



The regime complex for digital trade in Asia and China's engagement

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Abstract

The rapid development of information and communication technologies over the past two decades has resulted in profound transformations in traditional economic and trade activities, leading to the scaling of digital trade across the Asian region and beyond. Drawing on the conceptual framework of the regime complex, this article seeks to delineate the main features of regional digital trade governance in the Asian region and China's engagement with the regime-building process in this policy field. It demonstrates that the digital trade governance landscape in Asian countries comprises a collection of partially overlapping and nonhierarchical regimes, where different regional actors are formulating competing visions and approaches to digital trade governance. In addition, the dynamic nature of the digital trade regime complex in Asia and China's evolving approach to digital trade governance is mutually constitutive. By selectively liberalizing in certain contexts while remaining conservative in others, China contributes to a more complex and less cohesive regional digital trade environment. China's emphasis on standard-setting efforts and security considerations introduces additional complexities to the regime complex, potentially impeding the development of comprehensive governance regimes for digital trade in the region.

Abbreviations

| | |
|-------|--|
| UN | United Nations |
| ISO | International Organization for Standardization |
| GDP | Gross domestic product |
| ASEAN | Association of Southeast Asian Nations |
| PTA | Preferential Trade Agreement |

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| | |
|--------|---|
| TPP | Trans-Pacific Partnership |
| CPTPP | Comprehensive and Progressive Agreement for Trans-Pacific Partnership |
| GATT | General Agreement on Tariffs and Trade |
| RCEP | Regional Comprehensive Economic Partnership |
| DTA | Digital trade agreement |
| DEA | Digital economy agreement |
| FTA | Free trade agreement |
| CBPR | Cross-Border Privacy Rules |
| PDP | Personal Data Protection |
| UNNExT | United Nations Network of Experts for Paperless Trade and Transport in Asia and the Pacific |
| WPEC | Work Programme on E-Commerce |
| eWTP | Electronic World Trade Platform |
| ITU | International Telecommunication Union |
| IETF | International Engineering Task Force |
| ICANN | Internet Corporation for Assigned Names and Numbers |
| TiSA | Trade in Services Agreement |
| WTO | World Trade Organization |
| BRI | Belt and Road Initiative |
| ICT | Information and communication technology |
| ICM | Information and communication media |
| IDC | International dedicated connectivity |
| MoU | Memorandum of understanding |
| SME | Small and midsize enterprise |

The rapid development of information and communication technologies over the past two decades has resulted in profound transformations in traditional economic and trade activities, leading to the scaling of digital trade across the Asian region and beyond. Notably, the COVID-19 pandemic has significantly contributed to accelerating the pace of digital transition and the growth of digital trade in Asian economies (Asian Development Bank 2022). Against this backdrop, the past few years have witnessed a sharp increase in digital trade rules and institutional arrangements of various types in the wider Asian region, ranging from preferential trade agreements (PTAs) featuring digital trade and e-commerce provisions, such as the Association of Southeast Asian Nations (ASEAN)-Australia-New Zealand Free Trade Area, to informal institutional initiatives exemplified by the ASEAN-China Initiative on Enhancing Cooperation on E-Commerce. The surge in transnational digital trade rules and regulatory measures has gained increasing traction among scholars and policy analysts, leading to three broad lines of interrogation in the existing literature.

The first line of interrogation, situated primarily within the fields of economic and legal studies, has examined the implications of the rise of digital economy for the World Trade Organization (WTO). For example, Ariel Aaronson and Leblond

(2018) explored the challenges posed by the rise of different digital economy and data governance models led by the United States, the European Union, and China for the WTO, arguing that the emergence of different data realms and regulatory models would undermine the capability of the WTO to govern trade in data flows. In a similar vein, other existing studies pointed out that while the growth of digital economy has significantly changed the patterns of global trade, the WTO has yet to tackle the issues of digital trade in an effective and comprehensive manner (Burri and Polanco 2020), leading to an increasing trend of regulatory fragmentation in the sphere of digital trade rules (Janow and Mavrodís 2019). In this scholarly camp, discussions on the role of Asian countries in challenging or reshaping the digital trade rules within or beyond the WTO framework remain limited.

In light of the weakness of the WTO mechanisms in addressing digital trade issues, the second line of interrogation has paid particular attention to the role of the United States in shaping the region-building processes in the sphere of digital trade (Azmeah, Foster and Echavarri 2020), with an emphasis on the impact of trans-Pacific trade rules such as the Trans-Pacific Partnership (TPP) and its replacement Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) on Asia's digital trade governance (see, for example, Foster 2016; Cheong 2019). These discussions have centered on the question of how the United States has sought to establish a US-centric digital trade regime by promoting advanced forms of digital trade norms through initiatives, such as the Korea-US Free Trade Agreement and TPP/CPTPP while paying insufficient attention to the role and agency of Asian players in shaping the fundamental digital trade rules across the region. Nevertheless, since the Trump administration, the US has taken a much less active role in negotiating multilateral free trade agreements which was marked by the US's withdrawal from the TPP in 2017. Against such backdrop, one can observe that an increasing number of Asian regional actors started playing a proactive role in driving the negotiations of multilateral free trade agreements as well as digital trade rules at both regional and global levels. Specifically, it is noteworthy that Japan has demonstrated strong leadership in concluding the CPTPP without the US and in facilitating the realization of large-scale FTAs such as RCEP (Terada 2023). Similar dynamics showing Asian countries' proactivism in engaging with the shaping of global digital trade regime can be observed in the WTO Joint Statement Initiative on E-commerce where current negotiations are led by Asian countries including Japan, Singapore, and Australia (WTO 2024).

