Conclusion

> Technology has built the house in which we all live. The house is continually being extended and remodeled. More and more of human life takes place within its walls, so that today there is hardly any human activity that does not occur within this house. All are affected by the design of the house, by the division of its space, by the location of its doors and walls. Compared to people in earlier times, we rarely have a chance to live outside this house. And the house is still changing; it is still being built as well as being demolished.[1]
>
> —Ursula Franklin

As the house metaphor by Ursula Franklin aptly exemplifies, we are undergoing a wave of datafication practices. If such practices simply continue to evolve without being examined and repaired along the existing path of development, the same issues will continue to accumulate and will more than likely be compounded. Before concluding with an aggregate assessment, the findings from the preceding chapters of this book are summarized below, presenting a complete picture.

Data Network as Enabler

Broadband infrastructure is the prerequisite that enables people to meaningfully participate in the data-driven economy, as well as to put to good use the "beauty" of datafication. Developing countries and LDCs need FDI to build their digital infrastructures. However, the economic benefit of the GATS Mode 3 market access commitments in the telecommunications sector has never been realized in many states. In this context, from *Mexico – Telecom* to *Brazil – Taxation*, the mere fact that the responding parties must have attempted to stretch the scope of the "universal services" or "public morals" to justify their digital inclusion policies within the WTO indicates that the interplay between

[1] Ursula Franklin, *The Real World of Technology* (Anansi Press 1999), at 11.

international economic law and digital inequality invites further reflection. The pressing task for trade negotiators is to find the common ground necessary to balance digital trade liberalization and development needs, rather than creating another "Digital 'Haves' Trade Agreement." One policy direction discussed in Chapter 1 is to impose obligations on big tech companies to contribute their fair share to universal service funds needed for infrastructure upgrades. Such a reform, of course, should be implemented in a transparent, nondiscriminatory, and competitively neutral manner, as required by the Telecom Reference Paper.

Data Network as Critical Infrastructure

Empowering individuals to benefit from innovations and participate in the data economy relies not only on the "availability," but also on the "resilience" of broadband infrastructure. Along the path of datafication, however, the probability of cyberattacks against critical infrastructure increases as well. The weaponization of 5G networks has brought about further challenges to international economic legal order. Major geopolitical players have adopted comprehensive security measures at home and have also strengthened cooperation with geopolitical allies to protect and enhance the resilience of ICT ecosystems. In this regard, the more recent iterations of international trade agreements are equipped with "modernized" security exceptions to ensure that the exceptions to international trade rules are aligned with the policy needs of the data-driven economy. Innovative exception clauses have been incorporated into FTAs to reconcile conflicts between (digital) trade and (cyber) security, which, overall, grant a dramatically expansive scope and excessively unfettered discretion to states when it comes to "national security." Questions as to what constitutes "critical infrastructure" and how it should be designated, however, require due process mechanisms to constrain discretionary abuse. Chapter 2 contends that a consensus concerning the scope of "critical infrastructure" would be politically and economically valuable to filter out overgeneralizations of national security claims.

Data-Driven Platform as Service

Turning to the level of digital applications, today's platformization of services was an "unforeseen" phenomenon when the WTO was established. However, through the pro-liberalization WTO jurisprudence developed in past decades, the GATS market access commitments have

played more than a marginal role in the story of the emergence of datafication, leaving the door open for big tech companies. Without question, platforms' associated datafication practices influence human society, in terms of their beauty as well as their peril. The perilous side therefore calls into question whether international trade commitments negotiated in the pre-digital age should be sustained in this datafied world. In the FTA context, Chapter 3 argues that listing nonconforming measures under the Cross-Border Trade in Services Chapter represents the most critical step in reserving a state's "digital sovereignty." Such inscriptions ensure that a state does not risk committing to future services and associated delivery means that did not exist at the time of treaty negotiations. Nonetheless, market access obligations do not prevent states from adopting domestic regulations in pursuit of legitimate national policies. Digital trade liberalization must be accompanied by the introduction of data regulations to address the potential risks and harms.

Data as Speech and Expression

Nonetheless, media platformization has caused problems that a state cannot easily regulate. The media content regulations considered in Chapter 4 are prime examples demonstrating the need to alter the power distribution in the Internet ecosystem. In terms of speech platforms, the "rules-based" platform governance model led by the EU, such as the DSA, now represents a strong power in balancing the US' CDA-based social media self-regulation. The years to come will be critical to the global governance of digital platforms. Key indicators include whether more and more countries will adopt DSA-like regulations along the EU regulatory path. In terms of streaming services, the content quotas for video streaming platforms may constitute performance requirements for investment in services. This measure may also violate the obligations that apply to the nondiscriminatory treatment of digital products. Looking ahead, cultural diversity concerns regarding avatars in the VR space will be even more complex and will propel the "trade v. culture" clash to another level. In any event, media platformization brings about issues surrounding jurisdiction. No matter how carefully crafted, media content regulation must face enforceable reality. International trade rules that ban local presence would enable platform companies to supply services without establishing a local presence, which could constrain a state's ability to enforce platform regulations.

