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## Digital trade and the remaking of the North American regional economy

*Luis F. Alvarez León\**

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### **ABSTRACT:**

North American Free Trade Agreement (NAFTA) was a cornerstone of the 1990s liberal hegemony established with the rise of multilateral trade agreements. On July 1<sup>st</sup> 2020, NAFTA was replaced by a new trade deal: USMCA (United States-Mexico-Canada Agreement). This article argues that through the inclusion of digital trade provisions, USMCA signifies a vision of a regional economic space that differs substantively from NAFTA's. To make this case, the article examines the digital trade provisions in USMCA, contrasts them with the vision of trade advanced by NAFTA, and evaluates how they create conditions that can transform the North American space-economy.

**KEYWORDS:** Digital trade; e-commerce; digital economy; international trade; regions; North America.

**JEL CLASSIFICATION:** F13; F53; L81; L86.

### **El comercio digital y la transformación regional de la economía de América del Norte**

#### **RESUMEN:**

El Tratado del Libre Comercio de América del Norte (TLCAN, NAFTA en inglés) cimentó la hegemonía liberal que ascendió con los tratados multilaterales en los 1990s. El 1º de julio de 2020 el TLC fue remplazado por el nuevo Tratado entre México, Estados Unidos y Canadá (T-MEC, USMCA en inglés). Este artículo argumenta que, al incluir el comercio digital, el T-MEC significa una transformación en la visión del espacio económico regional. El artículo examina las provisiones de comercio digital en el T-MEC, contrastándolas con el TLCAN, y evalúa las condiciones de cambio en el espacio económico de América del Norte.

**PALABRAS CLAVE:** Comercio digital; comercio electrónico; economía digital; comercio internacional; regiones; América del Norte.

**CLASIFICACIÓN JEL:** F13; F53; L81; L86.

### **1. E-COMMERCE, DIGITAL TRADE, AND THE NORTH AMERICAN REGIONAL ECONOMY**

The present article aims to understand how the North American regional economy that was (re)made by the North American Free Trade Agreement (NAFTA) over the past quarter century is on the verge of a significant transition influenced by two interlinked developments: 1) the replacement of NAFTA by the United States Canada Mexico Agreement (USMCA), which came into effect on July 1, 2020, and

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2) the ongoing emergence of the digital as a dominant dimension of contemporary capitalism. To do so, the article examines digital trade in the context of the USMCA, as it is a key area where the new treaty substantively differs from NAFTA. While USMCA's 'digital trade' provisions overlap to some degree with the idea of 'electronic commerce', which has already been included in more recent US free trade agreements, the vision contained in this new regional treaty represents a comprehensive trade paradigm for which there is no precedent in North America (and whose closest relative may be the European Union's Digital Single Market). Given the thorough digitization of contemporary capitalism, the inclusion of broad-ranging digital trade provisions (addressing areas from cybersecurity to computer-mediated services) in the USMCA stand to have a potentially transformative impact in reshaping the North American regional space-economy.

This article argues that the digital trade paradigm advanced by the inclusion of digital trade as a centerpiece of USMCA represents a qualitatively new vision of the North American regional economic space—and one which transcends a single trade agreement. To make this case, the article proceeds in the next section by outlining the integrated theoretical approaches that will provide the framework for this examination: incorporating regional economic geography and digital geographies. In section three, the article then examines the digital trade provisions of USMCA. Section four discusses how this potential transformation can impact consumers, producers, governments, and civil societies in a North America, a region defined as much by its economic interdependence as its geopolitical asymmetries. The article concludes with two interlinked reflections, as it (1) suggests future research directions to track the development of the USMCA, and (2) evaluates the theoretical implications of studying regions through a digital lens, and of examining the digital at the regional scale(s).

## **2. THE REGIONAL AND THE DIGITAL**

### **2.1. THINKING THROUGH THE REGION**

Regional studies have long grappled with the malleability of the region, which has lent this concept, and attempts to study it, both great valence and potential 'fuzziness' (Markusen, 2003). A significant factor behind this malleability is the region's cross-scalar versatility, which allows it to encompass, depending on the use and context, metropolitan systems, subnational administrative units, supranational blocks, and a range of formations in between. Another dimension to this conceptual double edge is the specific character that might hold the region together, acting as the source of its unity and claim to ontological status.

For example, should regions be understood as the outcome of natural environmental factors, common language, administrative boundaries, or some other characteristic? Due to the concept's versatility, the regional debate among geographers and other scholars has yet to fully resolved, continuing for decades to yield productive insights (Amin, 2004; Harrison, 2013; Harrison et al., 2017; Jones & Paasi, 2013; Macleod & Jones, 2007; Massey, 1979; Scott, 2001; Scott & Storper, 2003). Yet, in spite of the absence of consensus about its meaning and empirical counterpart, the region remains a worthy object of attention as well as a theoretically productive site for inquiry (Paasi & Metzger, 2017).