These recent dynamics have led to the third line of interrogation, which started addressing the conventional US-centric perspective by unpacking how indigenous factors and Asian actors have contributed to constructing digital trade regimes (Mishra and Valencia 2023). Among these discussions, much attention has been paid to ASEAN's role as a critical institutional hub facilitating the development of regional initiatives in the area of digital trade (Gorning 2022; Natalegawa and Poling 2022; Liu 2019) and the evolution of China's distinct approach to free trade agreements and digital trade rules (Wang and Liu 2021; Zhang 2024) as well as to the geostrategic competition between the United States and China affecting the institutional building trajectories in the Asian region (Chen 2021).

Despite the growing volume of scholarly debate on this topic, numerous limitations have been identified in the existing discussions. First, most of the existing literature tends to be atheoretical, providing relatively limited conceptual and theoretical reflections on the overarching regime-building process in terms of digital trade governance across the Asian region. Second, while China's role has been mentioned in some of the literature, these studies either discuss China's approach to digital trade in light of US-China rivalry (Gao 2018; Wang and Liu 2021) or tend to focus on how domestic ideas, institutions, and policies have shaped China's approach to digital trade governance (Foster and Azmeh 2020; Zhang 2024). In other words, a systematic analysis of how China has engaged with regional institution-building in the sphere of digital trade is still lacking.

In response to the lacuna of the literature and to align with the key theme of this special issue concerning the dynamics of new regionalism in Asia, this research article probes into the following questions: How best can we conceptualize the key characteristics and nature of the evolving digital trade governance regimes in Asia? What role has China, as a major regional actor and an emerging digital power, been playing in reconfiguring the regional architecture for digital trade governance in Asia?

To answer these questions, this article draws on the conceptual framework of the regime complex to delineate the main features of regional digital trade governance in Asia¹ and China's engagement with the regime-building process in this policy field. This article aims to make a twofold contribution to the existing debate. First, by conceptualizing the regional architecture in the sphere of digital trade as a "regime complex," this article offers a theoretically informed and empirical grounding analysis of how Asian regionalism in digital trade governance has been characterized by a loosely coupled system of institutional arrangements driven by not only state actors but also nonstate actors. By doing so, this article bridges the conceptual discussions on regime complex (Keohane and Victor 2011) and the debate on Asian regionalism (Beeson 2019; He and Inoguchi 2011) through the analysis of an increasingly important field of policy. It is noteworthy that the past two decades have witnessed a growing body of literature exploring the nature and characteristics of the processes of regional integration in the Asian region. This scholarly debate, which has been frequently referred to as "Asian regionalism" scholarship, seeks to unpack the processes through which Asian countries develop their distinct approaches to establish politically defined and organized regional institutional frameworks underpinned by Asia's unique historical, normative, and political contexts (Beeson and Stubbs 2012). In such debate, it is widely argued that Asian regionalism differs significantly from the regional integration experience in Europe in the sense that Asian regionalism has long been characterized by a relatively slow pace of formal institution-building and a high level of bottom-up process of regionalization as evidenced in Asia's intense regional production networks (Jetschke and Katada 2016). While a

¹ While we acknowledge that there exist different definitions on the geographical scope of Asia, in this article, the geographical scope of Asia primarily refers to Northeast Asia and Southeast Asia, excluding Central Asia and South Asia.

rich volume of literature has examined the driving factors and effects of Asia's distinct region-building process (Beeson 2003; Dent 2008; He 2009), these discussions are largely confined to Asian regionalism or comparative regionalism scholarships, with insufficient engagement with other theoretical and conceptual discussions in the wider International Relations (IR) scholarship. This research therefore seeks to bridge these scholarly discussions by drawing on the conceptual framework of regime complex in IR literature to examine the regional institution-building processes in the sphere of digital trade in Asia. Second, this article makes empirical contributions to the topic of digital trade governance by offering a comprehensive and in-depth mapping of various digital governance regimes that coexist across the Asian region and how China has engaged with the evolving regime-building processes in this policy area. In doing so, this paper argues that the dynamic nature of the digital trade regime complex in Asia and China's approach to digital trade governance are mutually constitutive.

Methodologically, this research adopts a qualitative content analysis which is underpinned by an interpretivist perspective, involving the process of analyzing textual data in a rigorous, in-depth manner to uncover underlying patterns, themes, and characteristics of the texts (Miles & Huberman 1994; Kohlbacher 2006). By doing so, this research collected and analyzed data through a comprehensive and systemic review of a wide array of primary and secondary sources with an aim of ensuring and strengthening the reliability of research (Kohlbacher 2006). Specifically, primary materials include official statements and policy papers released by regional institutions such as ASEAN and official Chinese authorities, such as the Ministry of Commerce, the Ministry of Foreign Affairs, and the State Council Information Office of China. Besides, secondary materials include numerous media reports, academic journal articles, and policy analyses, which serve as complementary tools to triangulate evidence and increase the reliability of the empirical observations.

