

LAW AND DIGITAL GLOBALIZATION

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ABSTRACT

The rise of new digital technologies has already proven disruptive in many social contexts and is expected to become even more so. This Article discusses three main visions on the interplay between the law and digital globalization: “digital naturalism,” “digital universalism,” and “digital nationalism.” Digital naturalism highlights the self-regulatory aspects of digital technologies. While often disregarded, digital naturalism is responsible for the mischaracterization of some of the responses of states to digital globalization. Digital universalism proposes that digital globalization be regulated at the international level using international treaties. Digital nationalism suggests instead that domestic law is the appropriate means for the regulation of digital phenomena. These theories reflect a broader tendency in legal scholarship and beyond to interpret digital globalization as an offspring of economic globalization. This tendency owes its existence to conceptual path-dependencies established during the era of neoliberalism and economic globalization, but it is

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The author would like to thank Jack Balkin, Laurie Benton, Mira Burri, Julien Chaisse, Anupam Chander, Bill Eskridge, Clinton Francis, David Grewal, Harold Koh, Sam Moyn, and Susan Rose-Ackerman, as well as the participants at the American Society of International Law 2021 Virtual Midyear Meeting, and the Colloquium on International Investment Law & New Technologies organized by the Tilburg Law and Economics Center (TILEC) at Tilburg University, for their comments on drafts at different phases of the project. The usual disclaimer applies.

increasingly incapable of allowing us to make sense of digital globalization and its dynamics. In its place, this Article proposes a theory of law and digital globalization based on the concept of “digital sovereignty.” Drawing mostly on examples from the field of blockchain, this Article highlights the complex ways in which the law operates in digital globalization. It presents four separate modes of interaction between the law and the digital world and analyzes multiple possible uses of international as well as domestic law beyond the dichotomies developed in the twentieth century.

Moving beyond the framework established from a neoliberal conceptualization of economic globalization, this Article focuses on the emerging “Cornwall Consensus” to propose a “law and political economy” analysis of digital globalization. The Cornwall Consensus offers a vision of a more just international order which would address digital globalization directly and be more responsive to those made vulnerable by it. This Article sees domestic and international law as each having an irreducible role in addressing digital globalization and the broader digitalization of society. It identifies a role for international law that, in a neoliberal political economy framework, would have been played by domestic law. It also identifies a role for domestic law that in the same political economy framework would have been played by international law. The new political economy of digital globalization is based on the principles of “devolution” and “plurilateralism.”

Keywords: blockchain; Cornwall Consensus; cryptocurrencies; digital globalization; digital sovereignty; Washington Consensus; plurilateralism.

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INTRODUCTION

The rise of new digital technologies is expected to disrupt society.¹ For all anticipated disruptions, the world is turning digital.² The COVID-19 pandemic is further driving the digitalization of private business and public sectors all over the world.³ The first major effort to address digitalization and digital globalization comes in the midst of a generalized moment of “reasserting sovereignty” from economic globalization.⁴ The leaders of the Group of 7 (G7) met in June 2021 in Cornwall, United Kingdom, during the peak of the second wave of the COVID-19 pandemic and the economic recession it caused, as well as mounting global social justice and environmental problems, to come up with proposals on a way forward for the world. The outcome, which builds on background work conducted by academics and policymakers, is the Cornwall Consensus.⁵ The goal of the Cornwall Consensus (“Cornwall” or

¹ The U.S. National Intelligence Council recently predicted that in the next coming decades the rise of new technologies—as well as related or unrelated financial crises—will cause great disruptions in human societies. U.S. NAT’L INTEL. COUNCIL, *GLOBAL TRENDS 2040: A MORE CONTESTED WORLD 6* (7th ed. 2021); JAMIE BARTLETT, *THE PEOPLE VS TECH: HOW THE INTERNET IS KILLING DEMOCRACY (AND HOW WE SAVE IT)* 1 (2018); G20, G20 MINISTERIAL STATEMENT ON TRADE AND DIGITAL ECONOMY 1 (2019), https://trade.ec.europa.eu/doclib/docs/2019/june/tradoc_157920.pdf [<https://perma.cc/2WRT-UTEP>] (“Innovative digital technologies continue to bring immense economic opportunities. At the same time, they continue to create challenges.”).

² *The Impact of Digital Technologies*, U.N. UN75 (2019), <https://www.un.org/en/un75/impact-digital-technologies> [<https://perma.cc/V5GY-VABY>].

³ World Econ. F., *A Roadmap for Cross-Border Data Flows: Future-Proofing Readiness and Cooperation in the New Data Economy*, at 5 (June 2020), http://www3.weforum.org/docs/WEF_A_Roadmap_for_Cross_Border_Data_Flows_2020.pdf [<https://perma.cc/P33D-R29B>].

⁴ See generally Georgios Dimitropoulos, *National Sovereignty and International Investment Law: Sovereignty Reassertion and Prospects of Reform*, 21 J. WORLD INV. & TRADE 71, 73 (2020) (discussing moves towards “sovereignty reassertion,” and the various ways in which States have reacted to economic globalization).

⁵ G7, *THE CORNWALL CONSENSUS BUILD FORWARD BETTER* (2021) <https://www.mofa.go.jp/files/100200092.pdf> [<https://perma.cc/V5BQ-PHWW>] [hereinafter: CORNWALL CONSENSUS]; see also Press Release, White House: Briefing Room, Carbis Bay G7 Summit Communiqué (June 13, 2021), <https://www.whitehouse.gov/briefing-room/statements-releases/2021/06/13/carbis-bay-g7-summit-communication/> [<https://perma.cc/49E2-M3PQ>] [hereinafter: Carbis Bay G7 Summit Communiqué]; G7 PANEL ON ECON. RESILIENCE, *KEY POLICY RECOMMENDATIONS* (2021) <https://www.mofa.go.jp/files/100200091.pdf> [<https://perma.cc/Z6XP->

“the Consensus”) is to “restore public trust in a rules-based, free, fair and open economic system.”⁶ Free trade should remain one of the most important pillars of this order.⁷ At the same time, the Consensus aims at “build[ing] back the State.”⁸ Calls for a “new social contract” are also generalized in academia and policymaking.⁹

These proposals for a new international order aim to replace the constitution of the neoliberal world order, the Washington Consensus,¹⁰ which Cornwall mimics in its title. Cornwall shall become the constitution of a post-financial crisis and post-pandemic world. The Cornwall Consensus for the first time brings digital technologies and digital globalization to the center stage of contemporary international ordering.¹¹ The consensus recognizes both their societally significant potential as well as their risks.¹² The

9BHF] [hereinafter G7 PANEL ON ECON. RESILIENCE, KEY POL’Y RECOMMENDATIONS]. The G7 is a political forum consisting of Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States. These are the largest economies of the International Monetary Fund, as well as the wealthiest liberal democracies.

⁶ CORNWALL CONSENSUS, *supra* note 5, at 1.

⁷ Carbis Bay G7 Summit Communiqué, *supra* note 5, ¶¶ 27-36.

⁸ Mariana Mazzucato, *Build Back the State*, PROJECT SYNDICATE (Apr. 15, 2021), <https://www.project-syndicate.org/commentary/biden-lessons-from-us-moonshot-by-mariana-mazzucato-2021-04> [<https://perma.cc/LCS8-7ECU>]; *see also* Terence Corcoran, *Terence Corcoran: The G7 Plan: Build Back the State*, FIN. POST (Oct. 29, 2021), <https://financialpost.com/opinion/terence-corcoran-the-g7-plan-build-back-the-state> [<https://perma.cc/3A3W-V2C6>]. This slogan also piggybacks on President Biden’s slogan and framework to “Build Back Better.” *See The Build Back Better Framework: President Biden’s Plan To Rebuild The Middle Class*, WHITE HOUSE, <https://www.whitehouse.gov/build-back-better/> [<https://perma.cc/KY3S-7BB7>].

⁹ *See* Timothy Meyer & Frank J. Garcia, *Restoring Trade’s Social Contract*, 116 MICH. L. REV. ONLINE 78, 81 (2018); *see also* G20 RSCH. GRP., G20 MINISTERIAL STATEMENT ON TRADE AND INVESTMENT ¶ 11 (2021), <http://www.g20.utoronto.ca/2021/211012-trade.html#:~:text=We%20reiterate%20our%20commitment%20to,equitable%20and%20more%20inclusive%20growth> [<https://perma.cc/DL59-BUDU>]. The World Bank together with academics and policymakers from around the world have recently called for a “new social contract for data.” WBG., *World Development Report 2021: Data for Better Lives*, at 11 (2021).

¹⁰ *See generally* John Williamson, *A Short History of the Washington Consensus*, in *THE WASHINGTON CONSENSUS RECONSIDERED: TOWARD A NEW GLOBAL GOVERNANCE* 14, 15-17 (Marcus Serra & Joseph E. Stiglitz eds., 2008) (discussing the history of the Washington Consensus).

¹¹ MIT academics have also called for a “New, Digital Bretton Woods” in the sphere of digital finance. Alex Pentland, Alex Lipton & Thomas Hardjono, *Time for a New, Digital Bretton Woods*, BARRON’S (June 18, 2021), <https://www.barrons.com/articles/new-technologies-will-reshape-the-financial-ecosystem-and-the-world-with-it-51624023107> [<https://perma.cc/F7GK-PLUV>].

¹² Carbis Bay G7 Summit Communiqué, *supra* note 5, ¶ 31.

“digital” sphere is elevated to the status of one of the four themes central to economic resilience—alongside health, trade and climate.¹³

Digital technologies have one feature that makes them even more distinctive than disruptive technologies of the past: they are by nature and design transnational.¹⁴ The “platform” and “sharing economy” change both economic relationships and social interactions at the global level.¹⁵ Residential Proxy (RESIP) services are rapidly transforming our notions of privacy in a transnational context.¹⁶ This Article focuses on and draws examples from the field of blockchain and the “crypto-globalization” this new technology has spearheaded.¹⁷ Blockchains can help transfer any type of data, information, and value. They can replace paper documents with digital ones stored in a tamper-proof ledger. Blockchain is thus a new general-purpose technology that can be used in multiple

¹³ G7 PANEL ON ECON. RESILIENCE, KEY POL’Y RECOMMENDATIONS, *supra* note 5, at 1.

¹⁴ ANUPAM CHANDER, THE ELECTRONIC SILK ROAD: HOW THE WEB BINDS THE WORLD TOGETHER IN COMMERCE 9 (2013) (comparing the internet to the Silk Road in its ability to connect the world in trade); RICHARD BALDWIN, THE GREAT CONVERGENCE: INFORMATION TECHNOLOGY AND THE NEW GLOBALIZATION 298 (2016); James Manyika, Susan Lund, Jacques Bughin, Jonathan Woetzel, Kalin Stamenov, & Dhruv Dhingra, *Digital Globalization: The New Era of Global Flows*, MCKINSEY DIGITAL (Feb. 24, 2016), <https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/digital-globalization-the-new-era-of-global-flows> [<https://perma.cc/L69W-MAMZ>]; ABISHUR PRAKASH, THE WORLD IS VERTICAL: HOW TECHNOLOGY IS REMAKING GLOBALIZATION (2021) (offering further insights on digital globalization). Some genuinely global technologies are the blockchain, 5G networks, and cloud computing. Cf. Kimberley Rust, *Block-chain Reaction: Why Development of Blockchain Is at the Heart of the Legal Technology of Tomorrow*, 19 LEGAL INFO. MGMT. 58, 59 (2019) (discussing the differences between artificial intelligence and blockchain).

¹⁵ See, e.g., Frank Pasquale, *Two Narratives of Platform Capitalism*, 35 YALE L. & POL’Y REV. 309, 309 (2016); Sofia Ranchordás, *Does Sharing Mean Caring? Regulating Innovation in the Sharing Economy*, 16 MINN. J.L. SCI. & TECH. 413, 437 (2015); Mark A. Lemley, *The Contradictions of Platform Regulation*, 1 J. FREE SPEECH L. 303, 306-08 (2021); TOM SLEE, WHAT’S YOURS IS MINE: AGAINST THE SHARING ECONOMY 297 (2016).

¹⁶ RESIPs are intermediaries that use an IP address provided by an Internet Service Provider, not a data center, and allow access to target services through household devices. Xianghang Mi, Xuan Feng, Xiaojing Liao, Baojun Liu, XiaoFeng Wang, Feng Qian, Zhou Li, Sumayah Alrwais, Limin Sun & Ying Liu, *Resident Evil: Understanding Residential IP Proxy as a Dark Service*, PROC. INST. ELEC. & ELECS. ENG’RS SYMP. ON SEC. & PRIV. 1185, 1187-88 (2019).

¹⁷ Blockchain technology has been spearheaded by cryptocurrencies; but blockchain is much more than a technology for cryptocurrencies—or cryptoassets more generally. See generally Syren Johnstone, *Taxonomies of Digital Assets: Recursive or Progressive?*, 2 STAN. J. BLOCKCHAIN L. & POL’Y 78, 79 (2019) (discussing the development of taxonomies that map digital assets onto financial markets law).

contexts to achieve multiple goals.¹⁸ Businesses in almost all industries are exploring ways to take advantage of the innovative features of the technology. Governments are also examining ways in which blockchain may be used for the delivery of government services. Blockchain facilitates the transmission of data and economic value independent of the geographic location of the nodes participating in the blockchain network. Blockchain claims the development of a new legal order, the *lex cryptographia*, that is arguably independent from both the legal order of the states as well as international law.¹⁹

New technologies are often presented as neutral responses to societal needs.²⁰ The law – as well as society at large – should try to realize the new opportunities that new technologies make possible.²¹ But as Professor Langdon Winner famously stated: “technical systems of various kinds are deeply interwoven in the conditions of

¹⁸ Angela Walch, *In Code(rs) We Trust, Software Developers as Fiduciaries in Public Blockchains*, in REGULATING BLOCKCHAIN: TECHNO-SOCIAL AND LEGAL CHALLENGES 58, 58-59 (Philipp Hacker, Ioannis Lianos, Georgios Dimitropoulos & Stefan Eich eds., 2019); Georgios Dimitropoulos, *The Law of Blockchain*, 95 WASH. L. REV. 1117, 1121 (2020). See generally Timothy Bresnahan & Manuel Trajtenberg, *General Purpose Technologies “Engines of Growth?”*, 65 J. ECONOMETRICS 83, 85 (1995) (discussing new purpose technologies).

