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ANALYTICAL ESSAY

The International Trade Regime and the Quest for Free Digital Trade

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The global economy is experiencing the digitalization of production, exchange, and consumption of goods and services. The internet and cross-border data flows are becoming important channels of trade as more products are traded through the web or integrate features that rely on digital connectivity. Reflecting the autonomy states have to enact such policies, national variations in internet governance have expanded over the previous decade, with states increasingly looking to use internet and data policies for economic and trade objectives. These dynamics are having important implications on the international trade regime through challenging existing trade rules and creating demands for new rules. This has resulted in growing debates in the trade arena around "digital trade," as a number of states, led by the United States, push for rules as a way to discipline national internet policies and support trade in digital goods and services. This paper examines the political economy of this campaign. We argue that the objectives of this campaign go beyond updating rules to better fit the "Internet age" into achieving further liberalization of trade in goods and services. We highlight the technological contingency of existing international rules and show how technological shifts have been a driver of competitive regime creation and forum shifting contributing to processes of fragmentation of the international trade regime.

Keywords: digital trade agenda, free flow of data, international trade regime, Trans-Pacific Partnership, World Trade Organization

Introduction

Digitalization processes are driving profound changes in the production, exchange, and consumption of goods and services. These shifts include changes in "traditional" sectors, in addition to the emergence of new products and services based on digital technology (Foster et al. 2018). Over the last few years, "digital trade" has

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emerged as a concept that captures a number of trade flows in which the internet plays a central role (Aaronson 2016; Branstetter 2016). Digital trade is often defined quite loosely but typically encompasses digitally enabled trade in goods or services, whether digitally or physically delivered (Monteiro and Teh 2017; López González and Ferencz 2018). This broad definition encompasses a number of digitally driven processes including e-commerce, where transactions and activities such as search, payment, and logistics are handled by a digital platform. It also includes trade in goods and services that have shifted from physical to digital forms in areas such as entertainment, publishing, software, music, and financial services. It also includes new areas of economic activity such as cloud computing and the app economy. All these components of digital trade have experienced very rapid growth in recent years (USITC 2017) and, as a result of this growth, digital trade is becoming a significant mechanism by which trade is undertaken. A growing number of products, such as cars, consumer appliances, and industrial machinery, are integrating digital technologies. Therefore, data is becoming fundamental to trade in "traditional" goods, a trend that is expected to increase dramatically with technologies such as autonomous driving and the internet of things (IoT) (Cecchinel et al. 2014; Gerla et al. 2014).

This growing importance of digital trade has important implications for the international trade regime. As goods shift from tangible to digital forms, there are debates on what this entails in terms of trade rules (Wunsch-Vincent 2008; Meltzer 2014). Similarly, as more services are delivered online, states are debating the implications in terms of market access commitments. More fundamentally, digitally delivered products and the embedding of digital services in physical goods challenge some of the basic conceptualizations by which the international regime operates—specifically, the distinction between goods and services, and the modes of supply that constitute the core element of agreements such as the General Agreement of Services (GATS) (Smith and Woods 2005). Furthermore, digitalization is allowing the use of new policies that have implications for international trade. Policies blocking access to websites and regulating cross-border flows of data, for instance, could have serious implications for trade. While goods (e.g., vehicles, industrial machinery) are subject to relatively clear and predictable trade rules, the data they generate and rely on is not, enabling the use of data policies to affect trade in such goods.

In recent years, these dynamics have resulted in active campaigns around digital trade, first to shift elements of "internet governance" into the international trade regime and second to push for stronger rules on digital trade within the international trade regime. The United States has become the key initiator in bringing digital issues into the international trade regime, bolstered by demands from the rapidly globalizing American "tech sector" advocating for a more favourable and predictable global playing field. The resulting US-led "digital trade agenda" has been promoted at the multilateral level of the WTO and also in regional and bilateral forums. The digital trade agenda was initiated during the Obama Presidency; the so-called "twenty-first century trade agreements"—especially the Trans-Pacific Partnership (TPP) and the Transatlantic Trade and Investment Partnership (TTIP)—were seen by US trade policy makers as important steps in promoting new digital trade rules, the TPP being described by US trade policy makers as the "most ambitious and visionary Internet trade agreement ever attempted" (USTR 2015).

There is a realization that digital trade is becoming an important issue, with a growing technical and policy literature within international institutions. The digital trade agenda, however, has received limited research attention from those exploring the politics of international trade. This paper aims to address this gap by examining the roots of the digital trade agenda and the politics of negotiations around the digital trade agenda in different forums. We argue that the objectives of the "digital trade agenda" go beyond updating the international regime to better integrate digital trade toward deepening trade liberalization by overcoming existing barriers to trade in goods and services as a larger share of these products is digitized.

We highlight the technological contingency of international trade rules and how technological change can undermine the effectiveness of existing rules and drive regime creation and forum shifting. The rest of the paper is organized as follows. Section two introduces digital trade and key concepts around international trade regimes. Section three and four examine the political economy of digital trade in more detail. Section three discusses the divergence in national governance of the internet as a key driver of the digital trade agenda. Section four examines the political economy of the digital trade agenda within the international trade regime. Section five discusses the findings of this analysis.

The methodology to produce our analysis followed a holistic qualitative approach to research (Hesse-Biber and Leavy 2010). Our research was supported by a systematic use of document analysis, participant observation, and semistructured interviews. Using a desk-based literature review, we first highlighted important aspects shaping digital trade. Based on this analysis, we conducted forty-one semistructured interviews with stakeholders involved in the topic, in Washington, DC, Brussels, and Geneva. Interviewed stakeholders included senior trade policy officers of leading digital firms, key industry business associations, trade policy makers and negotiators, and academics and experts. The interviews took place in 2017 and 2018, with each interview lasting between thirty minutes to an hour. To analyze the rich data obtained from the interviews, we have conducted content analysis using the transcriptions (Bengtsson 2016). We have also conducted a systemic analysis of lobbying by the digital industry using filings under the US Lobbying Disclosure Act and other sources that compile data on lobbying and campaign contributions. Furthermore, our analysis is informed by the author's direct and close involvement in debates on digital trade at the WTO in 2017 and 2018. This involvement included participation in a number of public and closed-door events at the WTO, in addition to detailed and repeated discussions with WTO negotiators representing different states, as well as civil society organizations.

Digitalization and the International Trading Regime

New Issue-Areas and the Evolution of the International Trading Regime

The multilateral trading regime has experienced important shifts in the past few decades. In addition to more states joining the multilateral system, the scope of the regime has changed substantially, with the inclusion of issues such as investments, services, and intellectual property rights. Parallel shifts have taken place at bilateral and regional levels (Kim 2015; Orefice and Rocha 2014). Through these processes, the international trading regime has moved from a shallow definition of trade that focused on "at-the-border" issues such as tariffs and quotas to a deeper regime that governs a growing list of "behind-the-border" issues. Some of the newer issue-areas incorporated into the trade regime, such as intellectual property, were previously weakly governed through nonbinding or weakly enforced global governance mechanisms and were brought to the international trade regime through a process of regime and forum shifting (Helfer 2009; Sell 2011).

