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**Information Please: A Comprehensive Approach to Digital
Trade Provisions in NAFTA 2.0**

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About the Author

Susan Ariel Aaronson is a senior fellow with the Global Economy Program. She is an expert in international trade, digital trade, corruption, good governance and human rights. As part of her work for CIGI, Susan is currently developing a digital trade and digital protectionism strategy for Canada. She is also co-authoring a paper with Senior Fellow Patrick Leblond about China's efforts to be a leader in the digital trade sphere.

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Susan is the author of six books and numerous articles. Her work has been funded by major international foundations including the MacArthur Foundation, the Ford Foundation and the Rockefeller Foundation; governments such as the Netherlands, United States and Canada; the United Nations, International Labour Organization and the World Bank; and US corporations including Google, Ford Motor and Levi Strauss. Susan is also a frequent speaker on public understanding of globalization issues and international economic developments. She has often provided background and commentary on *Marketplace* radio and was a monthly commentator on *All Things Considered* and *Morning Edition*. Susan has appeared on CNN, CBC, the BBC and NPR to discuss trade and globalization issues. From 1995 to 1999, she was a guest scholar in economics at the Brookings Institution, and from 2008 to 2012 she was a research fellow at the World Trade Institute. In her spare time, Susan enjoys triathlons and ballet.

About the Global Economy Program

Addressing limitations in the ways nations tackle shared economic challenges, the Global Economy Program at CIGI strives to inform and guide policy debates through world-leading research and sustained stakeholder engagement.

With experts from academia, national agencies, international institutions and the private sector, the Global Economy Program supports research in the following areas: management of severe sovereign debt crises; central banking and international financial regulation; China's role in the global economy; governance and policies of the Bretton Woods institutions; the Group of Twenty; global, plurilateral and regional trade agreements; and financing sustainable development. Each year, the Global Economy Program hosts, co-hosts and participates in many events worldwide, working with trusted international partners, which allows the program to disseminate policy recommendations to an international audience of policy makers.

Through its research, collaboration and publications, the Global Economy Program informs decision makers, fosters dialogue and debate on policy-relevant ideas and strengthens multilateral responses to the most pressing international governance issues.

Acronyms and Abbreviations

AI	artificial intelligence
APEC	Asia-Pacific Economic Cooperation
CETA	Canada-EU Comprehensive Economic and Trade Agreement
DDoS	dedicated denial of service
FTA	free trade agreement
GATS	General Agreement on Trade in Services
GII	Global Innovation Index
ICTs	information and communications technologies
ICTC	Information and Communications Technology Council
IPRs	intellectual property rights
ISPs	internet service providers
ITU	International Telecommunications Union
NAFTA	North American Free Trade Agreement
NRI	Networked Readiness Index
OECD	Organisation for Economic Co-operation and Development
TPP	Trans-Pacific Partnership
USITC	US International Trade Commission
WTO	World Trade Organization

Executive Summary

In 2017, the International Telecommunications Union (ITU) reported that almost half (48 percent) of the world's 7.6 billion people are online. Every day, more people — especially citizens in the developing world — gain internet access (ITU 2017). These people use the internet to work, study, purchase and sell, look for jobs, set up book clubs and even find their soul mates. As these individuals supply, demand and send ever more data across borders, they are also creating a global digital economy.

Meanwhile, innovators and entrepreneurs are using this data to create new sectors such as apps, internet-connected devices (the Internet of Things), artificial intelligence (AI), which is defined as a computer system that performs tasks usually associated with people (Intel 2017, 1) and cloud service providers. As data flows between individuals, firms and governments across borders, these entities process that data, creating new services, such as personal assistants, health-care apps, data analytics that find cancer clusters and Facebook news feeds. Because many of these cross-border data flows are directly or indirectly associated with a commercial transaction, they are essentially “traded.”

Many recent trade agreements include non-binding language governing such data flows. For example, the Canada-EU Comprehensive Economic and Trade Agreement (CETA) (which took effect in September 2017) includes aspirational language governing e-commerce (goods and services delivered and sold online). The Trans-Pacific Partnership (TPP) was the first free trade agreement (FTA) to include binding rules governing cross-border information flows. But the North American Free Trade Agreement (NAFTA)¹ does not include such rules because it took effect in January 1994, just as the internet came into wide public use.

In 2017, the three signatories of NAFTA — Canada, Mexico and the United States — agreed to update the agreement to include a new “digital trade chapter.” The renegotiation of NAFTA presents a continent-wide opportunity to encourage new sectors built on cross-border

data flows, while simultaneously preserving domestic policy space to regulate such sectors.

Canada, Mexico and the United States can make NAFTA the first digital economy trade agreement. All three nations should agree to:

- clarify the rules governing cross-border data flows;
- encourage the free flow of information and protect personal data, while also promoting internet openness and stability; and
- address new technologies as well as future trade barriers by including language that is technologically neutral (for example, not favouring specific technologies or regulatory approaches) (Maxwell and Bourreau 2015).

Given its long-standing commitment to the rule of law in trade, growing expertise on AI and its centrality in twenty-first-century trade policy making, Canada should use these talks to ensure that trade rules designed to govern the data-driven economy maintain internet openness and stability while enhancing human welfare.

Introduction

The internet is built on data and information flows. Information can be defined as processed data. For the purposes of this paper, herein information and data are used interchangeably. By making it easier to share information, the internet has empowered more people to trade information, services and goods. At the same time, the internet is also a platform for trade that is changing how and what firms and individuals trade, as well as with whom they trade.