¹⁹ See *infra* Section I.a; see also Primavera De Filippi, Morshed Mannan & Wessel Reijers, *The Alegality of Blockchain Technology*, 41 POL’Y & SOC’Y 358, 359 (2022) (highlighting the “a-legal” –over the “extra-legal” –nature of blockchain technology); Michael Anderson Schillig, ‘Lex Cryptographi(c)a,’ *Cloud Crypto Lan’ or What? –Blockchain Technology on the Legal Hype Cycle*, MOD. L. REV., May 29, 2022, at 1-9 (discussing the “hype cycle dynamics” of blockchain and the *lex cryptographia*).

²⁰ “Technological determinism” and “technological exceptionalism” largely shape the understanding of the relationship between law and digital technologies. DOES TECHNOLOGY DRIVE HISTORY? THE DILEMMA OF TECHNOLOGICAL DETERMINISM 1-2 (Merritt Roe Smith & Leo Marx eds., 1994) (presenting the main theories on technological determinism); Gaia Bernstein, *Toward a General Theory of Law and Technology: Introduction*, 8 MINN. J.L. SCI. & TECH. 441, 443 (2007) (discussing technological determinism); Ryan Calo, *Robotics and the Lessons of Cyberlaw*, 103 CAL. L. REV. 513, 552 (2015) (discussing technological exceptionalism). Technological exceptionalism suggests that “essential qualities” of technology “drive the legal and policy conversations that attend them.” Calo, *supra*, at 549; see also Tim Wu, *Is Internet Exceptionalism Dead?*, in THE NEXT DIGITAL DECADE: ESSAYS ON THE FUTURE OF THE INTERNET 179, 180 (Berin Szoka & Adam Marcus eds., 2010).

²¹ “Technology optimists” think that the one and only task for law and lawyers is to find ways to incentivize the development and uses of technology. See Gregory Shaffer, *Trade Law in a Data-Driven Economy: The Need for Modesty and Resilience*, 20 WORLD TRADE REV. 259, 262 (2021).

modern politics.”²² The same is true for digitalization and the digital globalization it has prompted.

This Article discusses the response of the law to the emergence of digital globalization and broader digitalization. The contribution sits at the juncture of two areas of legal scholarship: the emerging law and political economy literature,²³ on the one side, and law and digital globalization,²⁴ on the other. This Article adds a crucial dimension to the digital globalization discussion as it highlights the new law and political economy framework this gives rise to, and the interaction between international and domestic law in the digital globalization process.²⁵ It discusses digital globalization beyond a focus on data and it is the first contribution to provide an analysis of the legal ramifications of the Cornwall Consensus for digital technologies.

The assumptions of legal scholarship about the roles of international and domestic law in digital globalization are largely derived from the perceived understanding of the role of the law in economic globalization.²⁶ During the second half of the twentieth

²² Langdon Winner, *Do Artifacts Have Politics?*, 109 DAEDALUS 121, 122 (1980).

²³ Jedediah Britton-Purdy, David Singh Grewal, Amy Kapczynski & K. Sabeel Rahman, *Building a Law and Political Economy Framework: Beyond the Twentieth-Century Synthesis*, 129 YALE L.J. 1784, 1810 (2020) (presenting a framework for identifying and critiquing the way the law has been understood since the twentieth century, as well as offering a new “law-and-political-economy approach” to legal scholarship). For a background on political economy’s intersections with and relationship to international laws governing trade and investment, see generally THE OXFORD HANDBOOK OF THE POLITICAL ECONOMY OF INTERNATIONAL TRADE (Lisa L. Martin ed. 2015); JONATHAN BONNITCHA, LAUGE N. SKOVGAARD POULSEN & MICHAEL WAIBEL, THE POLITICAL ECONOMY OF THE INVESTMENT TREATY REGIME (2017).

²⁴ The legal discussion on digital globalization has mostly focused on the role of data in the digital economy. See, e.g., Mira Burri, *The Regulation of Data Flows through Trade Agreements*, 48 GEO. J. INT’L L. 407, 407-08 (2017); Shaffer, *supra* note 21, at 259.

²⁵ See Dimitropoulos, *supra* note 18, at 1188-91 (discussing a law and political economy framework of blockchain that is based on the principles of publicness, trust, and interoperability). The work of Frank Pasquale in this area aims at developing a new law and political economy framework for new technologies with a focus on AI and algorithms. See, e.g., FRANK PASQUALE, THE BLACK BOX SOCIETY: THE SECRET ALGORITHMS BEHIND MONEY AND INFORMATION (2015); FRANK PASQUALE, NEW LAWS OF ROBOTICS: DEFENDING HUMAN EXPERTISE IN THE AGE OF AI (2020).

²⁶ For information on the structuring of digital globalization in the image of economic globalization, see DAN CIURIAK, CENTRE FOR INTERNATIONAL GOVERNANCE INNOVATION, PAPER NO. 162, DIGITAL TRADE: IS DATA TREATY-READY? 4-9 (2018), www.cigionline.org/sites/default/files/documents/Paper%20no.162web.pdf [<https://perma.cc/YY8M-JDD9>] (discussing how the free cross-border data flow is

century, when the “neoliberal” paradigm of world order became dominant,²⁷ international law played the role of the promoter of economic globalization. It is now often suggested that the law should play a similar role in digital globalization.²⁸

On the other side, in the “geo-economic” paradigm of the world order that aims at replacing neoliberalism as the dominant political and economic system of world order,²⁹ a “nationalist” variant of domestic law arguably aims at taking over.³⁰ Digitalization also reactivated the regulatory instincts of the state; the turn to the digital, including the rise of blockchain, FinTech, and cross-border data flows, is prompting a reaction by the state. The digital space is arguably the new battleground of sovereignty – this time in the form of “digital” or “cyber sovereignty.”³¹

The law’s position in digital globalization is much more nuanced than this.³² To begin with, the dualism suggested in the above two approaches disregards certain forms of digital globalization. This Article identifies instead three visions of the relationship between law and digital globalization. “Digital naturalism” reflects the tendencies towards autonomy and self-regulation of contemporary digital technologies identified above, such as the emergence of *lex cryptographia*. “Digital universalism” largely reflects the neoliberal

becoming the “fifth freedom” – alongside the freedom of movement of “goods, services, capital, and labour”).

²⁷ Anthea Roberts, Henrique Choer Moraes & Victor Ferguson, *Toward A Geoeconomic Order in International Trade and Investment*, 22 J. INT’L ECON. L. 655, 657-59 (2019).

²⁸ See *infra* Section I.b.

²⁹ Roberts et al., *supra* note 27.

³⁰ See *infra* Section I.c.; see also Anupam Chander & Uyên P. Lê, *Data Nationalism*, 64 EMORY L.J. 677, 679-82 (2015)

³¹ Julia Pohle & Thorsten Thiel, *Digital Sovereignty*, INTERNET POL’Y REV., Dec. 17, 2020, at 1, 2-4; Milton L. Mueller, *Against Sovereignty in Cyberspace*, 22 INT’L STUDS. REV. 779, 779 (2020); Kevin Jon Heller, *In Defense of Pure Sovereignty in Cyberspace*, 97 INT’L L. STUDS. 1432, 1436 (2021); Chien-Huei Wu, *Sovereignty Fever: The Territorial Turn of Global Cyber Order*, 81 HEIDELBERG J. INT’L L. 651, 652 (2021); see also Kristen E. Eichensehr, *The Cyber-Law of Nations*, 103 GEO. L.J. 313, 352-65 (2015) (discussing theories on cyberspace regulation and their evolution over time); Harald A. Summa, *How GAIA-X is Paving the Way to European Data Sovereignty*, DOTMAGAZINE (Mar. 2020), <https://www.dotmagazine.online/issues/cloud-and-orientation/build-your-own-internet-gaia-x> [https://perma.cc/2WB8-X9W6] (describing how the effort to control cross border data flows is best understood as an exercise of “data sovereignty”).

³² See Roberts et al., *supra* note 27, at 666-69 (offering an equally nuanced understanding of the relationship between law and digital globalization and focusing its analysis on the background conditions leading to the transition from the “neoliberal” to the “geoeconomic order”).

attitude that suggests that international law's mandate is to promote digital globalization at the international level. "Digital nationalism" mirrors the view that domestic law plays the role of closing off the state to protect national policies and values.

Each vision of law and digital globalization comes with its own set of political and economic principles, as well as understanding on the role of the law in digital globalization: its own law and political economy framework. This Article moves beyond these categories to unravel the various roles the law performs in contemporary digital globalization.³³ It identifies four distinct modes of interaction between law and the digital world—two at the level of international law, and two at the level of domestic law. These modes reflect different ways in which States perceive their sovereign identity and exercise their sovereign authority. International law is often used by states to "reassert" sovereignty at the international level with the confirmation, for example, of new rights to regulate within international treaties. On the other side, international law has developed a more "nationalist" dimension that aims at promoting national interests outside a state's borders.

Also, domestic law has a much more nuanced role than what is assumed by traditional approaches to sovereignty as nationalism. On one side, states have been reclaiming digital sovereignty and more "policy space" with a view towards developing new industrial policies. On the other side, the new varieties of international law have led to a response by various countries around the world, including the United States, that are developing or expanding investment screening mechanisms to protect "critical technologies" and "critical infrastructure" as potential areas falling under the

³³ The four modes presented in this Article are based on the premise that there are two layers of interaction between the law and digital technologies: the law within digital technologies, such as *lex cryptographia*, and the law of the interaction between the real world and the digital world. I focus on the latter. See Georgios Dimitropoulos, *Blockchain Law: Between Public and Private, Transnational and Domestic*, in *THE FUTURE OF EUROPEAN PRIVATE LAW* 169, 169 (Takis Tridimas & Mateja Durovic eds., 2021); see also Jack M. Balkin, *The Three Laws of Robotics in the Age of Big Data*, 78 *OHIO STATE L.J.* 1217, 1218-22, 1226-34 (2017) (explaining the difference between Asimov's laws of robotics that apply to robots, and the law of robotics developed in the article that apply to humans—robot-users or robot-programmers or robot-operators—in their interplay with robots and AI). See generally *THE STATE OF PLAY: LAW AND VIRTUAL WORLDS* (Jack M. Balkin & Beth Simone Noveck eds., 2006) (distinguishing these two layers of interaction between the law and the virtual world(s) outside the sphere of blockchain).

scope of national security review.³⁴ Other domestic policies aim at reasserting sovereignty in ways that “domesticate” naturalist digital globalization, and making it work in favor of the state.

International law is not exclusively used to promote previously identified universal values such as the freedom of movement of goods and services.³⁵ Even more strikingly, the move to domestic law does not necessarily signify a trend for most states to isolate themselves from other states and the international economy. It is rather more often an effort to achieve international goals while exercising more control over the types and means of digital globalization. Thus, the adoption of domestic laws and the overall domestication process do not suggest abandoning the fundamental values of international law, such as the freedom of movement of products and capital across borders; they are rather more broadly akin to a different version of an international political economy compared to the one dominant during neoliberalism and economic globalization. Building on political theory going back to Thomas Hobbes and Immanuel Kant, this Article provides a new narrative for digital globalization based on an integrated law and political economy framework that sees an equal role for domestic and international law in dealing with universal phenomena such as digital globalization and the broader digitalization of society.³⁶ Cornwall embodies these transformations.

³⁴ See Foreign Investment Risk Review Modernization Act (FIRRMA), Pub. L. No. 115-232, 132 Stat. 2173 (codified as amended in scattered sections of Title 50 of the United States Code).

³⁵ See *infra* Section I.b. (discussing the role of international law as a promoter of “universal” rules and values).

³⁶ Legal scholars have previously developed theories of international law compliance that transcend borders. The Transnational Legal Process theory developed by Harold Koh on the basis of process theories in international relations considers the implementation of existing international legal norms and obligations that takes place outside the normal framework of implementation of international legal obligations – namely legislative transposition of international law by domestic legislatures and execution by domestic executives. See Harold Hongju Koh, *Transnational Legal Process*, 75 NEB. L. REV. 181, 183-85, 199-205 (1996); Harold Hongju Koh, *Why Do Nations Obey International Law?*, 106 YALE L.J. 2599, 2631-41 (1997); Harold Hongju Koh, *The 1998 Frankel Lecture: Bringing International Law Home*, 35 HOUS. L. REV. 623, 646-51 (1998). Dani Rodrik and his colleagues also recently developed a similar approach to the one discussed in the article based on a political economy that reimagines a “thin” or “realist” order at the global level, while envisaging generally separate and delimited orders structured around major powers such as the U.S. and China. Dani Rodrik & Stephen Walt, *How to Construct a New Global Order* 5-21 (Harv. Kennedy Sch., Working Paper No. RWP21-013, 2021), <https://ssrn.com/abstract=3853936> [<https://perma.cc/QK8N-M4G6>].

This Article is structured as follows: Part I discusses three visions of law and digital globalization; this tripartite typology helps better understand and explain the multiple ways in which the law and digital world interact. “Digital naturalism” highlights the tendencies of new forms of digital globalization—such as that of “crypto-globalization,” i.e., digital globalization through blockchain technology—towards autonomy and self-regulation. “Digital universalism” sees international law as the layer of law that should be responsible for the regulation of digitalization. “Digital nationalism” understands domestic law as a layer of law that aims at promoting nationalist and protectionist policies.

Part II discusses the role of law in digital globalization. Drawing mostly on examples from the field of blockchain, it explains the complex ways in which the law operates in digital globalization. It presents four separate modes of interaction between the law and the digital world, and highlights the multiples uses for international as well as domestic law beyond dichotomies developed in the twentieth century.

It is hard to explain these new functions of the law based on the dominant narratives of law and political economy that see a single linear role for law in the regulation of economic globalization. Part III proposes a new integrated law and political economy framework that helps better explain these developments beyond static roles of law at the domestic and international levels. The alternative political economy I present suggests that there are no specific functions allocated to the different levels of law—domestic or international. It thus helps explain the new ways in which both domestic and international law are being put to use in digital globalization. The emerging Cornwall Consensus, based on the principles of “devolution” and “plurilateralism,” confirms this new integrated law and political economy paradigm.

