
Centre for International
Governance Innovation

CIGI Papers No. 247 – December 2020

Data Is Divisive

A History of Public Communications on E-commerce, 1998–2020

Susan Ariel Aaronson and Thomas Struett



CIGI Papers No. 247 – December 2020

Data Is Divisive

A History of Public Communications on E-commerce, 1998–2020

Susan Ariel Aaronson and Thomas Struett

About CIGI

The Centre for International Governance Innovation (CIGI) is an independent, non-partisan think tank whose peer-reviewed research and trusted analysis influence policy makers to innovate. Our global network of multidisciplinary researchers and strategic partnerships provide policy solutions for the digital era with one goal: to improve people's lives everywhere. Headquartered in Waterloo, Canada, CIGI has received support from the Government of Canada, the Government of Ontario and founder Jim Balsillie.

À propos du CIGI

Le Centre pour l'innovation dans la gouvernance internationale (CIGI) est un groupe de réflexion indépendant et non partisan dont les recherches évaluées par des pairs et les analyses fiables incitent les décideurs à innover. Grâce à son réseau mondial de chercheurs pluridisciplinaires et de partenariats stratégiques, le CIGI offre des solutions politiques adaptées à l'ère numérique dans le seul but d'améliorer la vie des gens du monde entier. Le CIGI, dont le siège se trouve à Waterloo, au Canada, bénéficie du soutien du gouvernement du Canada, du gouvernement de l'Ontario et de son fondateur, Jim Balsillie.

Credits

Managing Director of Digital Economy **Robert Fay**
Program Manager **Heather McNorgan**
Senior Publications Editor **Jennifer Goyder**
Publications Editor **Susan Bubak**
Graphic Designer **Brooklynn Schwartz**

Copyright © 2020 by the Centre for International Governance Innovation

The opinions expressed in this publication are those of the authors and do not necessarily reflect the views of the Centre for International Governance Innovation or its Board of Directors.

For publications enquiries, please contact publications@cigionline.org.



This work is licensed under a Creative Commons Attribution — Non-commercial — No Derivatives License. To view this license, visit (www.creativecommons.org/licenses/by-nc-nd/3.0/). For re-use or distribution, please include this copyright notice.

Printed in Canada on Forest Stewardship Council® certified paper containing 100% post-consumer fibre.

Centre for International Governance Innovation and CIGI are registered trademarks.

67 Erb Street West
Waterloo, ON, Canada N2L 6C2
www.cigionline.org

Table of Contents

vi	About the Authors
vi	Acronyms and Abbreviations
1	Executive Summary
1	Introduction
3	Why Focus on Public Communications at the WTO?
4	A Short History of the Work Program and the JSI
7	The Roots of the Digital Trade Divide: The Economic, Technological and Governance Context for the Work Program and the JSI
10	Methodology
11	Findings
19	Conclusion
21	Works Cited

About the Authors

Susan Ariel Aaronson is a CIGI senior fellow. She is an expert in international trade, digital trade, corruption and good governance, and human rights. She is currently writing papers on disinformation and the global trade regime, artificial intelligence as a global public good and comparative data governance.

Susan is also research professor of international affairs and cross-disciplinary fellow at George Washington University's Elliott School of International Affairs, where she directs the Digital Trade and Data Governance Hub. The Hub educates policy makers and the public on domestic and international data governance.

Susan is the former Minerva Chair at the National War College. She is the author of six books and more than 40 scholarly articles. Her work has been funded by major international foundations including the MacArthur, Hewlett, Ford and Rockefeller Foundations; governments such as the Netherlands, the United States and Canada; international organizations such as the United Nations, International Labour Organization and the World Bank; and US corporations including Google, Ford Motor and Levi Strauss.

Thomas Struett is research director at the Digital Trade and Data Governance Hub, where he currently directs the Global Data Governance Mapping Project. The project examines how some 50 nations use laws, regulations and other binding acts of state to govern various types of data (public, private and personal data) at the national and international levels. It is the first such mapping. Information on the project can be found at <https://datagovhub.elliott.gwu.edu/the-global-data-governance-mapping-project/>.

Thomas received his M.A. in political communication from American University and his B.A. in communication at the University of Illinois at Chicago. Prior to receiving his M.A., he was a researcher at the IT Law Institute at Bilgi University focusing on personal data protection.

Acronyms and Abbreviations

AI	artificial intelligence
COVID-19	coronavirus disease 2019
CPTPP	Comprehensive and Progressive Agreement on Trans-Pacific Partnership
CUSMA	Canada-United States-Mexico Agreement
DEPA	Digital Economy Partnership Agreement
DESI	Digital Economy and Society Index
EC	European Communities
GATS	General Agreement on Trade in Services
I-DESI	International Digital Economy and Society Index
JSI	Joint Statement Initiative
OECD	Organisation for Economic Co-operation and Development
RCEP	Regional Comprehensive Economic Partnership
UNCTAD	United Nations Conference on Trade and Development
WTO	World Trade Organization

Executive Summary

For 22 years, the members of the World Trade Organization (WTO) have been discussing how to govern e-commerce and the data that underpins it. In 2019, some 74 (now 86) nations began to negotiate e-commerce. These talks are conducted in secret and little is known about how they are progressing. However, WTO members issued a wide range of public comments on both the Work Programme on Electronic Commerce and the Joint Statement Initiative (JSI) on Electronic Commerce from 1998, when the work program began, to the present. These communications provide context as well as a window into the negotiations.

Using qualitative techniques to analyze these communications, the authors found that throughout the 22-year period, member states were divided by their understanding, capacity and willingness to set rules governing e-commerce or digital trade. Members had divergent views on: whether or not to extend the moratorium on customs duties (although they have consistently extended it); how best to nurture the digital economy and what role trade agreements should play in governing it; and the ability of all WTO member states to participate effectively in these talks. Many countries had e-commerce expertise, but they did not have a wide range of firms with digital prowess. Moreover, many of the WTO member states did not have expertise governing various types of data. In short, data, digital prowess and data governance expertise were creating division among members.

To bridge this divide, this paper offers three suggestions: First, donor nations should provide funds and expertise to help developing and middle-income nations build a data-driven economy. Second, digital trade/e-commerce agreements should be designed to enable more people to benefit from data-driven growth while simultaneously setting rules to govern digital trade that facilitate trust and predictability among market actors. To that end, the Digital Economy Partnership Agreement (DEPA), an agreement among New Zealand, Chile and Singapore, provides a good model of such collaboration and rule-setting. Third, as data governance has become a key issue for development, development organizations should define what comprehensive data governance looks like at the national level.

Development organizations should next examine how they can help developing countries achieve flexible and technologically neutral governance. These organizations should also provide financial and technical assistance to help developing countries build data governance skills.

Introduction

On August 11, 1994, American Phil Brandenberger made history when he purchased a Sting album online (Lewis 1994). That first e-commerce transaction showed consumers and executives that e-commerce could be trustworthy, easy and cost-effective.¹ One year later, e-commerce went global when Canadian Mark Fraser bought a used laser pointer on the US site AuctionWeb (a precursor to eBay).²

In the years that followed, e-commerce facilitated more trade as well as more inclusive trade.³ Researchers provided growing evidence that e-commerce helped policy makers in many countries to create jobs, improve household consumption and reduce inequality (WTO 2013; Alibaba Group and the World Bank 2019). By 2017, e-commerce accounted for US\$29 trillion or 36 percent of global GDP (United Nations Conference on Trade and Development [UNCTAD] 2019a).

Although e-commerce is international, it is not governed by an internationally accepted system of norms and rules. In May 1998, the members of the WTO set up a program to study issues posed by e-commerce, such as: What is a digital good and what is a digital service? Members also discussed other issues, including whether to apply customs duties to e-commerce and how to protect users' personal data, given different

1 In April 1984, CompuServe launched the Electronic Mall, the first comprehensive electronic commerce service, in the United States and Canada (Concordia St. Paul 2016). See also Villasenor (n.d.) and www.ebayinc.com/company/our-history/.

2 See www.ebayinc.com/company/our-history/.

3 See Al-Saleh (2020) and Clark and Wallsten (2007).

national approaches (users often provide such personal data to receive a good or service online).⁴

The Work Programme on Electronic Commerce defined e-commerce broadly as “the production, distribution, marketing, sale or delivery of goods and services by electronic means.”⁵ That definition was flexible enough to include an ever-growing panoply of goods and services built on data, such as artificial intelligence (AI) or apps. However, by 2017, some WTO members, including the United States and Canada, began to use the term “digital trade” or “data-driven trade” to describe this broader notion of e-commerce. The US government noted that this term — digital trade — better captures e-commerce and online services, “but also data flows that enable global value chains, services that enable smart manufacturing, and myriad other platforms and applications” (Office of the United States Trade Representative 2017). Digital trade has seeped into discussions at the WTO. Even the WTO’s Director-General described the e-commerce negotiations in 2019 as about digital trade.⁶

Meanwhile, many researchers, business leaders and policy makers began to see data as essential to both trade and the e-commerce work program. According to UNCTAD (2019c, 2, para. 5), “As trade is increasingly becoming digitalized, cross-border data flows are becoming more important... Activities affected by digitalization go beyond online trading and supply chain coordination.” Hence, “a deep understanding among Governments and stakeholders of the role of data flows is therefore becoming increasingly important” (ibid., 11, para. 51). Consequently, some WTO members also recognized that they would need to clearly delineate rules governing cross-border data flows as well as exceptions to those rules (when those rules could be breached).

In 2019, 76 WTO members agreed to a separate set of fast-tracked talks called the JSI on Electronic Commerce. Members could decide if they wanted

to participate.⁷ As of November 2020, 86 nations are currently part of these talks (WTO 2020d).

The JSI negotiations, like other WTO-affiliated talks, are conducted in secret. The WTO Secretariat issues updates on the WTO website, where the progress of the talks is summarized in general terms. The Secretariat reports that as of November 2020, participants are gathering in small groups online to discuss electronic signatures, spam, open government data, source code and consumer protection. In short, the participants are discussing a wide range of domestic and international data governance issues.⁸ But little is known about member-state division and consensus and how members’ views changed over time.

However, WTO members have issued a wide range of public comments on both the work program and the JSI. These communications provide context as well as a window into the negotiations. They also reveal that members try to organize broad coalitions of nations to communicate shared ideas and strategies to breach divisions.

To better understand these communications, the authors’ research focused on four key questions:

- Which countries submitted public communications in the 22-year period?
- What were these countries saying about how best to govern e-commerce and data?
- How did country concerns change over time?
- What do these public communications tell us about issues that may be complicating the talks?