Because the platform is global and many information flows are associated with online transactions, policy makers in the United States, Australia, Canada and the European Union have sought to use trade agreements to govern these flows. Building on widely accepted principles outlined by the Organisation for Economic Co-operation and Development (OECD) and the Asia-Pacific Economic Cooperation (APEC), trade negotiators first included aspirational language in the e-commerce chapters of their bilateral and

¹ See www.nafta-sec-alena.org/Home/Texts-of-the-Agreement/North-American-Free-Trade-Agreement?mvid=1&secid=7684fdb8-1784-4b39-b068-1b9a13952814.

regional trade agreements. These nations have also tried to encourage multilateral negotiations within the World Trade Organization (WTO). However, despite years of talks, WTO members have yet to find agreement. Consequently, US, Canadian and EU policy makers have focused on regional and bilateral negotiations (Aaronson 2016). They hoped a regional trade agreement could serve as a building block for multilateral talks.

In 2015, 12 nations along the Pacific Rim agreed to binding provisions in the TPP's e-commerce chapter, which states that "each Party shall allow the cross-border transfer of information by electronic means."² With this language, the TPP nations made the free flow of information a default. TPP parties acknowledged that each has the right to maintain its own regulatory requirements for the transfer of information. They also recognized that there would be times when nations would need to restrict the free flow of information. Thus, the TPP included the exceptions laid out in the WTO's General Agreement on Trade in Services (GATS). In particular, governments may impose conditions or restrictions on the cross-border transfer of information as required to achieve certain public policy objectives, provided those measures are necessary and attained in the least discriminatory manner possible.³ In practice, this exception implies that a TPP signatory such as Malaysia could restrict information flows on the grounds that it is necessary to protect public morals or preserve social stability. Nonetheless, another signatory could challenge such restrictions as a violation of the agreement's principles (Aaronson 2017a).

In 2017, the three NAFTA nations agreed that the renegotiations would build on the TPP's e-commerce language, but the chapter would be renamed digital trade (Hoagland 2017). In so doing, they signalled their intention to ensure that the agreement regulates not just e-commerce but also new sectors built on data. According to the WTO's definition, e-commerce entails "the production, distribution, marketing, sale or delivery of goods and services by electronic

means."⁴ Digital trade, in contrast, is a broader term that not only includes e-commerce but also services such as cloud services, apps built on AI, news based on Twitter or Facebook feeds and data flowing between internet-connected devices (Elms 2017). Many of these data-driven services are built on the free flow of data across borders. Moreover, the competitiveness of these types of industries hinges on economies of scale. Generally, with more data, computer scientists can more easily test and improve algorithms and the services they provide (Perreira, Norvig and Halevy 2009; Goldfarb and Treffer 2017; Amatriain 2015).

The US International Trade Commission (USITC) states that digital trade is growing quickly, since many internet users have moved to the cloud (USITC 2017, 13). According to the consulting firm McKinsey, digital trade technologies are transforming data flows in three ways:

- through the creation of purely digital goods and services;
- with "digital wrappers" that enhance the value of physical flows; and
- through digital platforms that facilitate cross-border production and exchange (Manyika et al. 2014).

Many of these flows do not fit the traditional definition of trade, because some cross-border flows are not accompanied by a financial transaction. In today's world, the data is the currency — regardless of whether the data is payroll information, data to guide AI or the health-care statistics of Canadian citizens stored in the cloud. For example, a social networking site such as Facebook offers "free" services to users who in exchange provide their data. There is no monetary transaction between Facebook and the user (i.e., in terms of existing international standards, no trade); however, the data Facebook collects is sold to corporate consumers and used in ads. While the advertising revenue monetary flow is captured in trade statistics, the data flows upon which they depend are not (OECD 2017b, 13). Consequently, we do not yet have adequate statistics measuring digital trade.

Not surprisingly, trade policy makers are struggling to keep up with both the frequency and the sheer scale of cross-border data flows and the

2 TPP, Chapter 14 on electronic commerce chapter, art. 14.11., para. 2, <https://ustr.gov/sites/default/files/TPP-Final-Text-Electronic-Commerce.pdf>.

3 TPP, Chapter 29, Exceptions and General Provisions, <https://ustr.gov/sites/default/files/TPP-Final-Text-Exceptions-and-General-Provisions.pdf>; and <https://ustr.gov/sites/default/files/TPP-Chapter-Summary-Exceptions-and-General-Provisions.pdf>.

4 See www.wto.org/english/tratop_e/ecom_e/wkprog_e.htm.

emergence of new (and disruptive) players. In many countries, digital rights groups and netizens have raised questions about the impact of some digital services on issues such as democracy, privacy and competition policies. They want these issues to be regulated domestically. They also want trade agreements to ensure policy makers have the policy space to address these issues (Aaronson 2017a and 2017b). As of this writing, policy makers in many countries are struggling with how to regulate these data flows and protect their citizens from harm without inhibiting innovation and growth in these new sectors. As noted above, the US and other governments have insisted that the free flow of this data should be a default in trade agreements and have argued that concerns about stability or competition should be addressed through a trade agreement's exceptions (OECD 2017b). While that sounds reasonable in theory, in practice, policy makers must juggle concerns about access, use and ownership of data while simultaneously ensuring consumer choice, innovation and policies in the public interest. They and their constituents want greater clarity.

Meanwhile, policy makers do not know enough about the nature and economic impact of these digital flows. In a 2017 paper, the OECD (ibid., 2) admitted that "despite the growing importance of what is commonly referred to as 'digital trade', little empirical and internationally comparable information currently exists, inhibiting a full understanding of the scale and policy challenges of digital trade, which has in turn raised concerns about the capacity of current statistics to measure this phenomenon."

In short, policy makers cannot regulate effectively what they cannot measure, yet they are already including language to limit certain practices in trade agreements.

