Organization 2–4 (2013), http://e15initiative.org/wp-content/uploads/2015/09/E15-Innovation-KarachaliosMcCabe-FINAL.pdf [https://perma.cc/ZM64-3NS7]; Joshua P. Meltzer, Maximizing the Opportunities of the Internet for International Trade 6–7 (2016), http://www3.weforum.org/docs/E15/WEF_Digital_Trade_report_2015_1401.pdf [https://perma.cc/5VBX-93Q6].}

In order to enable free digital trade flows and increase global economic welfare, the GATS or any other multilateral framework under the WTO needs to simultaneously consider issues of Internet security, protect Internet user interests, and promote a free and open Internet that boosts digital innovation. Being a trade institution, the WTO is ill-equipped to engage in several aspects of digital trade, such as setting standards on cybersecurity or data protection, or determining legitimacy of online censorship (e.g., blocking of websites). However, WTO rules can support the creation of a more suitable regulatory environment at the international level by (a) providing horizontal disciplines on cross-border flows of data, (b) acknowledging the importance of regulatory preconditions necessary for cross-border flows of data (e.g., privacy and security), and (c) encouraging countries to take adequate policy action to promote and protect these policy goals. In that regard, the recent proposals before the Work Programme (as discussed in Part IV.A above) can be a good starting point for discussion among the larger WTO membership.

The next question is the nature and extent of regulatory coordination necessary to create an enabling framework for digital trade. Scholars propose a shift in approach from “reciprocal market opening” to “creating the regulatory preconditions for liberalization” of trade in services.\footnote{Aditya Mattoo, Services Trade and Regulatory Cooperation 1 (2015), http://e15initiative.org/wp-content/uploads/2015/07/E15-Services-Mattoo-FINAL.pdf [https://perma.cc/2H3E-F4AS].} Some scholars have taken the view that regulatory harmonization across countries is typically unnecessary to achieve “maximization of global economic welfare” and can restrict “socially productive” regulatory choices by countries.\footnote{Skyes, supra note 229, at 51; see also Mattoo, supra note 239, at 6–7, 11.} For example,
specific requirements related to transparency and nondiscrimination, along with mutual recognition agreements, are likely to be more effective in reducing trade barriers than regulatory harmonization.\textsuperscript{241} Specific to digital trade, Joshua Meltzer argues that there is a “need for cooperation to address the regulatory externalities that can arise from digital trade and the incentives this can create for governments to restrict cross-border data flows,” referring to the example of APEC Cross-Border Privacy Principles.\textsuperscript{242} Others present a stronger case for regulatory harmonization through international trade law to create an enabling framework for digital trade. For example, Anupam Chander offers a model of regulatory harmonization combined with giving preference to local policy (e.g., in relation to online censorship).\textsuperscript{243} However, it is unclear how both of these processes can work harmoniously in a world with highly differentiated values on Internet regulation and huge power differentials.

A deep form of regulatory convergence (such as regulatory harmonization) is neither practical nor desirable in the context of the WTO and electronic commerce. While addressing issues in digital trade will necessarily require the WTO to look beyond what already exists under the GATS, the WTO does not have the expertise or mandate to set down standards on issues related to technical and sociocultural aspects of Internet regulation.\textsuperscript{244} Further, given the diverse membership of the WTO, it is unlikely that most Members will agree to uniform rules on issues like privacy and cybersecurity. Rather, as Mira Burri suggests, an agreement on high-level principles on the governing framework for digital trade will provide a strong foundation for future negotiations on electronic commerce at the