The drivers behind the push for deep integration are complex (Young and Peterson 2006; Orefice and Rocha 2014). The trade literature has highlighted the role of interest groups and lobbying effort as one of the factors in formulating trade policy (Grossman and Helpman 1996; Grossman and Helpman 2001). As a key to driving the postwar international trade regime, a special focus in this literature has been on explaining the role of the political mobilization of interest groups in shaping US trade policy (Conconi et al. 2014). From this perspective, one motivation for international trade policy is the attempt to lock-in specific rules that are difficult to change by subsequent governments (Nzelibe 2011). As the EU has become an important bloc within international trade regimes, other studies have highlighted the role of mobilization by interest groups in shaping European trade policy and

in building transnational business coalitions (Sell 2003; Dür 2008; Poletti and De Bievre 2014; Curran and Eckhardt 2017).

The question of why the trade regime—and specific venues within the trade regime—are chosen to govern new issue-areas has been explored in the literature.

In terms of the choice of the trade regime to govern such issues, the stronger enforceability of the trade regime in comparison to other global governance regimes is an important factor because it links across trade issues and allows cross-retaliation (De Bièvre 2006). The preference for the trade regime was also related to the strong dispute settlement mechanisms in the trade arena. The question of the choice of venue within the international trading regime has been examined through a number of different perspectives (Jupille and Snidal 2005; Elsig 2007). Mansfield and Reinhardt (2003) argue that the proliferation in preferential trade agreements in the last two decades, at a regional and bilateral level, is directly linked to developments at the multilateral level. Preferential or regional agreements can be a way to secure rules that are difficult to achieve at the multilateral level and a way for powerful actors to exploit the power derived from their market size in these forums (Martin 1999; Shadlen 2008). States also use preferential trade agreements as a way to boost their bargaining positions at the multilateral level. Sell (2011) shows how vertical forum shifting, whereby negotiating norm-setting, rule-making, implementation, and enforcement at levels below the multilateral level, have been used to achieve rules on intellectual property rights that were initially difficult to achieve in the WTO due to resistance by developing countries.

Thus, processes of "competitive regime creation" are a common mean through which a state or a group of states who are dissatisfied with existing multilateral institutions might create new multilateral forums with new rules, practices, or membership (Morse and Koehane 2014). Exploring the case of the Anti-Counterfeiting Trade Agreement (ACTA), Urpelainen and Van de Graaf (2015) argue that the creation of new overlapping institutions reflect the capture of existing focal institutions combined with domestic political pressure in a "challenger" state to reach or change existing institutions.

Applying these analytical concepts provides a framework to understand the recent evolution of the international trade regime. The success of powerful states in the international trade regime in reaching their objectives is often seen as a confirmation of realist perspectives of international organizations as pure reflections of the distribution of power and vehicles for the powerful states to reach their goals (Haggard and Simmons 1987; Steinberg 2002). These dynamics of regime/forum creation and shifting can be seen as a key trend in the evolution of the trade arena in recent years and a principal mechanism by which the advanced states have been able to include new issue-areas in the trade regime.

Subsequent developments in the international trade arena, however, have challenged this realist perspective to international institutions. For advanced economies, the conclusion of the Uruguay Round and the creation of the WTO was intended as a starting point in advancing a more ambitious governance agenda. In this case, this agenda has been strongly resisted by developing countries at the WTO (Narlikar and Tussie 2004). While part of this ability to resist is due to the growing power of states such as China, India, and Brazil (Hopewell 2015), there is also evidence of developing countries using the WTO as a forum to build coalitions and taking advantage of the one-country-one-vote system (Narlikar and Tussie 2004). This seems to confirm institutional perspectives on international organizations that highlight issues such as institutional design and coalition building as important in the way such institutions could mitigate power differences (Narlikar 2003; Wilkinson 2013).

Nonetheless, over the last few years, we have seen further vertical forum shifting by the United States and the EU as they have moved to focus on regional and

bilateral agreements. The emergence of the so-called "mega trade agreements" highlights a new phase of evolution through competitive regime creation. Led by the United States during the Obama presidency and often described as "twenty-first century trade agreements," the Trans-Pacific Partnership (TPP) (which included twelve Asia-Pacific countries that accounted for around 40 percent of global GDP) and the Trans-Atlantic Trade and Investment Partnership (TTIP) (between the United States and the EU) are important examples. The failure to liberalize services through the WTO also led to the emergence of the Trade in Services Agreement (TiSA), which is being negotiated by twenty-three mostly advanced states. This was seen by some scholars as part of the fragmentation of the international trade regime as it moves toward a regime complex of international trade (Raustiala and Victor 2004; Meunier and Morin 2015).

In summary, we have highlighted how the international trade regime continues to experience important shifts and have outlined some of the dynamics behind these changes. Continuous demand for deeper integration by the advanced economies has been met by strong resistance by developing and emerging countries. Vertical forum shifting and competitive regime creation by the advanced economies highlight attempts to reconfigure regimes for their benefit and overcome obstacles that include structural and institutional power by developing and emerging states. Technological change, however, is an important element of these shifts, as we now move to discuss.

Digital Trade and the International Trading Regime

The expansion of digital trade is having important implications on the international trade regime. This impact includes challenging *existing trade rules* and creating demands for *new rules*. In what follows, we discuss some of the key emerging issues in these two areas.

Challenging Existing Rules

The rise of digital trade is challenging existing trade rules at different levels. The cornerstone of the international trading regime is the classification of goods and services and the adoption of rules that govern the different classifications. The distinction between goods and services reflects the historical evolution of the trading regime rather than a clear definition of what constitutes a good and what constitutes a service. In the WTO regime, for example, there is no clear definition of what is a good and what is a service, the latter defined by the way it is traded rather than according to a clear definition (Smith and Woods 2005). However, the goods/services distinction is fundamental to the specific agreement or chapter under which specific activities are covered.

Evolution from goods to data flows

This issue of distinction can be seen in the case of goods that were previously traded physically but are increasingly traded digitally. This applies to goods such as software, books and magazines, film, TV, and music. Some states have maintained that as goods become electronically delivered they should be reclassified as services and subject to the GATS agreement (Darsinouei 2017). Others objected to that argument maintaining that those physical products maintain "goods-like" characteristics even when they are transmitted digitally. The debate reflects the different commitments and rules around goods and services. Important actors such as the EU maintain market access limitations on services such as audio-visual that enable quotas for local cultural content. By classifying newly digitized goods as services, the EU would be able to maintain these restrictions. The EU is moving ahead with plans to impose 30 percent local content on streaming services such as Amazon Prime and Netflix (Rankin 2018).