I. VISIONS OF LAW AND DIGITAL GLOBALIZATION

The rise of new technologies invariably triggers a response by society and the law. In the broader social sciences, two main theories capture developments in the relationship between societal and political systems and new technologies at the macro-level: techno-

globalism and techno-nationalism.³⁷ Techno-globalism is a theory that sees technology as unifying the world—crossing and to some extent disregarding or even abolishing borders. Nations are seen at best as vehicles through which techno-globalist forces operate. Techno-nationalism, on the other hand, assumes that the key level of analysis for the study of technology is the nation.

The law is a missing variable in social-scientific approaches to technology. Legal scholarship, on the other side, largely interprets digital globalization as an offspring of economic globalization. This Part unearths and discusses three traditions and visions on the interplay between law and digital globalization: digital naturalism, digital universalism, and digital nationalism.

a. Digital Naturalism

Digital naturalism is a vision of the interaction between law and digital globalization that sees digital technologies as actively shaping society and the law. The law can only influence digitalization in limited ways; the law that regulates them is rather a product of autonomous digital technologies themselves that have the capacity to self-regulate.

i. A Naturalist Law and Political Economy Framework

Techno-globalism sees technology as a medium that turns the whole world into a “global village.”³⁸ New technologies have the tendency to globalize the world; they cross and disregard borders. The state, according to this view, is an outmoded form of social organization. It is at best a vehicle, perhaps only a temporary one,

³⁷ Shigeru Nakayama, *Techno-Nationalism versus Techno-Globalism*, 6 E. ASIAN SCI., TECH. & SOC'Y: AN INT'L J. 9, 11 (2012); David E.H. Edgerton, *The Contradictions of Techno-Nationalism and Techno-Globalism: A Historical Perspective*, NEW GLOB. STUDS., 2007, at 1, 1 (2007); see also Daniele Archibugi & Jonathan Michie, *Technological Globalisation or National Systems of Innovation?*, 29 FUTURES 121, 122 (1997). See generally SYLVIA OSTRY & RICHARD R. NELSON, *TECHNO-NATIONALISM AND TECHNO-GLOBALISM: CONFLICT AND COOPERATION* (1995) (describing how recent world economic integration has led to a conflict between trends of techno-nationalism and techno-globalism).

³⁸ Edgerton, *supra* note 37, at 1.

through which techno-globalism operates.³⁹ The state shall eventually be overcome by such new technologies as the steam ship, the airplane, or the radio.⁴⁰ The end of the Cold War arguably sealed the transition towards techno-globalism.⁴¹

The claim of techno-globalism is associated with claims of the liberation of society; new inventions are invariably celebrated as freeing a society constrained by the bounds of the state.⁴² This seems to assume the individual as the actor driving techno-globalism.⁴³

The internet is the one new technology that has attracted the greatest attention for its globalizing properties. It has been suggested that the internet would give rise to new forms of governance and that territorially-based laws would have no place in this virtual world.⁴⁴

New varieties of the digital space once again are claiming their independence from the state and moving towards self-regulation. Again facing the risk of being falsified,⁴⁵ it may be suggested that at least some disruptive technologies of our time both have genuinely global origins as well as aim at the elimination of the constraints imposed by the state. This Section discusses a new type of digital globalization that captures forms of deep globalization and growing digital connectivity that happen at the individual level.

A classification of modes of digital and digitally-enabled trade offered by Dan Ciuriak and Maria Ptashkina helps us understand the potential qualitative differences between previous and current forms of digital globalization.⁴⁶ The authors suggest a classification of transactions based on delivery mode and the nature of the parties to the transaction. Mode 1 encompasses “digital to real” transactions, including provision of access to the internet; Mode 2

³⁹ *Id.*

⁴⁰ *Id.* at 10-11.

⁴¹ Nakayama, *supra* note 37, at 11.

⁴² Winner, *supra* note 22, at 122.

⁴³ See Nakayama, *supra* note 37, at 11 (highlighting privatization of science and technology as the driving factors of techno-globalism).

⁴⁴ David R. Johnson & David Post, *Law and Borders – The Rise of Law in Cyberspace*, 48 STAN. L. REV. 1367, 1367 (1996).

⁴⁵ See George Orwell, *As I Please*, TRIB. (May 12, 1944), <http://www.telelib.com/authors/O/OrwellGeorge/essay/tribune/AsIPlease19440512.html> [<https://perma.cc/9W7D-URMQ>] (discussing the falsification of mid-twentieth century claims).

⁴⁶ Dan Ciuriak & Maria Ptashkina, Int'l Ctr. for Trade & Sustainable Dev., *The Digital Transformation and the Transformation of International Trade*, at 25-31 tbl.A1 (Jan. 2018) (breaking down digital trade into five modes).

includes “real to real” business-to-household and business-to-business transactions with digital intermediation; Mode 3 includes “real to real” household-to-household transactions with digital intermediation; Mode 4 encompasses “real to real” household-to-business transactions with digital intermediation; Mode 5 includes the capitalization of data flows. All these modes of cross-border transaction involve household level participation in cross-border business transactions. But Modes 3 and 4 especially involve the direct participation of the household in international trade. The internet is developing towards becoming a platform for commerce between buyers and sellers across borders, thus fundamentally changing the operation of international trade and investment.⁴⁷ This type of “digital economy” is changing the way in which business is conducted domestically and internationally.⁴⁸ The “sharing” and “platform economy” are prime examples, as is “crypto-globalization” of the blockchain.

Blockchain is based on two background technologies: distributed ledger technology (DLT) and cryptography. Both technologies have their origins in the movements of digital citizenry of the 1980s and 1990s—mainly cryptoanarchism and the cypherpunks. Cryptoanarchists and cypherpunks envisaged a new political economy based on digital technology. They asserted that the use of technology would bring about broad social changes. At the individual level, DLT and cryptography would safeguard the privacy of the individual. At the societal and political level, these technologies allowed a vision of a new society that would be freed

⁴⁷ Joshua Meltzer, *The Internet, Cross-Border Data Flows and International Trade*, ISSUES TECH. INNOVATION (Brookings, Washington, D.C.), Feb. 25, 2013, at 1-3 <https://www.brookings.edu/wp-content/uploads/2016/06/internet-data-and-trade-meltzer.pdf> [<https://perma.cc/6QNP-85TM>].

⁴⁸ See generally Premila N. Satyanand, *Foreign Direct Investment and the Digital Economy* (UN Econ. & Soc. Comm’n for Asia & the Pac., Working Paper No. 2, 2021), <https://repository.unescap.org/bitstream/handle/20.500.12870/3730/ESCAP-2021-WP-FDI-and-digital-economy.pdf?sequence=1&isAllowed=y> [<https://perma.cc/2ACZ-X3PH>] (exploring how countries can strategically harness Foreign Direct Investment to build and expand their digital economies).

from the constraints of the state.⁴⁹ Contemporary cyber-libertarianism builds on these movements.⁵⁰

Bitcoin and the cryptocurrency revolution it spearheaded were developed and embraced by opponents of the global financial system on the left and right with a view towards bypassing the mainstream institutions of the financial markets—commercial banks, as well as government institutions like central banks.⁵¹ Blockchain promises the same beyond the financial world into all aspects of individual and social life.

Blockchain is designed as a global technology⁵²—a public and permissionless software.⁵³ Public and permissionless blockchains are not managed by any single entity. No approval or authorization is required to view or access the blockchain network; the network is accessible by anyone, anywhere in the world. Their software is completely open source and available for every person to download, modify, and create their own version. Bitcoin and Ethereum, two of the most popular blockchain-based cryptocurrencies, are built on

⁴⁹ The *Crypto Anarchist Manifesto*, authored and originally circulated via e-mail in 1988 by Timothy May, one of the founders of the crypto anarchist movement, mimics in its opening the Communist Manifesto. See TIMOTHY C. MAY, THE CRYPTO ANARCHIST MANIFESTO (1992), <https://www.activism.net/cypherpunk/crypto-anarchy.html> [<https://perma.cc/F6CG-S72E>]. Eric Hughes, the co-founder of the cypherpunk movement, speaks in his *Cypherpunk Manifesto* of the need for a new social contract largely outside the state and using the means of cryptography, with the goal of protecting privacy. See ERIC HUGHES, A CYPHERPUNK'S MANIFESTO (1993), <https://www.activism.net/cypherpunk/manifesto.html> [<https://perma.cc/J6AY-RXPJ>].

⁵⁰ See, e.g., JULIAN ASSANGE WITH JACOB APPELBAUM, ANDY MULLER-MAGUHN & JÉRÉMIE ZIMMERMANN, CYPHERPUNKS: FREEDOM AND THE FUTURE OF THE INTERNET (2012); see also STEVEN LEVY, CRYPTO: HOW THE CODE REBELS BEAT THE GOVERNMENT SAVING PRIVACY IN THE DIGITAL AGE (2002).

⁵¹ SATOSHI NAKAMOTO, BITCOIN: A PEER-TO-PEER ELECTRONIC CASH SYSTEM 2 (2008), <https://bitcoin.org/bitcoin.pdf> [<https://perma.cc/6GDJ-ZAX4>]; Primavera De Filippi, *Bitcoin: A Regulatory Nightmare to a Libertarian Dream*, INTERNET POL'Y REV., May 23, 2014, at 1, 1; Usman W. Chohan, *Cryptoanarchism and Cryptocurrencies* 13 (Nov. 17, 2017) (unpublished paper) (available via SSRN at <https://ssrn.com/abstract=3079241> [<https://perma.cc/3NGJ-4T7G>]).

⁵² See Primavera De Filippi & Samer Hassan, *Blockchain Technology as a Regulatory Technology: From Code is Law to Law is Code*, FIRST MONDAY (Dec. 5, 2016), <https://firstmonday.org/ojs/index.php/fm/article/download/7113/5657> [<https://perma.cc/P8H7-XF6R>]; MICHÈLE FINCK, BLOCKCHAIN REGULATION AND GOVERNANCE IN EUROPE 58 (2018).

⁵³ See Roy Lai & David Lee Kuo Chuen, *Blockchain: From Public to Private*, in 2 HANDBOOK OF BLOCKCHAIN, DIGITAL FINANCE, AND INCLUSION 147 (David Lee Kuo Cheun & Robert Deng eds., 2017).

public permissionless blockchains.⁵⁴ Blockchains are thus inherently “transnational constructs;”⁵⁵ they do not require a central server that has to be physically located in one jurisdiction.⁵⁶ They make possible the transmission of data and economic value independent of the location of the network nodes. Smart contracts that predate blockchain technology, and can now be coded in blockchains, have also been designed to accommodate cross border transactions cutting through the “Gordian knot of jurisdictions.”⁵⁷

The general-purpose nature of a blockchain ledger makes it a technological infrastructure that can be used to achieve multiple goals⁵⁸ and the operation of multiple activities from information storage to trade to finance and overall service provision. Bitcoin may operate as a “financial market infrastructure” for worldwide monetary transactions.⁵⁹ Blockchain, with its applications such as smart contracts, is now becoming a “trade infrastructure”

⁵⁴ The commercial private sector has started making use of this privately developed but publicly available technology. This gave rise to a more recent type of blockchain: private permissioned blockchains. *See, e.g.*, Karl Wüst & Arthur Gervais, *Do You Need a Blockchain?*, 2018 CRYPTO VALLEY CONF. ON BLOCKCHAIN TECH., 2018, at 45, <https://ieeexplore.ieee.org/document/8525392> [<https://perma.cc/885K-9TKF>] (discussing the differentiations between public and private, as well as permissionless and permissioned blockchains). These are controlled and managed by a single entity—or a consortium of companies—that can impose restrictions on who can access and change the blocks, and use restricted access protocols to this effect. There are also hybrid public-private blockchains, in which nodes with private access can see all the information in particular blockchains, while the others cannot, or the other way around. *See id.* at 48.

⁵⁵ FINCK, *supra* note 52, at 58.

⁵⁶ De Filippi & Hassan, *supra* note 52.

⁵⁷ NICK SZABO, SMART CONTRACTS: BUILDING BLOCKS FOR DIGITAL MARKETS (rev. ed. 2018), https://www.fon.hum.uva.nl/rob/Courses/InformationInSpeech/CDROM/Literature/LOTwinterschool2006/szabo.best.vwh.net/smart_contracts_2.html [<https://perma.cc/8FPQ-GTSH>]; *see also* Nick Szabo, *Formalizing and Securing Relationships on Public Networks*, FIRST MONDAY (Sept. 1, 1997), <https://firstmonday.org/ojs/index.php/fm/article/view/548/469> [<https://perma.cc/FL6E-5ZJS>].

⁵⁸ *See* Angela Walch, *The Bitcoin Blockchain as Financial Market Infrastructure: A Consideration of Operational Risk*, 18 N.Y.U. J. LEGIS. & PUB. POL’Y 837, 837-38, 855-83 (2015); Aaron Wright & Primavera De Filippi, *Decentralized Blockchain Technology and the Rise of Lex Cryptographia* 1, 42 (Mar. 10, 2015) (unpublished manuscript) (available at <https://ssrn.com/abstract=2580664> [<https://perma.cc/4CK9-RR59>]); FINCK, *supra* note 52, at 66-80; Dimitropoulos, *supra* note 18, at 1117; PRIMAVERA DE FILIPPI & GREG MCMULLEN, BLOCKCHAIN RSCH. INST., GOVERNANCE OF BLOCKCHAIN SYSTEMS: GOVERNANCE OF AND BY DISTRIBUTED INFRASTRUCTURE 6-20 (2018), <https://hal.archives-ouvertes.fr/hal-02046787/document> [<https://perma.cc/FPA7-XY2J>].