Two qualitative techniques — content analysis and process tracing — were used to answer these questions. Content analysis revealed which issues were mentioned most frequently by which countries. In contrast, process tracing provided an understanding of why these issues were important and how WTO member perspectives on these issues changed over time.

There were significant divisions among members in their understanding, capacity and willingness to set rules governing e-commerce or digital trade. Members had divergent views on:

4 WTO, Ministerial Conference, *Declaration on Global Electronic Commerce*, WTO Doc WT/MIN(98)/DEC/2, 2nd Sess, online: WTO <docs.wto.org> [Declaration].

5 WTO, *Electronic Commerce Gateway*, www.wto.org/english/tratop_e/ecom_e/ecom_e.htm.

6 See statement of Ambassador George Mina (Australia) referring to digital trade rules (WTO 2020d), and speech of former WTO Director-General Roberto Azevêdo (WTO 2019).

7 WTO, *Joint Statement on Electronic Commerce*, WTO Doc WT/L/1056, online: WTO <docs.wto.org>.

8 See WTO (2020d; 2020e).

- whether or not to extend the moratorium on customs duties (although they have consistently extended it);
- how best to nurture the digital economy and what role trade agreements should play in governing it; and
- the ability of all WTO member states to participate effectively in these talks (many countries had e-commerce expertise, but many members did not have a wide range of firms with expertise in using data to create new products and services or improve them; moreover, many of the same WTO members did have expertise governing data).

Data expertise is dividing the world into digital haves and have-nots (Banga 2019; UNCTAD 2019a; 2019b). In a 2019 public communication, South Africa and India noted, “In 2000, developed countries accounted for 91% of exports of digitizable products, while developing countries’ share was only 9%. Today, with the exception of China, the situation has not changed to any significant degree. Three countries account for 80% of the cross-border e-commerce in the world: US, China and the EU.”⁹

The paper proceeds as follows: first, it explains why members of the WTO issue public communications and why the analysis focused on these communications. It then turns to a history of the work program and the JSI, which allows us to illuminate the continuity between the two. The paper then examines how economic, technological and governance trends are related to data and how they coloured WTO members’ perspectives on the talks. Next, the methodology and findings are discussed, including areas where many states find divisions and common ground. The paper concludes with recommendations.

Why Focus on Public Communications at the WTO?

Trade diplomats can rely on a wide range of venues to communicate member-state positions, including government websites, hearings, debates, testimony and interviews with the press. These strategies play a major role in the work program and the JSI. For example, in January 2019, then Prime Minister of Japan Shinzo Abe helped jump-start the talks when he gave a speech at the World Economic Forum in Davos, Switzerland, calling for worldwide data governance at the WTO.¹⁰ Moreover, in June 2020, Canada convened a group of like-minded nations, the Ottawa Group, “to provide leadership, critical thinking and analysis” related to e-commerce and other ongoing negotiations in the wake of the coronavirus disease 2019 (COVID-19), which had revealed global dependence on online services.¹¹ However, this paper concentrates on member-state public communications at the WTO, as they provide a unique window into the concerns of members and how they may change over time. They also reveal how WTO member states collaborate and where they divide on e-commerce.

WTO member states have a wide range of reasons for issuing such public communications. First, by acting in a transparent manner with these communications, they can build trust among their counterparts (Charnovitz 2004).

Second, they may want to define and set norms before and during negotiations (Wolfe 2013, 32). Norms of behaviour are particularly important for e-commerce, as sometimes nations may need to restrict certain types of cross-border data flows to achieve important national policy objectives such as protecting public health, preserving social stability and/or protecting national security. Public communications about what is appropriate and inappropriate conduct can help members delineate a shared concept of these norms.

Third, the WTO operates by consensus among its members. With 164 members, it is not easy to

9 WTO, Work Programme on Electronic Commerce, *The E-Commerce Moratorium: Scope and Impact*, Communication from India and South Africa, WTO Doc WT/GC/W/798, online: WTO <docs.wto.org> [Scope and Impact].

10 See Abe (2019).

11 Government of Canada (2020).

build such a consensus. Most WTO members have lots of expertise governing goods and services and reconciling national and international strategies to govern these goods and services. But WTO members seem to have found it particularly difficult to develop consensus regarding e-commerce and data. Nations have different approaches for governance of personal data or on making public data open. Members are also at different levels of digital prowess (herein digital prowess is defined as a country's ability to collect, analyze and use various types of data to encourage innovations in goods and services). Finally, as noted above, certain types of data flows can pose dangers to individual and national security (Aaronson 2020). Given these complexities, trade diplomats may view it particularly important to join with other members to illuminate potential compromises.

Fourth, members may use public communications to address "information asymmetries" among member states (UNCTAD 2019b). Economists use this term to describe markets where some market actors have more or better information, while others do not have access to the same information or the same quality of information to make good decisions.¹² Trade negotiations always include information asymmetries because different nations have different factor endowments, quality of governance, access to capital and so on. But, as this paper will show, the e-commerce talks were rife with information asymmetries. In the next two sections, the historical, technological, economic and governance context for both the work program and the JSI are examined.

A Short History of the Work Program and the JSI

In 1998, WTO ministers adopted a declaration on global e-commerce, which called on the General Council to establish a comprehensive work program on e-commerce.¹³ The work program directed four WTO bodies (the Council

for Trade in Services, the Council for Trade in Goods, the Council for Trade-Related Aspects of Intellectual Property Rights and the Committee on Trade and Development) to explore relevant issues and for the councils to review the existing provisions of their respective agreements.

Given the complexity of issues, it is not surprising that the work program took years (and is ongoing). But the mandate did not clarify how the work program would be completed, when it should end or how members might enhance WTO rules (Bacchetta et al. 1998).

In 1998, the internet was relatively new, and the range of data-driven goods and services (for example, software, browsers, texting, e-commerce and so on) was limited.¹⁴ Yet, from day one, the members of the WTO struggled to find common ground on how and what should be the main focus of discussions. While they agreed not to place duties on e-commerce transmissions across borders, they did not fully discuss what kind of transactions were covered by the moratorium.¹⁵ Members also struggled with what they termed "the classification issue," that is, whether a product formerly only available in physical form but that could now also be traded electronically, should be considered a good or a service. They also debated how to protect consumers from harm (WTO 2003).

For the first decade of the work program, most members were content to continue studying the issue.¹⁶ Yet issues of data and data governance soon became more urgent. In 2007, with the introduction of the iPhone, the internet became increasingly mobile, while the cost of access declined (Rainie 2017). As the cost of access declined, greater numbers of users were willing to provide data in exchange for free services built on such data. New firms and services emerged to support data collection, as well as the production of insights from data (UNCTAD 2020, 3). Finally, cloud technologies (defined as allowing access to a shared pool of configurable computing resources, such as networks, servers, storage, applications and services) became more affordable. As a result, more firms could access sophisticated techniques for data analytics such as machine learning (Mell and Grance 2011; Hooton 2019). With such

¹⁴ See www.wto.org/english/tratop_e/ecom_e/ecom_e.htm.

¹⁵ Author interview with Lee Tuthill, September 18, 2020.

¹⁶ *Ibid.*

¹² See Ross (2020).

¹³ WTO, *Declaration*, *supra* note 4.

techniques, firms could produce improved goods and services as well as innovations. However, because different types of data in one country can be traded across borders (that is, stored, processed and analyzed in another country), cloud technologies such as e-commerce raised important questions of jurisdiction for trade negotiators (Aaronson 2018; Casalini and López González 2019).

The WTO Secretariat and some member states were well aware of this evolving landscape. They and member-state trade diplomats also understood that member states were experiencing these changes at different speeds and in different ways. Hence, members of the WTO, as well as the WTO Secretariat, used conferences, workshops and seminars to encourage greater understanding of how data was changing e-commerce and creating new industries and issues. On July 5, 2016, a diverse group of countries (Australia, Indonesia, Mexico, South Korea and Turkey) held a workshop at the WTO, where they pointed out that nations cannot negotiate e-commerce without discussing data (Ismail 2020). On December 9, 2016, the Friends of eCommerce for Development group (Argentina, Chile, Colombia, Costa Rica, Kenya, Mexico, Nigeria, Pakistan, Sri Lanka and Uruguay) held a seminar on e-commerce for development, which focused on how developing countries could use these new data-driven technologies to stimulate development.¹⁷ The WTO Secretariat also organized a conference on the use of data in the digital economy in 2019.¹⁸ Finally, in 2019 and 2020, the WTO Secretariat sponsored two workshops on the effects of the customs moratorium on e-commerce, in recognition that some members wanted to continue the moratorium while others did not.¹⁹

However, officials from some countries were not waiting for the WTO to find a consensus on these issues. In 2003, Australia and Singapore signed the first trade agreement with commitments on the free flow of data across borders for service suppliers and investors. It also banned customs duties on digital products and included commitments for consumer and personal data protection.²⁰ Other members soon followed with their own bilateral and regional

e-commerce agreements. By 2017, the WTO counted some 75 such agreements, many of them with different approaches and rules, and the emergence of chapters entitled “digital trade” (Monteiro and Teh 2017, 4). In 2019, the WTO Director-General claimed that some 30 percent of trade agreements notified to the WTO had e-commerce provisions (although not all were binding upon members.) These agreements include the Comprehensive and Progressive Agreement on Trans-Pacific Partnership (CPTPP),²¹ the New Zealand-Singapore Closer Economic Partnership,²² the Canada-United States-Mexico Agreement (CUSMA) (known as the United States-Mexico-Canada Agreement, or USMCA, in the United States),²³ and the world’s newest trade agreement (signed but not ratified), the Regional Comprehensive Economic Partnership (RCEP) of 14 nations in Asia.²⁴

In 2020, several small, open economies pioneered new approaches to e-commerce, where signatories collaborate to both build the digital economy and set rules to govern it. Chile, New Zealand and Singapore signed the DEPA, aiming to “create a model digital economy agreement that can act as a pathfinder for others...that can be integrated into and support processes in the WTO,” and “build confidence on new economy issues to advance and sustain international trade based on rules” (New Zealand 2020, 7). In August, Australia and Singapore signed a Digital Economy Agreement to “harness digital transformation and technology to expand trade and economic ties in our region.”²⁵

In light of the many different agreements, some analysts argued that WTO members were creating a patchwork of rules that could make it harder to negotiate a multilateral approach at the WTO (Lejarraga 2014; Monteiro and Teh 2017). Moreover, one could argue that these agreements perpetuated information and governance asymmetries. First, many developing countries without large

17 See www.wto.org/english/tratop_e/ecom_e/ecomdevel_e.htm.

18 See www.wto.org/english/res_e/reser_e/datadigitaleco17_e.htm.

19 See www.wto.org/english/tratop_e/ecom_e/wkmoratorium29419_e.htm and www.wto.org/english/tratop_e/ecom_e/ecom_webinar_13jul2020_e.htm.