The present article takes as its point of departure the conceptual richness of the region, not to attempt to settle these longstanding questions, but to draw from multiple approaches to them in order to advance a series of arguments concerning the regional dimensions of two interrelated phenomena: regulatory regimes and technological change. These arguments are then mobilized to understand the development of a specific macro region (North America) simultaneously experiencing two transformations: first, that of the supranational regulatory framework that has undergirded its present integration for a quarter century (NAFTA) and, second, the emergence of a particular form of economic activity catalyzed by widespread technological change (digital trade).

The arguments at the core of this article are built on the enduring geographical insight that regions are 'a fundamental basis of economic and social life' (Storper 1997, p. 3 in (Macleod & Jones, 2007, p. 1178)). Here, then, I place the region at the center of my inquiry to understand the interaction of regulation and digital trade in the context of the USMCA. Having done so, it is then necessary to address

the region's ontological standing relative to the phenomena of interest. Agnew has captured well the tension inherent in this question. Extending the argument above, he has pointed out that regions are not 'merely derivative of nonspatial processes' (Agnew, 2000, p. 101), but central to them. On the other hand, the same author has also argued that "regions are both potentially out there and in the mind of the proposer" (Agnew, 2018, p. 30). While this dilemma forces us to confront to what degree our concepts and usage of regions mirror 'actually existing regions', and whether these preexist the processes we aim to understand, it also creates room for creative exploration, since the search for totalistic regions is not necessarily the goal, and neither is an irrefutable definition of their boundedness (Agnew, 2018, p. 30).

In this article I interpret the enactment first of NAFTA and then USMCA not only as a regulatory architecture that demarcated a regional trading block in North America, but as instruments that substantively shape the constitution of the space-economy at the regional scale. Among the factors that have already deeply affected how people and places within the region communicate and exchange goods and services, digital networks have become particularly salient. That USMCA incorporates digital trade as a key provision should lead us to directly consider the regional dimensions of the digital, particularly since this inclusion has little international precedent. For this, I now turn to insights from the emerging subfield of digital geographies.

## 2.2. DIGITAL GEOGRAPHIES

In the past three decades, roughly paralleling the ascendance and establishment of NAFTA and the post-Cold War liberal world order, digital technologies have gone from the province of government, large corporations and elite universities to nearly ubiquitous—even though their adoption, usage, and impact continues to be mediated by factors such as geographic and social position, income, gender, race, disability, and other axes of difference. Myriad digital devices, linked into communication networks act today not only as a central nervous system connecting much of the world, but also as a force that has come to qualitatively transform a vast range of domains of human (and non-human) activity, remaking space itself in the process—if not necessarily superseding it (Graham & Marvin, 2002; Kitchin & Dodge, 2011; Sui & Morrill, 2004; Zook et al., 2004). Among the resulting transformations, and key to the arguments advanced in this article, is a thorough integration of the digital into capitalist processes and the rearticulation of key components of the space-economy, such as the region.

To make sense of the multiple dimensions in which this transformation is taking place, Ash, Kitchin, and Leszczynski have proposed a 'threefold categorization of the intensifying relationship between geography and the digital', which allows us to grasp, document, and analyze 'geographies produced through, produced by, and of the digital' (Ash et al., 2018, p. 25). This set of heuristics can be usefully deployed to understand the rise of digital trade and its incorporation into USMCA, as well as the regional transformations this may reflect and entail. For example, digital trade can be seen as the proliferation of transactions *produced by* the widespread adoption of digital technologies and their commercialization. Secondly, digital trade is very much a phenomenon *of* the digital since, as opposed to electronic commerce, it refers not only to the means of trade (digital networks), but also the substance of the trade itself (that is, trade of goods and services in digital form). Finally, how we frame digital trade is also conducted *through* the digital, as this very concept, and its corresponding technologies, underlie both the objects of analysis (such as digital goods themselves, and the provisions of digital trade that govern them through trade treaties like USMCA), as well as the conceptual frameworks we use to analyze this phenomenon (as exemplified by this article). In this case, all three of these perspectives interact to shape how I propose to examine digital trade at the regional scale, as illustrated by the case of NAFTA and its replacement by USMCA.

In order to conduct a regional examination of digital trade, the digital has to be put in conversation with the regional. Over the past two decades in regional studies, the emergence of a relational vision of the region has challenged prevailing territorial-scalar imaginaries. Advanced by authors such as Massey (Massey, 1979, 2004, 2005), Thrift, and Amin (Amin, 2004; Massey et al., 2003), this paradigm is premised on the idea that regions are not bound entities, but rather comprised of contingent relationships between various types of actors, and therefore open, shifting, and not liable to be contained, governed, or even fully understood within strict territorial units. Amin, for example, asserts that in the emerging new

order brought on by globalization “spatial configurations and spatial boundaries are no longer necessarily or purposively territorial or scalar, since the social, economic, political and cultural inside and outside are constituted through the topologies of actor networks which are becoming increasingly dynamic and varied in spatial constitution (Amin, 2002)” (Amin, 2004, p. 33). This relational vision seems to be well suited to address the substantive transformations exerted by digital technologies on the function and structure of regions. In part this is because one of the factors behind this theoretical turn towards relational understanding of regions (and space more generally) is the emergence of (increasingly digitized) networks of information, communication, association, and production that underpin and accelerate globalization.