Modes of supply

The international trade regime regulates exchange in products reflecting the mode of supply of delivery of these products. While this is more explicit in the case of trade in services, where the GATS agreement provides market access commitments according to four modes of delivery,[1] the same logic can be seen in rules around trade in goods. At a fundamental level, a question that has received substantial attention is if digital trade is most similar to *mode 1* (cross-border delivery), in which a firm crosses national borders to sell products to consumers, or *mode 2* (consumption abroad), in which consumers travel to consume products abroad.

Historically, the international trade regime has paid more attention to mode 1, reflecting the fact that it is easier to regulate and the most common form of delivery. As such, states impose rules on products exported to their markets, including tariffs and standards, but have fewer restrictions on their citizens traveling abroad to consume services and buy goods (including bringing these goods home in a small scale). In the GATS agreement, states tend to provide less restrictive market access on consumption abroad in comparison to cross-border delivery.

Digital trade predominantly defined under mode 1 would provide states with higher ability to determine which digital goods and services a consumer might access. Thus, they might have the ability to control the conditions, standards, and regulations that providers of those digital goods and services have to follow. The challenge facing policy makers here is operational—how to expand the application of existing rules into these new types of trade flows, including small scale trade through digital platforms.

In contrast, thinking of digital trade as mode 2 entails that through the internet the ability to travel abroad and consume have expanded from a relatively small percentage of the population (with access to passports and financial means) into every citizen with internet access. Consumers visiting foreign websites to purchase goods and services is akin to them traveling abroad physically. In such an understanding of digital trade, the role of the state in shaping market access and the standards and regulations, at least using traditional tools, becomes limited. Governing digital trade as mode 2, however, would enable highly unequal global environments for the delivery of digital goods and services, as firms could serve the globe from a handful of locations.

These issues have been debated since the 1990s at the WTO in the context of the "Work Programme on Electronic Commerce" (WTO 1998). Despite those debates, questions around the mode of supply most appropriate for digitally delivered services and the "technological neutrality" of market access commitments—if a commitment applies to new technologies of delivery even if that technology did not exist when the commitment was made—remain contested in the WTO.[2] The debates on technological neutrality reflected that many countries liberalized services under mode 1 in areas that were seen unfeasible to deliver on cross-border basis at the time. But, with digital technology, such services are becoming possible to deliver across borders (Kelsey 2018).[3]

[1] These modes are: mode 1 (cross-border: delivery from a territory of one member into the territory of another member); mode 2 (consumption abroad: in the territory of one member to the service consumer of any other member); mode 3 (commercial presence: by a service supplier of one member through commercial presence in the territory of any other member); and mode 4 (presence of natural persons: by a service supplier in one member, through presence of natural persons of a member in the territory of any other member).

[2] Author's participation in workshops on these issues and discussions with WTO negotiators, Geneva, 2017 and 2018.

[3] Author's participation in workshops on these issues and discussions with WTO negotiators, Geneva, 2017 and 2018.

Tariffs on digital trade

As more products become digital, the issue of the imposition of tariffs on digital trade is also becoming more crucial. In the Geneva Ministerial in 1998, the WTO adopted the Declaration on Global Electronic Commerce, which, in addition to launching the "Work Programme on e-commerce," included a commitment by states not to impose customs duties on electronic transmissions (the moratorium on e-commerce). This commitment has been renewed every two years at every subsequent ministerial. Nonetheless, as we discuss in section 4, as digitalization in economies expands the scope of digital flows, debates are growing on the renewal of this moratorium and the definition of "electronic transmissions."

Creating Demands for New Rules

Digitalization is also creating demands for new trade rules. These demands can be grouped into two areas. The first are demands to discipline the use of new tools that states can use to shape digital trade. The second are demands for rules that create a more favorable environment for digital trade. In this section, we provide a brief discussion of these two groups of policies.

As trade in products and services through the internet increases, states are using policies to control and shape data flows. These policies are sometimes explicitly driven by economic factors, but often they are framed within debates on national security, political freedoms, privacy, and law enforcement access to data. We highlight three examples of such policies, internet filtering, data localization, and source code/encryption keys transfer requirements.

Internet filtering

Access to websites, digital tools, and services located on foreign servers is a prerequisite to access digital goods and services provided by firms, including both digitally delivered products and physically delivered products. As such, engineering the structure of the internet to block such cross-border access is a very effective way of controlling digital trade. China's so-called "Great Firewall," the filtering/blocking of websites in China, is the archetypal case of internet filtering. Undoubtedly this remains a key tool that enables the Chinese state to censor information. Yet, it also serves as a trade barrier by limiting the delivery of foreign goods and services to businesses and consumers in China. As we will outline in the next section, commentators and Chinese policymakers have increasingly identified that this filtering has been very effective in supporting the emergence of successful digital firms in China (Calinoff 2010; Liu 2011). While the case of China is the most widely known case of internet filtering at this scale, similar but smaller scale filtering measures exist in other states.

Data localization

Data localization policy is used to control trade flows and access to foreign digital products. Data localization includes a number of policies that demand that data (or certain categories of data) generated within a state are subject to additional rules, typically rules requiring the storage of data domestically. Such a policy raises the cost of global firms serving a market by demanding that foreign digital firms build or purchase domestic data storage capacities. Through such a policy, data localization could strengthen the position of domestic firms and strengthen local digital ecosystems. For example, requesting local storage can affect which companies can bid for government contracts. In other examples, such as new digital machinery or driverless vehicles, which are highly data-intensive, requirements to maintain the data collected within a state could act as a protectionist trade policy, especially considering the huge costs of establishing the data infrastructure for such storage and processing. Thus, data localization can be used as part of a policy to promote aspects

of a national digital industry by forcing transnational firms to invest in a country or by promoting national firms. While the economic contribution of hosting data centers is still debated (WRC 2013; Bauer et al. 2014; BCG 2014), it could be seen as attractive to policy makers.

Requirements to access/transfer source codes, algorithms, and encryption keys

Often as part of security requirements, a number of states adopt policies that seek to mandate technology transfer through policies such as source code transfer requirements. Such conditions can have major economic implications, as most companies will consider access to their source code a red line (due to the risks of losing key intellectual property), leading to this requirement serving as a market access restriction. Parallel policies are also emerging in regard to mandating firms to reveal encryption keys and algorithms. This can be a major issue for companies, as it could lead to blocking market access if they refuse to comply or to jeopardizing data security and the trust of customers if they do.

In addition to new policy tools that states could use to shape trade, the growth in digital trade is leading to demands for new trade rules that create a more favorable environment for digital trade. This is particularly important as new types of firms with digital-based business models emerge and expand. As digital transactions across borders become central to digital trade, ensuring clear rules and norms around digital-only business models is crucial. Thus electronic authentication and paperless trading, which ensure access to and validity of trade documents in electronic form, are crucial to facilitating novel business models (Darsinouei 2017).