\begin{footnotesize}
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\item See Skyes, supra note 229, at 50, 52; see also Fernanda G. Nicola, The Politicization of Legal Expertise in the TTIP Negotiation, 78 LAW & CONTEMP. PROBS. 175, 182–83 (2015).
\item MELTZER, supra note 238, at 7.
\item See Anupam Chander, Principles for Trade 2.0, in TRADE GOVERNANCE IN THE DIGITAL AGE, supra note 18, at 17, 26–28, 33; see also Skyes, supra note 229, at 51 (submitting that “regulatory harmonization might seem the most straightforward solution to the trade impediments created by regulatory heterogeneity”).
\item See, e.g., KARACHALIOS & McCABE, supra note 238, at 3 (“The standardization paradigm that enabled the success of the Internet provides for the involvement of participants from all around the world, outside of the limitations of nation-centric processes.”); see also Gregory Shaffer & Henry Gao, China’s Rise: How It Took on the U.S. at the WTO, 2018 U. ILL. L. REV. 115, 179–80 (discussing the impotence of existing WTO rules to address China’s requirement for foreign companies “to use local servers and hand over the[ir] source code” before providing Internet services (footnotes omitted)). Although it falls outside the scope of this Article, another related area of research is to investigate the appropriate multistakeholder and multilateral platforms in setting such technical standards. See Burri, supra note 2, at 339–40. In Part IV.C.3 below, the Authors discuss the importance of multistakeholder approaches in addressing several aspects of digital trade at the WTO.
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The evolution of such principles will necessitate creative partnerships between the WTO and other international and multistakeholder institutions, including the private sector. Further, if the WTO agreements promoted specific standards and regulations in relation to electronic commerce, they might disproportionately advantage developed countries and a few other developing countries such as China. As a result, other developing countries and LDCs might not be able to reap the full benefits of the digital economy and might be forced to open up their domestic markets without being adequately prepared. Instead, the WTO should be a platform for countries to identify important areas for regulatory cooperation in electronic commerce and to find creative solutions to liberalize digital trade without prejudicing domestic regulatory interests. Therefore, rather than setting standards, the WTO should focus on building consensus around high-level principles that recognize the importance of maintaining an open and free environment for digital trade flows, while simultaneously addressing consumer concerns related to trust and security of digital products.

Such rules can bring greater certainty in the legal environment for digital trade in two ways: (a) creating a more integrated global marketplace driven by a relatively less fragmented Internet, and (b) dissuading countries from adopting provisions that disproportionately favor Internet openness over security and privacy issues or vice versa, thus preventing digital protectionism.

3. Integration of Developing Countries

The integration of developing countries into the digital economy is one of the biggest attractions in the development discourse today. The recent proposals by China and the Friends of E-Commerce for Development are timely and significant, and they constitute an essential element of the Work Programme. As the largest and most diverse trade institution in the world, the membership of the WTO is well suited to understand and support developing country concerns compared to most PTAs, which are often power driven. GATS Article IV sets out various mechanisms by which developed countries can

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245. Burri, supra note 2, at 349.
246. See id. at 335.
247. See id. at 349. For example, the APEC has set up a Cross-Border Privacy Enforcement Agreement that helps regulatory authorities in different Member countries to share information and to find mechanisms for cross-border cooperation among regulators regarding domestic privacy enforcement. See CPEA, supra note 139, ¶ 2.1. Such platforms could be helpful in the WTO as well, to achieve consensus on principles pertinent to cross-border digital trade.
facilitate participation of developing countries and LDCs in all service sectors.

In order to promote the goals set out in GATS Article IV and achieve the overall objective of progressive liberalization in digital trade, measures supporting developing countries to integrate better into the digital economy are crucial, in addition to other reforms outlined above. Some measures that the WTO can undertake include (a) supporting various initiatives to integrate MSMEs in developing countries, such as by providing technical assistance, trade finance initiatives, or simplification of customs procedures (in the long run, WTO Members could adopt dedicated disciplines on facilitating SMEs, particularly in the context of online trade); (b) facilitating electronic payment services in developing countries and LDCs; and (c) initiating more dialogue in the Committee for Trade and Development to enable information sharing. Additionally, further avenues could be explored to facilitate provision of technical assistance and training to developing countries. These reforms and
policy initiatives will not only generate political goodwill but will also enhance the capacity and expertise of developing countries and LDCs to undertake other reforms, such as expanding commitments on digital trade liberalization and creating a domestic regulatory environment compatible with global standards on issues like privacy and cybersecurity.

C. Exploring Different Avenues for Reforming International Trade Law

Despite the lack of any substantial progress in multilateral trade negotiations on electronic commerce for almost two decades at the WTO and the emergence of PTAs as the frontier of digital trade governance, several avenues are still available within the WTO to implement reforms and to make meaningful changes in the international trade regime. Compared to PTAs, the WTO framework is likely to be more stable, be more resilient, and better represent the diverging interests of countries. As discussed above in Part III.B.3, PTAs containing Electronic Commerce Chapters are likely only stepping stones to a global digital trade framework under the WTO. In the long run, sole reliance on PTAs will result in fragmentation and incoherence in the digital trade regime.