One of the main concerns of this article, digital trade, illustrates this trend for regional reconfiguration as a result of the expansion and adoption of digital communication networks. Furthermore, digital trade also embodies the thorough incorporation of such networks into the dynamics of capitalism through the ongoing and multifaceted commodification of informational goods and services. On these grounds, it is therefore warranted to mobilize a relational lens to explore how digital trade is entangled with the reconfiguration of the North American region.

However, here I want to raise two caveats with respect to this position. First, while a relational perspective helps us understand some dimensions of digital networks, as the rest of this article will show, the territorial underpinnings of policy and state governance are equally important to spatially demarcate, regulate, and commodify digital trade and other digitally mediated activities. In fact, as the Internet and other digital networks have expanded, particularly in the past decade, so have the capacities of territorial actors—particularly states—to reassert their power and spatial imaginary upon such networks through the expansive surveillance, regulation and, ultimately, territorialization of communication networks in configurations that increasingly reflect territorial boundaries (Ashraf & Alvarez Leon, 2016; Deibert, 2008; Warf, 2015).

A second caveat is that the very actors advancing the use and expansion of digital communication networks actively use territorial dimensions built into these very networks to create delimited territorial markets. The rise of content geotargeting and the geofencing of communications for market-making purposes are but two examples of a generalized trend on the rise (Alvarez León, 2015). This means that, while digital networks may possess qualities that allow them to ‘pierce through’ territories—in Amin’s (2004) expression—they are also continuously (though often not entirely) confined by, and reshaped into various territorial configurations through the joint mediation of technological infrastructures and regulatory frameworks. This is why, as I have argued elsewhere (Álvarez León 2018a, 2018b), regulatory and policy frameworks carry out a spatializing function to build markets territorially—especially in the case of digital information networks. This is often most visible in extreme cases such as the “Great Firewall” of China, Iranian-controlled cyberspace, or the North Korean Internet blackout (Warf, 2011). However, it is increasingly common for states and other territorial actors, such as the European Union, to deploy a combination of technology and regulation to shape the structure of digital networks and user activity that takes place within them. Accordingly, this allows said actors to influence the impact of digital networks and their integration into social and economic processes within their territories.

In order to understand how the digital is contributing to regional transformations, it is thus necessary to consider regions as both territorial and networked (and potentially through other dimensions as well). This is because together these perspectives help us better approach the multidimensional configurations of regions, specifically as we also aim to understand phenomena that are shaped by both relational and territorial factors. What does this theoretical positioning entail for an examination of digital trade in the context of NAFTA and USMCA? In the next section I will lay out the characteristics of these trade treaties and the emergence of digital trade. This will be followed by a discussion of how we can analyze these phenomena in a way that captures both how regional frameworks shape and regulate digital markets, and how the emergence of digital trade is crucial to the ongoing transformation of the North American region.

### 3. USMCA AND THE RISE OF DIGITAL TRADE

While NAFTA was a pioneering trade framework that resulted in the largest self-described free-trade region in the world when it came into effect in 1994, this agreement did not contemplate the rise of the digital economy that would take place shortly thereafter. Even though by the 1990s digital technologies were already considered essential for information, communication, and processing, their economic impact was still hard to measure in direct terms (Solow, 1987). Perhaps more elusive still was the influence of digital technologies reshaping, not only the production, distribution, and consumption of goods and services, but the constitution of goods and services themselves. For example, in the original text of NAFTA the word ‘digital’ appears only six times, and it is mostly to refer to ‘digital or numerical processing machines’ or ‘digital processing units’ for the purposes of including these goods in the agreement (NAFTA Secretariat, 2014). However, in the following decades, the digital economy would grow to extend well beyond the trade of machines with digital capabilities, and increasingly come to be comprised by trade in “natively digital” goods and services.

Recovering from the mostly unfulfilled promises of Internet commerce in the late 1990s and the dotcom crash of 2000, the Information Technology industry and the digital economy more generally experienced a resurgence in the first decades of the 21<sup>st</sup> century. This was propelled by developments such as improved search engines and the advent of the social web in the mid 2000’s, along with the later expansion of high-speed Internet and the rise of digital platforms in the ‘gig economy’, all of which led to an important expansion in the 2010s. Today, the degree of integration of digital networks into the global economy is hard to overstate. According to the 2019 United Nations Report on the Digital Economy, “In 2018, exports of digitally deliverable services amounted to \$2.9 trillion, or 50 per cent of global services exports”. Furthermore, “Over the period 2005–2018, they grew at a rate of 7 per cent annually, as compared to 6 per cent, on average, for all services exports” (UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT, 2019, p. 66). The faster growth of exports of ICT services and digitally deliverable services in comparison with total services exports is an illustration of the increasing digitalization of an economy.” In the United States, according to the Bureau of Economic Analysis, the real value added of the digital economy (adjusted to inflation) in 2017 totaled \$1,483.5 billion, or 6.9 percent of the US economy, and it accounted for 25 percent of total growth in real GDP (Bureau of Economic Analysis, 2019, p. 6).