The digital economy is also enabling new types of firms to trade more vigorously across borders, particularly small and micro-enterprises using e-commerce (Foster 2017). This issue was not central to international trade in the past, reflecting the scale barriers to entry to international trade. The growth in e-commerce and the role of digital platforms has changed this, providing the infrastructure for small-value trade (connectivity, logistics, payments, contracts). A key policy discussion has been around harmonizing and increasing levels of de minimis, the ceiling value below which goods crossing borders are not subject to tariffs or to complex clearance procedures. Some states and e-commerce firms are pushing to raise the levels of de minimis in international trade negotiations to allow faster and cheaper delivery of such goods (USITC 2017). Such discussions were parts of the recent renegotiations of NAFTA between the United States, Canada, and Mexico (Evans 2018).

Some of these issues were previously discussed as part of internet governance, but in recent years they have become increasingly framed in the context of trade policy. This shift was the result of an active campaign to bring these issues into the trade policy arena. This campaign was driven by the links between these new digital issues and trade but also by the fact that contrary to the trade arena where a state-centered framework with a strong dispute settlement mechanism is in place, internet governance remains a nascent area with weaker implications for states. We now move to discuss this issue.

Diverging National Governance Regimes of the Internet

The Challenges of Internet Governance

Over the last two decades, debates on the governance of the internet have taken place via a disparate set of venues and institutions. While organizations such as the International Telecommunication Union (ITU) and the International Telecommunications Satellite Organization (INTELSAT) played a role in the past in regulating areas of broadcast and telecommunications, the emergence of the internet changed the governance landscape. Overall, internet governance is marked by a diversity of institutions without a clear single focal institution or group of institutions with clear

mandates (Nye 2014; Raymond 2016). In 2011, the World Summit on the Information Society (WSIS) defined internet governance as "the development and application by governments, the private sector and civil society, in their respective roles, of shared principles, norms, rules, decision-making procedures, and programs that shape the evolution and use of the Internet." Scholars in the area of internet governance have argued that we need to think of internet governance as constituting a multilayered structure (Drake et al. 2016). These different layers move from the more technical aspects of internet governance to those in which economic and social interactions take place, although there are questions about the ability of the more technically oriented governance forums to govern the economic and social layer of the internet (Mueller 2010; Drake et al. 2016).

Internet governance originally expanded from telecoms institutions through bodies set up with a mandate to manage the infrastructural side of the internet. The need for orderly domain names and IP addresses led to the birth to the Internet Corporation for Assigned Names and Numbers (ICANN) in 1998. Similarly, maintaining an orderly set of internet protocols and standards has become the responsibility of the Internet Engineering Task Force (IETF), created in 1986. While internet governance continues to manage the evolving infrastructure of the internet, the scope of internet governance has grown. Thus, internet governance institutions and forums increasingly sought to cover a broader set of issues, including the governance of the internet at a global level. Two key internet governance institutions where digital trade discussions have taken place are WSIS and the Internet Governance Forum (IGF). WSIS emerged under the ITU's tutelage and with UN sponsorship to support a global information society. The IGF emerged in 2005 to deal with public policy issues linked to the internet.

An important commonality of the multiple internet governance institutions is a goal of nonprofit, open organizational structure, and the ability for contributions from multiple stakeholders. However, in-depth analysis of these institutions has often highlighted questions as to whether these institutions genuinely follow open and multistakeholder approaches and critique the democratic legitimacy of such models. For instance, although ICANN is defined as a multistakeholder organization "with participants from all over the world dedicated to keeping the Internet secure, stable and interoperable" (ICANN 2018), it is not a formal international organization constituted under the UN system but rather a nonprofit international organization with a Governing Advisory Council (GAC) (Mueller 2010). ICANN emerged under the sponsor of the US Department of Commerce until its transition in late 2016. Prior to that, there was growing disagreement about the fact that ICANN remained officially under the US government umbrella. Further, there have been critiques that the organization tends to lack representativeness, due to the nonbinding character of the board recommendations (Mueller 1999; Mueller 2010; Powers and Jablonski 2015). Similarly, the IETF is dominated by a highly technical community where the decision-making process is rather procedural and where the steering group committee is dominated by representatives from the United States (Powers and Jablonski 2015).

Several efforts to bring ICANN under treaty-based international organization were made. One of these emerged at WSIS in 2005, where several proposals were made to incorporate it into the UN system. These attempts were, however, unsuccessful, and the move toward treaty organization was resisted by the United States with fears of multilateralism leading toward state-controlled internet regimes. Instead, the IGF was created to provide further space for discussing the governance of the internet (Kruger 2016). The acknowledgment of the growing global reach of the internet and concerns regarding the surveillance over the internet (especially after the Snowden revelations) (Dencik et al. 2016) helped to foster consensus about the need to disassociate ICANN from the US government. ICANN subsequently became a private nonprofit corporation under Californian law, where

"internationalization thought privatization" was adopted favoring again a multi-stakeholder model approach (Mueller 2017; Mueller and Badiei 2017).

With the lack of an overall coherent direction in internet governance, the implications of digital trade have remained unexplored within internet governance forums. Issues relevant to digital trade are occasionally discussed but without coherent resolutions or direction. The lack of guidance and guidelines is an important contributor to the large, and widening, divergence in national governance of the internet as outlined in the next section.

Patterns of Divergence and Implications for Digital Trade Policy

The growth of digital trade alongside the limitations of the internet governance regime has led to a divergence in national policy. We highlight the major directions of this policy in more detail in China and the EU. These cases, which join up a number of the categories discussed, are ones that have been of particular interest amongst trade policy makers. While we focus on these two cases, it is important to note that a growing number of states, including India, Brazil, Nigeria, Turkey, Indonesia, and Russia, amongst others, are adopting or considering different types of digital policies that have implications for digital trade.[4]

China: The Great Firewall and the Rise of the Chinese Digital Sector

Over the last two decades, China has implemented an interventionist approach to the digital economy that combined elements of internet filtering, data localization, technology transfer, and joint venture requirements with the ultimate objective to develop a comprehensive domestic digital sector using localized technologies at all levels.

In the early days of the Chinese internet, in a classic infant industry scenario, lax internet property regimes led to Chinese firms being highly active in cloning generic lookalike copies of many of popular websites and web applications. The comparative easy access to code and the ability to replicate such sites can be seen as the foundation for the rise of key Chinese digital firms. As digital technologies have encompassed a wider array of sectors, the Chinese state has also been more active through technological transfer requirements on international firms in exchange for market access, to sell to the government, or to gain the relevant licenses to operate in the country. China has also adopted policies such as forced joint ventures with national firms as a requirement for operating in the market as well as requesting that foreign firms in certain sectors provide their source code as a condition for market access.