20 See Australian Government (2017).

21 See www.mfat.govt.nz/assets/Trade-agreements/TPP/Text-ENGLISH/14.-Electronic-Commerce-Chapter.pdf.

22 See www.mfat.govt.nz/assets/Trade-agreements/Singapore-NZ-CEP/CEP-Upgrade-Protocol-all-chapters-and-annexes/P09-Ch9-Electronic-Commerce.pdf, articles 9.7 and 9.10.

23 See <https://ustr.gov/sites/default/files/files/agreements/FTA/USMCA/Text/19-Digital-Trade.pdf>.

24 See www.dfat.gov.au/trade/agreements/not-yet-in-force/rcep/rcep-text-and-associated-documents.

25 See www.dfat.gov.au/trade/services-and-digital-trade/Pages/australia-and-singapore-digital-economy-agreement.

Box 1: WTO Members Negotiating the JSI

Albania	El Salvador	Latvia	Qatar
Argentina	Estonia	Liechtenstein	Romania
Austria	Finland	Lithuania	Russian Federation
Australia	France	Luxembourg	Saudi Arabia, Kingdom of
Bahrain, Kingdom of	Georgia	Malaysia	Singapore
Belgium	Germany	Malta	Slovak Republic
Benin	Greece	Mexico	Slovenia
Brazil	Guatemala	Moldova, Republic of	Spain
Brunei Darussalam	Honduras	Mongolia	Sweden
Bulgaria	Hong Kong, China	Montenegro	Switzerland
Burkina Faso	Hungary	Myanmar	Separate Customs
Cameroon	Iceland	Netherlands	Territory of Taiwan,
Canada	Indonesia	New Zealand	Penghu, Kinmen
Chile	Ireland	Nicaragua	and Matsu
China	Israel	Nigeria	Thailand
Colombia	Italy	North Macedonia	Turkey
Costa Rica	Japan	Norway	Ukraine
Côte d'Ivoire	Kazakhstan	Panama	United Arab Emirates
Croatia	Kenya	Paraguay	United Kingdom
Cyprus	Korea, Republic of	Peru	United States
Czech Republic	Kuwait, the State of	Philippines	Uruguay
Denmark	Lao People's	Poland	
Ecuador	Democratic Republic	Portugal	

populations that could purchase data-driven goods and services were not invited to participate in such agreements. Second, if they were invited to participate in such talks, they had little leeway to push back against existing models of e-commerce and data governance put forward by the United States, the European Union or China (Aaronson and Leblond 2018; Monteiro and Teh 2017, 8).

In the hopes of avoiding such a patchwork, some nations tried to jump-start a multilateral negotiating process under the WTO. At the Ministerial Conference in Buenos Aires in 2017, a diverse group of 71 WTO members signed a joint statement to explore further work on e-commerce.²⁶ In early January 2019, Japanese Prime Minister Shinzo Abe tried to inspire progress with his Davos speech: “We must, on one hand, be able to put our personal data and data embodying intellectual property, national security intelligence, and so on, under careful protection, while on the other hand, we must enable the free flow of medical,

industrial, traffic and other most useful, non-personal, anonymous data to see no borders, repeat, no borders” (Abe 2019). Later in 2019, WTO members agreed to “reinvigorate the e-commerce negotiations and the e-commerce waiver” in multilateral talks. Thus, all members agreed to continue to study e-commerce with the work program.²⁷

But some members wanted to move beyond discussions and actually negotiate. Australia, Japan and Singapore led efforts to adopt a fast-track open plurilateral approach, where any WTO member state could join, called the Joint Statement Initiative on Electronic Commerce, or JSI. The states involved in the JSI are discussing issues related to market access and data flows; issues around consumer and personal data; e-commerce trade facilitation; and transparency of e-commerce measures and regulations.²⁸ As Boxes 1 and 2 show, as of July 1, 2020, the JSI includes

²⁶ WTO, Ministerial Conference, *Joint Statement on Electronic Commerce*, WTO Doc WT/MIN(17)/60, 11th Sess, online: WTO <docs.wto.org>.

²⁷ WTO, Work Programme on Electronic Commerce, *General Council Decision*, WTO Doc WT/L/1079, online: WTO <docs.wto.org>.

²⁸ See <https://ustr.gov/sites/default/files/files/Press/Releases/20190125-joint-statement-on-electronic-commerce.pdf> and WTO (2019).

Box 2: Developing and Middle-Income Country Participants in the JSI

Albania	Malaysia
Benin	Mongolia
Burkina Faso	Montenegro
Cameroon	Myanmar
China	Nicaragua
Côte d'Ivoire	Nigeria
Ecuador	North Macedonia
El Salvador	Paraguay
Guatemala	Peru
Honduras	Philippines
Indonesia	Russian Federation
Kenya	Thailand
Lao People's Democratic Republic	Turkey Ukraine

more than 50 percent of all WTO members, including 26 low- and middle-income nations based on World Bank criteria.²⁹ Since July, one more nation, Ecuador, has joined (WTO 2020e).

In 2020, these negotiations gained a new urgency, as the COVID-19 pandemic made global dependence on e-commerce and data-driven services more visible (WTO 2020a, 2; WTO 2020b). The pandemic initially made progress in the JSI more difficult, as the talks moved online.³⁰ However, online discussions made it easier for governments to involve a greater number of experts from various agencies and ministries with expertise on digitalization and governance.³¹

Member states are negotiating the JSI in secret. Some trade diplomats are worried that leaked text could lead to misunderstanding (Kucik and Pelc 2017). But if member states continue to be opaque about the talks, they could undermine public and member-state support. In October 2020, JSI nations announced they are working toward a consolidated text³² that they hope to make public in the near future.³³

29 See <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>.

30 See Ohler (2020).

31 Author interview with Lee Tuthill, September 18, 2020.

32 See WTO (2020e).

33 Author interview with Lee Tuthill, September 18, 2020. The consolidated text is on the website, but it is restricted. See <https://rb.gy/nuy9tq>.

The Roots of the Digital Trade Divide: The Economic, Technological and Governance Context for the Work Program and the JSI

In every trade negotiation, countries have different stakes, which reflect the role of the sector under negotiation to their current political economy. More than 20 years after the work program began, most countries have a growing e-commerce sector. Hence, most members of the WTO have gained a significant understanding of the scope of regulations needed to regulate e-commerce. But most developing countries are net importers of digital products and services built on data such as AI or apps and likely to remain so for considerable time (UNCTAD 2017; 2019a; Weber 2017). Moreover, many of these WTO members do not yet understand the role of data in trade, how data is changing trade and national economies, and how they might develop a coherent national and international system of data governance (Aaronson 2019b; Organisation for Economic Co-operation and Development [OECD] 2019).

Data-fuelled economic change is affecting discussions and negotiations about e-commerce in four ways.

The Rise of the Data-driven Economy and Its Relationship to Trade

The data-driven economy is now essential to economic growth worldwide. The consulting firm McKinsey estimated that the value of global data flows surpassed that of trade in goods as early as 2014 (Bughin and Lund 2017). UNCTAD (2017, 7) reported that without data-driven expertise, developing countries will be less well-positioned to trade goods such as commodities or crops. Moreover, these states will need to use data analytics to ensure that the other goods and services they produce are high quality and remain competitive. Finally, recent OECD research has shown that digital trade (e-commerce and

data-driven services) is pervasive and involves all sectors of the economy. More specifically, digitalization is linked with greater trade openness, selling more products to more markets and less concentrated export baskets (López González and Ferencz 2018). A 2018 OECD study found that as firms rely more on data, they face greater trade complexity: “both traders and policy makers will need to consider a wide range of services and goods simultaneously for the potential benefits of digital trade to be realised” (ibid., 6).

Because data is so important, many nations are adopting national strategies, such as AI plans, data strategies or data charters, to nurture the data-driven economy (Struett 2019). However, some of these national plans and strategies may make it harder for data to flow across borders. For example, policy makers in one country might require that personal data be stored in local servers, another country might ban foreign ownership of certain data-based services and still another might tax firms that profit from the personal data of its citizens, but have no physical establishment in that country (Ismail 2020; Burri 2020; Ciuriak 2020). Some such measures may conflict with existing General Agreement on Trade in Services (GATS) rules, in particular for governments that already have market access and national treatment commitments for relevant services in their GATS schedules of commitments. However, with or without intent or related commitments, such policies may distort the free flow of data.³⁴ As a result, firms and individuals that seek to exchange data across borders may face uncertainty and barriers.³⁵ Hence, WTO member states that want to encourage cross-border data flows are pushing for clear binding commitments and clear and limited exceptions to those commitments (Aaronson and Leblond 2018).

Information Asymmetries and the Digital Economy

Firms and countries do not all proceed from the same starting point in this new economy. First, although about 20 percent of all firms in OECD countries participated in e-commerce transactions

in 2017, in a majority of countries, large firms are more than twice as likely as small and medium-sized enterprises to participate in e-commerce, and this gap is widening in absolute terms in many countries (OECD 2019). Second, data giants, which include long-standing internet platforms such as Google, Alibaba, Amazon and Tencent already have large troves of data that they can transform into new value-added data products and services. These firms also have funds to purchase significant computing power and data expertise (Ciuriak 2018a; 2018b). These new products and services generate even more data, which, in turn, perpetuates the market power of the data giants (Weber 2017, 411). Firms that benefit from such information asymmetries tend to be bigger firms and, in general, they are concentrated in the United States and China (Galbraith 2020). Statistics bear this out. In 2020, UNCTAD reported that Google has 90 percent of the global search market; Facebook has a two-thirds share of the global social media market and is the leading social media platform in more than 90 percent of the world’s economies; and Amazon.com has an almost 40 percent share of the global online retail market (UNCTAD 2020, 7, para. 36). US and Chinese firms collectively hold 75 percent of all patents related to blockchain technologies, 50 percent of all spending on the Internet of Things, 75 percent of cloud capacity and 90 percent of the market capitalization value of the world’s 70 largest digital platforms. In contrast, Europe’s share of the value of these platforms is four percent and Africa and Latin America’s together is only one percent (UNCTAD 2019a, 12). Yet innovation is not static. Firms in Brazil, Canada, Germany, India, Japan, the Netherlands, Russia, Singapore, South Korea, Sweden and the United Kingdom have become increasingly competitive in various data-driven sectors, such as apps and AI (Chakravorty, Chaturvedi and Filipovic 2019; IMD 2019). Analysts have found that several low-middle-income nations, such as India and Indonesia, have growing digital prowess.³⁶ But UNCTAD warns that many countries without large platforms may be unable or too late to develop local alternatives. Developing countries could be at risk of becoming “mere providers of raw data to global digital platforms, based mainly in the United States and China, while having to pay such platforms for the digital intelligence produced from their data” (UNCTAD 2020, 8, para. 41).