Beyond this introduction, the remaining article proceeds as follows. The second section delineates the conceptual framework, drawing on the notion of the regime complex. The third section provides a mapping of the landscape of regional regime complexes for digital trade governance in Asia. The fourth section analyzes China's engagement in shaping the regime complex for digital trade across the region, followed by a discussion of key findings and concluding remarks.

The conceptual framework: regime complex

In this section, we depict the concept of the "regime complex," which will serve as the analytical framework for the subsequent empirical discussions. To start with, regimes can be generally understood as a configuration of descriptive or prescriptive norms setting out shared expectations about appropriate behaviors within a community (Nye 2014; Park 2021). Depending on the degree of institutionalization, a regime is typically characterized by a certain degree of hierarchical coherence among norms (Nye 2014). In 2004, Raustiala and Victor introduced the term "regime complex," which is defined as "an array of partially overlapping and non-hierarchical institutions governing a particular issue-area" (Raustiala and Victor

2004:278-79). As numerous studies on regime complex argued, given the nonhierarchical nature of international political system, it would be helpful to consider different types of international and regional regimes as a continuum (Alter and Raustiala 2018; Keohane and Victor 2011). Specifically, at one side of the spectrum are highly institutionalized and fully integrated institutions with the capacity to impose regulation through comprehensive and hierarchical rules, while at the other end of the spectrum, there exist highly fragmented forms of institutions without identifiable cores or linkages between regime components (Keohane and Victor 2011). However, in the middle of this spectrum, there exists a wide array of regime forms that can be defined as “nested (semi-hierarchical) regimes” or “regime complex,” which are characterized by identifiable cores and loosely coupled systems of institutions (Alter and Meunier 2009; Keohane and Victor 2011; Nye 2014). In other words, regime complexes refer to institutional arrangements characterized by a loosely coupled set of specific regimes located somewhere between the two extreme sides of this continuum. While there may exist connections between the specific and rather narrow regime settings, there is no overarching architecture that leads to and structures the whole (Alter and Raustiala 2018; Keohane and Victor 2011).

It has been further argued that highly institutionalized and comprehensive regimes are likely to emerge and persist across a specific issue area when the interests and norms of all the most powerful actors within the community share sufficient common grounds so that they devise and demand international institutions as a mechanism to fulfil their goals through mitigating transaction costs, enhancing information and credibility and ensuring compliance. Such comprehensive institutions driven by power and the majority of key actors around a common policy field can be competitive, with no viable rivals. A telling example of such a regime type is the General Agreement on Tariffs and Trade (GATT), which has long encouraged investment in a single and integrated regime, given that benefits from the regime were extended to the majority of members based on the norm of the most favored nation status and reciprocity (Keohane and Victor 2011). Nevertheless, it is a much more common phenomenon that numerous narrower regimes coexist across a specific policy area without a clear hierarchical system. In circumstances where different actors have different or competing objectives, interests, or norms, fragmentation and conflicts between individual regulatory arrangements are likely to emerge. To resolve the tensions between different players and regulatory elements, major actors may prefer a regime complex instead of a comprehensive, highly institutionalized and integrated institution, as the former allows more flexibility and adaptability in terms of mitigating different patterns of interests and norms (Alter and Raustiala 2018; Alter and Meunier 2009; Keohane and Victor 2011).

While the concept of the regime complex has gained increasing traction in the study of Asia’s regional integration or regionalism, the term has either been referred to implicitly (Camroux 2012; Yeo 2018) or has focused primarily on the study of Asia’s regional security architecture (Buzan 1988, 2011; Morgan 1997). There has been limited empirical research delving into the phenomenon of regime complexes in newly emerging fields of regional governance, such as digital trade governance. One exception is Corning’s (2022) discussion on the mutual influence of the regime complex for digital trade in Asia and the digital trade strategies of members of

ASEAN. Nevertheless, this study only attempts to examine “the degree and nature of integration in the digital trade regime complex as an independent variable with consequences for actor strategies and governance outcomes” (Corning 2022:920), providing insufficient discussion unpacking the engagement of major players, such as China, with the regime complex in this policy field. This research therefore aims to mitigate the gap by bridging the conceptual discussion on the regime complex and the increasingly important policy field of digital governance in the Asian region while seeking to understand the interplay between the regional regime complex and China’s increasingly activism in the sphere of digital trade institutional building.

The landscape of digital trade governance in Asia

Digital trade and investment have become paramount for ongoing economic growth and development across Asian countries, with the region exceeding the global average, accounting for a quarter of the \$4 trillion trade in digitally deliverable products (ESCAP 2024b). Specifically, the scale of China’s digital economy has risen by 10.3% to 50.2 trillion yuan, which accounted for 41.5% of China’s gross domestic product (GDP) in 2022 (The State Council Information Office of China 2023). In a similar vein, ASEAN’s digital economy has been growing at a fast rate, with the market size expected to exceed \$300 billion by 2025, as predicted by a report produced by Temasek and Bain & Company (Google 2023). The report also forecasts that Southeast Asia’s digital economy could expand at double the rate of its GDP by 2030 (Google 2023). In addition, digital trade has become one of the most important retail channels in South Korea and a critical component of the country’s overall consumer market, with domestic e-commerce purchases reaching \$180.4 billion in 2022 (Department of Commerce of the US 2024).