These policies have been particularly supported under the threat of restriction of access to the Chinese market, principally through the "great firewall of China" (Liu 2011). The economic element of these policies has been most vividly shown in the rapid rise of the BAT (Baidu, Alibaba, Tencent), three Chinese digital giants with a broad portfolio of digital interests whose rise is attributable to the firewall, according to Chinese officials (Chen 2015). When foreign companies looked to enter the Chinese market, they often found stringent conditions for market access and were eventually blocked in China (e.g., Google and Twitter). In other cases, firms found that conditions made it difficult to compete using established business models and eventually withdrew from China (e.g., Uber and eBay) (Foster and Azmeh 2016).

The state has played an active role in supporting and picking winners at key points during the history of the Chinese digital sector. Political and security factors were

[4] Analysis by the authors of national policies. The European Centre for International Political Economy (ECIPE 2017) provides a database of these policies. Some of these policies are also discussed in the National Trade Estimate reports published by the United States Trade Representative (USTR 2017).

important in supporting trusted firms, especially in politically sensitive areas, and this has facilitated the relatively small number of digital firms that have come to the fore. Following their dominance in the Chinese market, Chinese policy makers are now working closely with Chinese digital firms in formulating plans around technological development, with a view to global expansion. As the digital sector has broadened across the economy, state action is moving away from the informal back-and-forth between the government and executives of the BAT firms, toward formalizing these actions into policy. Key firms, however, remain important both as preferred firms under which wider policies will be implemented and as important architects in shaping policy. For example, Jack Ma, founder and CEO of e-commerce platform Alibaba, has become increasingly influential in shaping Chinese digital trade policy. He has been closely involved in shaping Chinese positions towards e-commerce rules, including as the lead in the B20 summit in China in 2016 (the parallel business voice at the G20). Thus, e-commerce policy in areas such as cross-border flows and O2O policy (online-to-offline, which focuses on digitizing firms) are aligned in many aspects with the aims and initiatives of Alibaba (Foster and Azmeh 2016).

As China's economic rise continues, the fortune of these digital firms is increasingly aligning with the future aspirations of China, which calls for Chinese firms to become more innovative and to upgrade to higher value-added activities in the global economy. Policy readings would suggest that over time, the Chinese state see pliant BAT firms as implementers of future goals through the leveraging of digital technologies to transform the economy (Foster and Azmeh 2016). The BAT firms have continued to grow and horizontally integrate across a wider range of sectors, moving into new and emerging areas such as internet of things, cloud computing, artificial intelligence, robotics, and autonomous vehicles.

The EU: The Privacy Agenda and the Digital Single Market

While the centralized politics of China have enabled the government to prioritize the development of a national digital economic sector, similar efforts in the EU are proving more challenging, reflecting the more complex political and economic landscape. The EU should be seen as a heterogeneous set of actors on this issue but with two factions: a more digitally liberal bloc that consists especially of the UK, the Nordic states, and a number of Eastern and Southern European states and a more "digitally strategic" bloc that mainly consists of Germany and France.[5] This divide is often reflected in debates occurring within different EU institutions.[6]

In the European case, the dominance of US digital firms in the European market is leading to growing concerns about Europe lagging behind in digital innovation. Thus, in recent years the EU has become more active in formulating policy in order to support the digital industry. Part of this policy can be seen as a largely internal market liberalization effort to remove obstacles to digital trade between different EU member states. This is the core of the flagship Digital Single Market (DSM) agenda, which was launched in 2014 and is receiving substantial political capital in the EU.[7]

Market liberalizing initiatives are, however, increasingly intertwined with policies around digital that are more driven by strategic sectoral focus. This has particularly occurred through actions of the more interventionist German-French bloc in recent years in areas such as data protection. A number of recent EU digital policies, some of which are part of the DSM, highlight this more interventionist direction. Examples include the launching a Pan-European Venture Capital Fund of

[5] European digital policy makers and tech representatives, interviews by authors, June 2017.

[6] European digital policy makers and tech representatives interviews.

[7] European digital policy makers and tech representatives interviews.

Funds, the building of a "European public cloud," investments in high-performance computing, and policies to support the scaling-up of European start-ups. Recent pronouncements have also suggested growing scrutiny of acquisitions by US and Chinese firms of European digital start-ups.[8]

Perhaps the most discussed policies for digital trade in the EU at present are those that relate to data protection. While privacy issues are often seen as separate from digital trade, the two are highly intertwined. Increasingly, the EU is adopting a set of privacy rules with important implications for digital trade. This can be seen in the adoption of the General Data Protection Regulations (GDPR). The GDPR, which came into effect in 2018, does not ban the movement of European data outside the EU. However, they only allow completely free movement of European personal data to states the European Commission labels as "adequate," while companies have to follow specific protocols to move data to other countries. With a broad definition of personal data, an adequacy decision controlled unilaterally by the European Commission, and a threat of large fines for violations, the GDPR provides the EU with a very powerful tool to control European data flows. The GDPR also include measures that could potentially weaken the market power of digital incumbents and enable users to switch to new platforms.

The GDPR has implications for digital trade. Exporters of digital products to the EU need to either keep European data within Europe, move the data to a country deemed as "adequate," or have the protocols requested by the GDPR in place. This limitation creates barriers to supplying digital products to Europe through mode one of trade (cross-border) by making it more difficult to move the personal data needed for such transactions outside the EU. This is especially the case for small and micro enterprises who might find the cost of compliance with GDPR prohibitive. While it does not explicitly fit into the category of a data localization, the GDPR is likely to serve as a "soft" data localization driver encouraging more storage of data within the EU (Wong 2016). Through their extraterritorial nature, the GDPR is increasingly seen by other countries as a model for national legislation on data protection, with a number of countries in Latin America and in the Middle East and North Africa adopting or discussing similar legislation. Such discussions are increasingly linked to trade negotiations with the EU.[9] In July 2018, for instance, the EU and Japan signed a trade deal (an economic partnership agreement), and linked to this agreement was a mutual "data adequacy" decision, which allows free flow of data between the EU and Japan.

To summarize, reflecting the large policy space that states have in regard to internet governance, we see growing divergence in the rules governing the digital space, including strategies with important trade and economic objectives. The cases of China and the EU highlight contrasting examples where this is occurring, but similar approaches are also happening in a number of other states, including emerging and developing countries.

Bringing Digital Trade into the International Trade Regime

In response to these dynamics, leading global digital firms have pushed politically to bring key elements of digital trade into the international trade regime. Subsequently, this push expanded to nondigital firms, especially services firms who see digitalization as a path to better market access in services. While this effort included activities in different parts of the world, the main momentum came from the United States, reflecting the fact that the majority of leading digital firms are American and the powerful position of the United States in the international trade arena. In this

[8] European digital policy makers and tech representatives interviews.

[9] Author interviews with digital and trade policy officers in the EU and the United States and with industry associations, May 2017.