34 See www.digitaltradepolicy.org/ and Casalini and López González (2019).

35 See WTO, Council for Trade in Services, *Communication by the United States: Work Programme on Electronic Commerce*, WTO Doc S/C/W/359, online: WTO <docs.wto.org> [Communication by the United States].

36 The World Bank’s latest classification of countries is used (<https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>).

Information Asymmetries and the E-Commerce Talks

Information asymmetries also apply across countries. Many middle-income and developing countries are home to large and globally influential e-commerce companies, including Indonesia's Shopee, Argentina's Mercado Libre and Brazil's B2W Digital.³⁷ However, no low-income developing nation has significant digital prowess as of this writing nor is a major exporter of data driven services.³⁸ According to UNCTAD, many developing countries have lower levels of connectivity; limited digital expertise; national technological, financial and logistical challenges; and weaker regulatory and institutional frameworks (UNCTAD 2020, 3, para. 14). Moreover, these countries do not have large numbers of constituents demanding that policy makers develop rules to govern data. Finally, because the JSI relates to only one sector, many developing countries lack an important incentive to participate in the talks — the ability to trade concessions in e-commerce for concessions in another sector.

Political scientist Steven Weber (2017, 412–13) noted that many developing countries may, over time, fail to develop a data-driven economy and, therefore, be forced into a data trade imbalance. International organizations such as UNCTAD and the World Bank have recognized this dilemma and suggested that policy makers need to deepen their understanding of trade, digitalization and governance (World Bank 2016; UNCTAD 2017). These nations will likely need help to better understand how to use data to facilitate development — a very different approach from the traditional route of exporting commodities to manufactures to services (Aaronson 2019a).

The Difficulties of Governing Data

Data governance is an essential component of good governance in the twenty-first century and will have important effects on economic as well as human rights outcomes, such as freedom of speech, access to information and privacy. Researchers have shown that as data-driven technologies become more widespread, the governance of data becomes more important (Belton 2019). Moreover, given its political and economic

import, the failure to influence governance of data could undermine trust in governance, democratic values and in the internet as a whole.

But in high-, medium- and low-income countries alike, policy makers struggle to keep pace with data-driven change. No one really knows yet what good governance of data looks like. Moreover, some nations do not have firms with expertise using data analytics to develop new products and services (World Economic Forum 2011). Without such firms, policy makers are less able to develop a feedback loop between these firms, regulators and consumers (Aaronson 2019b; Ismail 2020; UNCTAD 2020). In 2017, Robert Azevêdo, until recently Director-General of the WTO, acknowledged that many WTO members lack infrastructure, access, regulatory governance and even the skill sets to develop e-commerce. He urged member states to collaborate to “understand what kind of policy framework would be conducive to an e-commerce environment that benefits everyone” (WTO 2019). That year, UNCTAD also warned that development agencies must do more “to prevent the evolving digital economy from leading to widening digital divides and greater income inequality” (UNCTAD 2017).

The JSI talks reflect the divergence in digital expertise. While every high-income country is participating, developing countries are divided. Some developing countries, such as Burkina Faso, El Salvador, Guatemala, Laos and Myanmar, have decided that they can shape the negotiation only by directly participating in the talks.³⁹ In contrast, others, such as India, Indonesia, South Africa and Vietnam, are not ready to negotiate and use public communications to explain their perspectives (UNCTAD 2019b).

The next section describes the methodological strategy employed to understand and describe this divide.

37 See www.similarweb.com/top-websites/category/e-commerce-and-shopping/.

38 See OECD (2019); Meissner and Poensgen (2020); and Chakravorti, Chaturvedi and Filipovic (2019).

39 See, for example, WTO, *Joint Statement on Electronic Commerce*, Communication from Côte d'Ivoire, WTO Doc INF/ECOM/49 at 1–2, online: WTO <docs.wto.org> [Communication from Côte d'Ivoire].

Methodology

The authors used member public communications to better understand the e-commerce work program, the JSI and the evolution of member-state concerns. These public communications are available at the online database of WTO documents (<https://docs.wto.org/>) and include member-drafted documents at the General Council and the Council for Trade in Services, among other WTO document groupings.⁴⁰

Two analytical strategies — content analysis and process tracing — were used to analyze these public communications. Content analysis allowed the authors to map word or issue frequency by country and by period. In contrast, process tracing allowed them to analyze country positions over time. The authors bolstered their analysis with other official sources. With such information, the authors obtained a better understanding of how member-state views evolved and when and how they found convergence or divergence.

The analysis focused on four questions:

- Which countries submitted public communications in the 22-year period?
- What were these countries saying about how best to govern e-commerce and data?
- How did country concerns change over time?
- What do these public communications tell us about key issues that may be complicating the talks?

There were 146 communications related to the WTO talks; of these, 75 were analyzed.⁴¹ The other 71 either were communications that were not put forward by a country (32 communications) (for example, prepared by the Secretariat or a facilitator), were an earlier version of a revised communication so they

were redundant (12 communications, of which only the final revised communication was examined), expressed that a country was joining the talks (seven communications) or were a restricted communication (20 communications). Restricted communications were available only to members so they could not be reviewed.

Several factors have changed since the analysis was completed in July 2020. Another country joined the JSI. The WTO and member states have placed more communications on the site since that date. These documents may not stay restricted. Members may request that once-restricted documents be made public. Hence, our analysis does not fully reflect the public communications on the site as of December 2020.⁴²

The documents were divided into four groups, representing four distinct periods. Table 1 summarizes these public communications and delineates the periods. The period dates were established by the date of the first and last communication during the period, so there are gaps between periods.

The first period spans from February 1998 to July 2003. In the second period, from the second half of 2003 to the end of 2009, no country submitted a public communication. It is not known why there was so little public communication during this extensive period. The third period spans from July 2011 to the end of 2018 (the JSI was announced in January 2019 and no documents were drafted in that month). While members issued the most public communications in the third period, it is considerably longer than the fourth period of March 2019 to June 26, 2020. During this period, member states held seven formal rounds of talks.⁴³

To answer the first question, a list of every public communication produced by WTO member states for the periods in question was created. For questions two and three, the authors developed an iterative approach to mapping issues covered by WTO members in their public communications. They read and took notes on these communications and used an Excel spreadsheet to describe and

40 The documents begin with one of these labels: WT/GC/W/; S/C/W/70; JOB(05); JOB/CTG/2; or INF/ECOM.

41 As noted in this paper, the work program and JSI are unique so they cannot be compared to another negotiation. However, the authors were surprised that there were only 146 communications. The services talks (a much broader negotiation covering services from education to computers to health and so on) have some 555 documents, most of which are restricted. But they have also been going on for much longer. See <https://tinyurl.com/y59p5435>.

42 On August 4, 2020, the authors plugged in “e-commerce” and found some 325 documents. See <https://rb.gy/nuy9tq>.

43 WTO, *Joint Statement on Electronic Commerce – 11–14 February 2020 – Facilitator’s reports – Seventh negotiating round*, WTO Doc INF/ECOM/R/7.

Table 1: Public Communications by Type (Public or Restricted Documents)

Period	Date Range	Public Communications	Restricted Communications	Communications Not by a Country	JSI Country Joining Statements	Communications before Final Revision
1	February 9, 1998–July 8, 2003	24	0	5	n/a	1
2	July 21, 2003–November 27, 2009	0	1	8	n/a	0
3	July 13, 2011–December 17, 2018	29	2	11	n/a	3
4	March 25, 2019–June 26, 2020	22	17	9	7	6

Source: Authors.

summarize the important issues covered. Next, the word frequencies of key terms related to these issues were mapped over time and by country.⁴⁴ Finally, process tracing was used to provide a more complete view of the results.

Findings

Question 1: Which Nations Issued Public Communications?

As Table 2 shows, most WTO members did not issue public communications (they also did not issue restricted documents). Only about one-fifth of the members submitted public communications throughout most of the period.

The countries that communicated the most include the European Union, 28 (soon to be 27) nations

that speak as one as a trade bloc⁴⁵ as well as two smaller open economies, Canada and New Zealand (see Table 3). The next active group of countries includes Australia, Brazil, Singapore and the United States. Australia, Japan and Singapore are the co-conveners of the JSI and, as such, these members work to encourage consensus.⁴⁶ It is noteworthy that many of these vocal nations see setting rules to govern digital trade as essential to their economic futures; these WTO members also rank highly on metrics of digital prowess, such as the IMD Digital Competitiveness Index⁴⁷ or the European Union’s 2018 International Digital Economy

44 An appendix delineating the public communications and research strategy is available at: <https://datagovhub.elliott.gwu.edu/the-digital-trade-division/>.

45 Since December 1, 2009, the “European Union” has been the official name for the members of the European Union. Before that, “European Communities (EC)” was the official name and that name appears in older documents. The European Union is a WTO member in its own right, as are each of its member states. The authors’ counts combine EU and EC because the EU/EC has competency for making trade policy for the bloc (see www.wto.org/english/thewto_e/countries_e/european_union_or_communities_popup.htm). Although the United Kingdom is withdrawing from the European Union, there were no documents with British proposals on e-commerce at the WTO.

46 See WTO (2020e).

47 See IMD (2019).

Table 2: Summary of Public Communications

Period	Date Range	Total Number of Public Communications	Total Number of Countries Submitting Public Documents	Number of Countries Submitting Restricted Documents in the JSI	Number of Restricted Documents Submitted in the JSI
1	February 9, 1998–July 8, 2003	24	15 (less than 12% of members) ⁴⁸	0	0
2	July 21, 2003–November 27, 2009	0	0	0	0
3	July 13, 2011–December 17, 2018	29	32 (less than 21% of members) ⁴⁹	2	2
4	March 25, 2019–June 26, 2020	22	29 (18% of members) ⁵⁰	14 (17–18% of participants)	25 (30–33% of documents)

Source: Authors.