In light of the rapid scaling of digital trade across Asian countries, numerous institutional arrangements and regime elements have been established over the past two decades, which align well with the characteristics of a regime complex, namely, a loosely coupled set of institutional and regulatory arrangements driven by different and even competing actors and divergent interests, norms, and demands. The overall map of the digital trade governance landscape in the region presented in Fig. 1 encompasses a wide range of institutional and regulatory arrangements, spanning from legally binding trade agreements to loosely institutionalized actions, initiatives, and dialogues. Based on the overall map of digital trade governance in Asia, we summarize three observations.

First, it is worth noting the importance of taking into consideration the existence of multiple layers of digital trade regimes in Asia, which include both legally binding trade agreements and other less formal and more flexible forms of activities governing digital trade. Over the past decade, Asian economies have begun to incorporate dedicated e-commerce chapters into new comprehensive “mega-regional” agreements (i.e., CPTPP and Regional Comprehensive Economic Partnership [RCEP]). In addition, Asian states have also sought to pair the traditional forms of FTAs with digital trade agreements (DTAs) or digital economy agreements (DEAs), exemplified by the Singapore-Australia DEA, which complements their pre-existing FTA.

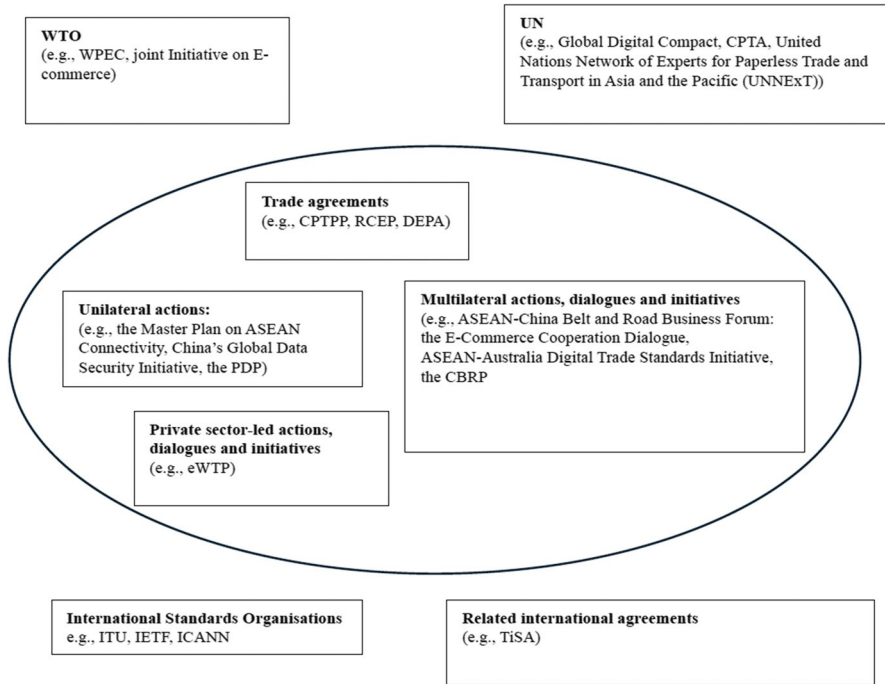


Fig. 1 The regime complex for digital trade in the Asian region (The boxes show the main institutional elements and initiatives that comprise the digital trade regime complex. Elements inside the oval represent institutions and initiatives related to digital trade within the Asian region; elements outside are institutions and initiatives related to digital trade at the global level.) (Acronyms for Fig. 1: the APEC Cross-Border Privacy Rules (CBPR) System, the ASEAN Framework on Personal Data Protection (PDP), the International Telecommunication Union (ITU), the Internet Engineering Task Force (IETF), Internet Corporation for Assigned Names and Numbers (ICANN), the Trade in Services Agreement (TiSA), the Framework Agreement on Facilitation of Cross-border Paperless Trade in Asia and the Pacific (CPTA), electronic World Trade Platform (eWTP))

Furthermore, some Asian economies have produced standalone DTAs or DEAs, as evidenced in the US-Japan DTA adopted in 2020. Table 1 summarizes the DTAs, DEAs, and trade agreements with e-commerce chapters in Asia.

In addition to trade agreements as formal institutions and legal binding rules to govern digital trade-related issues, Asian countries also rely on a wide array of informal, nonbinding and less institutionalized mechanisms to advance dialogue and cooperation concerning digital trade. For example, ASEAN, as a longstanding institutional hub facilitating the processes of regionalism in the Asian region (Acharya 2017), has played a pivotal role in establishing various digital trade initiatives in the region, including the e-ASEAN Framework in 2000 (ASEAN 2000), the ASEAN Economic Community Blueprint (ASEAN 2015), and the ASEAN Agreement on Electronic-Commerce (ASEAN 2019). Specifically, the ASEAN-Australia Digital Trade Standards Initiative was created in 2018, working through a capacity-building approach to support the greater implementation of digital trade standards between