The economic scale illustrated by these examples is undergirded by an even deeper transformation, which is a qualitative shift in how digital technologies have transformed the very configuration of the economy. Until recently e-commerce, or electronic commerce, was the dominant frame of reference for this transformation, and it was limited to the considering networks as the means to carry out the trade of (mostly) physical goods. However, in the past decade (and most prominently in advanced countries) an accumulation of technological and socioeconomic shifts<sup>1</sup> has led to the expansion of digital trade. The key difference is that digital trade is primarily centered on the exchange of digital goods and services, which takes place via digital networks. In other words, the Internet has shifted from being the “facilitator of international trade in goods and services” to “itself a platform for digitally-originated services” (Fefer et al., 2019, p. 2). As the U.S. International Trade Commission (USITC) defines it, digital trade is comprised by six interrelated categories (internet infrastructure and networks, cloud computing services, digital content, e-commerce, industrial digital processes, and communications and social media). These categories, in turn, all rely on

“The delivery of products and services over the Internet by firms in any industry sector, and of associated products such as smartphones and Internet-connected sensors. While [digital trade] includes provision of e-commerce platforms and related services, it excludes the value of sales of physical goods

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<sup>1</sup> These include, but are not limited to, increased computational power, broadband Internet connectivity, growing consumer acceptance, advances in cybersecurity, changes in ownership regimes, improved means of territorial market creation such as geotargeting, digital rights controls, finely-grained consumer analytics, and more sophisticated digital media consumption platforms, among others.

ordered online, as well as physical goods that have a digital counterpart (such as books, movies, music, and software sold on CDs or DVDs)" (United States International Trade Commission, 2017, p. 33).

In the replacement of NAFTA by USMCA one of the most significant changes was the inclusion of provisions for digital trade. While the United States has included digital trade provision in multilateral agreements before (most notably in the TPP, from which it withdrew in 2017), USMCA was a landmark update due to the size and importance of the economic relationships covered by the treaty, the comprehensive nature of the provisions, and the implications this change would have for the North American space-economy. The inclusion of digital trade is one of the three major changes in USMCA with respect to NAFTA, which can be collectively understood to satisfy imperatives for "modernization, U.S. demands, and de-institutionalization" (Flores-Macías & Sánchez-Talanquer, 2019, p. 12). The inclusion of Chapter 19 of USMCA<sup>2</sup>, specifically focused on digital trade, responds mainly to an imperative towards modernization, however, as I discuss in the next section, its provisions simultaneously address U.S. demands while furthering a continued logic of de-institutionalization that started with NAFTA. Some key aspects of these provisions are discussed in the paragraphs below.

A first point to highlight from Chapter 19 of USMCA is the distinction it creates between digital products, on the one hand, and goods or services, on the other. In fact, according to article 19.2, "a measure that affects the supply of a service delivered or performed electronically" is subject to other chapters in USMCA dedicated to Investment (14), Cross-Border Trade in Services (15) and Financial Services (17) (Office of the United States Trade Representative, n.d., pp. 19–2). This means that there is a substantive difference between products that are 'natively digital' and other goods or services which use digital means for their distribution, but which are governed by different legal regimes —such as financial services.

As for digital products themselves, Chapter 19 specifically waives any customs, duties, or other charges related to their cross-border electronic transmission. An exception to this is any existing taxes internal to each member state that are already consistent with the stipulations of USMCA (Office of the United States Trade Representative, n.d., pp. 19–3). Other important provisions state that there will be no preferential treatment for domestic digital products (19.4), and that each member state should establish a minimum legal framework governing electronic transactions to avoid unnecessary regulatory burden and facilitate input by interested persons. In addition to this general framework, Chapter 19 calls for specific measures for electronic authentication (19.6) and online consumer protection (19.7) to be implemented by each state.

An overarching consideration for all the above measures is that they should be designed with an emphasis on interoperability across the different jurisdictions. Along these lines, in addition to advancing a consistent digital infrastructure for trade, USMCA contains measures to protect consumer privacy across the region. Chapter 19 indicates that each member state should develop a legal framework to protect "personal information of the users of digital trade", which is non-discriminatory and transparent. The treaty also encourages member states to establish compatibility between their respective regimes. There is emphasis in the text to develop these privacy measures by relying heavily on existing frameworks, such as the APEC Privacy Framework and the OECD Recommendation of the Council concerning Guidelines governing the Protection of Privacy and Transborder Flows of Personal Data (2013). (Office of the United States Trade Representative, n.d., pp. 19–5).