Table 3: Countries with the Most Public Communications and Their Digital Prowess

Country	2018 DESI or I-DESI Score	Number of Public Communications
European Communities/ European Union	58.9* (*average score of EC/EU countries)	13
Canada	67.0	10
New Zealand	65.8	8
Australia	67.8	7
Brazil	39.7	7
Singapore	Not included in I-DESI analysis	7
United States	66.7	7

Source: Authors and DESI.

Note: The I-DESI compares the average performance of EU member states with 17 non-EU countries, using a similar methodology to the EU DESI index.

⁴⁸ In 1998, the WTO had 132 members (WTO 1998). In 2003, the WTO had 147 members (WTO 2003).

⁴⁹ In 2011, the WTO had 154 members (WTO 2011); in 2018 and continuing through July 2020, the WTO has 164 members (see www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm).

⁵⁰ The WTO has had 164 members since 2016 (WTO 2020c).

Table 4: Number of Public Communications by a Sample of Countries Referencing an Issue (1998–2020)

Country (Total Public Communications)	Development	Access	Data	Customs Duties	Openness	Trust	Transparency	Personal Data Protection	Consumer Protection	Competition
United States (7)	7	6	5	4	4	0	2	5	5	5
European Union (13)	11	12	8	4	12	3	9	7	9	7
China (4)	2	2	2	4	2	1	2	2	2	0
Canada (10)	5	5	3	6	6	3	4	2	5	1
New Zealand (8)	2	2	1	5	3	1	2	1	4	1
Ukraine (3)	3	1	2	1	3	1	3	1	1	0
Colombia (4)	2	3	1	2	3	0	1	2	1	0
Côte d'Ivoire (3)	3	3	2	1	1	0	1	1	1	1
Cuba (3)	3	3	3	0	1	0	1	3	1	1
India (3)	3	2	2	3	0	0	0	0	0	1

Source: Authors.

Note: For the issue “openness,” both “open” and “openness” were used, and for “personal data protection,” both “privacy,” “data protection” and “personal data protection” were used. European Union includes public communications by European Communities, European Communities and their member states, and the European Union.

and Society Index (I-DESI).⁵¹ However, some developing countries also viewed both the work program and the JSI worthy of significant comments. Cuba and Côte d'Ivoire, for example, submitted at least three public communications. Some 13 public communications were drafted by country groups. India and South Africa; Argentina and Brazil; and Cuba, Nicaragua and Ecuador banded together more than once to issue communications. Canada seemed to be the most

frequent participant in joint communications,⁵² followed by Australia, Argentina, Brazil, India and South Africa. Canada's groups tended to be larger and more diverse than those of other nations (for example, with 16 other countries in 2017; with 20 other countries in 2019; and with two groups in 2020, one with three countries and another with 14).

51 I-DESI compares the average performance of EU member states with 17 non-EU countries, using a similar methodology to the EU DESI index. It measures performance in five dimensions or policy areas: connectivity, human capital (digital skills), use of internet by citizens, integration of technology and digital public services (see <https://ec.europa.eu/digital-single-market/en/digital-economy-and-society-index-desi>). The 2020 report, which will use 2019 data, is not out yet.

52 JOB/CTG/4/Rev.2; WT/GC/W/782/Rev.2; INF/ECOM/42/Rev.2; and WT/GC/W/799/Rev.1.

Table 5: Selected E-commerce Issues by Period and by Number of Public Communications for 1998–July 2020

Period (Total Public Communications)	Development	Access	Data	Customs Duties	Openness	Trust	Transparency	Personal Data Protection	Consumer Protection	Competition
Period 1 (24) 1998–2003	21	17	9	12	9	1	5	9	3	8
Period 2 (0) 2003–2011	0	0	0	0	0	0	0	0	0	0
Period 3 (29) 2011–2019	25	22	22	12	18	10	18	20	15	9
Period 4 (22) JSI and Work Program (2019–2020)	12	14	12	14	8	7	7	5	11	6

Source: Authors.

Questions 2 and 3: What Did the Communications Say and How Did They Change over Time?

In order to illuminate the scale and scope of topics that WTO member states mentioned in their communications, we created a diverse sample of countries. The sample included countries that trade significantly as well as those that trade less and the number of communications they put forward. Table 4 shows how often the countries we selected discussed specific key issues or terms during the entire 22-year period. Each cell expresses how many public communications use the issue term at the top of the column by the specific country in the row. The first column lists how many communications were put forward by the WTO member and the columns that follow delineate how often a particular word or term (for example, consumer protection) was mentioned by that country in those documents.

Note that word frequency does not reveal the import of a particular issue to a member state or provide background information as to how it developed its position. For example, the European Union mentioned development more frequently than any other WTO member, but Côte d’Ivoire devoted all three of its communications to the development impact of e-commerce.

The authors thought that certain issues, such as data governance, personal data protection, trust, and transparency, would become more

central to consensus and hence be mentioned more frequently during the work program and as negotiations progressed. But that was not the case. Table 5 shows key topics and how communications about these topics changed over time for all countries during the four periods. Based on the number of public communications, members issued documents mentioning customs duties and competition fairly consistently throughout the 22-year period. However, the number of documents where members mentioned issues such as access, data openness, trust, and transparency gradually declined. Consequently, it became clear that content analysis could tell us a lot about how often members used words or terms but very little about the divergence and convergence of member-state views over time.

Question 4: What Do These Public Communications Tell Us about Country Concerns Related to the Talks?

Development, Access and Equity Issues Affecting Participation in the Work Program and the JSI

Member states struggled to address issues of development, access and equity throughout the work program and the JSI. For example, in 2011, Cuba, Ecuador and Nicaragua noted in a public communication that many developing countries lack the capacity to develop a digital economy, which in turn can affect members’ ability to

negotiate. Because broadband access is expensive in the developing world, they argued, their citizens were less able than individuals in richer nations to participate in e-commerce. Moreover, they noted that “this digital divide limits the production and dissemination of knowledge, exacerbates economic backwardness, and dangerously intensifies the lack of understanding between people.”⁵³ Given these differences among nations, the three nations stressed that members needed a better understanding of the issues, especially if they wanted to use e-commerce to combat poverty. They called for a working group on e-commerce and development that would focus on regulatory issues and provide strategies for technical assistance.⁵⁴ In response, Canada, Chile, Colombia, Côte d’Ivoire, the European Union, Mexico, Paraguay, the Republic of Korea and Singapore contended that WTO members could address these concerns by clarifying the appropriate regulatory frameworks to facilitate e-commerce and then help these countries develop e-commerce initiatives.⁵⁵ No evidence that the working group was ever created was found.

Meanwhile, in a 2018 communication, Taiwan argued that many developing countries misunderstood e-commerce and its potential benefits to growth. Taiwan noted that e-commerce was stimulating developing-country trade because it enabled them to reach new customers and diversify markets more rapidly.⁵⁶ The United States bolstered this argument in a separate communication, describing how banking and app sectors lowered costs for developing country consumers and firms, creating jobs and driving innovation.⁵⁷

Not surprisingly, these work program communications did not sway many developing countries. In a 2019 communication, Chad presented a list of challenges that developing countries face in trying to build e-commerce, including:

- limited knowledge by firms and government of how to encourage and regulate e-commerce;
- few start-up enterprises in e-commerce;
- concerns about how to mitigate the negative effects of e-commerce;
- lack of infrastructure and credit;
- inadequate online payment facilities; and
- a lack of statistical data.⁵⁸

In 2019, South Africa and India expressed concerns about their digital sovereignty: their ability to control domestically created data and ensure that such data facilitated their development. “Digitalization affects different countries in different ways and individual governments require policy space to regulate the digital economy” to meet legitimate public policy objectives. If developing countries are to make progress, they need to implement “active industrial policies to get some benefits of e-commerce.”⁵⁹ Soon thereafter, South Africa and India noted they needed time to develop their own digital sectors before they could consider negotiating.⁶⁰ On December 19, 2019, Côte d’Ivoire submitted a textual proposal as a basis for discussions on e-commerce. The government stressed that low-income developing countries lack the infrastructure and regulatory framework to fully exploit the potential of e-commerce: “We would like to have a regulatory framework that is in line with our development needs.” Rather than seeking exceptions, “special and differential treatment should help us to integrate into the global economy.” Hence, “negotiators should work towards principles that would allow the greatest number of Members to adhere to those principles, instead of adopting an approach that would satisfy only the major players in

53 WTO, General Council, *Effective Participation of Developing Countries in Electronic Commerce as a Means to Combat Poverty*, Communication from Cuba, Ecuador and Nicaragua, WTO Doc WT/GC/W635, online: WTO <docs.wto.org>.

54 *Ibid.*

55 WTO, Work Programme on Electronic Commerce, *Trade Policy, the WTO and the Digital Economy*, Communication from Canada, Chile, Colombia, Côte d’Ivoire, the European Union, the Republic of Korea, Mexico, Paraguay and Singapore, WTO Doc JOB/GC/97/Rev.1 at 3, online: WTO <docs.wto.org>.

56 WTO, Work Programme on Electronic Commerce, *Removing Cyberspace Trade Barriers*, WTO Doc JOB/GC/170 at para 1.2, online: WTO <docs.wto.org> [Removing Cyberspace].

57 WTO, Work Programme on Electronic Commerce, *The Economic Benefits of Cross-border Data Flows*, Communication from the United States, WTO Doc S/C/W/382, s 2.2.3, online: WTO <docs.wto.org> [Economic Benefits].

58 WTO, Work Programme and Moratorium on Electronic Commerce, Communication from Chad on behalf of the LDC Group, WTO Doc WT/GC/W/787, online: WTO <docs.wto.org> [Communication from Chad].

59 WTO, *Scope and Impact*, *supra* note 9.

60 *Ibid.*

international trade.” Côte d’Ivoire concluded that there should be two types of rules: “rules that they are willing and able to abide by through their own means...[and] rules they are able to honour only with assistance from WTO Members or from international or regional institutions.”⁶¹

In sum, many developing countries used their communications to signal that they were not ready to develop international rules governing e-commerce and data governance. They wanted help to develop data-driven firms and governance experience and more time to put domestic data governance rules in place. But as the JSI negotiations progressed, developing countries diverged on their strategy — some chose to shape the rules while others chose to comment from the sides of the negotiation.