Characteristics of the NAFTA Countries' Digital Economies

As Table 1 shows, the digital economies of Canada, Mexico and the United States are at different stages of development. The United States is home to 11 of the world's 15 leading internet firms (Meeker 2017). In 2016, the US Department of Commerce reported that digitally delivered services accounted for about half of all US services trade (Fefer, Akhtar and Morrison 2017, 8). Meanwhile, Canada has significant expertise in AI (Lohr 2017; Khosravi 2017; Mannes 2017). Eric Schmidt, the chairman of Alphabet, noted, "Canadians are inventing the future of AI through machine learning" (Wong and Wingrove 2017). Finally, Mexico excels in app development (Popescu 2016; Di Ionnoy and Mandel 2016).

Each nation will try to use the NAFTA talks to make their digital economy and trade sectors more competitive. However, as they negotiate, political and economic conditions are changing. In the wake of US President Trump's immigration policies, many high-tech companies are moving

Table 1: Comparative Metrics of NAFTA Nations' Digital Economies

Country	Networked Readiness Index (NRI) Score (Out of 7)	NRI Country Rank (Out of 139)	Global Innovation Index (GII) Score (Out of 100)	GII Country Rank (Out of 127)
Canada	5.6	14 th	53.65	18 th
Mexico	4.0	76 th	35.79	58 th
United States	5.8	5 th	61.40	4 th

Source: Prepared by Caitlyn Leong with data from Dutta, Lanvin and Wunsch-Vincent (2016) and Baller, Dutta and Lanvin (2016).

Notes: The NRI measures the capacity of countries to leverage information and communications technologies (ICTs) for increased competitiveness and well-being. The GII measures the innovation of an economy in seven key areas: institutions, human capital and research, infrastructure, market sophistication, business sophistication, knowledge and technology outputs, and creative outputs.

some of their operations from the United States to Mexico and Canada (Lohr 2017; Rodriguez and Love 2017). Both Canada and Mexico are trying to diversify their trade to be less dependent on the United States (Brownlee 2017; Villareal 2017).

But the three nations have shared interests that can serve as a foundation for their work on digital trade. All three governments recognize that:

- stimulating the digital economy is essential to achieving future economic growth (German Federal Ministry for Economic Affairs and Energy 2017; OECD 2017a);
- other countries are using deliberate policies to foster digital single markets or their own intranet (for example, China’s “Great Firewall”);
- domestic regulation of the digital economy can have international spillovers and affect global technological progress, governance and democracy (OECD 2017a; Chakravorti 2016); and
- since online security and privacy risks are increasing, the three states need to find coordinated approaches to managing consumer protection, data protection and cyber security strategies, while safeguarding confidential business and personal data (German Federal Ministry for Economic Affairs and Energy 2017; OECD 2017a, 132).

Canada’s Negotiating Priorities and Leverage

Canada has several digital trade priorities for the NAFTA renegotiations. First, according to Foreign Affairs Minister Chrystia Freeland (2017), NAFTA needs to be modernized so “all sectors of our economy can reap the full benefits of the digital revolution.” To meet that goal, Canada wants to encourage cross-border information flows and limit data localization as in the TPP (Malcolm 2017). Second, Canada would like to prevent a race to the bottom in privacy policy, maintain provincial privacy rules and preserve its cultural exception (Freeland 2017; Blanchfield 2017; Blanchfield and Blatchford 2017). Canada also likely wants legitimate public policy objectives to be clarified, so policy makers can

enact public policies in areas such as cyber security, health and national security that may require these officials to restrict information flows (Lynch 2017).

Although Canada’s goals are different from those of the United States or Mexico, Canada has significant leverage on digital trade. First, Canada is the one country that is either a signatory or involved in several key negotiations related to digital trade at the regional level, including CETA and the TPP (Campion-Smith 2017), as well as NAFTA. Moreover, Canada will soon begin FTA negotiations with China. Meanwhile, US firms operate in an environment of trade policy uncertainty, and it is unclear whether the Trump administration wants NAFTA 2.0 to succeed (Mufson, Partlow and Freeman 2017). Now that the United States has dropped out of the TPP, many US executives are keen to influence NAFTA. They understand that the NAFTA nations represent approximately 500 million consumers; therefore, should the three countries agree on binding rules, NAFTA could set global standards for cross-border data flows (Chander 2017; Aaronson 2017a).

Policy Recommendations for Canadian Policy Makers

The eight recommendations below focus on the approach and outcomes of the NAFTA digital trade chapter, rather than describe specific language for its provisions. They build on the TPP’s e-commerce chapter as well as statements made by officials from the three nations regarding their objectives for NAFTA renegotiation. The recommendations are designed to remedy confusing, unclear, out-of-date or incomplete aspects of existing FTA language on digital trade and the nature of traded information. They also aim to ensure Canada promotes a coherent approach to internet governance, linking policies concerning information flows to internet openness, data protection and internet stability. Related issues such as financial flows, intellectual property rights (IPRs) and competition policy are not addressed.

Recommendation 1: State that the free flow of information across borders is linked to internet openness and stability.

The free flow of information across borders is vital to both internet functioning and trade. In the TPP, the parties agreed to binding language that would have made the free flow of cross-border information the norm, allowing for a few exceptions for legitimate public policy objectives.⁵ Nevertheless, the TPP countries did not link their commitments to the free flow of information and to respect human rights online to their pledge to adopt policies to sustain internet openness and stability. Yet they have repeatedly expressed those commitments in other documents. As an example, at the Group of Twenty summit in 2017, country delegations stated that freedom of expression and the free flow of information, ideas and knowledge are essential for the growth of the digital economy (German Federal Ministry for Economic Affairs and Energy 2017). In addition, as members of the Freedom Online Coalition, Canada, Mexico and the United States have all signed the Tallinn Agenda for Freedom Online, which calls upon governments to stop censorship, hacking, illicit filtering, and blocking and monitoring of opposition groups. They also agreed to “dedicate [them]selves, in conducting [their] own activities, to respect...the principles of the rule of law, legitimate purpose...and transparency” (Freedom Online Coalition 2014; German Federal Ministry for Economic Affairs and Energy 2017). Despite such public assertions, no trade agreement has ever included binding language linking the free flow of information and digital rights to internet openness and stability. But NAFTA can be the first. The three governments should agree that they will respect digital rights online and not take actions that undermine the stability or openness of the internet platform as a whole.