A central purpose of Chapter 19, and USMCA in general, is to encourage the cross-border transfer of information where each member state commits to reduce prohibitions. However, a caveat is that these provisions only apply "if this activity is for the conduct of the business of a covered person". This is complicated by provision 19.11.2, which states that a party can adopt or maintain measures that are inconsistent with the free flow of information if this is necessary to "achieve a legitimate public policy objective". A caveat to this exception is that it cannot be an arbitrary or unjustifiably discriminatory measure that would restrict trade and/or that it does not impose restrictions on information transfers

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<sup>2</sup> Note that Chapter 19 of USMCA, on "Digital Trade", is not the same as Chapter 19 of NAFTA, on "Review and Dispute Settlement in Antidumping and Countervailing Duty Matters", the latter of which has generated much debate about the legal implications of dispute resolution mechanisms across member states.

greater than necessary. (Office of the United States Trade Representative, n.d., pp. 19–6). Yet, this question contains significant latitude, since the text of the treaty does not specify what criteria constitute a “legitimate public policy objective”, nor what might be deemed “necessary” measures to achieve said objective.

An important component underlying the juridical-geographical approach in Chapter 19 of USMCA is the location of computing facilities. This has become especially salient over the past decade as U.S.-based Internet conglomerates have fought against European Union regulations that have mandated the establishment of computing facilities within their territories for the purposes of regulation. USMCA, on the other hand, states that “No Party shall require a covered person to use or locate computing facilities in that Party’s territory as a condition for conducting business in that territory” (19.12).

Another key provision in Chapter 19 is an emphasis on a broad notion of cooperation. In the treaty this entails an emphasis on cybersecurity as a national priority for each state, which is to be enhanced through collaboration. However, an important limitation to this cooperation is that there are clear prohibitions of demands to access to the source code of digital products. According to USMCA, source code access cannot be implemented as a pre-condition for the “import, distribution, sale, or use of...software, or of products containing that software” in a territory. However, these provisions do not preclude a “regulatory body or judicial authority...from requiring a person on another Party (country) to preserve and make available the source code of software, or an algorithm expressed in that source code to a regulatory body for a specific investigation, inspection, examination, enforcement action, or judicial proceeding, subject to safeguards against unauthorized disclosure”. (19.16). Thus, cybersecurity, trade and Intellectual Property stand in tension to shape the rules of digital trade in USMCA.

Lastly, Chapter 19 stresses the protection of intermediaries, or those who aggregate, distribute, and often profit from, information created by others (19.17). This is one of the most contentious issues of the Internet and the digital economy, and for which many of the largest companies have been lobbying for years. Facebook, Google, and other sites that rely on the aggregation and distribution of user-generated content do not want to be treated or regulated as publishers, since that would imply assuming responsibility for the content of their platforms. This point is bolstered by the provisions in Article 20.J.11 of USMCA, on ‘safe harbors’ relating to Internet Service providers. In this way the treaty addresses, though it does not fully resolve, a long-simmering conflict between copyright industries, Internet companies, and anti-censorship advocates. On the one hand content-producing industries see online piracy and content distribution as a threat, and digital intermediaries as its enablers. Internet companies, on the other hand, have developed business models based on their position as intermediaries of information, with no liability for any potential violations arising from the content they aggregate. Lastly, anti-censorship advocates argue that Internet companies should not take on the role of deciding what is published, and what deleted, since that gives them undue authority to shape public discourse.

The boundaries of these debates have acquired incremental resonance since the 2016 U.S. presidential election and the role of Internet companies in amplifying misinformation. This is the backdrop that informs the role of USMCA in establishing regional norms for the distribution, and monetization of online content. As suggested through this brief examinations of some key provisions of digital trade in USMCA, this treaty intersects with, and stands to shape, profound and increasingly expansive aspects of the political economy of North America. In the next section I further unpack some potential implications.

#### **4. TRANSFORMING THE NORTH AMERICAN REGIONAL SPACE-ECONOMY**

And yet, while USMCA retained the core provisions of NAFTA, the changes it contains run the risk of “collectively mak[ing] cooperative economic and political relations in North America more uncertain and contingent. (Flores-Macías & Sánchez-Talanquer, 2019, p. 12). One of these changes is the inclusion of digital trade clauses, which mainly responds to a need for modernization, but is also shaped by a specific set of U.S. demands along key industries, and a new institutional structure to regulate monetized digital flows. The digitization rules have to be seen as interconnected with industries that, on the face of it, are governed by different frameworks but nonetheless have been central to the NAFTA-USMCA negotiations.