Table 1. Lobbying spending by some ICT/technology firms and industry associations, US$ million

Company	2011	2012	2013	2014	2015	2016	2017	2018
Google/Alphabet	9.68	18.22	15.80	16.83	16.66	15.43	18.37	21.74
Amazon	2.22	2.50	3.46	4.94	9.44	11.35	13.00	14.40
Facebook	1.35	3.85	6.43	9.34	9.85	8.69	11.51	12.62
Microsoft	7.34	8.09	10.49	8.33	8.49	8.71	8.66	9.59
Apple	2.26	1.97	3.37	4.11	4.52	4.67	7.15	6.68
Alibaba	0.1	0.46	0.43	0.45	0.41	1.02	2.01	2.74
Uber	–	–	0.05	0.20	0.47	1.36	1.83	2.31
Salesforce	0.11	0.42	0.44	0.44	0.63	1.25	2.10	2.10
eBay	1.63	1.56	2.24	1.56	1.56	2.15	1.82	1.65
Expedia	1.22	1.34	1.39	0.92	1.16	0.77	0.80	1.37
Netflix	0.50	1.02	1.20	1.26	1.32	0.80	0.80	0.80
Yahoo	2.47	2.75	2.78	2.94	2.84	2.45	n/a	n/a
BSA	1.82	1.62	1.34	1.52	1.70	2.01	1.42	1.55
CTA	2.91	2.83	3.45	3.20	4.00	3.80	5.05	4.93
IA	–	–	1.60	1.53	1.44	1.20	1.20	2.60
ITIC	1.08	1.08	1.08	1.08	1.14	1.51	1.63	1.75

Source: Centre for Responsive Politics, lobbying database.[10]

section, we first discuss the growth of digital interest groups in the United States, before discussing some of the key efforts to bring digital trade into the international trade regime.

The Digital Trade Agenda and the Tech Sector in the United States

Many internet firms in the early days saw themselves differently from typical businesses in terms of their connections with government. But as these firms grew domestically and globally, they increasingly approached policy issues in a similar way to other economic sectors. Over the last decade, digital companies became important political powers in Washington, DC, with substantial spending on lobbying and campaign contributions and through opening lobbying offices and hiring former US government personnel to represent the industry (table 1).[11] In 2018, Google/Alphabet spent more than US$21 million on lobbying, making it the highest individual firm spender. Amazon and Facebook were also amongst the top spenders for the year.

The issues on which digital firms lobby have evolved over time. In the early days, their focus was mainly on domestic issues, such as intellectual property and domestic e-commerce. Analysis of lobbying disclosure submissions by these firms, however, show that increasingly these firms are active in lobbying on international trade issues including international trade agreements. A trade policy officer at a digital industry association in DC interviewed explained this evolution.[12]

> For much of the early era of internet and technology companies' existence, trade policy was thought to be the place where you worried about tariffs, and customs-related issues, and levies, perhaps. And, that was about it. No one thought about trade more broadly … the internet and, to a lesser degree, technology industries were relatively unsophisticated when it came to policy engagement. And, had reached

[10] Notes: (1) The BSA is the Business Software Alliance; IA is the Internet Association; ITIC is Information Technology Industry Council. These business associations have played a growing roles in political debates in Washington, DC, on issues related to digital trade and US trade policy. (2) No data is given for Yahoo in 2017/2018 as it was acquired by Verizon.

[11] US digital industry associations, interviews by authors, April 2017, Washington, DC.

[12] Interview by authors, May 2017, Washington, DC.

> a point where a majority of their customers were abroad, and they hadn't actually formulated trade policies, which is a pretty amazing thing, when you think about it.
>
> So, around, say within the last eight years, business constituencies started to engage with the government. And, you can see the beginnings of that in things like the National Trade Estimate comments, where companies, business associations would show up filing comments saying, "Hey, we're a really big part of the economy. We're very successful exporters, you should care about us for those reasons, we create jobs, we generate value, and we're encountering these issues abroad."

Much of the impetus for tackling digital trade issues within international trade regime emerged from these large technology firms (and supported by a number of technology associations who represent various groupings). A number of reports by firms and tech associations have implored the US government to tackle these issues through the trade regime. A 2010 paper by Google argued that "governments should not treat Internet policy and international trade as stand-alone silos, and recognize that many Internet censorship-related actions are unfair trade barriers" (Google 2010, 16). In 2012, the Business Software Alliance (BSA) published a report titled: "Lockout: How a New Wave of Trade Protectionism Is Spreading through the World's Fastest-Growing IT Markets—and What to Do about It," which was one of the earlier reports to position these rules as "digital protectionism" and suggested that eliminating these barriers should become a key agenda item in bilateral, multilateral, and regional trade (BSA 2012).

Key industry players were highly supportive of Barack Obama's two presidential campaigns and Obama was a strong supporter of the digital sector.[13] President Obama nominated Robert Holleyman to the position of Deputy US Trade Representative (USTR) in 2014. Prior to this, Holleyman was an industry lobbyist and had been the CEO of the industry association, the BSA for thirteen years. In his nomination hearing, Holleyman (US Congress Senate Committee 2015) highlighted the importance of digital trade issues:

> I know quite well that the rules of the road in trade that the U.S. helped negotiate over the past 20 years have been essential in allowing U.S. innovators to succeed globally as they have under existing trade regimes, but those rules, while a good foundation, do not fully contemplate the type of barriers that we are now seeing to digital trade.
>
> . . . That makes it all the more important for this committee, Congress, and the administration to be driving a digital trade agenda. I intend to pursue that vigorously to ensure that in the next 20 years, the next 40 years, that American entrepreneurs and workers have the same opportunities to succeed as they have had in the past. That means things like ensuring that there are cross-border data transfers, ensuring that we have provisions against forced localization, ensuring that there is not a discrimination against digital products, and ensuring that there is the legal certainty so that businesses know how to operate in this environment.

Further activities have ensued: in 2017, a bipartisan "digital trade caucus" was established in Congress with objectives that include protecting digital trade from government protectionism, promoting the free flow of data, eliminating data localization requirements, and eliminating digital technology transfer requirements, among others.

The objectives of these campaigns were to discipline the growth in digital interventionist policies by a growing number of states, with a particular focus on China. The evolving focus on international digital trade issues also reflected that as US digital firms grew to become global players, national divergence in rules governing

[13] Trade policy officers at leading digital firms, interviews by authors, April 2017, Washington, DC. See also the CRP(2017) lobbying database which provides details of the extensive movement of staff between digital firms and the US administration.