Researchers have put forward several reasons why these various commitments should be expressed in international agreements using binding and explicit language. First, the dynamism of the internet depends, in large part, on its openness and stability, and variants of protectionism, such as censorship or data localization, can reduce that openness (Bildt 2012; Box 2016; OECD 2016). Second, when states restrict data flows, they reduce access to information, which can diminish economic growth, productivity

and innovation, both domestically and globally (Maskus and Reichman 2004, 284-85; Khan 2009; OECD 2016). Finally, when states restrict information flows, they may also affect internet stability and functioning (Force Hill 2014, 32; Daigle 2015).

Recommendation 2: Clearly define all terms and clarify whether all types of information are covered.

The TPP did not clarify several questions regarding which information flows were covered in the agreement and why trade in information requires broader exceptions and more transparent rules. For example, financial data flows were excluded from the TPP’s free flow provisions.

Digital trade chapters should have very specific definitions and provisions, because trade in information is different from other kinds of trade: information can be a good, a service or both simultaneously. In contrast with other services, trade in information does not require suppliers and consumers to be in the same physical location for a transaction to occur (Lennon 2009). Moreover, researchers and policy makers may find it hard to determine what is an import or export when information is subject to domestic law (such as intellectual property law) or what type of cross-border enforcement is appropriate (Goldman 2011; de La Chapelle and Fehlinger 2016). Likewise, there is no global consensus as to where and who should draw digital borders, since information may flow through several countries before it reaches its final destination and consumer (de La Chapelle and Fehlinger 2016; OECD 2017a). In addition, terminology is already an issue in digital trade; China, for example, is adopting measures related to its cyber security law on “important data” and “personal information” (WTO 2017a; Thiel, Bigg and Cao 2017). Finally, economists generally concur that many types of information are public goods, which governments should provide and regulate effectively. In this sense, if officials restrict cross-border information flows, they may create unintended consequences for human rights and innovation (Aaronson 2017a).

For these reasons, policy makers must clarify whether the NAFTA digital trade chapter will include all types of information flows, including those for a non-commercial purpose (i.e., where trade is not associated with a financial transaction). Trade diplomats should also define key terms such as “information,” “personal information,” “digital protectionism” and “trade distorting practices.”

⁵ TPP, Chapter 29, Exceptions and General Provisions, <https://ustr.gov/sites/default/files/TPP-Final-Text-Exceptions-and-General-Provisions.pdf>; and <https://ustr.gov/sites/default/files/TPP-Chapter-Summary-Exceptions-and-General-Provisions.pdf>.

Recommendation 3: Commit to a shared approach to internet governance and interoperability.

The three NAFTA governments have consistently stated that they want a more coherent approach to global internet governance. Such coherence will help them foster digital economy-driven growth (Freedom Online Coalition 2014). Nonetheless, government officials in all three nations make internet policies in bureaucratic silos of IPRs, privacy and cyber security without weighing the collective effects on internet openness and cyber stability. Recent trade agreements are no different. In the TPP, the parties simply agreed to cooperate on regulatory issues such as data protection, consumer protection and cyber security. In NAFTA 2.0, policy makers should clearly state that policy coherence at the national, regional and global levels is necessary to achieve their long-standing internet objectives such as encouraging internet openness, preserving internet stability and fostering interoperability at both the national and continent-wide levels.

With a more coherent approach to digital trade governance, the three nations can better address the growing threat of cyber sovereignty, also known as information sovereignty. Increasingly, governments such as Russia, China and Iran seek to ban unwanted influence in a country's information space and shift internet governance from global multi-stakeholder forums, such as the Internet Governance Forum, to domestic regulators. In so doing, they are progressively fragmenting the internet (de La Chapelle and Fehlinger 2016; Drake, Cerf and Kleinwächter 2016).

If North American policy makers adopt a more coherent approach toward internet governance by linking trade and other forms of online governance, they will be more likely to influence the behaviour of countries such as China or Russia, who will need to ensure that their systems mesh with those of other countries (Froman 2017; Aaronson 2017a). Moreover, this approach is more likely to facilitate cyber stability and trust on the internet, which is declining in the wake of rising incidents of cyber theft, malware and dedicated denial of service (DDoS) attacks on both personal and business data in Europe and North America (European Commission 2017; CIGI-Ipsos 2017).

Recommendation 4: Carefully delineate the digital trade chapter's exceptions.