One salient example brings together discussions the digital economy with another central point of contention in USMCA, which is the change in country of origin requirements in the auto industry. Specifically, the US managed to negotiate an increase in these requirements from 62.5% of the value of a car to 75%. Additionally, a higher percentage of the value of cars must now be generated by workers earning at least \$16 USD per hour (Kirby, 2018). Altogether, these provisions create incentives to relocate value-added tasks in car manufacturing out of Mexico, the regional partner with the cheapest labor, and who has won the most in auto investment with NAFTA (with auto plants opening in that country by US, Japanese, Korean, and German auto makers).

If this creates uncertainty for Mexico, the gains are not necessarily assured for the US —or at least to this country's manufacturing constituencies who have been crucial in pushing back against NAFTA. This is because factors such as the incremental computerization of cars, their ongoing transformation into increasingly autonomous multimedia spaces, the inclusion of ever more sophisticated navigation systems, and their interconnection into digital networks are all part of a process whereby automobiles are gradually subsumed by the digital economy. This is in part precipitated by the pressure felt by automotive companies to build an autonomous vehicle market, and responses to competition from the likes of ride sharing firms, but it is also prompted by the wholesale digitization in the economy, which incentivizes companies to monetize their informational assets, as GM and Ford have recently begun doing with new 'data-centric' business lines and spinoff digital and/or platform startups (Wall Howard, 2018; White, 2017).

The impact on of the USMCA on the auto industry is paradoxical, since it may cause disruption in the short run by interrupting long established regional production networks between Mexico and the US. On the other hand, as discussed above, the emphasis of USMCA on setting rules of the digital market also responds to U.S. priorities. In this case, such priorities are reflected in protecting a key American industry by re-territorializing it to the US at the moment of a crucial technological transition.

The spatial arrangements cemented by NAFTA are thus under pressure from technological, economic, and political forces. That is why to understand USMCA as a potential new architecture for the North American region, it helps to consider, following Massey, that to spatialize globalization means "recognizing crucial characteristics of the spatial: its multiplicity, its openness, the fact that it is not reducible to 'a surface', its integral relation with temporality" (Massey, 2005, p. 88). In her analysis of the regional, this perspective took concrete form in centering networks of production and spatial divisions of labor instead of the territorially unified spatial units that often undergird the language of policy. In the case of NAFTA, and now USMCA, the networks of production, consumption and political action established over the past quarter century throughout the North American territory are as important as the territorialized trade architecture that stands to change how these are configured.

In order to incorporate insights from a relational view of the region into the territorial grammar of space, we can draw from a regional perspective of the digital. In the present case, this means analyzing digital trade not only from the relational perspective, but also from the territorial perspective. This is important because both digital technologies and regulatory frameworks are informed by territorial components that fundamentally come to shape particular spatial arrangements over time — as is the case when a trade treaty such as USMCA becomes the status quo. Thus, while Amin asserts that '[t]here is no definable regional territory to rule over' (Amin 2004, p. 36), in this case it is clear that NAFTA has constructed in the past decades a regional space-economy within the bounded the territories of the three North American countries. Yet, the interconnections between these national territories — and to a certain degree the territorial components of this trade framework (such as the automotive country of origin requirements)— served as catalysts for spatial reconfigurations between and within such territories. A salient example of this has been the establishment of auto plants in Mexico by German and Japanese firms to access the North American market. However, North America cannot be solely understood as a neatly delineated regional geography, or an aggregate of three discrete country-level units. The North American space-economy is simultaneously constituted by networks as well as territorial units, shot through with exceptions, ambiguities, uncertainties, and discontinuities. In this context, the rise of the digital represents one of the most substantial challenges to the territorial arrangements cemented by NAFTA. Addressing such challenges is arguably one of the priorities of USMCA, if this treaty is to further integrate digital trade into the regional space-economy.

During the quarter century of NAFTA, digital technologies contributed to create new digital geographies, influenced by processes of spatial restructuring characterized by both centralization and dispersal, and where existing urban hierarchies are reinforced while many routine activities (from manufacturing to office work) become decentralized and relocated to more peripheral locations (Ash et al., 2018, p. 30). This landscape, created through the intensification of digital technologies, is in turn primed to further production, exchange, and consumption of digital products and services. A recognition of these changes is embedded in USMCA, which now seeks to rein in the digital flows that connect the region and codify them into a digital trade architecture. From the US perspective, this follows three interrelated objectives: first, capture the positive economic externalities of these digital flows; second, stem the negative externalities (such as piracy or digitally-enabled crime); and, third, regulate digital trade in a way that favors key strategic and economic interests of the United States.

Scott and Storper refer to regional economies as “synergy-laden systems of physical and relational assets”, whose prominence is intensified along with globalization (Scott & Storper, 2003, p. S191). The ongoing digitization of the economy prompts us to ask the question of what are the physical and what the relational assets, and how should we understand the synergy of the systems where these assets circulate. USMCA Chapter 19 on digital trade is an important building block towards establishing the legal infrastructure of a digital market, and thus, to understanding the terms by which the synergy of physical and relational assets of the region is being pursued by a set of key actors within and outside of it. However, exactly what this would mean for the North American regional space-economy remains an open question, as the impacts of USMCA unfold in the years after its implementation.