⁵⁹ Walch, *supra* note 58, at 837-38, 855-83.

addressing the complexity of global supply chains that involve many and diverse public and private intermediaries over multiple jurisdictions, thus supporting international business transactions.⁶⁰ Overall, blockchain is a software infrastructure on a global scale.⁶¹

This law and political economy framework based on the self-regulatory tendencies of the technology stems from a long tradition of natural law discussed below.

ii. The Vision of Self-Regulation

Dean Roscoe Pound suggested at the beginning of the twentieth century that legal science proceeds in tendencies or periods.⁶² A comparative period is followed by a philosophical one, where the “law is felt to be reason.”⁶³ The philosophical tendency is then followed by an analytical period which sometimes coexists with a critical tendency, as well as an effort of reform through legislation.⁶⁴ A historical tendency coincides, or sometimes precedes or follows, the philosophical era, still as a reaction to the philosophical.⁶⁵

The comparative period is the one that dominated legal theory for centuries and into the modern age. A paradigm shift took place in seventeenth century political theory that defined modern political thought. Natural law (*lex naturalis*) was reconceptualized and was thought to be grounded on new foundations. Man and reason—not God or divine provenance—were regarded as the principal source of natural law.⁶⁶

⁶⁰ EMMANUELLE GANNE, CAN BLOCKCHAIN REVOLUTIONIZE INTERNATIONAL TRADE? 41 (2018); DHL TREND RSCH., BLOCKCHAIN IN LOGISTICS 4 (2018), <https://www.logistics.dhl/content/dam/dhl/global/core/documents/pdf/glo-core-blockchain-trend-report.pdf> [<https://perma.cc/WG7G-UCW4>] (discussing the potential impact of blockchain on the logistics industry).

⁶¹ See Alistair Berg, Brendan Markey-Towler & Mikayla Novak, *Blockchains: Less Government, More Market*, 35 J. PRIV. ENTER. 1, 10 (2020) (discussing the potential for blockchains to challenge state hegemony and design institutions that realize social welfare objectives); Dimitropoulos, *supra* note 18, at 1171.

⁶² See Roscoe Pound, *The Need for a Sociological Jurisprudence*, 19 GREEN BAG 607, 609 (1907), reprinted in 10 CRIME & DELINQUENCY 385, 387 (1964).

⁶³ *Id.* at 388.

⁶⁴ *Id.*

⁶⁵ *Id.*

⁶⁶ THOMAS HOBBS, LEVIATHAN 59 (Richard Tuck ed., Cambridge Univ. Press 1996).

International law first emerged as a discipline in the seventeenth century; it was itself the result of the emerging modern state and state theory, as well as the tragic encounters of Europeans with non-European peoples.⁶⁷ International law of the time drew on the long tradition of natural law as it was shaped in the Middle Ages and the early modern period. The naturalist jurisprudence of Hugo Grotius in the seventeenth century provided the foundations of the “law of nations” (*ius gentium*). International law faced its own paradigm shift away from naturalism and towards positivism in the nineteenth century.⁶⁸ In the “positivist turn” of international law, consent and custom provided the foundations of positive international law in an “international society” of sovereign states.

One of the layers of the complicated legal order of the Middle Ages was the body of law that emerged as a result of cross-border merchant practices, the *lex mercatoria*. The origins of the merchant law go back to a pre-modern understanding of *ius gentium* that regulates the interaction between individuals and nations, as well as among nations.⁶⁹ *Lex mercatoria* was thought to be part of natural law.⁷⁰ Despite the move away from the law of nature and its *ius gentium* with the transition to the state and the positivist understanding of international law, *lex mercatoria* survived until this day. Merchant law claims an autonomy from the order shaped by states. It is instead a genuinely self-regulated legal order.

Lex mercatoria has a continuous allure up to the present day in international arbitration.⁷¹ Similar forms of self-regulated bodies of law have been envisaged in more specialized areas of the economy. *Lex maritima* is thought to govern worldwide maritime

⁶⁷ Antony Anghie, *The Heart of My Home: Colonialism, Environmental Damage, and the Nauru Case*, 34 HARV. INT’L L.J. 445, 448-49 (1993). See generally ANTHONY ANGHIE, *IMPERIALISM, SOVEREIGNTY AND THE MAKING OF INTERNATIONAL LAW* (2005) (surveying the creation and evolution of the international law system).

⁶⁸ See Martii Koskenniemi, *Into Positivism: Georg Friedrich von Martens (1756–1821) and Modern International Law*, 15 CONSTELLATIONS 189, 189-91 (2008).

⁶⁹ Pound, *supra* note 62, at 609 (citing RICHARD WOODDESSON, *ELEMENTS OF JURISPRUDENCE* lxxix (1792) (treating the law merchant as part of the law of nations)).

⁷⁰ See generally Edwin D. Dickinson, *Law of Nations as Part of the National Law of the United States*, 101 U. PA. L. REV. 26 (1952) (describing the evolution of the Law of Nations and mentioning the wide acceptance of the law of merchants); Harold J. Berman & Colin Kaufman, *Law of International Commercial Transactions (Lex Mercatoria)*, 19 HARV. INT’L. L.J. 221 (1978) (surveying the universality of international commercial law).

⁷¹ Alec Stone Sweet, *The New Lex Mercatoria and Transnational Governance*, 13 J. EUR. PUB. POL’Y 627, 633 (2006).

transactions.⁷² Construction lawyers speak about the *lex constructionis* that governs infrastructure projects around the world.⁷³

The difference between these bodies of law and other varieties of the primitive law of nations is the basis of their claim to validity. This is not derived from God. It is rather presumed to be usage as formed in the relevant trade—international commerce, maritime affairs, construction, etc.⁷⁴ The main feature of these bodies of law is the claim to self-regulation of their respective fields through the rules developed by the practices, individuals, and institutions that form part of the relevant community.

Given the non-material nature of the online world, theories such as the ones drawn from natural law and *ius gentium* provided a very fertile ground for theories supporting the validity of a new order of the world of the internet. One of the most recent reiterations of such *naturalist* bodies of law is *lex informatica*, the autonomous rules that govern the internet.⁷⁵

Professor Lawrence Lessig has famously explained how code can operate as law.⁷⁶ Code is the man-made architecture of cyberspace; it can regulate individual behavior qua technology by imposing systemic constraints on individual behavior in that digital environment. The code engineer is the “rulemaker” in the

⁷² Albrecht Cordes, *Lex Maritima? Local, Regional and Universal Maritime Law in the Middle Ages*, in *The ROUTLEDGE HANDBOOK OF MARITIME TRADE AROUND EUROPE 1300-1600*, at 69, 69 (Wim Blockmans, Mikhail Krom & Justyna Wubs-Mrozewicz eds., 2017).

⁷³ Charles Molineaux, *Moving Toward a Construction Lex Mercatoria – A Lex Constructionis*, 14 J. INT'L ARB. 55, 61-66 (1997).

⁷⁴ One could still posit that this is an early form of the natural law of reason as it materializes itself in commercial or other transactions.

⁷⁵ Joel R. Reidenberg, *Lex Informatica: The Formulation of Information Policy Rules Through Technology*, 76 TEX. L. REV. 553, 553-56 (1998) (likening *lex informatica* to other naturalist bodies of law such as *lex mercatoria*).

⁷⁶ See LAWRENCE LESSIG, *CODE AND OTHER LAWS OF CYBERSPACE* (1999). There are four main ways, according to Lessig, through which individual behavior is constrained and regulated: (“regular”) law, social norms, market forces, and architecture. These forces shape individuals’ actions in various ways. The law creates constraints on individuals by putting limits on actions through legislation and regulation, as well as punishing individuals that violate the rules. Social norms regulate cultural behaviors through social mechanisms such as peer pressure. The market incentivizes or disincentivizes certain behaviors through the mechanism of supply and demand. Architecture imposes a series of limits on the type of actions that an individual can do. Architecture is a mode of regulation both in the natural as well as the artificial environment of the digital world. LAWRENCE LESSIG, *CODE VERSION 2.0*, at 123 (2006).

environment shaped by technology;⁷⁷ the designer of the internet regulates behavior on the internet; the software developer of digital platforms regulates behavior on digital platforms; the blockchain software developer regulates the behavior of blockchain nodes and other blockchain network participants.⁷⁸

Blockchain now allows for the lines of influence between law and code to run in both directions. While code takes the form of law, the law may also be gradually turning into code: “in the last few years . . . the law is progressively starting to assume the characteristics of code.”⁷⁹ Blockchain technology is a prime example of “code as law.”⁸⁰

Drawing on the *lex informatica*, a new body of law within blockchain has been discovered: the *lex cryptographia*.⁸¹ *Lex cryptographia* is the “law” within blockchain that runs on DLT, cryptography, and smart contracts. A smart contract is an “agreement,” the terms of which between the two parties are directly written into code, facilitating transactions without third-party intervention.⁸² Smart contracts were first introduced in 2015 in blockchain technology by Ethereum and are increasingly intertwined with blockchain technology. The Bitcoin blockchain now also allows the coding of smart contracts.⁸³ Smart contracts and blockchain can support and automatically enforce legal contracts; it is suggested that this *lex cryptographia* may one day even replace traditional contracts.⁸⁴

⁷⁷ But see Tim Wu, *When Code Isn't Law*, 89 VA. L. REV. 679, 680-86 (2003) (suggesting that code alone does not shape its regulation; rather elected officials play a significant role as well).

⁷⁸ De Filippi & Hassan, *supra* note 52, at 9.

⁷⁹ *Id.* at 7.

⁸⁰ *Id.* (emphasis in original).

⁸¹ Wright & De Filippi, *supra* note 58, at 48-58.

⁸² Nick Szabo, *Smart Contracts: Building Blocks for Digital Markets*, (1996), https://www.fon.hum.uva.nl/rob/Courses/InformationInSpeech/CDROM/Literature/LOTwinterschool2006/szabo.best.vwh.net/smart_contracts_2.html [<https://perma.cc/WH24-S3Y5>]. See generally Kevin Werbach & Nicolas Cornell, *Contracts Ex Machina*, 67 DUKE L.J. 313, 330 (2017) (describing smart contracts as self-executing and enforcing); THE CAMBRIDGE HANDBOOK OF SMART CONTRACTS, BLOCKCHAIN TECHNOLOGY AND DIGITAL PLATFORMS (Larry A. DiMatteo et al. eds., 2019) (describing smart contracts and their features).

⁸³ MacKenzie Sigalos, *Bitcoin's Biggest Upgrade in Four Years Just Happened – Here's What Changes*, CNBC (Nov. 14, 2021, 12:13 AM), <https://www.cnbc.com/2021/11/14/bitcoin-taproot-upgrade-what-it-means-for-investors.html> [<https://perma.cc/FG4D-FRH9>].

⁸⁴ De Filippi & Hassan, *supra* note 52, at 8.

Blockchain, with its multiple uses and functionalities, and the *lex cryptographia* of blockchain and its potential for automating transactions, present a new paradigm for law. This new paradigm may affect individual rules, the legal system, and most importantly how lawmakers, regulators, individuals, and society at large think about the law. By removing the ambiguity inherent in the law, it may in fact make legal interpretation and enforcement—tasks traditionally performed by different branches of government—increasingly redundant.

Dean Pound accused the legal academe of his time that “[w]ith us, the profession, at least, is still for the most part under the domination of the methods and phrases of the second tendency, long after that tendency has spent its force.”⁸⁵ In the case of the new *lex cryptographia*, the legal profession or legal scholarship are less the ones to blame for the turn to naturalism. In contrast to some “old” new technologies, blockchain and *lex cryptographia* have both global origins and aim at doing away with traditional government institutions. The main responsibility for lawyers and policymakers alike lies in the future structuring of the law shaping the *lex cryptographia*—the extent to which it will be allowed in the next steps of its development to follow more recent path-dependencies, or rather take on new dimensions beyond the paths that have been endemic to the development of law and new technologies during neoliberalism and economic globalization.

b. Digital Universalism

The interwar period saw the rise of a more pragmatist social science-based international law.⁸⁶ International law, while preserving its positivist foundations, became more “economized” to accommodate an unstoppable economic globalization.⁸⁷ Many recent approaches model the relationship between law and digital globalization on the relationship between law and economic globalization.

⁸⁵ Pound, *supra* note 62, at 609.

⁸⁶ ANGHIE, *supra* note 67, at 127-29.

⁸⁷ See discussion *infra* Section I.b.

i. Universalist Law and Political Economy Framework

The end of World War II marked the establishment of a new world order that became known as the Liberal International Order (LIO).⁸⁸ The new world order, largely spearheaded by the United States, was based on the principles of political and economic liberalism.⁸⁹ The second half of the twentieth century was also marked by the globalization of economies. Globalization was seen as a process of “denationalization,” a gradual merging of markets, politics and the law,⁹⁰ a top-down movement that stresses the supremacy of economic relationships in the interaction between the global and local. In this order, domestic politics were perceived as at best unimportant and irrelevant, or even inhibitive to the development of the global economy. This political economy for a globalized world has been identified as “neoliberal”⁹¹ and became dominant worldwide.⁹²

⁸⁸ See G. JOHN IKENBERRY, *A WORLD SAFE FOR DEMOCRACY: LIBERAL INTERNATIONALISM AND THE CRISES OF GLOBAL ORDER 1-2* (2020) (describing the rise of the Liberal International Order and the challenges it faces); Michael Barnett, *International Progress, International Order, and the Liberal International Order*, 14 CHINESE J. INT’L. POL. 1, 13-16 (2021) (delineating the rise of the Western international order into the Liberal International Order sometime after the Cold War ended); see also Stanley Hoffmann, *The Crisis of Liberal Internationalism*, 98 FOREIGN POL’Y 159, 159 (1995) (calling liberal internationalism and communism the two great postwar ideologies).

⁸⁹ See Kristen Hopewell, *Strategic Narratives in Global Trade Politics: American Hegemony, Free Trade, and the Hidden Hand of the State*, 14 CHINESE J. INT’L. POL. 51, 51-54 (2021) (depicting the United States as a leader in shaping the post-war economic liberalism).

⁹⁰ Jost Delbrück, *Globalization of Law, Politics and Markets - Implications for Domestic Law - A European Perspective*, 1 IND. J. GLOB. LEGAL STUD. 9, 11 (1993); see also Alfred C. Aman, *Globalization as Denationalization: Pluralism, Democracy Deficits in the U.S. and the Need to Extend the Province of Administrative Law*, in WELTINNENRECHT: LIBER AMICORUM JOST DELBRÜCK 13, 18 (Klaus Dicke, Stephan Hobe, Karl-Ulrich Meyn, Anne Peters, Eibe Riedel, Hans-Joachim Schutz & Christian Tietje eds., 2005).