All trade agreements include exceptions, where governments can essentially breach the rules

delineated in the treaty to achieve legitimate domestic policy objectives. The TPP incorporated the same exceptions outlined in the WTO's GATS. But these exceptions have not been fully clarified by trade disputes; therefore, market actors could benefit from further clarity. Under the GATS and the TPP, governments can legitimately breach the rules to protect public morals, public order, health, public safety and privacy related to data processing and dissemination. Signatories can also take measures for security-related reasons and restrict information flows where the disclosure of information is contrary to a country's fundamental security interests (Government of Australia 2015). In short, governments can take advantage of a trade agreement's exceptions as long as such steps are necessary; policy makers enact these policies in the least trade-distorting manner possible; and they do not impose restrictions on the transfer of information that are greater than what is needed to achieve that government's objectives (Mitchell and Ayres 2012).⁶

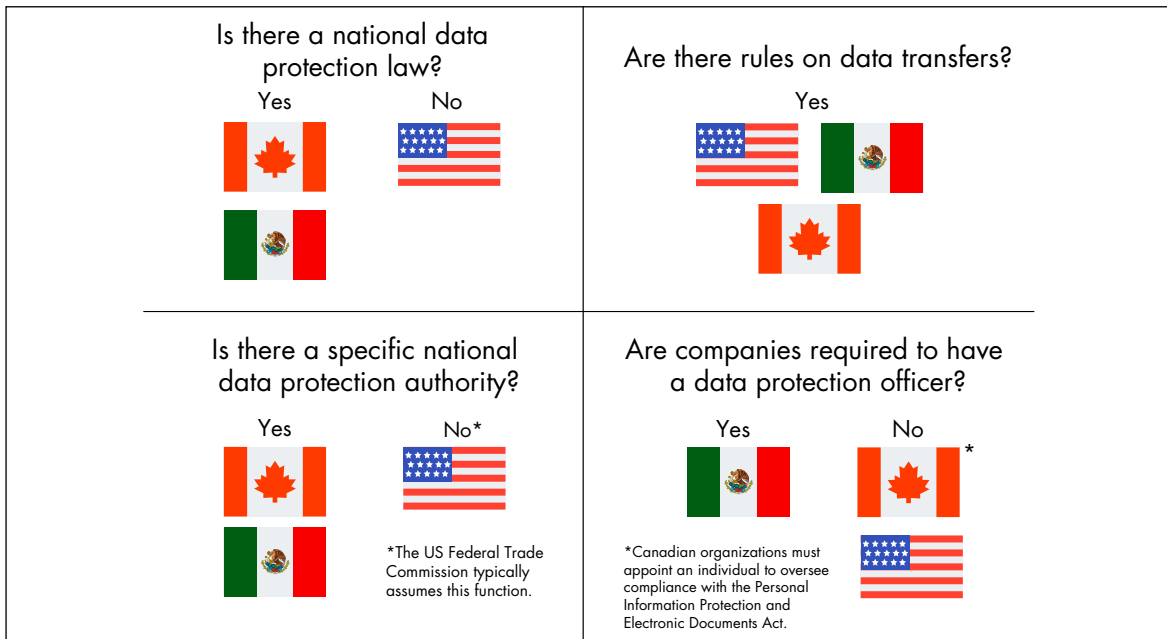
Given the rise in malware, hacking and disinformation, governments may at times seek to restrict cross-border flows to maintain political stability, trust and personal security (European Commission 2017; Poulsen 2017; Valeriano 2016; Fife 2017). As noted above, China's cyber security policies provide a test case of how governments may design domestic policies that they see as legitimate and necessary to achieve key domestic policy goals (WTO 2017a; Thiel, Bigg and Cao 2017). Hence, in negotiating NAFTA 2.0, the three country parties should provide greater clarity about when governments can use the exceptions on the free flow of data.

Recommendation 5: Go beyond the TPP and include more detailed data protection language in NAFTA 2.0's digital trade chapter.

For the internet to function well, policy makers must enable trust between internet service providers (ISPs), netizens and government regulators. Data protection rules can build that trust by reassuring netizens that their data is private and protected from misuse and theft. Hence, they will feel that the internet is secure. (German Federal Ministry for Economic Affairs and Energy 2017; OECD 2017a). But the TPP only

⁶ The Appellate Body of the WTO has adjudicated the use of exceptions related to information flows in a trade dispute where the United States adopted a ban on internet gambling under the rationale that it was necessary to protect public morals. See WTO (2005).

Figure 1: Data Protection in Canada, Mexico and the United States



Source: Prepared by Caitlyn Leong with data adapted from https://united-kingdom.taylorwessing.com/en/global-data-protection-guide?utm_source=web&utm_medium=navigation&utm_term=global-data-hub&utm_content=global-data-protection-guide&utm_campaign=gdh-global-data-protection-guide.

required participating governments to create an effective enabling environment to protect the privacy of internet users. These signatories agreed to develop mechanisms to promote compatibility among different privacy regimes; however, they did not state how or where (Aaronson 2017a).

As Figure 1 shows, the NAFTA parties have very different approaches to data protection. The United States has no overarching data protection law, while Canada (Office of the Privacy Commissioner of Canada 2017) and Mexico (Cancino 2016) have relatively more stringent privacy obligations. Yet the United States has a strong system of enforcement: US courts and administrative bodies can award damages, administer fines and order an organization to change its practices in order to protect personal data. In addition, the United States sees online privacy mainly as a consumer right, whereas in Mexico and Canada, it is both a human and consumer right. Finally, the United States prefers a voluntary certification approach rather than top-down mandates.