Data as Capital and Algorithmic Input

The role of international economic law in the politics of datafication is rendered even more complex when data becomes capital and is the algorithmic input of digital platforms. Our behavioral data has increasingly become a commodity. Datafication-enabled advertising and other datafication practices, in the absence of proper constraints, will deepen the perils of datafication. A set of cross-border competition disciplines proposed in Chapter 5 may well be an effective instrument to address problems associated with platform monopolies and data capitalism. In this way, there would be less need for *ex-post* competition law enforcement in developing countries and LDCs, where relatively limited resources can be allocated to combat digital cartels and data monopolization. In this context, algorithmic transparency can serve as a starting point for global platform governance. The case study in Chapter 5 investigates the key dimensions of platform transparency requirements in a comparative context and argues that the question of "disclosure to whom" dictates "what to disclose." It also demonstrates that the fragmentation of platform regulation is growing. The proliferation of platform regulations and algorithmic disciplines may place SMEs in an even more difficult situation vis-à-vis big tech companies that have the resources necessary to manage different legal requirements in different countries. The international agenda to foster regulatory coherence, however, depends on the political will of the governments involved. Despite the inherent complexity of the political economy surrounding digital capitalism, Chapter 5 concludes that there are reasons to be optimistic about better governance through international trade agreements.

Data Flows as Digital Trade

Finally, it is worth repeating that digitally enabled goods and services fuel today's economy. In this regard, the question of how to balance free data flows and national policy objectives, especially data privacy and security, is key to advancing the benefits of the digital economy. After establishing that new digital technologies have further integrated physical and digital activities, and thus, more and more of our social interactions are being sensed and datafied, Chapter 6 argues that innovative regulatory approaches are needed to respond to the impact of big data analytics on existing privacy and cybersecurity regimes. As for privacy protections, this book points out that there is an evident gap between private actors'

potential governing functions and their current roles in data governance. On the contrary, as demonstrated by IoT cybersecurity certifications, the cybersecurity "standards jungle" may constitute a barrier to data flows. At the crossroads, where multistakeholderism meets multilateralism, the roles of the public and private sectors should be reconfigured for a datafied world. Looking to the future, rapid technological developments and market changes call for further public–private convergence in data governance, allowing both public authorities and private actors to jointly reshape the norms of cross-border data flows. Under such an umbrella, the appropriate role of multilateral, state-based norm-setting in Internet governance includes the oversight of the balance between the free flow of data and other legitimate public policies, as well as engagement in the coordination of international standards.

The Beauty, the Perils, and the Trade-Offs of Datafication

At the level of digital physical infrastructure, substantial digital divides exist, and developed countries' ambitious digital plans are exacerbating the current gap. If left unaddressed, this digital inequality will broaden the divide between under-connected and hyper-digitized regions. At the level of digital application, much like the persistent unequal distributions in the broadband networks, digital capitalism is expanding the inequality between those who provide the data and those who exert control over the use of such data. Taken as a whole, however, the beauty and the perils of datafication vary in different contexts. The more an individual accesses the Internet, the more data digital platforms appropriate and extract for profit. In this regard, the gap at the infrastructure level has resulted in an irony: The broadband "have-nots" tend to be the least represented in big tech's data sources. In other words, those who produce little or no digital data are free from digital platforms' profiling activities and other datafication practices. Of course, they are also consistently excluded from the process of datafication that drives social welfare – insufficiently captured and analyzed by AI health algorithms – and thus are less likely to benefit from the beauty of datafication. Indeed, depending upon the context, digitalization, platformization, and datafication yield the promises and the risks, the beauty and the perils, and the benefits and inequalities associated with big data applications. Necessary policies and regulations must be in place for data's full, beautiful potential to be realized, and, more importantly, for those risky perils to be mitigated.

The Reach and the Limits of International Economic Law

This book has investigated how international economic law can reduce the perils of datafication instead of enhancing them. The discussions throughout the six chapters reveal that international trade agreements should be and can be reformed to better contribute to this journey of regime transformation by safeguarding states' policy space in terms of digital inclusion, national security, digital sovereignty, free speech, cultural expression, platform competition, algorithmic transparency, privacy, and cybersecurity. At the same time, international economic law can ensure that governmental interventions do not constitute unnecessary barriers to digital trade, thus promoting the beauty of datafication. Nevertheless, enormous challenges remain. At this moment, it appears that US allies will commit to new norms on digital trade under the IPEF that promote the US preferred ecosystem for Internet governance. Yet, more and more states have already started to bring their digital competition policy in line with the EU's DMA. Additionally, several neighboring states of China have incentives to follow its authoritarian digital policies. These competing models of data governance are impediments to the effective confrontation of the trend of datafication. More work must be done to restore the relevance of international economic law in this datafied world. To conclude, the interplay between international economic law and the trend of datafication is complex and uneasy. Through its findings, this book has confirmed that international economic law is itself a source of this unease. Importantly, international economic law also has the potential to offer meaningful solutions to the alleviation of our collective discomfort.