1. Working Within the GATS

The first avenue is to explore different options under the existing GATS structure to improve commitments of WTO Members under their schedule of commitments. For example, the WTO could adopt a cluster approach to the classification of digital products or attempt to arrive at a consensus among Members regarding the scope of services covered under the different sectors of the W/120. Per Lee Tuthill, instead of developing new disciplines, the existing GATS structure can simply be used to encourage Members to improve and expand their commitments in the various technology-related sectors, particularly value-added telecommunication services. Further, to a certain extent, the transparency obligations under GATS Article III

agreement comes into force, Category B lists commitments which can be implemented over a period of time, and Category C lists commitments where developing countries seek assistance from developed countries to implement their commitments on a future date (however, there is no legal obligation on developed countries to provide such assistance). See Agreement on Trade Facilitation, supra, art. 14. The Category C commitments are particularly unique as they help identify areas in which developing countries need assistance. See id. art. 16; see also Request by Delegation of Singapore, ASEAN Reflections on Lunch Panel on “Can E-Commerce Trade Rules Help MSMEs from Developing Countries?” Held During the UNCTAD E-Commerce Week, 27 April 2017, WTO Doc. JOB/GC/126 (June 2, 2017); INT’L CHAMBER OF COMMERCE, supra, at 3.

252. See Tuthill, supra note 18, at 378–79.
may also enable WTO Members to understand the nature of regulations imposed by countries and their impact on digital trade.

However, new disciplines may be necessary within the WTO because the GATS was implemented well before the Internet age and does not adequately address all needs of the digital economy. In the words of Thomas Cottier, in the case of new communication technologies, the task is not that of “liberalizing old and rusty structures” but of “framing global public policies.”

Certain existing rules under the GATS can help in adopting some of this Article’s suggested regulatory reforms. For example, WTO Members could adopt new disciplines on domestic regulation necessary to promote cross-border data flows under GATS Article VI:4, or they could undertake additional commitments—such as a Reference Paper on Digital Trade under GATS Article XVIII—which could be signed up by WTO Members. Another option could be appending an Annex on Electronic Commerce to the GATS, setting out disciplines on electronic commerce that are binding on all Members. These additional disciplines may also provide greater clarity regarding the extent to which the exceptions available under GATS Articles XIV and XIVbis may be used by Members to preserve their regulatory autonomy in regulation of the Internet.

2. A New Agreement Under the WTO

A new agreement under the WTO might be structured more appropriately to address the existing limitations of the GATS, such as by adopting a clear, technologically neutral definition of digital products and making the moratorium on customs duties on electronic transmissions permanent. Further, a new agreement could be cross-cutting in nature, recognizing all aspects of digital trade instead of dividing the various disciplines as the existing WTO architecture does. Mira Burri recommends the formation of a Digital Economy Trade Agreement, although she recognizes the high level of political infeasibility of this solution. Hosuk Lee-Makiyama also

253. Cottier, supra note 236, at 427.

254. For examples of disciplines on licensing of digital services and technical requirements for supply of specific types of digital services—including electronic signatures, authentication methods, and security and privacy compliance requirements—see Peng, supra note 69, at 1218.

255. See Burri, supra note 2, at 349.

256. See id. at 355. However, a complex question that arises with regard to this option is the relationship between the commitments made under the GATS and those made under a new electronic commerce agreement.

257. Id. at 355.
acknowledges the importance of a multilateral system, but instead of sticking to the archaic system of the GATS, he suggests that a new horizontal discipline should be developed for all trade-related aspects of data transfer (irrespective of whether it relates to trade in goods or services), drawing parallels with the TRIPS Agreement and its role in intellectual property regulation. The Electronic Commerce Chapters in PTAs are likely to serve as models for the development of such a new trade agreement under the WTO.

Although the above approach is politically and legally more challenging, it is likely to be more valuable in the long run because horizontal disciplines on electronic commerce can better address the cross-cutting nature of the digital economy. Given the limitations of the GATS structure (e.g., certain legal obligations are subject to individual country commitments), a new agreement that applies horizontally to digital aspects of trade in both goods and services will provide a more efficient and comprehensive solution. Further, inclusion of new provisions in the regulatory framework for digital trade (as discussed above) may be simpler in the case of a completely new agreement under the WTO. A new agreement on electronic commerce may very well take the form of a plurilateral agreement under Article II.3 of the WTO Agreement. Even in such a case, the agreement should necessarily address a broad range of regulatory and development concerns in digital trade to incentivize the participation of developing countries and LDCs. The failure to do so will render meaningless any efforts to facilitate a global regulatory framework for electronic commerce and to promote integration of countries into the global digital economy. Another short-term solution is to initiate modest reforms within the GATS and, in the long run, to aim to incorporate a more comprehensive digital trade agreement under the WTO. However, under this approach, a high degree of political inertia might result due to the unusually long and complicated nature of multilateral trade negotiations.