⁹¹ See Roberts et al., *supra* note 27, at 656; see also David Singh Grewal & Jedediah Purdy, *Introduction: Law and Neoliberalism*, 77 L. & CONTEMP. PROBS. 1 (2014) (discussing how neoliberalism has advanced over the last decades and reshaped the most important domains of public and private life, including the law); ANDREW LANG, *WORLD TRADE LAW AFTER NEOLIBERALISM: RE-IMAGINING THE GLOBAL ECONOMIC ORDER* viii (2011) (discussing trade law in the era of neoliberalism, and possibilities for reform taking into account human rights). See generally QUINN SLOBODIAN, *GLOBALISTS: THE END OF EMPIRE AND THE BIRTH OF NEOLIBERALISM* (2018) (discussing the global dimensions of neoliberalism).

⁹² Some countries implemented some of its aspects differently. See discussion *infra* Section II.b.ii.

The law played a central role in the constitution of this political economy. International law largely operated as the promoter of economic globalization. Multilateral institutions like the International Monetary Fund, the World Bank, and the World Trade Organization—and regional organizations such as the European Union—supported the process of economic globalization. A whole new discipline of international law, international economic law, was shaped and accommodated the freedom of movement of goods, services and capital across borders.⁹³ International law replaced domestic law as the dominant means for cross-border trade and investment protection during the same time.

Twentieth century globalization sharpened a distinction—that has been in the making for two or more centuries—between the domestic and the international realm,⁹⁴ as well as between politics and economics.⁹⁵ In the aftermath of World War II, international law started moving away from mere regulation of horizontal coexistence of states towards collaboration and cooperation.⁹⁶ It became a “law of globalization” establishing a vertical relationship between the international and domestic levels.⁹⁷ During the years of

⁹³ Cf. Steve Charnovitz, *The Historical Lens in International Economic Law*, 22 J. INT'L ECON. L. 93, 93-97 (2019) (explaining the importance of the historical lens to analyze public policy challenges and international institutions). See generally ANGHIE, *supra* note 67, at 196-272 (describing the international economic order and its relationship to domestic sovereignty); David Schneiderman, *The Coloniality of Investment Law 1-9* (May 21, 2019) (unpublished manuscript) (available via SSRN at <https://ssrn.com/abstract=3392034> [<https://perma.cc/WF3Q-K25Q>]) (discussing international economic law's effect on Western supremacy).

⁹⁴ See MARK MAZOWER, *GOVERNING THE WORLD: THE HISTORY OF AN IDEA, 1815 TO THE PRESENT* xiv (2012) (suggesting that modern institutions—domestic and international—have been shaped in a relationship of opposition between “nationalism” and “internationalism”).

⁹⁵ This is often referred to as the opposition between “dominium” (the world of states and sovereignty) and “imperium” (the world of property and ownership). Quinn Slobodian, *Human Rights Against Dominion*, HUMANITY (Oct. 4, 2019), <http://humanityjournal.org/blog/human-rights-against-dominium/> [<https://perma.cc/WZP8-QXYU>].

⁹⁶ See WOLFGANG FRIEDMANN, *THE CHANGING STRUCTURE OF INTERNATIONAL LAW* 60, 62 (1964).

⁹⁷ See Jost Delbrück, *Von der Staatenordnung Über die Internationale Institutionelle Kooperation zur “Supraterritorial or Global Governance”* [From the State Order to International Institutional Cooperation to “Supraterritorial or Global Governance”], in *WELTINNENPOLITIK [WORLD DOMESTIC POLITICS]* 55, 56 (Ulrich Bartosch & Jochen Wagner eds., 1998) (Ger.); EYAL BENVENISTI, *THE LAW OF GLOBAL GOVERNANCE* 15-17 (2014).

neoliberalism, international law established itself as a universalist project.⁹⁸

International law's universalism is predominantly economic. The Washington Consensus established the priority of international economic considerations over internal ones. This meant that the state also started promoting the market at the international level using the means of international law.⁹⁹ The same trends further intensified during the 1990s.¹⁰⁰ International law's claim to economic universalism still persists;¹⁰¹ it has been characterized as "new moral internationalism" and managerialism.¹⁰²

iii. The Vision of International Regulation

The same universalist tendencies that have shaped contemporary international law have also characterized developments in the interface between international law, on the one side, and science and new technologies, on the other. Hundreds of associations and congresses were convened in the nineteenth century to manage different aspects of contemporary world life.¹⁰³ The purpose of these organizations was to develop standards for universal harmonization.

⁹⁸ See ANGHIE, *supra* note 67, at 32; see also SUNDHYA PAHUJA, *DECOLONISING INTERNATIONAL LAW: DEVELOPMENT, ECONOMIC GROWTH AND THE POLITICS OF UNIVERSALITY* 3-4 (2011). Universalism has not remained unchallenged in the history of the development of international law. See Armin von Bogdandy & Sergio Dellavalle, *Universalism and Particularism: A Dichotomy to Read Theories on International Order*, in *SYSTEM, ORDER, AND INTERNATIONAL LAW: THE EARLY HISTORY OF INTERNATIONAL LEGAL THOUGHT FROM MACHIAVELLI TO HEGEL* 482, 483-84 (Stefan Kadelbach, Thomas Kleinlein & David Roth-Isigkeit eds., 2017). See generally Ralf Michaels, *Beyond Universalism and Particularism in International Law – Insights From Comparative Law And Private International Law*, 99 *B.U. L. REV.* 18, 18-21 (2019) (discussing particularistic theories of international law).

⁹⁹ See Nancy Fraser, *Legitimation Crisis? On the Political Contradictions of Financialized Capitalism*, 2 *CRITICAL HIST. STUD.* 157, 176-77 (2015).

¹⁰⁰ See generally JOSEPH E. STIGLITZ, *THE ROARING NINETIES: A NEW HISTORY OF THE WORLD'S MOST PROSPEROUS DECADE* (2004) (describing the "roaring nineties" as the period of the triumph of market economics).

¹⁰¹ GARY JONATHAN BASS, *STAY THE HAND OF VENGEANCE: THE POLITICS OF WAR CRIMES TRIBUNALS* 20 (2000).

¹⁰² See Koskenniemi, *supra* note 101, at 372.

¹⁰³ See MAZOWER, *supra* note 94, at 103.

Associationalism gave way to wartime functionalism.¹⁰⁴ Both trends led to an increasing reliance on bureaucrats and experts at the international level.¹⁰⁵ These developments laid the foundations of post-WWII and modern-day specialized international organizations—public ones such as the Food and Agriculture Organization (FAO) and the World Health Organization (WHO), and private ones such as the International Organization for Standardization (ISO).¹⁰⁶

This understanding of international technical expertise gave rise to a perceived need to universally harmonize domestic laws and regulations. The harmonization process intensified in the 1990s and now involves the harmonization of an even greater policy set such as IP rights, health and sanitary regulations, subsidies, and investment and investor requirements.¹⁰⁷

Along the lines of these developments at the interchange between law, science, and technology, digitalization is now largely understood as just another face of economic and scientific globalization—a reiteration of the traditional economy supported by digital technology.¹⁰⁸ Data is added as a fourth factor of

¹⁰⁴ See *id.* at 144. Functionalism is “the idea that institutions emerge” and develop “as a result of the logic of circumstances by demonstrating their practical utility.” *Id.*

¹⁰⁵ See *id.* at 145. In the words of Sir Alfred Zimmern discussing “expertocratic” bureaucracy in the League of Nations: “the discovery that Committees of Experts function more satisfactorily on an international than on a national basis.” Alfred Zimmern, *Democracy and the Expert*, 1 POL. Q. 7, 15 (1930).

¹⁰⁶ MAZOWER, *supra* note 94, at 115 (noting that such institutions “embody the old . . . idea . . . that policy is best left to technical experts who know no nationality but that of humanity”).

¹⁰⁷ Dani Rodrik, *Putting Global Governance in Its Place*, 35 WORLD BANK RSCH. OBSERVER 1, 13 (2020). For case studies, see, for example, Amy Kapczynski, *Harmonization and its Discontents: A Case Study of TRIPS Implementation in India’s Pharmaceutical Sector*, 97 CAL. L. REV. 1571 (2009) (providing the example of the Agreement on Trade-Related Aspects of Intellectual Property Rights – Annex 1C to the Agreement establishing the World Trade Organization); GEORGIOS DIMITROPOULOS, ZERTIFIZIERUNG UND AKKREDITIERUNG IM INTERNATIONALEN VERWALTUNGSVERBUND [CERTIFICATION AND ACCREDITATION IN THE INTERNATIONAL ADMINISTRATIVE ASSOCIATION] (2012) (describing this mode of “harmonization through standardization” in international law).

¹⁰⁸ Michael Gestrin & Julia Staudt, OECD, *The Digital Economy, Multinational Enterprises and International Investment Policy*, at 18 (2018), <https://www.oecd.org/investment/investment-policy/The-digital-economy-multinational-enterprises-and-international-investment-policy.pdf> [<https://perma.cc/JGM2-YE7Z>]; see LORRAINE EDEN, E15INITIATIVE, STRENGTHENING THE GLOBAL TRADE AND INVESTMENT SYSTEM FOR SUSTAINABLE DEVELOPMENT: MULTINATIONALS AND FOREIGN INVESTMENT POLICIES IN A DIGITAL WORLD iii (2016), [<https://scholarship.law.upenn.edu/jil/vol44/iss1/3>](https://e15initiative.org/wp-content/uploads/2015/09/E15-</p>
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production next to land, labor and capital.¹⁰⁹ Digital foreign direct investment (FDI) takes its place right next to traditional types of FDI.¹¹⁰

Arguably the greatest challenge of the day is that international economic institutions are designed to accommodate a traditional economy. The WTO and international trade law have been designed to serve a more “bricks-and-mortar economy,” first in goods, and then also services.¹¹¹ It is unclear whether domestic measures addressing digital globalization fall under the scope of the WTO

Investment-Eden-Final.pdf [<https://perma.cc/XA3H-CXFS>]; WTO Secretariat, *World Trade Rep. 2018: The Future of World Trade: How Digital Technologies Are Transforming Global Commerce*, 8 (Oct. 3, 2018), https://www.wto.org/english/res_e/publications_e/world_trade_report18_e.pdf [<https://perma.cc/6ZZB-UAKP>]; U.N. Conference on Trade and Development, *Digital Economy Report 2021*, 46-47 U.N. Doc. UNCTAD/DER/2021 (Sept. 29, 2021), https://unctad.org/system/files/official-document/der2021_en.pdf [<https://perma.cc/KE7L-CRTN>].

¹⁰⁹ See JOSHUA P. MELTZER, A NEW DIGITAL TRADE AGENDA, (2015), <https://e15initiative.org/wp-content/uploads/2015/09/E15-Digital-Meltzer-Final.pdf> [<https://perma.cc/5UTK-P25L>]; Joshua P. Meltzer, *Governing Digital Trade*, 18 WORLD TRADE REV. S23, S33 (2019); Ciuriak & Ptashkina, *supra* note 46, at 1.

¹¹⁰ Digital FDI is foreign investment in areas such as the platform economy, social media, data-oriented services, and cloud computing. See Bruno Casella & Lorenzo Formenti, *FDI in the Digital Economy: A Shift to Asset-Light International Footprints*, 25 TRANSNAT'L CORPS. 101, 104 (2018); Matthew Stephenson, World Econ. F., *Digital FDI: Policies, Regulations and Measures to Attract FDI in the Digital Economy*, at 8 (Sept. 2020).

¹¹¹ See G20 RSCH. GRP., G20 MINISTERIAL STATEMENT ON TRADE AND DIGITAL ECONOMY 10 (2019), <http://www.g20.utoronto.ca/2019/2019-g20-trade.html> [<https://perma.cc/H4YH-66NW>] (emphasizing the interface between trade and the digital economy); Merit E. Janow & Petros Mavroidis, *Digital Trade, E-Commerce, the WTO and Regional Frameworks*, 18 WORLD TRADE REV. S1, S1 (2019) (explaining why there has been no international legal framework so far in response to the rise of digital trade).

disciplines.¹¹² Also, almost no bilateral investment treaty (BIT) takes into account developments in the digital economy.¹¹³

The most recent regional trade agreements (RTAs) such as the United States-Mexico-Canada Agreement (USMCA), the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), and the EU-UK Trade and Cooperation Agreement (TCA) have taken up the challenge of addressing domestic measures pertaining to the digital economy. Almost all contain chapters on “e-commerce” and “digital trade,” as well as provisions prohibiting domestic measures such as data localization and the imposition of source code requirements.¹¹⁴

A new digital universalism is arguably called for to address digitalization. Digital universalism could either take the form of reform and adaptation of mainstream institutions to serve the needs of a digital economy, or lead to the adoption of new international agreements, institutions, and rules, such as for the substantive harmonization of levels of protection of privacy rights, similar to the previous eras of technological regulation.¹¹⁵

¹¹² For example, it is not clear how some digital services are to be classified under the GATS. See Mira Burri, *The Regulation of Data Flows Through Trade Agreements*, 48 GEO. J. INT'L L. 407, 413-414 (2017).

But even if they do, the introduction of regulatory measures in the digital economy may be justified by a broader set of reasons, including those under the General Agreement on Trades in Services (GATS), such as public order, public morals, national security, consumer protection and privacy protection. Article XIV(a) of the GATS may find a broader application to the provision of digital services than its analogue Article XX(a) of the General Agreement on Tariffs and Trade (GATT) because article XIV(a) of the GATS specifies its term should not be construed to prevent measures “necessary to protect public morals or to maintain public order.” General Agreement on Trades in Services art. XIV(a), Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1B, 1869 U.N.T.S. 183 [hereinafter GATS]. Article XIV(c)(iii) of the GATS makes explicit reference to privacy and data protection of individuals as well as protection of confidentiality. *Id.* art. XIV(c)(iii). Article XIV(d) allows consumer protection measures. *Id.* art. XIV(d). For useful context and further discussion, see Francesca Casalini & Javier López González, *Trade and Cross-Border Data Flows* 25-27 (OECD Trade Policy Papers, No. 220, 2019).