Table 1 Formal digital trade institutional arrangements in Asia

| Agreement | Year in force | Nature of agreement | Type of agreement | Participating countries |
|---|---------------|---------------------|--------------------------|--|
| ASEAN-Australia-New Zealand Free Trade Area | 2010 | Mimilateral | FTA + e-commerce chapter | 10 ASEAN member states, Australia, New Zealand |
| Korea-US Free Trade Agreement | 2012 | Mimilateral | FTA + e-commerce chapter | US, South Korea |
| Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) | 2018 | Multilateral | FTA + e-commerce chapter | Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, and Vietnam |
| US-Japan Digital Trade Agreement | 2020 | Bilateral | DTA | US, Japan |
| Singapore-Australia Digital Economy Agreement (SADEA) | 2020 | Bilateral | DEA | Singapore, Australia |
| Digital Economy Partnership Agreement (DEPA) | 2021 | Mimilateral | DEA | Chile, New Zealand, Singapore, South Korea |
| ASEAN Agreement on Electronic Commerce | 2021 | Mimilateral | DTA | 10 ASEAN member states |
| Regional Comprehensive Economic Partnership (RCEP) | 2022 | Multilateral | FTA + e-commerce chapter | Australia, Brunei Darussalam, Cambodia, China, Japan, Laos, New Zealand, Singapore, Thailand and Vietnam |
| Korea-Singapore Digital Partnership Agreement (KSDPA) | 2023 | Bilateral | DEA | South Korea, Singapore |

ASEAN and Australia as well as in the wider Asian region (ASEAN-Australia Digital Trade Standard 2024).

Second, to fully understand the complexity of the digital trade regime in Asia, it is essential to extend our perspective beyond a mere geographic focus on the region. It is imperative to situate this regime within a broader global context. As previously discussed, the digital trade landscape in Asia is characterized by multiple layers, comprising both legally binding trade agreements and other less formal, more flexible activities that govern digital trade. These layers are not only shaped by regional agreements, actions, dialogues, and initiatives but are also influenced by the wider global context. International organizations such as the World Trade Organization (WTO), the United Nations (UN), the International Telecommunication Union (ITU), the Internet Engineering Task Force (IETF), and the International Organization for Standardization (ISO) significantly impact the standard-setting processes in various emerging areas of digital trade.

For instance, under the auspices of the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), the Framework Agreement on Facilitation of Cross-border Paperless Trade in Asia and the Pacific (CPTA) aims to facilitate the adoption of digital trade measures for trade and development across the region (ESCAP 2024a). When a country becomes a party to the Agreement, it commits to implementing policies and practices that facilitate cross-border paperless trade, including the digitization of customs procedures, electronic documentation, and secure data exchange. This agreement has significant implications for the development of digital trade development in Asia, as it brings together numerous regional actors, such as China, the Philippines, and the Republic of Korea. By standardizing digital trade protocols and promoting interoperability among these participating countries, the CPTA supports the growth of the digital trade in the region.

Therefore, understanding the interplay between the regime complex for digital trade in Asia and the regional actors within it requires consideration of international factors, particularly standard-setting efforts in international standards organizations. This global dimension adds an additional layer of complexity, as it necessitates aligning regional practices with international standards and regulations, ensuring that digital trade flows smoothly at the regional level while accommodating the regulatory landscapes at the international level.

Third, the complex institutions and initiatives overseeing digital trade in Asia have the potential to fragment the regulatory landscape while creating possibilities for cooperation among stakeholders in certain areas, even in the presence of disagreements elsewhere. The digital trade governance landscape in Asian countries comprises a collection of partially overlapping and nonhierarchical regimes, where different regional actors are formulating competing visions and approaches to digital trade governance. While this regime complex may result in a lack of coherence, it compensates for flexibility and adaptability, particularly important in Asian countries characterized by disparities in digital economy development and diverse political regimes. For instance, both the CPTPP and RCEP stand as two important trade agreements centering on the Asian region. However, the objectives in terms of the level of liberalization in digital trade in these two trade agreements diverge significantly. The CPTPP is often considered the benchmark for the new generation

of PTAs, notably for its ambitious liberalized approach to digital trade (Mishra and Valencia 2023). In contrast, while the RCEP generally aligns with the liberalization theme of the CPTPP, it offers more adaptable and flexible provisions on digital trade, particularly regarding data regulation (Streinz 2021). As noted by Mishra and Valencia (2023), the approach adopted by RCEP demonstrates compromises necessary when authoritarian digital economies are involved in a digital trade deal. For example, within the RCEP, there is acknowledgement of the importance of implementing measures that restrict cross-border electronic information transfers or mandate data localization if the party considers it necessary for the protection of its essential security interests (Chapter 12 of RCEP 2020). This provision reflects the pragmatism of RCEP, allowing for flexibility and accommodating divergent policy references on data governance.

In summary, a close scrutiny of the landscape of the digital governance institutions in the Asian region reveals that it demonstrates salient characteristics of a regime complex: a loosely coupled configuration of bilateral, minilateral, and multilateral institutional arrangements on the same issue, without a clear hierarchy. Such a system of regime complex, which is underpinned by potentially divergent normative views, interests, and regulatory approaches devised by different Asian economies, is likely to further deepen the fragmentation while allowing flexibility in terms of the regulatory structure in digital trade in the region.

China's participation in digital trade governance in Asia

Comparing the evolution of digital trade between China and the rest of the world reveals that China entered the digital trade arena comparatively later. However, its significant expansion indicates its substantial potential for further advancement. E-commerce in China emerged in the early twenty-first century, experiencing rapid growth after 2008 (International Trade Centre 2016). Later, this growth was accelerated by the rise of cross-border e-commerce. The onset of the COVID-19 pandemic further accelerated the pace of Chinese digital trade across all industries. In 2022, China's digitally delivered service trade value rose 3.4% year on year to \$372.71 billion, hitting a historic high (The State Council of the People's Republic of China 2023). During this period, the import and export scale of cross-border e-commerce totaled about \$296.3 billion, expanding 9.8% year on year (The State Council of the People's Republic of China 2023).