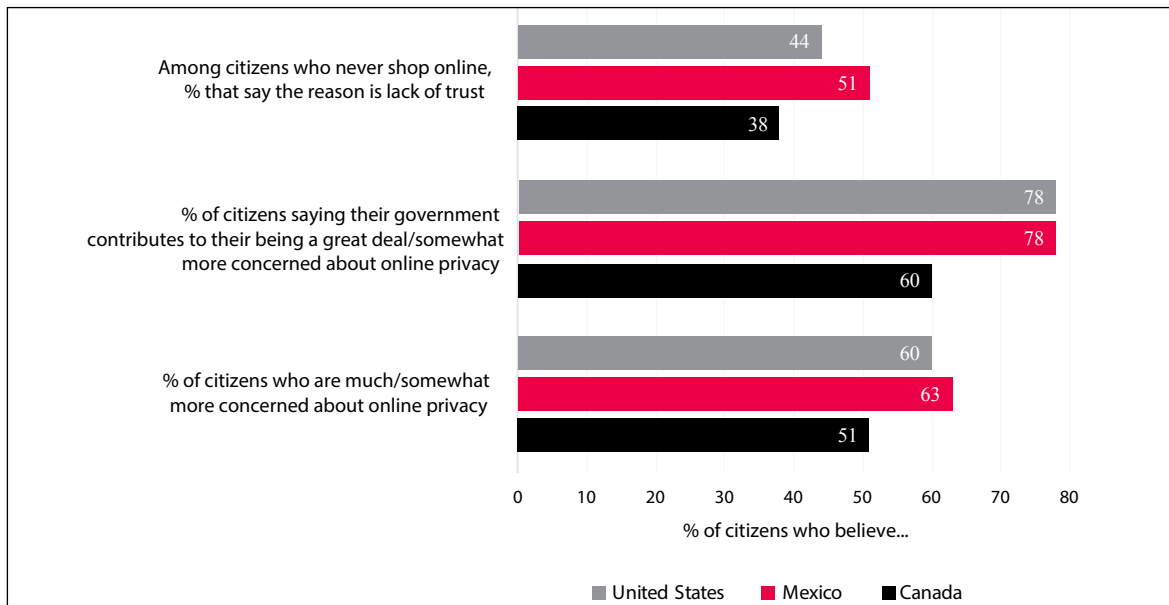
Meanwhile, Mexico does not have storage location requirements, nor has it developed a standard form or precedent for data transfers. Mexican law requires that its citizens comply with the same principles

outlined in Mexico's privacy laws (Cancino 2016).⁷ Although Mexico does not have formal legislation regarding the right to be forgotten, its laws effectively provide for the realization of this right. For instance, if a foreign company has an office in Mexico and uses resources located in Mexican territory to gather or process personal data, Mexican citizens can request the company cancel their data and exercise their right to oppose its processing (Hernández Conde 2016). Likewise, Canada also does not have a right to be forgotten. Nevertheless, a 2017 court case found that Canadian privacy law can have extraterritorial effect. In *Google v. Equustek Solutions, Inc.*, the court ordered one website to take down information worldwide to protect the IPRs of a Canadian firm (Mendelsohn 2017; Geist 2017).

Given these different approaches to data protection, it seems unlikely the three nations could harmonize their approach to privacy. Nevertheless, NAFTA nations should begin by adopting mutual recognition provisions for data protection regimes. To facilitate mutual recognition of data regimes, governments

⁷ See https://united-kingdom.taylorwessing.com/en/global-data-protection-guide?utm_source=web&utm_medium=navigation&utm_term=global-data-hub&utm_content=global-data-protection-guide&utm_campaign=gdh-global-data-protection-guide.

Figure 2: How Do NAFTA Citizens Perceive Online Privacy?



Source: Prepared by Kimberly R. Bullard with data from CIGI-Ipsos (2017).

Note: The CIGI-Ipsos Global Survey on Internet Security and Trust is a public opinion survey based in Canada involving some 24,225 internet users in 24 countries and carried out between December 23, 2016 and March 21, 2017.

can build trust and accountability through a third-party certification of privacy regimes. All three countries participate in APEC’s Cross Border Privacy Rules System. In this voluntary system, a third-party body, referred to as an accountability agent, reviews the cross-border privacy policies and practices of organizations interested in participating in APEC member economies and certifies them as compliant with a set of program requirements based on the APEC Privacy Framework Information Principles (Office of the Privacy Commissioner of Canada 2017). Moreover, NAFTA negotiators should attempt to reach common understanding of what entities should make decisions about personal data and how such decisions relate to cross-border data flows.

In the wake of data breaches, privacy violations and concerns about surveillance and monitoring, Americans and Mexicans, like Canadians, are concerned about their privacy online, as Figure 2 illustrates. Moreover, the CIGI survey found online trust is at risk. While a majority of those polled trust their ISP, banking platforms and search engines, very few strongly agree that they do. Only half trust their government to act responsibly online, and a minority trusts most foreign governments to act responsibly online (ibid. 2017). Thus, they

may be open to other strategies that they may perceive as more effective (CIGI-Ipsos 2017).⁸