## 5. CONCLUSION

As USMCA replaces NAFTA as the centerpiece of North American trade architecture, it is crucial to understand the conditions this creates for the (re)configuration of regional space-economy. For instance, with USMCA, key U.S. industries in the new economy (such as the IT industry) are assured favorable terms of trade at the regional scale, while other industries in technological transition (such as the auto industry) are afforded the opportunity to reterritorialize their operations within the country’s borders. However, the (socio)spatial outcomes entailed by a transformation in the trade architecture of North America are far from certain. This uncertainty is heightened in light of the disruptions not only to trade, but to the entire global economy, wrought by the ongoing COVID-19 pandemic since March 2020. And, while it will be necessary to wait to see the North American space-economy is (re)constituted under USMCA, it helps to view this process through the relational as well as the territorial lens. In this article I have suggest that a focus on digital trade and the (legal and technological) infrastructures that support it is a fruitful approach to understand the ongoing transformation of North America as a distinct macro region —an approach that can be leveraged to understand other regions whose space-economies are substantially impacted by digital technologies and digital trade, something which is becoming increasingly difficult to avoid as the world economy becomes thoroughly digitally-mediated.

## REFERENCES

- Agnew, J. (2000). From the political economy of regions to regional political economy. *Progress in Human Geography*, 24(1), 101-110. <https://doi.org/10.1191/030913200676580659>
- Agnew, J. (2018). Evolution of the Regional Concept. In A. Paasi, J. Harrison & M. Jones (Eds.), *Handbook on the Geographies of Regions and Territories* (pp. 23-33). Edward Elgar Publishing. <https://doi.org/10.4337/9781785365805>
- Alvarez, L.F. (2015). The Digital Economy and Variegated Capitalism. *Canadian Journal of Communication*, 40(4), 1-18.
- Alvarez, L.F. (2018a). Information Policy and the Spatial Constitution of Digital Geographic Information Markets. *Economic Geography*, 94(3), 217-237. <https://doi.org/10.1080/00130095.2017.1388161>

- Alvarez, L.F. (2018b). A blueprint for market construction? Spatial data infrastructure(s), interoperability, and the EU Digital Single Market. *Geoforum*, 92, 45-57. <https://doi.org/10.1016/j.geoforum.2018.03.013>
- Amin, A. (2004). Regions Unbound: Towards a new Politics of Place. *Geografiska Annaler: Series B, Human Geography*, 86(1), 33-44. <https://doi.org/10.1111/j.0435-3684.2004.00152.x>
- Ash, J., Kitchin, R., & Leszczynski, A. (2018). Digital turn, digital geographies? *Progress in Human Geography*, 42(1), 25-43. <https://doi.org/10.1177/0309132516664800>
- Ashraf, C., & Leon, L. F. (2016). The Logics and Territorialities of Geoblocking. In R. Lobato & J. Meese (Eds.), *Geoblocking and Global Video Culture* (1st ed., pp. 42-53). Institute of Networked Cultures. <http://networkcultures.org/blog/publication/no-18-geoblocking-and-global-video-culture/>
- Bureau of Economic Analysis. (2019). Measuring the Digital Economy: An Update Incorporating Data from the 2018 Comprehensive Update of the Industry Economic Accounts (p. 12). [https://www.bea.gov/system/files/2019-04/digital-economy-report-update-april-2019\\_1.pdf](https://www.bea.gov/system/files/2019-04/digital-economy-report-update-april-2019_1.pdf)
- Deibert, R. J. (2008). The geopolitics of internet control: Censorship, sovereignty, and cyberspace. In *Routledge Handbook of Internet Politics* (pp. 339-352). Routledge. <https://doi.org/10.4324/9780203962541-30>
- Fefer, R. F., Akhtar, S. I., & Morrison, W. M. (2019). Digital Trade and U.S. Trade Policy. *Congressional Research Service Reports*, R44565, 45.
- Flores-Macías, G.A., & Sánchez-Talanquer, M. (2019). The Political Economy of NAFTA/USMCA. *Oxford Research Encyclopedia of Politics*. <https://doi.org/10.1093/acrefore/9780190228637.013.1662>
- Graham, S., & Marvin, S. (2002). *Telecommunications and the City: Electronic Spaces, Urban Places*. Routledge. <http://ebookcentral.proquest.com/lib/qut/detail.action?docID=166821>
- Harrison, J. (2013). Configuring the New 'Regional World': On being Caught between Territory and Networks. *Regional Studies*, 47(1), 55-74. <https://doi.org/10.1080/00343404.2011.644239>
- Harrison, J., Smith, D. P., & Kinton, C. (2017). Relational regions 'in the making': Institutionalizing new regional geographies of higher education. *Regional Studies*, 51(7), 1020-1034. <https://doi.org/10.1080/00343404.2017.1301663>
- Jones, M., & Paasi, A. (2013). Guest Editorial: Regional World(s): Advancing the Geography of Regions. *Regional Studies*, 47(1), 1-5. <https://doi.org/10.1080/00343404.2013.746437>
- Kirby, J. (2018, October 3). USMCA, Trump's new NAFTA deal, explained in 500 words. *Vox*. <https://www.vox.com/2018/10/3/17930092/usmca-mexico-nafta-trump-trade-deal-explained>
- Kitchin, R., & Dodge, M. (2011). *Code/space: Software and Everyday Life*. MIT Press.
- Macleod, G., & Jones, M. (2007). Territorial, Scalar, Networked, Connected: In What Sense a "Regional World"? *Regional Studies*, 41(9), 1177-1191. <https://doi.org/10.1080/00343400701646182>
- Markusen, A. (2003). Fuzzy Concepts, Scanty Evidence, Policy Distance: The Case for Rigour and Policy Relevance in Critical Regional Studies. *Regional Studies*, 37(6-7), 701-717. <https://doi.org/10.1080/0034340032000108796>
- Massey, D. (1979). In what sense a regional problem? *Regional Studies*, 13(2), 233-243. <https://doi.org/10.1080/09595237900185191>
- Massey, D. (2004). Geographies of Responsibility. *Geografiska Annaler: Series B, Human Geography*, 86(1), 5-18. <https://doi.org/10.1111/j.0435-3684.2004.00150.x>
- Massey, D. (2005). *For space*. SAGE.