Against this backdrop, China has put much effort into shaping its approach to digital trade by strengthening top-level design, enhancing private actors' participation, developing new business forms, and aligning digital trade rules with high standards, particularly in Asia. Based on the summary of the regime complex for digital trade governance in Asia, as well as strategies adopted by China, we identify three important features underlying China's approach to digital trade governance and its interactions with the regime complex for digital trade in the region. First, China has adopted a relatively conservative stance on digital trade governance, although some recent changes toward a more liberal approach can be observed. Second, China actively engages in digital trade governance through the promotion of

digital standards. Third, China's approach to digital trade has attached significant importance to security considerations.

To start with, one can observe that China's approach to digital trade governance has long been characterized by a relatively conservative attitude. This is evidenced by its promotion of a narrower scope of digital trade in e-commerce negotiations. Within the WTO, despite China's active participation in e-commerce negotiations under the Joint Initiative on E-commerce, it implicitly proposed an approach characterized by a narrower scope of digital trade and a focus on enabling and facilitating trade in goods through electronic means (Borgogno and Savini Zangrandi 2024). China's conservative approach is also reflected in its FTA negotiations. E-commerce provisions and chapters have been absent from China's FTAs until recently. The first FTAs containing e-commerce provisions were signed in 2015 by China with Australia and Korea. However, these provisions remained modest with a primary focus on e-commerce trade, such as paperless trading, recognition of electronic authentication and signatures, and customs duties on electronic transmissions. In particular, China's approach to data governance in international trade agreements and bodies is prudent (Borgogno and Savini Zangrandi 2024). For instance, the majority of the FTA signed by China do not include liberalization provisions on data flow.

Nevertheless, despite China's historically conservative stance on digital trade governance, recent developments suggest an incremental shift toward a more liberal approach. This change has largely centered on China's active participation in negotiating and concluding bilateral trade agreements with digital trade provisions and chapters. Indicative examples include the China-New Zealand FTA with digital trade provisions and the China-Australia FTA, China-South Korea FTA, and China-Singapore FTA, all featuring digital trade chapters. China's active involvement in shaping digital trade governance in the Asian region is also evident through its participation in trade negotiations under the RCEP. As an RCEP signatory, China agreed not to "require a covered person to use or locate computing facilities in that Party's territory as a condition for conducting business in that Party's territory" (Chapter 12 of RCEP 2020) or "prevent cross-border transfer of information by electronic means where such activity is for the conduct of the business of a covered person" (Chapter 12 of RCEP 2020). This is the first time China has made commitments to these issues, marking a potential departure from its long-standing emphasis on state sovereignty and preference for limited data flow. However, it is noteworthy that the RCEP permits the implementation of measures that restrict cross-border electronic information transfers or mandate data localization if the party considers it necessary for the protection of its essential security interests. Due to a lack of explicit definition of "essential security interests," this opens up the possibility of China imposing data restriction measures under the justification of national security concerns. Therefore, the extent to which China will compromise data governance under RCEP regulations remains unclear.

Another example demonstrating a recent shift in China's relatively conservative stance is its pursuit of joining the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and the Digital Economy Partnership Agreement (DEPA). In an official statement, The Ministry of Commerce People's Republic of China (2021) stated:

Applying to join DEPA is in line with China's moves to deepen domestic reforms and open further to the outside world. It will help China to strengthen cooperation in the digital economy with members under the new development pattern and promote innovation and sustainable development.

In November 2021, President Xi Jinping stated that China would take “an active and open attitude in negotiations” on sensitive issues, such as the digital economy, to accelerate China's accession to the CPTPP (The State Council Information Office of the People's Republic of China 2021). Accordingly, China has taken proactive steps to promote the upgrade of its digital trade-related standards to better align with those of the CPTPP and the DEPA (Wang 2023). For instance, China has excised a pilot program complying with the CPTPP standards in Hainan Free Trade Port (The State Council of the People's Republic of China 2024). In June 2022, China announced a plan to transform the Nansha District in Guangdong Province into a platform testing for high-level international FTAs, including the CPTPP and the DEPA (Global Times 2022). Additionally, a working group on China's accession to the DEPA was established in 2022, and since then, there have been various communications between China and the member countries of the DEPA (Zhong 2023). China's application to join both agreements has been widely interpreted as an attempt to enhance trade relationships with Pacific member countries (Wu 2022b). However, it remains unclear how far China's reform will go because several provisions in the CPTPP and the DEPA conflict with China's own policies in the realm of digital trade. For instance, the CPTPP prohibits countries from mandating that businesses use or locate data facilities within their own territories, whereas China's cybersecurity law introduces data localization requirements. Therefore, despite China's recent indications of being open to discussing a more liberal approach to digital trade, it is still uncertain what compromises China may be willing to make in actual negotiations.