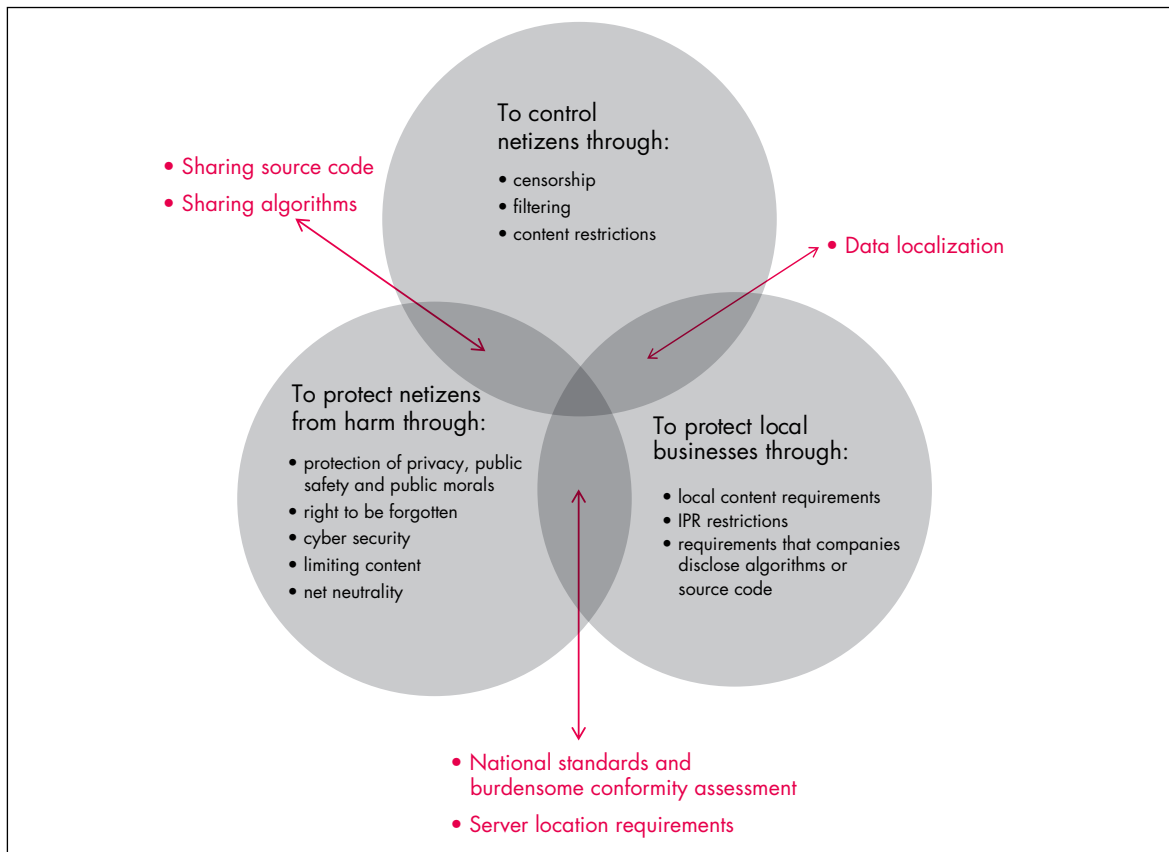
Recommendation 6: Develop a clear, narrow and flexible definition of digital protectionism.

US policy makers have used trade agreements to limit digital protectionism before they have achieved common ground regarding defining what measures actually distort trade. Of the three signatories to NAFTA, only the United States has officially defined the term. More importantly, the US definition has grown over time and now includes censorship, filtering, data localization measures, demands for source codes or algorithms to protect security, and regulations that are too weak or onerous to protect privacy or ensure cyber stability (USITC 2014; 2017, 13; USTR 2017).⁹

⁸ For more details on Mexico, see Freedom House (2016).

⁹ In their FTAs, the United States and the European Union have used language such as “No Party may require the transfer of, or access to, source code of software owned by a juridical or natural person of the other Party.” They temper this with language saying that this language should not prevent a “Party from adopting or maintaining measures...to achieve a legitimate public policy objective.” See European Union (2017). In its most recent report, “Global Digital Trade 1: Market Opportunities and Key Foreign Trade Restrictions, the USITC (2017, 13) noted, “Overall, the most cited policy measure impeding digital trade was data localization.”

Figure 3: Why and How Do Governments Restrict Cross-Border Information Flows?



Source: Prepared by Caitlyn Leong; author's analysis.

However, as Figure 3 shows, governments may have a multitude of reasons as to why they may restrict information flows. To date, no one knows how to measure the trade distortions of such policies, whom they hurt and whether or how to compensate the injured (Aaronson 2017b).

Policy makers are just beginning to insert language banning certain practices that distort trade. The TPP's would-be signatories agreed that data localization and server location requirements, spam and the transfer of source code as a condition to doing business are policies that can distort trade and should be banned.¹⁰ The NAFTA nations must decide if they would like NAFTA 2.0 to include the broader parameters put forth by the United States in 2017 or stick to those delineated in TPP.

Moreover, as they act to limit trade distorting practices, the NAFTA nations should find a careful

balance between ensuring effective regulation and facilitating innovation. For example, the TPP bans data localization that is restricted in a manner that constitutes a “disguised restriction on trade.” Yet, trade diplomats should acknowledge that deciding if such a policy distorts trade may well depend on who owns the data and who collects the data. On the one hand, if the data is collected and held by governments to protect their citizens, it might be trade distorting but based on a legitimate exception — to protect privacy. On the other hand, if a firm collects the data and is denied access to that data unless it is used locally, that firm might argue that a country's policies favour domestic over foreign firms (Goldfarb and Trefler 2017, 24). This policy might not only be trade distorting but it could also limit innovation. Hence, trade negotiators should carefully examine the implications of alleged digital protectionism and its effects on data-driven innovation.

¹⁰ See TPP, art. 14.13 and 14.17, <https://ustr.gov/sites/default/files/TPP-Final-Text-Exceptions-and-General-Provisions.pdf>.

Recommendation 7: Set clear strategies on how to respond or not respond to state actions that distort digital trade.

Trade rules allow signatories to respond to the trade-distorting practices of their trade partners with compensatory practices. For example, after an investigation, the United States might respond to steel that is sold in the United States at a price that is less than fair value or that is subsidized with compensatory measures such as additional tariffs. But policy makers have yet to examine if strategies that are appropriate for steel are appropriate for data flows. The NAFTA governments should clearly state that party responses should be limited and proportional. Moreover, protectionist strategies (such as the adoption of tariffs) or strategies that undermine internet stability are inappropriate responses. Meanwhile, policy makers, executives, civil society groups and academics must first work together to build norms to govern data flows, especially as these data flows create multiple new sectors. Government officials should restrain from delineating policy responses to alleged trade distortions until policy makers and researchers can:

- effectively measure digital trade and in particular the value of data in the data-driven economy;
- assess the economic, social, political and security issues that arise from access to data, commercial exploitation of data and non-commercial applications of data; and
- assess the impact of alleged digital trade barriers upon digital producers and consumers and society as a whole.¹¹

Recommendation 8: Ensure that NAFTA 2.0 can address digital trade issues as technologies evolve and new forms of protectionism emerge.