Discussion of Data and Cross-border Data Flows

While most countries submitting public communications did not mention data, several countries sought to characterize the work program (and later the JSI) as about regulating data. In 2018, Taiwan noted that in some proposals, “the term ‘data’ seems to equate to ‘personal data’ or ‘transaction data,’” while in others, members discuss data in broader terms. It warned that members must clearly define what type of data they are talking about if they want to prevent and remedy barriers to data flows.⁶² In a 2019 document, Singapore stressed that “information and data flows increasingly underpin all transactions and without which trade will not be possible” and argued, therefore, that the WTO must address information and data flows.⁶³ The United States concurred, noting “the value of data is often only realized when it is integrated into broader interactive systems using datasets that span different populations and territories.” The United States called this process “data-enabled trade.”⁶⁴

Some countries put forward specific draft language on data governance, including the

governance of cross-border flows. They tended to be countries that had already developed and negotiated such provisions in trade agreements, such as the European Union, the United States, Australia, Canada and Singapore.⁶⁵ Nonetheless, some developing and middle-income nations, including Côte d’Ivoire, Montenegro and Paraguay, joined Brazil, Canada, Chile, Japan, Mexico and Moldova in supporting disciplines to facilitate cross-border data flows. They agreed that free flow of data across borders should be a default in any agreement, along with bans on a few practices, such as data localization, and requirements that firms divulge their source code as a condition for doing business.⁶⁶

For example, in June 2019, the European Union proposed general language that banned the restriction of data flows by server location, data localization or making the cross-border transfer of data contingent upon use of computing facilities or network elements in the member’s territory.⁶⁷ The United States, also writing in June 2019, took a more generic approach, arguing that “internet users should be able to move data as they see fit.” The United States mentioned a ban on data localization and local requirements to divulge source code (proprietary data). It also called for rules to prohibit web blocking.⁶⁸

After coming to understand such differences in willingness to govern data, the chairman of the Council for Trade in Services warned in 2019 that it would be difficult to find consensus on rules to govern cross-border data flows, given development sensitivities. He stressed that some member states argued that if countries have a right to monetize data, they also have a right to localize data (to require that data be stored in servers located within a specific member state and/or by firms hosted in a member state). Such a position

61 WTO, Communication from Côte d’Ivoire, *supra* note 39, ss I, 4c; II, 3a; IV, 1a, 1d.

62 WTO, *Removing Cyberspace*, *supra* note 56, s 2.

63 WTO, *Joint Statement on Electronic Commerce*, Communication from Singapore, WTO Doc INF/ECOM/25, s 3.1, online: WTO <docs.wto.org>.

64 WTO, *Economic Benefits*, *supra* note 57 at para 4.

65 WTO, *Work Programme on Electronic Commerce, Trade Policy, the WTO, and the Digital Economy*, Communication from Canada, Chile, Colombia, Côte d’Ivoire, the European Union, the Republic of Korea, Mexico, Paraguay and Singapore, WTO Doc JOB/GC/97 Rev. 1, online: WTO <docs.wto.org>.

66 *Ibid* at 3.

67 WTO, *Joint Statement on Electronic Commerce: EU Proposal for WTO Disciplines and Commitments Relating to Electronic Commerce*, Communication from the European Union, WTO Doc INF/ECOM/22, s 2.7, online: WTO <docs.wto.org> [Communication from the European Union].

68 WTO, *Joint Statement on Electronic Commerce Initiative*, Communication from the United States, WTO Doc INF/ECOM/5 at 1–2, online: WTO <docs.wto.org>.

could not easily be reconciled with that of those members that called for the free flow of data across borders as a default, with limited exceptions.⁶⁹

Customs Duties

In 2020, the Tax Foundation examined whether the firms that drive the data-driven economy (those that create revenues and profits) were located in the same nations as users. It found a significant mismatch: “In 2015, a bit more than one-third of global internet users were in East and Southeast Asia, while 20 percent of value created in information industries originated there. Conversely, just 11 percent of internet users in 2015 resided in North America while 37 percent of value created in information industries originated there” (Bunn, Asen and Enache 2020). Not surprisingly, this divide has also been front and centre in the public communications at the WTO. Countries without significant data economy expertise wanted to capture some of the revenue from these firms to fund their own digital development.

However, when the e-commerce work program negotiations began in 1998, members agreed to a temporary ban on customs duties (so-called tariffs on imports and/or exports) for electronic transmissions. In a communication, New Zealand stated the rationale for this waiver: “A prohibition on customs duties on electronic transmissions is trade facilitating — providing more certainty and predictability for businesses and consumers. It is likely to provide opportunities for the wider adoption of e-commerce, reducing the costs of market transactions and delivering important flow-on effects, such as the creation of new markets, products and services. By increasing international trade, we support economic growth, ultimately enabling governments to collect more revenue.”⁷⁰

Some countries remained deeply concerned about the moratorium, which applied to both digitalized goods and the online supply of services. Developing countries are generally more reliant on customs duties applied to these goods and services to finance government. Higher-income countries, in contrast, tend to tax profits, revenues or production

inside their borders.⁷¹ Although members have approved the moratorium nine times since 1998, some countries raised questions about whether it was equitable. For example, in 2018, India and South Africa asked members to consider the costs of the moratorium to the ability of these countries to fund data-driven development.⁷² In 2019, India and South Africa submitted a new paper arguing that the moratorium was discriminatory.⁷³ They based their position on a 2019 UNCTAD research paper.⁷⁴ India and South Africa also contended that the customs moratorium was unclear; while it clearly applied to the transmission of data, it probably did not apply to the actual good or service provided. Other developing countries have agreed with this perspective.⁷⁵ In response, Australia, Canada, Chile, China, Colombia, Hong Kong, Iceland, New Zealand, Norway, the Republic of Korea, Singapore, Switzerland, Thailand and Uruguay used a public communication to argue that the application of customs duties on digital transmissions would increase uncertainty and costs, and in so doing stifle digital development. They used the findings of a recent OECD study to argue that members that opposed the moratorium ignored the benefits of waiving customs duties to developing countries, which include “positive economic outcomes such as export, diversification, productivity growth and increased domestic value-added in exports.” In short, these 14 countries were saying that instead of using customs duties, which could suppress digital flows, the generators of digital value should be taxed.⁷⁶ Many countries, including Australia, Bahrain, Canada, Iceland, Japan, New Zealand, Norway, South Korea, Switzerland and Turkey, among others, apply some form of digital tax.⁷⁷ Hence,

71 See Dione (2019) and Le Makiyama (2019).

72 WTO, Work Programme on Electronic Commerce, *Moratorium on Customs Duties on Electronic Transmissions: Need for a Re-Think*, Communication from India and South Africa, WTO Doc WT/GC/W/747, online: WTO <docs.wto.org>.

73 WTO, Work Programme on Electronic Commerce, *The E-Commerce Moratorium and Implications for Developing Countries*, Communication from India and South Africa, WTO Doc WT/GC/W/774, online: WTO <docs.wto.org>.

74 See Banga (2019).

75 WTO, Communication from Chad, *supra* note 58 at 2.

76 WTO, Work Programme on Electronic Commerce, *Broadening and Deepening the Discussions on the Moratorium on Imposing Customs Duties on Electronic Transmissions*, WTO Doc WT/GC/W/799 at para 2.2, online: WTO <docs.wto.org>.

77 See Musgrove (2020).

69 WTO, Work Programme on Electronic Commerce, *Report by the Chairman of the Council for Trade in Services to the General Council*, WTO Doc S/C/57, online: <docs.wto.org>.

70 WTO, *Joint Statement on Electronic Commerce*, Communication from New Zealand, WTO Doc INF/ECOM/33, s 1.2, online: WTO <docs.wto.org>.

taken in sum, the public communications did not reveal any consensus on whether and how to use customs duties, or whether digital taxation was an acceptable option for many developing countries.

Rules to Govern Privacy and Personal Data Protection

Privacy and data protection are also long-standing issues in both the work program and the JSI. WTO rules acknowledge that privacy is a legitimate exception; governments may breach trade rules when necessary to protect their citizens' privacy and personal data online, as long as nations act in a non-discriminatory manner.⁷⁸

However, most trade agreements with e-commerce provisions do not rely on the exceptions to protect privacy and personal data (Monteiro and Teh 2017). Instead, these provisions generally contain language saying that each party shall adopt or maintain a legal framework that provides for the protection of personal information, building on internationally accepted principles. The parties agree to apply these principles in a non-discriminatory manner (*ibid.*).

Moreover, most of these agreements do not contain language facilitating interoperability of personal data protection regimes. As a result, WTO members confront a variety of approaches to privacy and personal data protection.

Canada has made the most comprehensive public recommendations on personal data protection in public communications. It suggested that parties shall publish information on the personal information protections it provides to users of digital trade, including how citizens can seek remedies and how enterprises can comply with legal requirements. It also called for interoperability among the many different approaches to protecting personal data. Soon thereafter, Canada also put forward draft text proposing that firms and governments could not use personal data in a

discriminatory manner.⁷⁹ The European Union, in contrast, simply stated “protection of personal data and privacy is a fundamental right and... high standards in this regard contribute to trust... and...trade.”⁸⁰ But it called for each nation to find its own strategy: “Members may adopt and maintain the safeguards they deem appropriate to ensure the protection of personal data and privacy.”⁸¹ It did not mention interoperability. The United States stated that members should adopt or maintain a domestic legal framework that ensures protection of personal data but did not mention interoperability of data protection regimes. Instead, it noted that countries can use “contract law, mutual recognition agreements and other international arrangements.”⁸² The United States also warned nations to “take great care that any measures that prevent data exports” do not constitute a barrier to trade or discriminate against foreign suppliers of data-driven services. It called for further discussion.⁸³

Openness, Transparency and Trust

Canada, New Zealand and Ukraine used public communications to signal that they thought the negotiating texts should be made public. They suggested that under their proposal, the texts would be bracketed and hence readers could not delineate which member suggested specific language. Given the complexities of the negotiations on data, they stressed, “We believe that this negotiation will benefit from stakeholders having a better understanding of the range of issues being considered in the process. Without such information, stakeholders will be left to speculate about what may be being discussed. Moreover, we would be able to benefit from their knowledge and perspectives.”⁸⁴

78 “One of the General Exceptions in Article XIV of the GATS, overriding all other provisions, covers measures Governments might find it necessary to take for ‘the protection of the privacy of individuals in relation to the processing and dissemination of personal data and the protection of confidentiality of individual records and accounts’” (www.wto.org/english/tratop_e/serv_e/gats_facfiction10_e.htm).