The discussion above demonstrates that China has adopted a relatively conservative stance on digital trade governance, although some recent changes toward a more liberal approach can be observed. This blend of different and even competing trends interacts with the regime complex for digital trade in Asia. On the one hand, the existing regime complex for digital trade in the region accommodates China's mixed approach. For instance, the level of liberalization in digital trade within the CPTPP, DEPA, and RCEP varies significantly. RCEP combines a principal commitment to free data flow with efforts to minimize the impact on internal data governance. This has allowed China to maintain its relatively restrictive data governance approach without facing external scrutiny. In comparison, both the CPTPP and the DEPA adopt a more liberal approach to digital trade governance, which explains China's shift toward liberalization in the pursuit of joining the CPTPP and DEPA. On the other hand, the mixed approach adopted by China further fragments the regime complex. By selectively liberalizing in certain contexts while remaining conservative in others, China contributes to a more complex and less cohesive regional digital trade environment in the Asia region. This fragmentation can lead to inconsistencies and challenges in establishing a unified framework for digital trade governance in this region.

The second characteristic of China's approach to digital trade is its active promotion of standards in a variety of digital trade areas. These standards are vital for developing a globally harmonized digital trade environment, which in turn facilitates the acceleration of digital trade and the reduction of transaction costs. As Yang (2023) pointed out, the compatibility of standards provides technical standards for digital trade governance. In particular, harmonized standards in areas such as privacy and consumer protection are key to managing global digital trade (Meltzer 2019; Neeraj 2019). Recognizing the pivotal role of digital standards in digital trade governance, partly due to its previous reluctance to include digital trade provisions and chapters in FTAs, China has proactively shaped digital technical standards to align with its digital trade objectives. This increased focus on the technical standard setting paved the way for the "Standards 2035" project initiated by the Chinese leadership (Wu 2022a). To streamline the objectives of the "China Standards 2035" project, the Central Committee of the Communist Party of China and the State Council of China released the "National Standardization Development Outline" in October 2021, providing a roadmap aimed at fostering high-tech innovation (The State Council of the People's Republic of China 2021).

China's standard-setting efforts include supporting Chinese officials in senior positions and providing the necessary financial and technical support required to draft strong standards proposals in international standards institutions. For instance, ISO reports indicate that the number of secretariat positions and convenorships held by China has steadily increased over the past decade, demonstrating China's increasing influence within ISO (Center for Intelligence Research and Analysis 2022). For key areas of interest, China's representative has been particularly evidenced. For instance, China proposed to establish a Study Group to research smart cities within ISO entitled "China Contribution on Possible Future Work on Smart Cities in [Joint Technical Committee] JTC 1" (ISO/IEC JTC1 2023). On the basis of the proposal, the Study Group on smart cities was established at the 28th ISO/IEC JTC 1 plenary in France in November 2013 (ISO/IEC JTC1 2023). JTC 1 accepted the appointment of the Chinese National Body of Yuan Yuan as the convenor and Tangli Liu as the secretary for the JTC 1 Study Group on Smart Cities (ISO/IEC JTC1 2023). Two years later, ISO/IEC JTC 1 voted to form a Working Group with a focus on smart cities. Ever since, every Secretary and Convenor of this Working Group has been Chinese (ISO/IEC JTC1 2023). This example illustrates China's successful dominance in leadership positions within international standards organizations, particularly in some emerging digital trade areas.

China also places significant emphasis on the Chinese firms' role in establishing digital technical standards. In emerging areas of digital trade, such as digital payment systems and digital lending, where regulatory frameworks are less established, countries that choose specific companies for digital services, technologies, and infrastructure often experience a path-dependent effect. This means they face challenges in switching to alternative providers due to sunk costs and issues related to technical compatibility. Consequently, the involvement of Chinese firms in providing digital services and technologies and building digital infrastructure increases the likelihood that these countries will adopt China's technical standards. In a number of Asian countries, Chinese companies, supported by the Chinese government,

aim to leverage a first-mover advantage to establish de facto standards in these digital trade sectors. For example, Alibaba has become a key player in e-commerce and online payments in Southeast Asia by pursuing acquisitions and equity investments in leading regional firms. In 2016, its subsidiary Ant Financial, a financial technology company, invested in Thailand's Ascend Money, which operates the e-wallet TrueMoney (Reuters 2020). In 2017, Alipay entered the Thai mobile payment market directly, partnering with Kasikornbank, one of the largest Thai financial institutions (Xinhua 2017).

Beyond these market moves, Alibaba's influence is also reflected by its close cooperation with the Thai government. Under the Thailand 4.0 policy, the Government of Thailand and Alibaba entered into a strategic partnership and introduced measures to promote the development of Thailand's digital economy and the Eastern Economic Corridor. Notably, Alibaba Business School co-develops training courses with Thailand's Ministries of Industry and Commerce, enhancing the digital trade skills of the Thai workforce (Telecom Review Asia 2016). The strategic partnership between Alibaba and the Thai government demonstrates Thailand's efforts to improve its digital economy by learning from large multinational internet enterprises like Alibaba. Alibaba serves as a significant role model in the digital trade sector in Thailand, underscoring its strong local presence and partnership with the Thai government. While there is some uncertainty about the influence of Chinese firms on the Chinese government's strategy in setting digital standards, it is clear that these Chinese firms' market presence and collaborations with local governments in other Asian countries facilitate the adoption of de facto digital standards that generally align with China's interests.