Table 2. Key objectives of the digital trade agenda

Objective	Comment
Prohibition of custom duties on digital goods	A commitment that custom duties will not be applied to digital goods such as music, books, software, games, and movies.
Nondiscrimination principle for digital products	Extending the nondiscrimination principle to digital goods and services.
Enabling cross-border data flows	Data flows are crucial for the functioning of the digital economy. Rules in this area include a commitment to free flow of data and an explicit ban on any data localization measures. Free flow of data will also discipline the use of filtering measures.
Ban on access to encryption keys requirement	As encryption is an important tool for maintaining security of digital ecosystems. Rules in this aim to ban requirements to provide encryption keys.
Ban on source code transfer/access requirements	Transfer/access to source code requirements could limit market access for digital firms. Rules in this area aim to ban such requirements.
E-commerce facilitation	This includes a number of issues such as electronic authentication, digital payments, de minimis, and paperless trading.
Rules on intermediary liability	Intermediary liability refers to the ability of internet companies to hold material by third parties without being legally responsible for any illegal material or content. The objective here will be to prohibit governments from holding digital firms liable for third-party content and to have harmonized rules on this.

Source: Compiled by authors.

their operations became more problematic (Suominen 2017). As the trade policy officer of a major US digital firm argued,[14]

> I'm sure that a lot of companies, in the internet sector in particular, grew up under a set of US laws that are very favorable towards promoting the free flow of information online, to enabling balanced copyright, protections from liability for copyright content and that kind of thing . . .
>
> A lot of the other countries just haven't updated their laws in the same regard, and so I think we face risks from a liability side, from a just general legal side, that our activities might be found to not pass muster in another country's laws. . . . given our increasing international sort of scope, we want to basically make sure that there's a framework in these other countries that allows for us to operate legally.

US trade policy also started to reflect the rise of digital trade. The "digital dozen" principles adopted by the USTR (USTR 2015) was one example of a set of principles that the United States looked to in digital trade. The trade promotion authority (TPA), which was granted to the Obama administration by Congress in 2015, listed digital trade and cross-border data flows as principle negotiating objectives. In addition, digital trade barriers were added as a separate category in reports such as the National Trade Estimate report on foreign trade barriers (USTR 2017) and analyzed in the "Special 301" watch list related to intellectual property barriers.

With technology in flux, the objectives of the digital trade agenda are moving. We list some of the key objectives in table 2.

In the absence of a clear venue to address these issues in the internet governance regime, digital firms and US trade policy makers increasingly saw the international trade regime as a suitable arena to reach binding international rules. In our interviews, issues such as the scale of membership, enforceability and dispute

[14] Interview by authors, May 2017, Washington, DC.

mechanisms, and previous successes in incorporating intellectual property were mentioned as factors that made the use of the trade regime desirable. While this campaign was initially dominated by digital firms, the growing importance of the internet as a channel of trade led to the expansion of this campaign beyond those firms. Services companies, in particular, became involved.[15] To the services industry, the digital trade agenda was seen as a way to ensure free market access to the growing number of digitally delivered services and to override the limited liberalization of services in the WTO.

Within the trade regime, these issues have been promoted using a two-track strategy of using the WTO but also promoting digital rules in regional and bilateral negotiations.

The WTO

As discussed earlier, e-commerce was first acknowledged in the WTO framework in 1998 when the Geneva Ministerial adopted a declaration that created a work program on e-commerce and established the moratorium on e-commerce. Initial discussions focused on issues such as mode of delivery of digital services and technological neutrality, as discussed earlier.

Little progress, however, occurred in the 2000s with regards to rules and commitments (Meltzer 2014). A number of key points of contention were also not confronted. For example, despite many arguing that China's great firewall could be challenged at the WTO under existing rules (Palmer 2010), no attempt has been made to do this. This hesitancy reflects a number of factors, including the limitations in existing rules and the fear by digital firms that pushing such a case could negatively affect their chance to access the rapidly growing Chinese market.[16] During this period, states biannually renewed the moratorium on e-commerce through which they committed to no customs duties on electronic transmissions.

This situation began to change in the 2010s, reflecting the digital trade agenda emerging in the United States. The United States pursued new rules, including upgrading the moratorium on e-commerce into a permanent commitment and pushing the WTO to change the mandate of the "Work Programme on E-commerce" from discussion to negotiation. The EU has also joined in this latter effort, advocating for more modest objectives, reflecting largely the different positions on the issue between different European states and institutions as outlined previously.[17] Developing and emerging countries remain divided on this issue. Some believe that new digital trade rules in the WTO will help them attract investments in the digital space, while others are concerned that broader WTO rules would mean complete liberalization of digitally delivered products and limit their policy space to pursue digital policies. Many developing countries also expressed opposition to addressing new issues in the WTO, arguing that previously stalled negotiations in the Doha round need to be resolved first (Palmer 2010), with a few arguing that digital issues are beyond the scope of the WTO and that trade negotiators lack the capacity to deal with these issues.

These tensions in the WTO came to a head prior to the 2017 ministerial in Buenos Aires. The objective of the advanced economies in the ministerial was to move the mandate of the working group onto negotiations in order to discuss new rules. Some developing and emerging countries, however, especially the Africa Group and India, showed strong opposition to such change. The Africa group was

[15] Trade policy officers and negotiators, interviews by authors, 2017–2018, Washington, DC, Brussels, and Geneva.

[16] US trade policy officers, interview by authors, April 2017, Washington, DC.

[17] The trade section of the EU (DG Trade) is more supportive of pursuing this agenda at the WTO, while the justice section (DG Justice—in charge of data protection), and states such as Germany and France, fear that moving this issue to the WTO would shift the mandate to DG Trade and lead to rules that undermine European digital policies.

highly active on the issue, spurred by a small group of states in the group.[18] The negotiators of those states played a key role in reaching a consensus within the group by organizing internal discussions within the group and coalition-building in the build-up to the WTO Ministerial through public events at the WTO.

Alongside this swell of opposition, momentum faded with the change in the US administration, as the administration of President Donald Trump disengaged from the WTO negotiations, limiting the pressure on developing countries for a period of time. The ministerial concluded with a lukewarm statement for future activities, the renewal of the moratorium, and the continuation of the 1998 working group but with no further progress (Foster & Azmeh 2018). With this failure to move forward, seventy-six WTO members, including the United States, the EU, and Japan, with subsequent support from China, announced during the World Economic Forum in Davos in 2019 that they will begin to work in a plurilateral way to explore how future WTO negotiations can address e-commerce (Kihara 2019).

Debates on the moratorium of e-commerce have grown subsequently. Indonesia demanded a clarification that electronic transmissions do not include digitized goods. While some members such as the United States demanded that the moratorium is made permanent, India and South Africa called for rethinking the moratorium arguing that the "realities prevailing in 1998, when WTO members agreed for the first time to the temporary moratorium on custom duties on electronic transmissions, have changed significantly during the subsequent two decades" (WTO 2018). They highlighted the growing risk of a loss of custom revenues with the digitalization of more products (Banga 2019). India and South Africa also argued that making the moratorium permanent implies that tariffs on digital goods will be bound at zero even if tariffs on physical forms of these goods are bound at higher rates.