¹¹³ Zhang Sheng, *Protection of Cross-Border Data Flows Under International Investment Law*, in HANDBOOK OF INTERNATIONAL INVESTMENT LAW & POLICY 1, 2-3 (Julien Chaisse, Leïla Choukroune & Sufian Jusoh eds. 2021).

¹¹⁴ See *infra* Section II.b.i.

¹¹⁵ See Meagan Nicholson, *Cross-Border Data Flows: Their Importance, and the Need for a Global Framework*, INT'L & COMPAR. L. REV.: ICLR NEWS (Apr. 12, 2018), <https://international-and-comparative-law-review.law.miami.edu/cross-border-data-flows-importance-global-framework/> [https://perma.cc/WH8R-PHAH]; Andrew D. Mitchell & Neha Mishra, *Data at the Docks: Modernizing International Trade Law for the Digital Economy*, 20 VAND. J. ENT. & TECH. L. 1073, 1074 (2018);

c. Digital Nationalism

Claims to nationalism also have a long history in narratives on the emergence of new technologies. Techno-nationalism posits the unit of analysis for the study of technology at the level of the state.¹¹⁶ Nations are the important units for innovation through their research and development budgets and cultures of innovation that help diffuse and use technology.¹¹⁷

The same is true when it comes to the rise of new digital technologies. Techno-nationalism suggests that for all the claims of a global digital citizenry and community through global means of communication, above all, the internet, territorial borders have not been abolished and the state has not been replaced as the preeminent form of social organization.¹¹⁸

The term techno-nationalism in its historical usage has had a generally negative connotation.¹¹⁹ It has been used in the West in relation to techno-policies adopted in countries in Asia.¹²⁰ While the center of attention in the past was Japan, China is now posited in media, academia, and policy circles as an emerging techno-nationalist nation.¹²¹

Digital nationalism is the contemporary reiteration of techno-nationalism in the era of “geo-economics” that claims the role of neoliberalism as the dominant political economy of world order.¹²² Given the historical association of techno-nationalism with the

Joshua P. Meltzer, *A WTO Reform Agenda: Data Flows and International Regulatory Cooperation* 3 (Glob. Econ. & Dev., Working Paper No. 130, 2019); Mira Burri, *Towards a Treaty on Digital Trade*, 55 J. WORLD TRADE 77, 80 (2021); Nivedita Sen, *Understanding the Role of WTO in International Data Flows: Taking the Liberalization or the Regulatory Autonomy Path?*, 21 J. INT’L ECON. L. 323, 346 (2018). *But see* Shaffer, *supra* note 21, at 272 (stating that “[p]olicy harmonization should not necessarily result”).

¹¹⁶ For an example of a work employing this analysis, see SHIGERU NAKAYAMA, *SCIENCE, TECHNOLOGY, AND SOCIETY IN POSTWAR JAPAN* (1991).

¹¹⁷ Edgerton, *supra* note 37, at 1.

¹¹⁸ See Meg Letta Jones, *Does Technology Drive Law? The Dilemma of Technological Exceptionalism in Cyberlaw*, J.L. TECH. & POL’Y 249, 262-63 (2018).

¹¹⁹ See Edgerton, *supra* note 37, at 2.

¹²⁰ See *id.*

¹²¹ See Nakayama, *supra* note 37, at 12-13.

¹²² Roberts et al., *supra* note 27, at 656-57.

East,¹²³ China and other Asian countries are accused of engaging in new forms of “digital protectionism”¹²⁴ and “digital nationalism.”¹²⁵

Differences in the preferred policies to address digital globalization are said to prompt the emergence of competing systems and worldviews on the regulation of digital technologies. Such differences in the preferred policies on cross border data flows, for example, have arguably led to the development of three competing governance systems,¹²⁶ each advanced by the three contemporary economic superpowers—the United States, the European Union, and China.¹²⁷

On one side of the spectrum, the United States is seen as the promoter of open digital borders. The United States is arguably spearheading a world of free data flows using the means of international law.¹²⁸ On the other side, China arguably promotes closed digital borders and limited cross border data flows. Its government claims control over its cyberspace with a set of domestic laws—commonly referred to as the “Great Firewall”—such as the Cybersecurity Law 2017, the Data Security Law 2021, as well as the National Security Law 2015.¹²⁹ The E.U. approach allows for digital liberalization only to the extent that the free data flow and digital transactions would at the same time respect the right to privacy and

¹²³ Techno-nationalism has also been understood in the developing South as a means for nations to step up the development ladder. See Edgerton, *supra* note 37, at 5. In the twentieth century, there has been a general convergence of technological capabilities of nations—especially the rich ones. *Id.* at 9.

¹²⁴ For works that discuss digital protectionism and offer perspectives on the background of the topic, see M.F. Ferracane, *The Costs of Data Protectionism*, in *BIG DATA AND GLOBAL TRADE LAW* 63 (Mira Burri ed., 2021); Susan A. Aaronson, *What Are We Talking About When We Talk About Digital Protectionism?*, 18 *WORLD TRADE REV.* 541 (2019); Svetlana Yakovleva, *Privacy Protection(ism): The Latest Wave of Trade Constraints on Regulatory Autonomy*, 74 *UNIV. MIA. L. REV.* 416 (2020).

¹²⁵ See Sabina Mihelj & César Jiménez-Martínez, *Digital Nationalism: Understanding the Role of Digital Media in the Rise of “New” Nationalism*, 27 *NATIONS & NATIONALISM* 331, 338 (2021).

¹²⁶ See, e.g., Ciuriak & Ptashkina, *supra* note 46, at 25; Susan A. Aaronson & Patrick Leblond, *Another Digital Divide: The Rise of Data Realms and Its Implications for the WTO*, 21 *J. INT'L ECON. L.* 245, 247 (2018); Shaffer, *supra* note 21, at 268; Paul Kjaer, *The End of Trade and Investment Law as We Know It: From Singularity to Pluralism*, in *WORLD TRADE AND INVESTMENT LAW REIMAGINED: A PROGRESSIVE AGENDA FOR AN INCLUSIVE GLOBALIZATION* 67, 67-71 (Alvaro Santos, Chantal Thomas & David Trubek eds., 2019).

¹²⁷ Shaffer, *supra* note 21, at 268.

¹²⁸ See, e.g., The United States of America–Mexico–Canada Agreement, art. 19.18, July 1, 2020, 134 Stat. 11 [hereinafter USMCA].

¹²⁹ See generally MARGARET E. ROBERTS, *CENSORED: DISTRACTION AND DIVERSION INSIDE CHINA'S GREAT FIREWALL* (2018) (discussing the Great Firewall).

data privacy of E.U. citizens. This is stipulated in the General Data Protection Regulation (GDPR), which reflects the standard of protection of the European Union within the internal market, as well as in the external relations between the European Union and third countries.¹³⁰

Historically, though, the United States has been a leader in the adoption of techno-nationalist policies and American techno-nationalism has been studied by scholars in Asia.¹³¹ Given the more recent rise of new digital technology superpowers such as China and Russia,¹³² countries around the world and across the political spectrum are adopting domestic measures to close off their borders for digital trade and investment. In the United States, as well as other Western countries, the protection of the domestic digital market is usually presented as an effort to protect national security interests rather than a form of digital nationalism.¹³³

Governments all over the world are arguably trying to claim their “digital” or “cyber sovereignty” using the means of domestic law.¹³⁴ The next Part decouples the notions of digital nationalism and digital sovereignty and stresses the various ways in which digital sovereignty operates not only in domestic, but also international, law.

II. THE ROLE OF LAW IN DIGITAL GLOBALIZATION

The role of law in contemporary digital globalization is much more nuanced than what is suggested by the above-presented

¹³⁰ Shaffer, *supra* note 21, at 269.

¹³¹ James L. Schoff, U.S.-Japan Technology Policy Coordination: Balancing Technonationalism with a Globalized World 36 (June 29, 2020) (Carnegie Endowment for Int'l Peace, Working Paper), <https://carnegieendowment.org/2020/06/29/u.s.-japan-technology-policy-coordination-balancing-technonationalism-with-globalized-world-pub-82176> [<https://perma.cc/3EGQ-HNZZ>]. See generally CHARLES A. KUPCHAN, ISOLATIONISM: A HISTORY OF AMERICA'S EFFORTS TO SHIELD ITSELF FROM THE WORLD (2020) (discussing isolationism in American diplomatic history).

¹³² See Matthew S. Erie & Thomas Streinz, *The Beijing Effect: China's 'Digital Silk Road' as Transnational Data Governance*, 54 N.Y.U. J. INT'L L. & POL. 1, 40-42 (2021).

¹³³ See Roberts et al., *supra* note 27, at 665; HELEN NISSENBAUM, *Where Computer Security Meets National Security*, 7 ETHICS & INFO. TECH. 61, 64-67 (2005) (discussing the ways in which computer security has been translated into national security and expanded to more areas).

¹³⁴ See sources cited *supra* note 31.

visions. This Part develops a new typology on the role of law in digital globalization using sovereignty as the starting point. This Part draws a distinction between international law and domestic law responses to digital globalization and presents four different modes of interaction between the law of the physical world and digital globalization: Neither international law nor domestic law conform to the roles assigned to them during the years of the ascent of economic globalization and its aftermath; international law is no longer exclusively used for universalist purposes; equally, domestic law is not exclusively used for nationalistic purposes, i.e., to close off the state from developments in the digital world. All aspects of law in its interaction with digital globalization today are reactions to the perceived role of sovereignty in any single legal order.

a. Digital Sovereignty Beyond Digital Nationalism

A series of financial, economic, political, as well as more recently, health crises have questioned the inevitability of economic globalization since 2008.¹³⁵ Global trade has been receding since 2012, and this seems to be an enduring trend.¹³⁶ Also, global FDI has continued to decline since at least 2016;¹³⁷ the decline has accelerated

¹³⁵ See James Crawford, *The Current Political Discourse Concerning International Law*, 81 MOD. L. REV. 1, 1-6, 10-12 (2018) (discussing the instabilities in international law in the context of withdrawal, or announced withdrawals, from treaties, and analyzing Brexit, South Africa's purported withdrawal from the Rome Statute, and the United States' announced withdrawal from the Paris Agreement); David Singh Grewal, *Three Theses on the Current Crisis of International Liberalism*, 25 IND. J. GLOB. LEGAL STUD. 595 (2018) (reviewing the origins and repercussions of developments challenging international liberalism and arguing that the current international legal order is in a systemic crisis). See generally Alexander Kentikelenis & Erik Voeten, *Legitimacy Challenges to the Liberal World Order: Evidence from United Nations Speeches, 1970-2018*, 16 REV. INT'L ORGAN. 721, 724-30 (2020) (researching leaders' speeches in the UN General Assembly and showing the explicit criticism towards the liberal order).

¹³⁶ See IRC Trade Task Force, Eur. Central Bank, *Understanding the Weakness of the Global Trade: What Is the New Normal?*, at 9 (Occasional Paper Series No. 178, 2016), <https://www.ecb.europa.eu/pub/pdf/scpops/ecbop178.en.pdf> [<https://perma.cc/92KU-KVJS>].

¹³⁷ See U.N. Conference on Trade and Development, *Global Investment Trends Monitor* (Issue No. 33, Jan. 2020); U.N. Conference on Trade and Development, *World Investment Report 2019 - Special Economic Zones*, U.N. Doc. UNCTAD/WIR/2019 (2019).

since the outbreak of the COVID-19 pandemic.¹³⁸ These trends have been identified as shifts towards “de-globalization” or “slowbalization” in the international economy.¹³⁹

Beyond the economy, the previous trust in international institutions has lost momentum too.¹⁴⁰ In recent years, there has been a significant pushback against international economic integration and its institutions.¹⁴¹ While the delegation of powers to international agreements and international institutions was rather uncontrolled during the globalization boom of the end of the twentieth century, governments all over the world have started reassessing their stance. A trend towards legal and institutional

¹³⁸ Douglas Irwin, *The Pandemic Adds Momentum to the Deglobalisation Trend*, VOXEU (May 5, 2020), <https://cepr.org/voxeu/columns/pandemic-adds-momentum-deglobalisation-trend> [<https://perma.cc/C69M-GK86>].

¹³⁹ See WALDEN BELLO, DEGLOBALIZATION: IDEAS FOR A NEW WORLD ECONOMY (2002) 107-18 (explaining the “deglobalization” process); *Slowbalisation: The Steam Has Gone Out of Globalisation*, ECONOMIST (Jan. 24, 2019), <https://www.economist.com/leaders/2019/01/24/the-steam-has-gone-out-of-globalisation> [<https://perma.cc/YNL7-4TDC>] (discussing the concept of ‘slowbalisation’ t). See generally PETER ZEIHAN, THE END OF THE WORLD IS JUST THE BEGINNING: MAPPING THE COLLAPSE OF GLOBALIZATION (2022) (discussing the “collapse of globalization”).

¹⁴⁰ MAZOWER, *supra* note 94, at xiii.

¹⁴¹ Francesco Montanaro & Federica Violi, *The Remains of the Day: The International Economic Order in the Era of Disintegration*, 23 J. INT’L ECON. L. 299 (2020) (discussing various “disintegration phenomena”); see THE BACKLASH AGAINST INVESTMENT ARBITRATION: PERCEPTIONS AND REALITY (Michael Waibel et al. eds. 2012); Georgios Dimitropoulos, *The Conditions for Reform: A Typology of “Backlash” and Lessons for Reform in International Investment Law and Arbitration*, 18 L. & PRAC. INT’L CTS. 416, 417-19 (2020); see also W. Michael Reisman, *The Empire Strikes Back: The Struggle to Reshape ISDS* (Feb. 16, 2017) (unpublished manuscript), <https://ssrn.com/abstract=2943514> [<https://perma.cc/NYU8-9Q3M>].