The discussions above illustrate that China seeks to expand its influence on digital trade governance by positioning Chinese officials in senior roles within international standards organizations and by exporting its digital trade standards through the global expansion of Chinese companies. It is important to note that other regional actors are also actively promoting digital trade standards. For example, Singapore, a key player in the Asian digital trade landscape, has adopted a proactive approach to leading the establishment of digital trade standards. Unlike China, Singapore promotes digital trade regulations and standards primarily through soft law commitments in international trade agreements, often employing nonbinding or loosely binding language (Jones et al. 2024). Both China and Singapore are actively striving for leadership in setting regulations in the digital trade sector in the region, although they pursue these goals through different strategies.

Specifically, in the realm of digital payments, various regional actors have developed their own regulations and standards. For instance, Thailand implemented the New Payment System Law in 2018 (Bank of Thailand 2019), while Singapore's Payment Services Act (PSA) came into effect on January 28 (Monetary Authority of Singapore 2024), 2020. In 2021, Bank Negara Malaysia issued an Exposure Draft of the Policy Document on Electronic Money (e-Money) to solicit feedback (Bank Negara Malaysia 2022). Similarly, the central bank of the Philippines, Bangko Sentral ng Pilipinas (BSP), circulated a draft of new e-money regulations in 2022 and issued amendments in 2023 (Bangko Sentral ng Pilipinas 2023). While it remains uncertain which actor will ultimately achieve predominant influence, the efforts of

these countries, alongside China's standard-setting initiatives, could contribute to further fragmentation within the already complex digital trade regime in the region.

Third, China's approach to digital trade is characterized by its consideration of security implications. Digital trade brings about security concerns. Huang et al. (2021) suggested that the governance of cybersecurity risks stemming from digital trade is a genuine global governance issue. Consequently, understanding cybersecurity in the digital trade is essential (Huang et al. 2021). In the case of China, the security implications of digital trade are particularly profound, aligning with its longstanding prioritization of cyber sovereignty in shaping its domestic cyber governance approach. Security concerns, notably data sovereignty considerations, have predominantly influenced China's stance on digital trade. The Ministry of Foreign Affairs of the People's Republic of China (2023), in its release on global digital trade positions, highlighted that "states should put an equal emphasis on development and security," demonstrating its focus on security considerations. Furthermore, the statement emphasizes that states should stand against ICT activities undermining other states' national security and respect the sovereignty, jurisdiction, and governance of data of other states (The Ministry of Foreign Affairs of the People's Republic of China 2023). To govern the digital economy, China has adopted multiple laws and regulatory measures, including the Cybersecurity Law, the Data Security Law, the Personal Information Protection Law, and the Measures of Security Assessment of Cross-border Transfer of Personal Information and Important Data. These laws and measures shape China's domestic approach to the digital economy and serve as the basis for its international stance on digital trade. Furthermore, they increase the costs of compliance and contribute to the uncertainty faced by tech foreign companies operating in China. Therefore, to fully understand China's approach to digital trade, one must take into account its profound security concerns.

China's emphasis on security considerations when shaping its approach to digital trade introduces additional complexities to the regime complex for digital trade in the Asian region, potentially hindering the development of comprehensive governance regimes for digital trade. While recent shifts suggest a more liberal approach toward digital trade governance, security concerns continue to play a significant role in shaping China's strategies, therefore notably impeding China's progress toward greater liberalization. For instance, as discussed earlier, the RCEP allows for the implementation of measures that can restrict cross-border electronic information transfers or require data localization if a party deems it necessary to protect its essential security interests. This means that China could potentially impose data restriction measures under the guise of national security concerns.

Conclusion

China's approach to digital trade has significantly influenced the landscape of digital trade governance in the Asian region. In return, the complexity and flexibility of the regime for digital trade in the region have also impacted China's digital trade strategies. By selectively liberalizing in certain contexts while remaining conservative in others, China contributes to a more complex and less cohesive

regional digital trade environment. Additionally, China's emphasis on standard-setting efforts and security considerations introduces additional complexities to the regime complex, potentially impeding the development of comprehensive governance regimes for digital trade, with an ambiguous goal of achieving a high level of liberalization in digital trade.

The complexity and flexibility of the regime complex for digital trade in the Asian region have influenced the digital trade strategies adopted by China. While many analysts suggest that China has increasingly been considered a major digital power with the potential to fundamentally reshape the rules of the game, our observations indicate that China is still in the process of integrating it into existing institutional frameworks. This is particularly evident in its pursuit of joining the CPTPP and the DEPA. However, the extent of the reforms that China may undertake remains uncertain. China's actions can be understood as driven by its intention to integrate into the existing framework while also benefiting from the flexibility that the regime complex offers.

At the conceptual level, our study connects the academic discussions on regime complex with the debate on Asian regionalism by analyzing the increasingly important policy area of digital trade. While much of the existing literature on regional integration in Asia takes a comparative approach and focuses on the differences between Asian regionalism and European regional integration, this paper employs the conceptual framework of regime complex from International Relations literature to explore the processes of regional institution-building in the realm of digital trade in Asia. This approach reveals the complexity and adaptability of the digital trade regimes in the region, as well as the interactions between the regime and key regional actors. Consequently, the research bridges the discussions on regime complex and Asian regionalism. At the empirical level, this article contributes to the study of digital trade governance by providing a thorough and detailed mapping of the various digital governance regimes present in the Asian region. It also analyzes the involvement of China and other major regional actors in the evolving processes of digital regime-building in Asia.

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