The TPP, TTIP, and TiSA

With limited progress in the WTO, digital trade policy was pursued through the negotiations for TTIP, TPP, and TiSA.

The TPP was lobbied for strongly by the US digital industry, and the ratified TPP e-commerce chapter met many of the demands of the industry and was seen as a huge step in governing digital issues in the important Asia-Pacific market.[19] It was also seen as a template for further multilateral rules and as a tool to pressure China to accept what the Obama administration saw as the trade rules of the twenty-first century (Allee and Lugg 2016).

The TPP is the first trade agreement to include a binding commitment on free cross-border data flows, a ban on data localization policies, a ban on source code transfer requirements, rules on encryption key requests, and rules on electronic authentication. In addition, TPP parties committed to imposing no custom duties on electronic transmissions. While negotiating these clauses with TPP members proved to be difficult but ultimately successful, they proved to be far more difficult in the TTIP and TiSA negotiations due to opposition from a number of European states.[20] Free flow of data, in particular, received the most attention in this regard as European member states and the commission debated its economic and privacy impact.[21] The economic domination of US digital firms in EU consumer markets was also key to European reluctance to agree to the free flow of data

[18] Authors' participation in discussions on the issue within the Africa Group and with other members of the WTO, 2017, Geneva.

[19] Trade policy officers of leading US digital firms, interviews by authors, 2017, Washington, DC.

[20] American and European trade policy officers in multiple discussions with the authors, 2017, Brussels and Washington, DC.

[21] Digital expert at the delegation of a major European country to the EU, interview by authors, June 2017, Brussels.

with the United States, with an eye on potentially more interventionist policy.[22] Influential voices argued that trans-Atlantic free flow of data would mean that the European digital economy could risk being dominated by a handful of large American firms and recommended "playing for time in the negotiations, stepping up construction of Europe's digital strategy and strengthening the European Union's bargaining capacity," as the French Digital Council argued (CNNum 2017, 13). The EU has introduced rules on digital trade in its own trade agreements. They tend to be more similar to those suggested by the EU at the WTO and more modest than the TPP, not including the key issues of the free flow of data or data localization.

President Trump's decision to withdraw from the TPP was a major setback for progress in digital trade. In the early days of the Trump administration, the industry mobilized to influence the new administration with many firms and industry associations warning that failing to reach rules on the digital economy would lead to fragmentation of the internet and a hostile environment for American digital firms.[23] Some of the demands of the industry were later incorporated in the revised NAFTA agreement with Mexico and Canada, the USMCA. The USMCA includes many of the digital clauses of the TPP but also goes beyond the TPP in some clauses, by not only banning requirements for disclosure of source code but also requirements for disclosure of "algorithms expressed in that source code" (Chander 2018). Symbolically, while the relevant chapter in the TPP was titled "electronic commerce," the name was changed in the USMCA to "digital trade" to reflect its broader outlook.

Conclusions

Digital trade is increasingly becoming an important part of global trade, as a growing list of goods and services are exchanged through the internet and an increasing number of products are integrating features that are dependent on connectivity and data. This rapid dissemination of digital technology in a growing number of economic sectors is having important implications for the international trade regime. The shifts brought about by digitalization processes are creating challenges to existing trade rules and demands for new trade rules.

Contrary to the area of international trade where binding enforceable rules have been developed over decades, the internet governance regime remains highly fragmented with no clear focal institution(s) and limited implications for states. This has resulted in a large, and widening, divergence in national governance of the internet, as can be seen in policies such as data localization, internet filtering, and privacy-driven controls. Often, as we have discussed, such policies are intertwined with economic objectives to control flows of trade or as part of strategic industrial and trade policies to support domestic digital sectors and digital catch-up.

The threat of these trends to globalized digital firms (and to digitalizing transnational firms) has driven political mobilization on the issue. For these actors, the objective has been to shift key parts of the previous internet governance regime into the international trade regime. One aim of this campaign is to discipline the use of digital policies by states, in addition to creating a more predictable regulatory landscape for the global operations of these firms.

However, the quest to include digital trade in the international regime not only overcomes emerging issues around state divergence in digital but might also enable broader processes of further trade liberalization. The "digital trade agenda" can thus be seen as a way of overcoming existing trade barriers by further liberalization of trade in services and by binding tariffs on digital products to zero.

[22] Digital expert at the delegation of a major European country to the EU, interview by authors, June 2017, Brussels.

[23] Trade policy officers of leading US digital firms in multiple discussions with the authors, 2017, Washington, DC.

The United States is leading this campaign through adopting the digital trade agenda and promoting digital trade rules at the WTO and also through other forums. The TPP and TTIP agreements were seen by US trade policymakers as important tools to govern digital trade with two key markets (the EU and Asia-Pacific) and as US templates for future multilateral rules. The TPP, in particular, through trade and investments diversion, would have increased the pressure on China to open up its digital market and to abandon core elements of the "Great Firewall."

At the multilateral level, the success of emerging and developing countries in resisting the digital trade agenda is driven not only by structural factors—especially the growing role of emerging economies—but also by institutional factors in the role of the WTO as a forum to allow coalition building and mobilization, particularly by the Africa Group. Contrary to the earlier case of intellectual property rights (Sell 2003), the campaign for digital rules was further undermined by the absence of a strong coalition between the advanced economies and the important differences especially between the United States and the EU on the governance regime for digital trade and data flows. This analysis shows that the emergence of digital trade and the debates around the governance of digital trade are important factors in driving processes of regime shifting and competitive regime creation, contributing to further fragmentation of the international trade regime (Aggarwal and Evenett 2013) and to what Morse and Keohane (2014) called "contested multilateralism (Griffith et al. 2017)."

Our discussion shows another important dimension to the analysis of the international trade regime, which is the technological contingency of existing international regimes. The case of digital trade shows how trade rules reflect a specific conceptualization of what trade is and the path dependency of existing institutions as can be seen in issues such as the distinction of goods and services and the classification of modes of supply of services in the WTO. Technological transformation, however, could fundamentally change these modes and provide actors (states and firms) with new tools to maneuver these rules. The policy space provided by the international regime to states is not only determined by how strong or weak the rules are in multilateral, regional, or bilateral agreements but also by technological shifts in modes of production, exchange, and consumption that underpin the trading regime. This raises questions on the ability of existing institutions, such as the WTO, to deal with different technological modes of trade. The campaign to bring digital trade into the WTO shows the challenges in addressing technological change through existing institutions. As can be seen in the debates on technological neutrality or on definitions of electronic transmissions, there is no clarity or rules on how to deal with such technological shifts. In addition to questions of technical competence and mandate, the politics and institutional design of existing institutions could make it difficult to address these new issues. Today, digitalization and technological transformation are important factors contributing to processes of competitive regime creation and forum shifting and the fragmentation of the international trade regime.

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