On “backlash” against the rules of the international investment regime, see generally MUTHUCUMARASWAMY SORNARAJAH, RESISTANCE AND CHANGE IN THE INTERNATIONAL LAW ON FOREIGN INVESTMENT (2015); DAVID SCHNEIDERMAN, RESISTING ECONOMIC GLOBALIZATION: CRITICAL THEORY AND INTERNATIONAL INVESTMENT LAW (2016). A similar “backlash” is observed in international trade law. See Kathleen Claussen & David Singh Grewal, *Introduction to the Yale Symposium on Trade Law Under the Trump Administration*, 44 YALE J. INT’L L. ONLINE 1, 1-2 (2018), https://cpb-us-w2.wpmucdn.com/campuspress.yale.edu/dist/8/1581/files/2019/02/1_Claussen-and-Grewal_YJIL-Symposium_Introduction_12.10.18-sucbvj.pdf [<https://perma.cc/G7YX-XKRN>].

I do not discuss here potential pros and cons of unilateral approaches. See Harold H. Koh, *Trump Change: Unilateralism and the “Disruption Myth” in International Trade*, 44 YALE J. INT’L L. ONLINE 96, 98-103 (2019), https://cpb-us-w2.wpmucdn.com/campuspress.yale.edu/dist/8/1581/files/2019/02/11_Koh_YJIL-Symposium_Epilogue_Trump-Change_02.05.19-2kfkph2.pdf [<https://perma.cc/6KVC-CDP3>] (discussing how Trump’s policies have damaged the multilateral trading system).

deglobalization started emerging too.¹⁴² Numerous governments over the last several years have begun developing regulatory frameworks aimed at consolidating domestic control over activities formerly delegated to international organizations and other forms – whether formal or informal – of global institutions and processes. Many countries are thus again developing domestic frameworks for the management of foreign trade and investment flows.¹⁴³

The same processes are taking place in the sphere of digital globalization too. While conceived as a global network, countries around the world have developed the technological and legal means to domesticate the internet, which is now subject to territorial borders and regulation.¹⁴⁴ Territorial regulation of the internet and other new digital technologies is on the rise.¹⁴⁵ Newer forms of internet controls seek to stop data not only from entering sovereign space but also from leaving one jurisdiction, and these new functions are often played by data privacy laws such as the General Data Protection Regulation.¹⁴⁶

Concerns about digital sovereignty were first raised outside the West, mostly in China and Russia.¹⁴⁷ The dominant position of

¹⁴² Georgios Dimitropoulos, *International Commercial Courts in the 'Modern Law of Nature': Adjudicatory Unilateralism in Special Economic Zones*, 24 J. INT'L ECON. L. 361, 373 (2021); see also José Alvarez, *Introductory Remarks*, in PROCEEDINGS OF THE ANNUAL MEETING 287–89 (100 ed., 2006).

¹⁴³ See Dimitropoulos, *supra* note 4; see also Sergio Puig & Gregory Shaffer, *Imperfect Alternatives: Institutional Choice and the Reform of Investment Law*, 112 AM. J. INT'L L. 361 (2018).

¹⁴⁴ See Nicholas Tsagourias, *The Legal Status of Cyberspace*, in RESEARCH HANDBOOK ON INTERNATIONAL LAW AND CYBERSPACE 13, 17 (Nicholas Tsagourias & Russell Buchan eds., 2015); see also Mark H. Greenberg, *A Return to Lilliput: The "LICRA v Yahoo!" Case and the Regulation of Online Content in the World Market*, 18 BERKELEY TECH. L.J. 1191, 1192–205 (2003). Similarly, many states are using the internet as a means of control. Mira Burri, *Data Flows and Global Trade Law*, in BIG DATA AND GLOBAL TRADE LAW 11 (2021). See generally JACK GOLDSMITH & TIM WU, WHO CONTROLS THE INTERNET? ILLUSIONS OF A BORDERLESS WORLD (2006) (explaining the ways through which the attempts to control the internet by powerful states has led to a rediscovery of some of the old functions and justifications for territorial government)

¹⁴⁵ STAN. L. SCH. INTERMEDIARY LIAB. & HUM. RTS. POL'Y LAB PRACTICUM, THE "RIGHT TO BE FORGOTTEN" AND BLOCKING ORDERS UNDER THE AMERICAN CONVENTION 18 (2017).

¹⁴⁶ See Regulation 2016/679, of the European Parliament and of the Council of 27 April 2016 on the Protection of Natural Person with Regard to the Processing of Personal Data and on the Free Movements of Such Data, and Repealing Directive 95/46/EC (General Data Protection Regulation), 2016 O.J. (L 119) 1, 32–33 [hereinafter GDPR].

¹⁴⁷ See Rogier Creemers, *China's Conception of Cyber Sovereignty*, in GOVERNING CYBERSPACE: BEHAVIOR, POWER AND DIPLOMACY 107 (Dennis Broeders & Bibi Berg

Western tech companies arguably leads to new forms of exploitation in the South and East—engaging in new forms of “digital colonialism” and “imperialism.”¹⁴⁸ Measures such as data localization safeguard domestically produced data as the most important input of the digital economy.¹⁴⁹ If they were to give up on domestically produced data, emerging markets would also be giving up on a comparative advantage that their private or state-owned companies otherwise enjoy.¹⁵⁰ At the same time, emerging digital giants such as China are now accused of exercising a similar type of digital colonialism in other parts of the world, such as Africa.¹⁵¹

New forms of digital globalization challenge the state anew. The rise of the cryptoworld is an extreme version of the risks and threats posed both to the state as an institution and its citizens.¹⁵² As the use of blockchains is becoming more common in many spheres of life and business, and the quantity and value of cryptoassets is increasing as well,¹⁵³ the state may be rendered redundant as a trust

eds., 2020); Min Jiang, *Authoritarian Informationalism, China's Approach to Internet Sovereignty*, SAIS REV. INT'L AFFS., Summer-Fall 2010, at 71, 72; J. Zeng, T. Stevens & Y. Chen., *China's Solution to Global Cyber Governance: Unpacking the Domestic Discourse of "Internet Sovereignty"*, 45 POL. & POL'Y 432, 432-38 (2017) (discussing Chinese concepts of digital and internet sovereignty); Julien Nocetti, *Contest and Conquest: Russia and Global Internet Governance*, 91 INT'L AFFS. 111, 116-19, 120-21 (2015) (discussing Russian concepts of digital and internet sovereignty).

¹⁴⁸ See Renata Ávila Pinto, *Digital Sovereignty or Digital Colonialism? New Tensions of Privacy, Security and National Policies*, 27 SUR INT'L J. ON HUM. RTS. 15, 15-21 (2018), <https://sur.conectas.org/en/digital-sovereignty-or-digital-colonialism/> [<https://perma.cc/23V7-WW4B>]; Michael Kwet, *Digital Colonialism: US Empire and the New Imperialism in the Global South*, RACE & CLASS, Apr.-June 2019, at 3, 7-10 (2019); see also NICK COULDRY & ULISES A. MEJIAS, *THE COST OF CONNECTION* 54-57, 96-97, 146-49 (2019) (comparing the rise of digital governance with colonialism).

¹⁴⁹ Shaffer, *supra* note 21, at 269.

¹⁵⁰ See Aaronson & Leblond, *supra* note 126, at 262-263 (discussing the size of the digital economy in China).

¹⁵¹ Willem Gravett, *Digital Neo-Colonialism: The Chinese Model of Internet Sovereignty in Africa*, 20 AFR. HUM. RTS. L.J. 125, 126-27 (2020).

¹⁵² See Riccardo de Caria, *Blockchain and Sovereignty*, in BLOCKCHAIN AND PUBLIC LAW: GLOBAL CHALLENGES IN THE ERA OF DECENTRALISATION 41 (Oreste Pollicino & Giovanni De Gregorio eds., 2021) (discussing the challenges blockchain posits to sovereignty).

¹⁵³ Tech companies and commercial banks have more recently reconciled with the technology and have even started adopting a technology that was developed to bypass them. See, e.g., Wolfie Zhao, *Bank of America Files for 3 New Blockchain Patents*, COINDESK (Aug. 1, 2017, 10:00 PM), <https://www.coindesk.com/bank-america-files-3-new-blockchain-patents> [<https://perma.cc/AD9Y-24BT>] (discussing the three blockchain-related patents filed by the Bank of America).

intermediary.¹⁵⁴ The crypto-economy, as a novel type of economy, cannot be easily restrained by mainstream institutions and the classic sovereign powers of the state.¹⁵⁵ The intrusion of blockchain in the provision of government services challenges the authority of the state too.¹⁵⁶ Crypto-organizations, such as Bitnation, are even claiming sovereignty of the cryptoworld, and sovereignty of their own.¹⁵⁷

The dominant understanding on the perceived role of law in economic globalization has allowed for certain path-dependencies to creep into the interpretation of the actual roles of law in digital globalization. Not all domestic measures relating to new digital technologies are expressions of digital nationalism. Not all international law aims at liberalization of global digital flows. I aim to present a more accurate picture of the role of the law (of the physical world) in digital globalization beyond the traditionally perceived roles of domestic and international law in the era of neoliberalism. I identify four modes of interaction between law and digital globalization. The first two modes are at the level of international law, and the last two are at the level of domestic law. The four different modes are responses of states to digital globalization based on their own perception of their digital sovereign identity. I use “digital sovereignty” to express the

¹⁵⁴ See generally Primavera De Filippi, Morshed Mannan & Wessel Reijers, *Blockchain as a Confidence Machine: The Problem of Trust & Challenges of Governance*, 62 *TECH. SOC.*, August 2020, at 2-8 (differentiating between trust and confidence and discussing blockchain as a “confidence machine”).

¹⁵⁵ John Flood & Lachlan Robb, *Trust, Anarcho-Capitalism, Blockchain and Initial Coin Offerings* 15-18 (Griffith L. Sch., Rsch. Paper No. 17-23, 2017) <http://ssrn.com/abstract=3074263> [<https://perma.cc/8CA9-7R5J>]. Some believe that cryptocurrencies may one day replace sovereign currencies. See Adam James, *Will Cryptocurrency Replace National Currencies by 2030?*, *BITCOINIST* (Mar. 2, 2018, 8:00 PM), <https://bitcoinist.com/will-cryptocurrency-replace-national-currencies-by-2030/> [<https://perma.cc/SPR3-77UW>]. El Salvador recently adopted Bitcoin as legal tender. See *infra* Section II.c.ii.

¹⁵⁶ See generally John Haskell & Nathan Tankus, *Virtual Currencies and the State: Virtual Currency (in the Shadows of the Money Markets)*, *JUST MONEY* (Apr. 9, 2020), <https://justmoney.org/j-haskell-n-tankus-virtual-currency-in-the-shadows-of-the-money-markets/?fbclid=IwAR3LWRGq-dirtK24C42b75odomAIBBhqm2ccs19x1jPzTXhPLj-GkxH1o8> [<https://perma.cc/2W7X-ERDT>] (focusing on potential uses of cryptos as shadow money and in shadow banking).

¹⁵⁷ See *Blockchain & Crypto News, Investing Guides, Market Forecasts & Reviews*, *BITNATION*, <https://tse.bitnation.co/> [<https://perma.cc/QFJ7-9SDR>].

power of the state to independently regulate the internet as well as other forms of the digital world.¹⁵⁸

b. Reasserting Digital Sovereignty Through International Law

International law is now sometimes used to protect digital sovereignty. “International reassertion” of sovereignty from digital globalization is a rather novel way of putting international law to use. States often use international law to protect their digital sovereignty. International law in its interaction with digital globalization has developed yet another dimension that is also largely different from the uses of international law during economic globalization. International law is now used with a view towards promoting digital nationalism abroad.

i. Isolationist Reassertion of Digital Sovereignty

In recent years, international treaties have been used to strengthen the role of the state in international law. New model BITs, new BITs, and regional agreements such as new mega-regional agreements provide good examples of efforts to reassert the right of states to regulate by using international law.¹⁵⁹ The aim of these international instruments is to safeguard an expanded regulatory space for states by adopting favorable and more deferential approaches towards sovereignty at the international level.¹⁶⁰

This type of sovereignty reassertion takes place in the sphere of digital globalization too. All new RTAs include chapters on “electronic commerce” or “digital trade.”¹⁶¹ The right to regulate in

¹⁵⁸ Cf. Katharina Pistor, *Statehood in the Digital Age*, 27 *CONSTELLATIONS* 3, 8 (2020) (discussing “digital Statehood” and the ways in which data may be replacing territory).

¹⁵⁹ See generally MEGAREGULATION CONTESTED: GLOBAL ECONOMIC ORDERING AFTER TPP (Benedict Kingsbury, David M. Malone, Paul Mertenskötter, Richard B. Stewart, Thomas Streinz & Atsushi Sunami eds., 2019) (presenting the TPP as the first instance of “megaregulation,” i.e., a combination of inter-state economic ordering and national regulatory governance on a transregional scale).

¹⁶⁰ See generally Dimitropoulos, *supra* note 4 (analyzing the growing tendency of states to replace their international investment agreements and solidify domestic regulations).

¹⁶¹ Comprehensive and Progressive Agreement for Trans-Pacific Partnership, ch. 14, Mar. 8, 2018, N.Z.T.S. 2018/10. [hereinafter CPTPP]. Chapter 14 of the CPTPP

digital trade has an important place in all new preferential trade agreements (PTAs). Article 198 of the EU-UK Trade and Cooperation Agreement (TCA) reaffirms this principle:

The Parties reaffirm the right to regulate within their territories to achieve legitimate policy objectives, such as the protection of public health, social services, public education, safety, the environment including climate change, public morals, social or consumer protection, privacy and data protection, or the promotion and protection of cultural diversity.¹⁶²

While domestic data localization and source code disclosure measures are generally prohibited in most recent RTAs,¹⁶³ these prohibitions are qualified in two ways: First, the prohibition is often introduced after a recognition of a broad regulatory space for the parties to introduce domestic measures.¹⁶⁴ Second, security exceptions are reintroduced to justify deviations.¹⁶⁵ These exceptions reaffirm the right to regulate to achieve legitimate policy objectives – this time specifically for data flows.