In adopting this route for reform, the WTO Members need to closely consider the relationship between a new WTO agreement on electronic commerce and the GATS. First, in the case of WTO disputes pertaining to electronic commerce, should the lex specialis provisions of the new agreement be given precedence over the

258. Lee-Makiyama, supra note 18, at 165.
260. See discussion supra Part III.B.2.
GATS? Second, the scope of liberalization commitments made by a country in a specific sector can be unclear if its interpretation requires a consistent reading of the wording of the commitment made under the GATS with commitments under the new WTO electronic commerce agreement. The GATS is based on a dated version of the Central Product Classification (CPC), which does not often cover many new types of digital services, while the new electronic commerce agreement would most likely rely on an updated classification system. Third, another difficult question would be the extent to which the obligations and exceptions under the GATS could be interpreted by taking into consideration the dedicated WTO agreement on electronic commerce or vice versa (depending on how the new agreement is framed). For example, would regulatory requirements pertaining to data protection, online consumer protection, or cybersecurity contained in the new agreement inform the interpretation of exceptions under GATS Article XIV or XIVbis, or the legal obligations under GATS Article VI or III? Although it is outside the scope of this Article to discuss these issues in detail, these few examples indicate the potential legal uncertainties and complications if WTO Members adopted a new agreement containing disciplines related to digital trade.

3. Building Relationships with Relevant Institutions

Irrespective of whether WTO Members choose to implement a new agreement or work within the existing GATS framework, increased dialogue and coordination among governments, industry, international organizations, and civil society (both at a domestic level and at a transnational level) is a prerequisite for the development of a coherent regulatory framework for digital trade.

261. Potentially, even the GATT could be relevant in the case of trade in goods via electronic commerce portals. See Burri, supra note 2, at 341. To understand what happens when only some parties have signed to this agreement under a plurilateral framework, see discussion supra Part III.B.3.

262. See Burri, supra note 2, at 341. Further, if the new agreement adopts a negative listing approach, the chances of inconsistency with the GATS, which relies on a positive listing approach, might increase. See Tomer Broude, Selective Subsidiarity and Dialectic Deference in the World Trade Organization, 79 LAW & CONTEMP. PROBS. 53, 65 (2016). However, depending on how WTO Members frame their commitments, this might not always be the case. See GATS, supra note 19, arts. X, XVI, XVII, XVIII.

these dialogues across different stakeholders may not result in binding legal agreements, they will provide opportunities for understanding the various dimensions of digital trade and for identifying areas of concern and deep conflict. The WTO is well placed to establish mechanisms for joint engagement and studies across different policy areas of the digital economy. Under the leadership of Azevêdo, the WTO has already shown strong support for initiatives such as eTrade for All, the Enhanced Integrated Framework, and the eWTP—a completely private-sector initiative. These initiatives are crucial for integrating developing countries. In the future, trade negotiators could also initiate dialogues with technology experts to find better means of understanding how digital technologies could achieve regulatory outcomes without imposing disproportionate costs on companies. The participation of trade officials at the IGF and experts from the Internet community at the WTO Public Forum are a welcome development in this regard. Further, certain Member proposals before the WTO have also recognized the importance of interinstitutional coordination in the development of a regulatory framework for digital trade.

The complex and multifaceted nature of digital trade necessitates synergy across different domestic, regional, and international policy and legal frameworks. No existing international or multistakeholder institution can by itself succeed in developing a cross-cutting framework for digital trade. For instance, international trade institutions are not capable of setting norms on cybersecurity or technical interoperability (which are nonetheless instrumental for digital trade). Rather, multistakeholder Internet governance institutions such as the ICANN, Internet Engineering Task Force


265. See Azevêdo, supra note 56.


267. See discussion supra Part IV.A.5.

(IETF), World Wide Web Consortium (W3C), and IGF are better suited to address such issues.\textsuperscript{269} However, if these institutions succeed in promoting risk-based, flexible approaches in technical standard setting, then that will also complement liberalization of digital trade. Similarly, UNCITRAL has a model law on electronic signatures;\textsuperscript{270} several regional bodies such as the OECD and APEC have developed guidelines for cross-border online consumer dispute resolutions as well as protection of personal information;\textsuperscript{271} the United Nations has adopted resolutions on online privacy and cybersecurity;\textsuperscript{272} and the ITU has adopted several resolutions and declarations on standardization of Internet connectivity.\textsuperscript{273} While the rules and principles laid down by these institutions can be helpful in opening up the digital economy, none of these institutions can directly address discriminatory trade barriers arising from restrictions placed on Internet platforms. In that scenario, the WTO and PTAs will continue to play a central role.