Trade agreements are written to be technologically neutral (Burri 2017, 415-16). But given the pace and magnitude of change, no one can ensure that the agreement keeps up with technological, political and economic advances.

First, policy makers should work with interested parties to develop internationally accepted standards for important innovative technologies

such as autonomous vehicles or health-related devices such as app-connected pacemakers. As Avi Goldfarb and Daniel Trefler note (2017, 24-25), “Without international standards, different countries could require information from different sensors, or they could require access to different aspects of the models and data that underlie the technology.... Such domestic regulations could be a way to favour domestic firms.” However, with international standards, policy makers will have benchmarks for appropriate regulatory practices.

Second, policy makers may be under increasing pressure to inhibit information flows to address potential harms such as disinformation, unethical uses of algorithms to manipulate human behaviour, malware or DDoS attacks — attempts to make an online service unavailable by overwhelming it with traffic from multiple sources (Warzel 2017; Hatmaker 2017; Geller 2017; Valeriano 2016; Poulsen 2017). Trade agreement exceptions give these officials an out, if they can do so in a non-trade-distorting manner. However, if governments rely frequently on these exceptions, they could reduce both innovation and access to information.

NAFTA member states should deal with this complex problem by setting up a digital trade advisory committee comprised of netizens, business leaders, digital rights activists and engineers from all three countries to advise on policy recommendations in the wake of technical change. The committee should meet annually to discuss the impact of technological innovation on NAFTA 2.0 and to determine whether to recommend new language for the chapter. Policy makers will also need to include language in the agreement allowing for such updating.

A digital trade advisory committee could bring additional benefits. The Trump administration has not only threatened to disrupt the renegotiations but also to include a sunset clause — where the agreement would expire after five years (Cassella 2017). Although Mexico and Canada rejected this idea, the NAFTA parties should not rebuff mechanisms that allow for the modernization of NAFTA without new negotiations. In the digital economy, technological adaptation moves much faster than governance. By providing biannual input, it would be easier to show that the agreement should endure, because it is designed to accommodate ever-evolving technological, economic or political conditions.

¹¹ I am grateful to an anonymous reviewer for suggestions on this recommendation.

Why Are These Recommendations Important for Canada?

They are consistent with Canada's long-standing position that the internet must remain "free, open and secure" and enhance human welfare (Government of Canada 2014; Catapano 2015).

Canada's commitment to these principles can help Canada continue to attract talented labour as well as foreign investors to its growing digital economy (Information and Communications Technology Council [ICTC] 2017).

They are consistent with Canada's advocacy of the rule of law in trade, where the rules are transparent, clear and determined through a democratic process (Ryten 2004).

Canadians want to build shared global standards while maintaining strong data protection rules. In a 2015 poll, 65 percent of Canadians said global interconnected standards would be best for the internet (Ipsos Reid 2015). A more coherent approach would help as Canada works to achieve international rules regulating the internet. It would also allow Canadians to better understand that their data can be protected while simultaneously allowing the free flow of information (Blanchfield 2017).

If the NAFTA nations move toward shared standards, they may create an impetus for shared Western governance rules. If enough governments adhere to these standards they could become a global default, influencing the Chinese and Russian governments' approaches to cross-border data flows.

Canada needs bigger markets if it wants to encourage growth through digital sectors. Although the Canadian ICT sector is growing rapidly, it must achieve economies of scale and scope to continue that growth (ICTC 2017). These economic factors are particularly important to AI, which requires large amounts of data to guide machine learning (Goldfarb and Treffer 2017).

It is in Canada's interest to guarantee the exceptions accommodate Canadian policy goals such as maintaining the privacy of health-care records, provincial privacy rules and building trust online (Blanchfield 2017). Canadian officials also want to nurture AI, given Canada's comparative advantage in machine learning. Hence, they should advocate to ensure that trade partners cannot unreasonably demand access to the algorithms that underpin AI without a legitimate public policy rationale (ICTC 2017; Goldfarb and Treffer 2017). Finally, Canada is determined to preserve NAFTA's current cultural exception, which allows Canada to subsidize and maintain a certain percentage of Canadian-made films and music (Simpson 2017). To strengthen Canadian cultural industries, the TPP contained only general language that permitted parties to "establish appropriate measures to respect, preserve and promote traditional knowledge and traditional cultural expressions"⁷. Thus, Canada will need its NAFTA partners' acceptance of this cultural exception (Freeland 2017).

It is in Canada's interest to find common ground on how to define, measure and regulate digital protectionism. It is also in Canada's interest to resist efforts to use protectionism to challenge trade-distorting policies adopted by its trade partners. In so doing, the Canadian government can encourage other states to refrain from any retaliatory steps that undermine the stability of the global platform or the future growth of the data-driven economy.

Finally, it is in Canada's interest to ensure that NAFTA's data flow language can be revised as technology and regulatory strategies evolve.

Conclusion

NAFTA 2.0 is a chance to think differently about the future of digital trade. Trade in data is not the same as trade in goods or services. Trade negotiators should design digital trade rules that build trust among data providers, consumers, and policy makers. Policy makers should seize the opportunity to link rules governing digital trade with policies that protect digital rights, preserve internet openness and maintain internet stability. In so doing, they can make national and international approaches to internet governance more coherent. In addition, trade negotiators should devise language that can effectively regulate both innovative technologies and new forms of protectionism. With these strategies, the public in all three countries are more likely to see NAFTA and other trade agreements as being in their interest.

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