79 WTO, *Joint Statement on Electronic Commerce*, Communication from Canada, *Concept Paper – Preventing the Use of Personal Information from being used for the Discrimination or Persecution of Natural Persons*, WTO Doc INF/ECOM/39, online: WTO <docs.wto.org> and WTO, *Joint Statement on Electronic Commerce*, Communication from Canada, *Concept Paper – Building Confidence and Trust in Digital Trade*, WTO Doc INF/ECOM/29, online: WTO <docs.wto.org>.

80 WTO, *Communication from the European Union*, *supra* note 67 at para 2.8.

81 *Ibid.*

82 WTO, *Communication by the United States*, *supra* note 35 at para 4.7.

83 *Ibid* at para 4.9.

84 WTO, *Joint Statement on Electronic Commerce*, Communication from New Zealand, WTO Doc INF/ECOM/42, online: WTO <docs.wto.org>.

These countries were warning that for the talks to succeed, internet users — their constituents — must trust in the talks. Yet members rarely mentioned trust in their public communications (see Table 5). However, as noted above, other members of the WTO appear responsive to the need for openness and are supporting the publication of a draft text after negotiating nations have developed a consensus text.

Conclusion

This paper used content analysis and process tracing to better understand what members were saying about the WTO's Work Programme on Electronic Commerce and the JSI. Content analysis enabled us to identify key issues and process tracing allowed analysis of how member-state positions evolved over time and how, when and on what they found convergence and division.

The authors found that the members of the WTO generally want to see a rules-based system to govern goods and services delivered online (e-commerce). However, as e-commerce has evolved toward new services built on data such as AI, countries disagree as to how and when to regulate digital trade and the data that underpins it. These divisions are reflected in their public communications throughout the 22-year period.

The members that most actively communicated about the work program and the JSI were the European Union, Canada, New Zealand and Singapore. Not surprisingly, these members are also among the world's most competitive in providing digital goods and services (IMD 2019; Chakavortic, Chaturvedi and Filipovic 2019). With the exception of the European Union, they have relatively small populations and open economies. To compete with firms in the United States and China, these nations must help their firms achieve economies of scale and scope in data. To achieve economies of scale and scope in data they need greater access to users in other countries (Aaronson 2018). Not surprisingly, these nations are also leading efforts to govern e-commerce by negotiating regional and bilateral trade agreements such as CUSMA, the CPTPP and the RCEP.

Meanwhile, some developing and middle-income countries used their public communications to signal that, despite sharing concerns about their ability to develop a data-driven economy without significant assistance, they are determined to shape their data-driven future at the WTO. Côte d'Ivoire, Mexico, Moldova, Montenegro, Paraguay, Thailand and Ukraine, among others, expressed support for a clear system of rules and exceptions to those rules to govern the data flows that underpin e-commerce/digital trade.

In contrast, other WTO members have used their public communications to assert that many countries are not yet ready to negotiate rules to govern e-commerce. Policy makers from these countries are increasingly aware that their nations may remain importers of data-based goods and services (UNCTAD 2019b; Weber 2017). Countries such as India and South Africa have argued that developing countries need special and differential treatment and the ability to utilize customs duties to finance digital development if they are to build e-commerce/digital trade. In contrast, Côte d'Ivoire and Colombia argued that the negotiators should put the same emphasis on trade facilitation and capacity building as they do on negotiating shared rules.

In short, the public communications exposed several divisions among the members of the WTO on governing e-commerce. In a 2019 communication, the government of Côte d'Ivoire stressed that these divisions could lead to distrust among WTO members. To remedy this, Côte d'Ivoire proposed that JSI members do more to incentivize digital development and reduce information asymmetries within the negotiations.⁸⁵

Building on that idea, this paper offers three suggestions for policy makers to consider:

- Some WTO members are clearly signalling that they need help creating a data-driven economy. Donor nations should respond by providing funds and expertise to the developing world for data-driven development.

⁸⁵ WTO, Communication from Côte d'Ivoire, *supra* note 39.

- Digital trade/e-commerce agreements should be designed to achieve two objectives: enable more people to participate and benefit from data-driven growth and set rules to govern digital trade so as to facilitate trust and predictability among market actors. To that end, the DEPA among Chile, New Zealand and Singapore provides a good model. Not only is it focused on mutual digital development, it includes modules focusing on trust, provisions designed to promote data sharing between the public and private sectors, and provisions designed to encourage regulatory innovation, in recognition of rapidly changing data-driven sectors.⁸⁶
- As data governance has become a key issue for development, development organizations should define what comprehensive data governance looks like at the national level and how it can be achieved in a flexible and technologically neutral manner. These organizations should also provide financial and technical assistance to help developing countries build data governance skills.

Authors' Note

The authors are grateful to the policy makers and scholars who reviewed and improved our drafts. They include two anonymous reviewers from CIGI and Javier López González of the OECD; Lee Tuthill, counsellor at the WTO; Henry Gao, Singapore Management University; Marc Froese, Burman University; Shamika N. Sirimanne, director, Division on Technology and Logistics, UNCTAD; and Torbjörn Fredriksson, head, ICT Analysis Section, Division on Technology and Logistics, UNCTAD. We take full responsibility for any mistakes. We thank Jennifer Goyder and CIGI colleagues for improving this publication.

⁸⁶ See www.mfat.govt.nz/assets/Trade-agreements/DEPA/DEPA-Signing-Text-11-June-2020-GMT.PDF, modules 5 and 6.

Works Cited

- Aaronson, Susan Ariel. 2018. *Data Is Different: Why the World Needs a New Approach to Governing Cross-border Data Flows*. CIGI Paper No. 197. Waterloo, ON: CIGI. www.cigionline.org/publications/data-different-why-world-needs-new-approach-governing-cross-border-data-flows.
- . 2019a. "What Are We Talking about When We Talk about Digital Protectionism?" *World Trade Review* 18 (4): 541–77. www.cambridge.org/core/journals/world-trade-review/article/what-are-we-talking-about-when-we-talk-about-digital-protectionism/FOC763191DE948D484C489798863E77B.
- . 2019b. *Data Is a Development Issue*. CIGI Paper No. 223. Waterloo, ON: CIGI. www.cigionline.org/publications/data-development-issue.
- . 2020. *Data Is Dangerous: Comparing the Risks that the United States, Canada and Germany See in Data Troves*. CIGI Paper No. 241. Waterloo, ON: CIGI. www.cigionline.org/publications/data-dangerous-comparing-risks-united-states-canada-and-germany-see-data-troves.
- Aaronson, Susan and Patrick Leblond. 2018. "Another Digital Divide: The Rise of Data Realms and its Implications for the WTO." *Journal of International Economic Law* 21 (2): 245–72. <https://academic.oup.com/jiel/article-abstract/21/2/245/4996295?redirectedFrom=fulltext>.
- Abe, Shinzo. 2019. "'Defeatism about Japan is now defeated': Read Abe's Davos speech in full." *World Economic Forum*, January 23. www.weforum.org/agenda/2019/01/abe-speech-transcript/.
- Alibaba Group and the World Bank. 2019. *E-Commerce Development: Experience from China*. Washington, DC: WTO. <http://documents.worldbank.org/curated/en/552791574361533437/E-commerce-Development-Experience-from-China>.
- Al-Saleh, Henadi. 2020. "E-commerce is globalization's shot at equality." *World Economic Forum*, January 20. www.weforum.org/agenda/2020/01/e-commerce-sme-globalization-equality-women/.
- Australian Government. 2017. "Singapore-Australia Free Trade Agreement: Outcomes at a Glance." Fact Sheet. www.dfat.gov.au/sites/default/files/safta-third-review-outcomes-at-a-glance.pdf.
- Bacchetta, Marc, Patrick Low, Aaditya Mattoo, Ludger Schuknecht, Hannu Wager and Madelon Wehrens. 1998. *Electronic Commerce and the Role of the WTO*. WTO Special Studies, No. 2. Geneva, Switzerland: WTO.
- Banga, Rashmi. 2019. *Growing Trade in Electronic Transmissions: Implications for the South*. UNCTAD Research Paper No. 29. February. UNCTAD/SER.RP/2019/1. https://unctad.org/en/PublicationsLibrary/ser-rp-2019d1_en.pdf.
- Belton, Keith. 2019. *Smart Factories: Issues of Information Governance*. Manufacturing Policy Institute, March. <https://manufacturingpolicy.indiana.edu/doc/Smart%20Factories.pdf>.
- Bughin, Jacques and Susan Lund. 2017. "The ascendancy of international data flows." *Vox EU*, January 9. <https://voxeu.org/article/ascendancy-international-data-flows>.
- Bunn, Daniel, Elke Asen and Christina Enache. 2020. *Digital Taxation Around the World*. Tax Foundation, May 27. <https://taxfoundation.org/digital-tax/>.
- Burri, Mira. 2020. "How Should the WTO Respond to the Data-driven Economy?" In *Modernizing the World Trade Organization*, 65–69. Waterloo, ON: CIGI. www.cigionline.org/sites/default/files/documents/ModernizingWTO_EssaySeries-web.pdf.
- Casalini, Francesca and Javier López González. 2019. "Trade and Cross-Border Data Flows." *OECD Trade Policy Papers* No. 220. Paris, France: OECD. doi:10.1787/b2023a47-en.
- Chakravorti, Bhaskar, Ravi Shankar Chaturvedi and Christina Filipovic. 2019. *Ease of Doing Digital Business*. The Fletcher School, Tufts University. November. https://sites.tufts.edu/digitalplanet/files/2020/03/Ease-of-Doing-Digital-Business-2019_2020.pdf.
- Charnovitz, Steve. 2004. "Transparency and Participation in the World Trade Organization." *Rutgers Law Review* 56. https://scholarship.law.gwu.edu/cgi/viewcontent.cgi?article=1432&context=faculty_publications.
- Ciuriak, Dan. 2018a. "The Economics of Data: Implications for the Data-Driven Economy." In *Data Governance in the Digital Age*, 14–19. Waterloo, ON: CIGI.
- . 2018b. *Digital Trade: Is Data Treaty-ready?* CIGI Paper No. 162. Waterloo, ON: CIGI. www.cigionline.org/publications/digital-tradedata-treaty-ready.
- . 2020. "The WTO in the Digital Age." In *Modernizing the World Trade Organization*, 71–75. Waterloo, ON: CIGI. www.cigionline.org/sites/default/files/documents/ModernizingWTO_EssaySeries-web.pdf.
- Clark, George R. G. and Scott J. Wallsten. 2007. "Has the Internet Increased Trade? Developing and Developing Country Evidence." *Economic Inquiry* 44 (3): 465–84. <https://onlinelibrary.wiley.com/doi/abs/10.1093/ei/cbj026>.