- Massey, D., Amin, A., & Thrift, N. (2003). *Decentering the nation: A radical approach to regional inequality*. Catalyst.
- Mosco, V., & Schiller, D. (Eds.). (2001). *Continental order? Integrating North America for cybercapitalism*. Rowman & Littlefield Publishers.
- NAFTA Secretariat. (2014, 1994). North American Free Trade Agreement. <https://www.nafta-sec-alena.org/Home/Texts-of-the-Agreement/North-American-Free-Trade-Agreement?mvid=2>
- Office of the United States Trade Representative. (n.d.). Chapter 19—Digital Trade. In *United States-Mexico-Canada Agreement* (p. 11). Retrieved September 30, 2019, from [https://ustr.gov/sites/default/files/files/agreements/FTA/USMCA/Text/19\\_Digital\\_Trade.pdf](https://ustr.gov/sites/default/files/files/agreements/FTA/USMCA/Text/19_Digital_Trade.pdf)
- Paasi, A., & Metzger, J. (2017). Foregrounding the region. *Regional Studies*, 51(1), 19-30. <https://doi.org/10.1080/00343404.2016.1239818>
- Scott, A. J. (2001). *Global City-Regions: Trends, Theory, Policy*. Oxford University Press.
- Scott, A. J., & Storper, M. (2003). Regions, Globalization, Development. *Regional Studies*, 37(6/7), S191-S205. <https://doi.org/10.1080/0034340032000108697a>
- Solow, R. M. (1987, July 12). *We'd Better Watch Out*. The New York Times, 36.
- Sui, D., & Morrill, R. (2004). Computers and Geography: From Automated Geography to Digital Earth. In S. D. Brunn, S. L. Cutter, & J. W. Harrington (Eds.), *Geography and Technology* (pp. 81-108). Springer Netherlands. [https://doi.org/10.1007/978-1-4020-2353-8\\_5](https://doi.org/10.1007/978-1-4020-2353-8_5)
- United Nations Conference on trade and development. (2019). *Digital Economy Report 2019: Value creation and capture - implications for developing countries*. United Nations.
- United States International Trade Commission. (2017). *Global Digital Trade 1: Market Opportunities and Key Foreign Trade Restrictions* (Investigation Number 332-561 No. 4716; p. 446). <https://www.usitc.gov/publications/332/pub4716.pdf>
- Wall, P. (2018, November 13). Data could be what Ford sells next as it looks for new revenue. Detroit Free Press. <https://www.freep.com/story/money/cars/2018/11/13/ford-motor-credit-data-new-revenue/1967077002/>
- Warf, B. (2011). Geographies of global Internet censorship. *GeoJournal*, 76(1), 1-23. <https://doi.org/10.1007/s10708-010-9393-3>
- Warf, B. (2015). The Hermit Kingdom in cyberspace: Unveiling the North Korean internet. *Information, Communication & Society*, 18(1), 109-120. <https://doi.org/10.1080/1369118X.2014.940363>
- White, J. (2017, December 5). GM puts an e-commerce marketplace in the dashboard. Reuters. <https://www.reuters.com/article/us-gm-tech-idUSKBN1DZ0DX>
- Zook, M., Dodge, M., Aoyama, Y., & Townsend, A. (2004). *New Digital Geographies: Information, Communication and Place* (S. D. Brunn, S. L. Cutter, & J. W. Harrington, Eds.; pp. 155-176). Kluwer Academic Publications.

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