The above discussion indicates that no single international institution, including the WTO, can come up with a “grand design” to resolve all issues in digital trade.\textsuperscript{274} Nonetheless, it is possible for these institutions to form various channels for feedback and communication in order to enable more synergistic and coherent disciplines in their specialized areas of practice. For example, the WTO could develop a joint study with Internet governance institutions to better understand how the technical features of the Internet relate to commercial activities over the Internet. Similarly, the WTO committees can also seek feedback from specialized institutions on issues of Internet privacy and consumer protection.\textsuperscript{275} In recent years,

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\textsuperscript{270} \textbf{MODEL LAW ON ELECTRONIC SIGNATURES} (UNCITRAL 2001), http://www.jus.unitn.it/users/caso/dpi01-02/topics/ecommerce/materiali/un_model_law.pdf [https://perma.cc/SW28-UPFH].


\textsuperscript{272} See G.A. Res. 68/167, at 1 (Jan. 21, 2014); G.A. Res. 64/211, at 1 (Mar. 17, 2010).


\textsuperscript{274} Cottier, supra note 236, at 434.

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the WTO has shown greater openness toward liaising with multistakeholder and private institutions, particularly in areas requiring a multifaceted response—such as the launch of the “ICC-WTO Small Business Champions” initiative by the WTO and the International Chamber of Commerce.276 While such avenues may not necessarily result in the creation of binding rules at the WTO, they will facilitate a better understanding among trade experts as to how digital trade rules are placed in the broader ecosystem of Internet governance and will thus promote the development of better mechanisms to balance trade and nontrade concerns in cyberspace within WTO agreements.

V. CONCLUSION

This Article highlights that the WTO can and should have an instrumental role in the development of the regulatory framework for digital trade. Although the existing multilateral framework under the GATS is largely deficient in addressing policy challenges arising in the modern digital economy, this Article argues that there are several routes to reform and improve the existing system. Further, although countries are currently more proactive in developing disciplines on digital trade in plurilateral or regional trade platforms because of the ease and feasibility of negotiations,277 this approach does not provide a long-lasting solution. At best, PTAs can be a stepping stone to a multilateral approach, allowing countries to test new rules on digital trade in the short run while working toward a high-level consensus on important digital trade issues. However, in the long run, in the absence of a multilateral trade agreement on electronic commerce, PTAs are unlikely to orchestrate a resilient and consistent global framework for digital trade because of the heterogeneous and often conflicting nature of Electronic Commerce Chapters in PTAs and their potential conflicts with the existing multilateral system.

This Article also argues that an urgent need exists for multistakeholder and multilayered engagement at the WTO on digital trade issues through creative mechanisms. Many WTO Members have already recognized the importance of several international and regional institutions in developing a regulatory framework for digital trade.278 Trade negotiators increasingly show willingness to

277. See discussion supra Part III.B.3.
278. See discussion supra Part IV.A.2
participate in other platforms, such as the IGF. Further, the WTO itself has shown openness toward liaising and launching initiatives with the private sector as well as other international institutions to promote digital trade. These mechanisms will be useful in building a comprehensive and diverse agenda within the WTO to address existing barriers in digital trade, developing new disciplines on relevant regulatory issues—such as privacy, data protection, and consumer protection—and improving prospects for inclusion of developing countries. With the increase in security and stability of the global framework for digital trade, individual countries are also likely to have more confidence in opening their digital trade markets without being threatened by foreign competition. To achieve this delicate balance between promoting expansion of the digital economy and preserving the trust and integrity of Internet regulation, it is important that the WTO endeavors to develop a more ambitious and comprehensive agenda for reform under the Work Programme.

The recently held Eleventh WTO Ministerial Conference (the “MC-11”) brought various Member perspectives on electronic commerce to the negotiating table. With respect to electronic commerce, no significant developments occurred at MC-11, with the exception that WTO Members agreed to renew the moratorium on customs duties on electronic transmissions until 2019. Expectedly, staunch opposition by the African Group and India was the key factor in stalling any further discussion among the WTO membership. However, seventy WTO Members including the European Union, Australia, the United States, and Japan declared that they would form a new working group on electronic commerce to
deliberate on contemporary challenges in electronic commerce, including the potential applicability of WTO agreements.\textsuperscript{284} In the Authors’ view, this declaration is a positive development and could be an excellent starting point for renewing the vigor and pace of discussions on electronic commerce at the WTO to pave a path for reforms in the multilateral system.