- Concordia St. Paul. 2016. "From Storefronts to Search Engines: A History of E-Commerce." *Concordia St. Paul* (blog), July 28. <https://online.csp.edu/blog/business/history-of-ecommerce>.
- Dione, Alione. 2019. "Le Moratoire Relatif aux Droits de Douane Applicables aux Transmissions Electroniques." Presentation at workshop on the moratorium on customs duties on electronic transmissions, WTO, Geneva, Switzerland, April 29. www.wto.org/english/tratop_e/ecom_e/wkmoratorium29419_e/alioune_dione.pdf.
- Galbraith, David. 2020. "Internet Era Global Hegemony." Medium, June 18. <https://medium.com/@daveg/internet-era-global-hegemony-c341a67d0e68> on platforms; on the largest internet.
- Government of Canada. 2020. "June 2020 Statement of the Ottawa Group: Focusing Action on Covid-19." June. www.international.gc.ca/world-monde/international_relations-relations_internationales/wto-omc/2019-06-covid-19.aspx?lang=eng.
- Hooton, Christopher. 2019. *Examining the Economic Contributions of the Cloud to the United States Economy*. Internet Association, March 5. <https://internetassociation.org/publications/examining-economic-contributions-cloud-united-states-economy/>.
- IMD. 2019. *IMD World Digital Competitiveness Rankings 2019*. www.imd.org/wcc/world-competitiveness-center-rankings/world-digital-competitiveness-rankings-2019/.
- Ismail, Yasmin. 2020. *E-commerce in the World Trade Organization: History and latest developments in the negotiations under the Joint Statement*. International Institute for Sustainable Development. January. www.iisd.org/sites/default/files/publications/e-commerce-world-trade-organization-.pdf.
- Kucik, Jeffrey and Krzysztof J. Pelc. 2017. "Secret negotiations at the World Trade Organization create a big problem." *The Monkey Cage* (*Washington Post* blog), January 6. www.washingtonpost.com/news/monkey-cage/wp/2017/01/06/secret-in-international-trade-negotiations-is-a-good-thing-true-or-false/.
- Le Makiyama, Hosuk. 2019. Presentation at workshop on the moratorium on customs duties on electronic transmissions, WTO, Geneva, Switzerland, April 19. www.wto.org/english/tratop_e/ecom_e/wkmoratorium29419_e/hosuk_lee_makiyama.pdf.
- Lejárraga, Iza. 2014. "Deep Provisions in Regional Trade Agreements: How Multilateral-friendly? An Overview of OECD Findings." OECD Trade Policy Papers No. 168. Paris, France: OECD. doi:10.1787/5jxvgn4bjf0-en.
- Lewis, Peter. 1994. "Attention Shoppers: Internet Is Open." *The New York Times*, August 11. www.nytimes.com/1994/08/12/business/attention-shoppers-internet-is-open.html.
- López González, Javier and Janos Ferencz. 2018. "Digital Trade and Market Openness." OECD Trade Policy Papers No. 217. Paris, France: OECD. doi:10.1787/1bd89c9a-en.
- Meissner, Philip and Christian Poensgen. 2020. "Which countries are making the most progress in digital competitiveness?" World Economic Forum, September 7. www.weforum.org/agenda/2020/09/which-countries-are-leading-the-way-in-digital-competitiveness/.
- Mell, Peter and Timothy Grance. 2011. "The NIST Definition of Cloud Computing." NIST Special Publication 800-145. Gaithersburg, MD: National Institute of Standards and Technology. <https://nvlpubs.nist.gov/nistpubs/Legacy/SP/nistspecialpublication800-145.pdf>.
- Monteiro, Jose-Antonio and Robert Teh. 2017. "Provisions on Electronic Commerce in Regional Trade Agreements." WTO Working Paper ERSD-2017-11, July. www.researchgate.net/publication/318493663_Provisions_on_Electronic_Commerce_in_Regional_Trade_Agreements.
- Musgrove, Annie. 2020. "Digital Tax Around The World: What To Know About New Tax Rules." *Quaderno* (blog), October 22. <https://quaderno.io/blog/digital-taxes-around-world-know-new-tax-rules/>.
- New Zealand. 2020. "Digital Economy Partnership Agreement." National Interest Analysis. Department of Foreign Affairs and Trade. June. www.mfat.govt.nz/assets/Trade/FTAs-concluded-but-not-in-force/DEPA-NIA-June-2020-for-MFAT-website.pdf.
- OECD. 2019. "Unlocking the Potential of E-commerce." OECD Going Digital Policy Note. Paris, France: OECD. www.oecd.org/going-digital/unlocking-the-potential-of-e-commerce.pdf.
- Office of the United States Trade Representative. 2017. "Key Barriers to Digital Trade: Fact Sheet." March. <https://ustr.gov/about-us/policy-offices/press-office/fact-sheets/2017/march/key-barriers-digital-trade>.
- Ohler, Frauke. 2020. "Multilateral Negotiations and 'social distancing.'" *Future of Globalisation* (German Development Institute blog), May 6. <https://blogs.die-gdi.de/2020/05/06/multilateral-negotiations-and-social-distancing/>.
- Rainie, Lee. 2017. "The Internet of Things Is the Next Digital Evolution — What Will It Mean?" *Pew Digital Trends Magazine*, February 17. www.pewtrusts.org/en/trend/archive/summer-2017/the-internet-of-things-is-the-next-digital-evolution-what-will-it-mean.

- Ross, Sean. 2020. "The Theory of Asymmetric Information in Economics." Investopedia, July 26. www.investopedia.com/ask/answers/042415/what-theory-asymmetric-information-economics.asp.
- Struett, Thomas. 2019. "G20 AI Strategies on Data Governance." Digital Trade and Data Governance Hub, February. <https://cpb-us-e1.wpmucdn.com/blogs.gwu.edu/dist/c/3127/files/2019/09/g20-national-ai-strategies-data-governance.pdf>.
- UNCTAD. 2017. *Information Economy Report 2017: Digitalization, Trade and Development*. Geneva, Switzerland: United Nations. https://unctad.org/en/PublicationsLibrary/ier2017_overview_en.pdf.
- . 2019a. *Digital Economy Report 2019: Value Creation and Capture: Implications for Developing Countries*. September. Geneva, Switzerland: UNCTAD. https://unctad.org/en/PublicationsLibrary/der2019_en.pdf.
- . 2019b. "Countries discuss proposed WTO boost to e-commerce." April 5. <https://unctad.org/en/pages/newsdetails.aspx?OriginalVersionID=2051>.
- . 2019c. "The value and role of data in electronic commerce and the digital economy and its implications for inclusive trade and development." Note by the UNCTAD Secretariat, Trade and Development Board, Intergovernmental Group of Experts on E-commerce and the Digital Economy. January 23. https://unctad.org/system/files/official-document/tdb_ede3d2_en.pdf.
- . 2020. "Digital platforms and value creation in developing countries: Implications for national and international policies." Note by UNCTAD Secretariat, February 19. https://unctad.org/meetings/en/SessionalDocuments/tdb_ede4d2_en.pdf.
- Villasenor, Sergio. n.d. "Cross-border Commerce 101: The History, The Lingo, The \$900B Opportunity." *BigCommerce* (blog). www.bigcommerce.com/blog/cross-border-commerce-101/#where-in-the-world-is-ecommerce-growing-significantly.
- Weber, Steven. 2017. "Data, development and growth." *Business and Politics* 19 (3): 397–423. www.cambridge.org/core/journals/business-and-politics/article/data-development-and-growth/DC04765FB73157C8AB76AB1742ECD38A.
- Wolfe, Robert. 2013. "Letting the Sun Shine in at the WTO: How Transparency Brings the Trading System to Life." WTO, Economic Research and Statistics Division Staff Working Paper ERSD-2013-03, March 6. <http://ssrn.com/abstract=2229741>.
- World Bank. 2016. *World Development Report 2016: Digital Dividends*. May. www.worldbank.org/en/publication/wdr2016.
- World Economic Forum. 2011. *Personal Data: The Emergence of a New Asset Class*. World Economic Forum, February 17. www.weforum.org/reports/personal-data-emergence-new-asset-class.
- WTO. 1998. "UNITED STATES: Statement by H.E. Mr. William J. Clinton, President." Geneva WTO Ministerial 1998 Statement. www.wto.org/english/thewto_e/minist_e/min98_e/anniv_e/clinton_e.htm.
- . 2003. *Annual Report*. Geneva, Switzerland: WTO. www.wto.org/english/res_e/booksp_e/anrep_e/anrep03_e.pdf.
- . 2011. "WTO welcomes Vanuatu as a new member." October 26. www.wto.org/english/news_e/news11_e/acc_26oct11_e.htm.
- . 2013. "E-commerce in Developing Countries: Opportunities and challenges for small and medium-sized enterprises." www.wto.org/english/res_e/booksp_e/ecom_brochure_e.pdf.
- . 2019. "DG Azevêdo: The conversation on digital trade and e-commerce concerns us all." Speech, April 1. www.wto.org/english/news_e/spra_e/spra254_e.htm.
- . 2020a. "E-commerce, Trade and the COVID-19 Pandemic." Information Note, May 4. www.wto.org/english/tratop_e/covid19_e/ecommerce_report_e.pdf.
- . 2020b. "Trade in Services in the Context of COVID-19." Information Note, May 28. www.wto.org/english/tratop_e/covid19_e/services_report_e.pdf.
- . 2020c. "The WTO at 25: A message from the Director-General." January 1. www.wto.org/english/news_e/news20_e/dgra_01jan20_e.htm.
- . 2020d. "Co-conveners of e-commerce negotiations: We are seeing convergence being built but need to move faster." November 17. www.wto.org/english/news_e/news20_e/ecom_17nov20_e.htm.
- . 2020e. "Negotiations on e-commerce continue, eyeing a consolidated text by the end of the year." October 23. www.wto.org/english/news_e/news20_e/ecom_26oct20_e.htm.

**Centre for International
Governance Innovation**

67 Erb Street West
Waterloo, ON, Canada N2L 6C2
www.cigionline.org

 @cigionline