The Regional Comprehensive Economic Partnership (RCEP), which has been signed by China, also has provisions on the location of computing facilities¹⁶⁶ and the cross-border transfer of information by electronic means.¹⁶⁷ Exceptions to the basic rules are even more assertive in this agreement.¹⁶⁸

New types of international agreements are emerging to facilitate digital trade. The Digital Economy Partnership Agreement (DEPA) signed by Chile, New Zealand, and Singapore, for example, aims at

bears the title “electronic commerce.” *Id.* All newer RTAs use the term “digital trade” instead.

¹⁶² Trade and Cooperation Agreement, EU-U.K., art. 198, Dec. 30, 2020, U.K.T.S.No.8/2021 [hereinafter TCA].

¹⁶³ For examples of prohibitions regarding data localization, see USMCA, *supra* note 128, arts. 19.12, 19.16; CPTPP, *supra* note 161, art. 14.13; TCA, *supra* note 162, arts. 201, 207.

¹⁶⁴ See, e.g., CPTPP, *supra* note 161, art. 14.13(1) (describing data localization requirements).

¹⁶⁵ Avi Goldfarb & Daniel Trefler, *AI and International Trade*, at 26 (Nat'l Bureau Econ. Rsch., Working Paper No. 24254, 2018), <https://www.nber.org/papers/w24254.pdf> [<https://perma.cc/77PD-9ASN>].

¹⁶⁶ Regional Comprehensive Economic Partnership, art. 12.14, Nov. 15, 2020, 60 I.L.M. 354 [hereinafter RCEP].

¹⁶⁷ *Id.* art. 12.15.

¹⁶⁸ *Id.* art. 12.13(1), (3).

establishing a cross-border digital trade policy that is based on free data flows, non-discrimination of digital products, and non-forced location of computing facilities.¹⁶⁹ At the same time, it makes sure to acknowledge an “inherent right to regulate” in cross-border digital trade;¹⁷⁰ this right does not only cover traditional areas of public interest protection, but also encompasses further areas including the promotion of corporate social responsibility, cultural identity and diversity, environmental protection and conservation, gender equality, indigenous rights, labor rights, as well as, more broadly, inclusive trade, sustainable development, and traditional knowledge.¹⁷¹

New fora have also been established to provide a home for international law that is more hospitable to concerns for national sovereignty. In September 2021, the United States and the European Union announced the establishment of a new EU-U.S. Trade and Technology Council with the aim of also addressing national security-related concerns pertaining to digital technologies.¹⁷²

Similar developments have been taking place in the sphere of crypto-globalization.¹⁷³ The G7 is also now envisaging an

¹⁶⁹ Deborah Elms, *Unpacking the Digital Economy Partnership Agreement (DEPA)*, ASIAN TRADE CENTRE (Jan. 28, 2020), <http://asiantradecentre.org/talkingtrade/unpacking-the-digital-economy-partnership-agreement-depa> [<https://perma.cc/RL5Z-28GF>].

¹⁷⁰ See Digital Economy Partnership Agreement, Preamble, June 12, 2020, N.Z. Treaty Code B2020-02, <https://www.treaties.mfat.govt.nz/search/details/t/3945> [<https://perma.cc/C6Z7-9Y79>].

¹⁷¹ *Id.*

¹⁷² See European Commission Press Release Statement/21/4951, EU-US Trade and Technology Council Inaugural Joint Statement, § 2, annex I (Sept. 29, 2021); Chad P. Bown & Cecilia Malmstrom, *What is the US-EU Trade and Technology Council? Five Things you Need to Know*, PETERSON INSTITUTE FOR INT’L ECON. (Sept. 24, 2021, 11:00 AM), <https://www.piie.com/blogs/trade-and-investment-policy-watch/what-us-eu-trade-and-technology-council-five-things-you> [<https://perma.cc/DJJ4-FX3N>].

¹⁷³ In the UK-US Free Trade Agreement documents, for example, the UK government explicitly considers blockchain. See DEP’T INT’L TRADE, UK-US FREE TRADE AGREEMENT 7 (2020) (U.K.), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/869592/UK_US_FTA_negotiations.pdf [<https://perma.cc/AF9D-NZLD>]. International and supranational organizations have also started engaging with regulation of blockchain and blockchain products. The International Organization of Securities Commission (IOSCO), for example, has proposed regulatory interventions in secondary markets for tokens with a view to protecting investors. See generally Bd. Int’l Org. Sec. Comm’n, *Issues, Risks and Regulatory Considerations Relating to Crypto-Asset Trading Platforms*, FR02/2020, IOSCO (Feb. 2020), <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD649.pdf>

international framework for safe interoperability with crypto technologies and assets with a view to averting cybersecurity threats mostly in the areas of “supply chains” and “critical national infrastructure.”¹⁷⁴

Overall, international law is now being put to use not only to achieve the universalist aspirations of the past, but also as an effort to protect digital sovereignty from the threats of digital naturalism and digital nationalism.

ii. Outward Digital Nationalism

State capitalism has emerged with the rise of China and other countries in Southeast and West Asia as a paradigm in competition with the liberal paradigm of organization of the economy.¹⁷⁵ State capitalism is an economic system that allows a proactive role for the state in economic activity either directly or through state-owned enterprises (SOEs).¹⁷⁶ New and digital technologies are turning into an important aspect of the state capitalist paradigm. The “Made in China 2025” campaign, for example, aspires to decrease China’s foreign reliance on new technologies and safeguard the country’s self-reliance in high-tech sectors such as semiconductors and artificial intelligence.¹⁷⁷ Moreover, China’s “new infrastructure campaign” identifies three areas of infrastructure activities that are

[<https://perma.cc/82XV-C95B>] (describing issues and risks associated with trading crypto-assets on CTPs, the relevant key considerations, and providing related toolkits that are useful for each of them).

¹⁷⁴ G7 PANEL ECON. RESILIENCE, KEY POLICY RECOMMENDATIONS, *supra* note 5, at 5.

¹⁷⁵ See Niall Ferguson, *We’re All State Capitalists Now*, FOREIGN POL’Y (Feb. 9, 2012), <https://foreignpolicy.com/2012/02/09/were-all-state-capitalists-now/> [<https://perma.cc/U7XH-D2YC>]. See generally Ian Bremmer, *State Capitalism Comes of Age: The End of the Free Market*, 88 FOREIGN AFFS. 40 (2009) (describing the recent rise of State Capitalism, as opposed to free-market model); Li-Wen Lin & Curtis J. Milhaupt, *We Are the (National) Champions: Understanding the Mechanisms of State Capitalism in China*, 65 STAN. L. REV. 697 (2013) (discussing the mechanisms of State Capitalism in China as determined by the distinctive system of industrial organization in which China’s largest state-owned enterprises operate).

¹⁷⁶ See Mark Feldman, *State-Owned Enterprises as Claimants in International Investment Arbitration*, 31 ICSID REV. 24, 26, 32 (2016) (introducing several ideas on State capitalism as an opposed concept to free market capitalism); Julien Chaisse, *Untangling the Triangle: Issues for State-Controlled Entities in Trade, Investment and Competition Law*, in INTERNATIONAL ECONOMIC LAW GOVERNANCE: ESSAYS IN HONOUR OF MITSUO MATSUSHITA 233, 233-258, 239 (Julien Chaisse & Tsai-yu Lin eds., 2016).

¹⁷⁷ Roberts et al., *supra* note 27, at 666.

all tech-related – information-based infrastructure, integrated infrastructure, and innovative infrastructure.¹⁷⁸

SOEs have also started operating internationally. Sovereign wealth funds (SWFs) have increasingly become more popular vehicles for governments to invest globally.¹⁷⁹ State capitalism is reshaping the foundations of the international economic order. As China gains more global power, it is making an effort to reshape international economic governance. China's international influence is exercised with its state-backed outbound investment and infrastructure building. The Belt and Road Initiative (BRI) is at the center stage of these efforts.¹⁸⁰ A main difference between the BRI and "traditional" (or Western-driven) approaches to international law is the focus on infrastructure. The BRI aims at facilitating the movement of goods, services, capital, and labor on land and sea from the Pearl River Delta to the four corners of the globe.

The "digital silk road" is an important part of the BRI.¹⁸¹ Digital infrastructure, an integral part of the digital silk road, aims at digitally connecting the BRI.¹⁸² Even some of the physical

¹⁷⁸ See Li Keqiang, Premier, State Council, Report on the Work of the Government, delivered at the Third Session of the 13th National People's Congress of the People's Republic of China (May 22, 2020).

¹⁷⁹ SWFs may be defined as State-owned investment funds generated by the government and often derived from the surplus reserves of a country. See generally Markus Burgstaller, *Sovereign Wealth Funds and International Investment Law*, in *EVOLUTION IN INVESTMENT TREATY LAW AND ARBITRATION* 163, 163-86 (Chester Brown & Kate Miles eds., 2011) (analyzing the SWFs history and whether they may have recourse against national protectionist measures under international investment agreements).

¹⁸⁰ Julien Chaisse & Mitsuo Matsushita, *China's 'Belt and Road' Initiative: Mapping the World Trade Normative and Strategic Implications*, 52 *J. WORLD TRADE* 163, 167 (2018) (suggesting that China is developing a new approach in international economic law); Julien Chaisse, *Introduction: China's International Investment Law and Policy Regime - Identifying the Three Tracks*, in *CHINA'S INTERNATIONAL INVESTMENT STRATEGY: BILATERAL, REGIONAL, AND GLOBAL LAW AND POLICY* 1, 1-22 (Julien Chaisse ed., 2018) (highlighting the rulemaking role of China in the new order of international economic law); NADÈGE ROLLAND, *CHINA'S VISION FOR A NEW WORLD ORDER* (Nat'l Bureau Asian Rsch. ed., 2020) (discussing the role of China in the global South); see also BRUNO MACÃES, *BELT AND ROAD: A CHINESE WORLD ORDER* 5 (2018) (suggesting that China is putting forward an alternative value system than that of the Western world). But see Gregory Shaffer & Henry Gao, *A New Chinese Economic Order?*, 23 *J. INT'L ECON. L.* 607, 609 (2020) (arguing that China's model repurposes Western law and institutions); Prasenjit Duara, *The Chinese World Order in Historical Perspective: The Imperialism of Nation-States or Soft Power*, *CHINA & WORLD*, Dec. 2019, at 1, 16-17.

¹⁸¹ See Erie & Streinz, *supra* note 132, at 4.

¹⁸² *Id.*

components of the digital silk road largely have digital dimensions as they include fiber-optic cables, antennas, and data centers.¹⁸³

China has traditionally had a non-intervention diplomatic policy in foreign affairs. Its vision of international law is one that allegedly respects sovereignty more than the Western-driven international law of the LIO.¹⁸⁴ While it generally operates within this framework¹⁸⁵ – and has been one of the countries that has taken most advantage of economic globalization – the country's dominant economic position allows the Chinese government to shape regional and international rules and institutions. China is also now transposing its rules, norms, practices, and governance values to emerging and developing economies through such means as the BRI and the digital silk road.¹⁸⁶

While some would dispute that law, let alone international law, has a role to play in these initiatives, China has developed its own version of global governance structures and international law.¹⁸⁷ New Chinese-led international law shows a preference for “*informal*

¹⁸³ *Id.* at 6.

¹⁸⁴ See Anastas Vangeli, *China's Engagement with the Sixteen Countries of Central, East and Southeast Europe under the Belt and Road Initiative*, 25 CHINA & WORLD ECON. 101, 103 (2017) (explaining that implementation of BRI would foster China's vision on the respect of national sovereignty).

¹⁸⁵ See generally PETROS MAVROIDIS & ANDRÉ SAPIR, CHINA AND THE WTO: WHY MULTILATERALISM STILL MATTERS (2021) (examining China's overall participation in the WTO, as well as how the WTO could be reformed to ease tensions).

¹⁸⁶ See generally Matthew S. Erie, *Chinese Law and Development*, 62 HARV. INT'L L.J. 51, 56-60 (2021) (analyzing how “Chinese law and development” creates order through transnational law, building on existing legal infrastructures that are supplemented by extralegal and nonlegal norms).

¹⁸⁷ Moritz Rudolf, *Xi Jinping Thought on the Rule of Law*, GERMAN INST. INT'L & SECURITY AFFS. (Apr. 22, 2021), [https://www.swp-berlin.org/10.18449/2021C28/\[https://perma.cc/Z9XU-8ZCS?view-mode=client-side\]](https://www.swp-berlin.org/10.18449/2021C28/[https://perma.cc/Z9XU-8ZCS?view-mode=client-side]) (discussing President Xi Jinping's approach to the rule of law abroad); Erie, *supra* note 186, at 55-60 (discussing the Chinese approach to law and development, and the role of extralegal and nonlegal norms alongside instruments of international economic and commercial law); Ping Xiong & Roman Tomasic, *Soft Law, State-Owned Enterprises and Dispute Resolution on PRC's Belt and Road – Towards an Emerging Legal Order?*, 49 H.K. L.J. 1025 1028-31(2019) (discussing the use of “soft law” rules in the governance of Chinese SOEs, and in the resolution of commercial disputes that SOEs will encounter in their investment in infrastructure projects along the BRI); GREGORY SHAFFER, EMERGING POWERS AND THE WORLD TRADING SYSTEM: THE PAST AND FUTURE OF INTERNATIONAL ECONOMIC LAW 222-68 (2021) (describing the new model of economic governance developed by China, which combines private and public international law in transnational legal ordering imbued with Chinese characteristics).

bilateralism."¹⁸⁸ Economic and other collaboration in the BRI takes place based on Memoranda of Understanding and other soft law.¹⁸⁹ The BRI is also institutionally supported by the Asian Infrastructure Investment Bank.¹⁹⁰

These developments are representative of a broad vision of international law. The vision is different than the one shaped during the years of the dominance of economic globalization. These efforts give rise to a new form of international law.¹⁹¹ While focused outward, it is largely spearheaded by domestic interests and institutions. International law is used to pursue national digital policies and a new form of outward digital nationalism.

Having said this, the same may be said about some of the international agreements that are promoted by the United States and, to some extent, the European Union. Since most digital technology companies are based in the United States, the pro-liberalization (universalist) position of the United States may be understood as mercantilist and nationalist, too.¹⁹² This explains some nuances in the regulation of domestic measures in the USMCA, including the absence of an exceptions clause in the prohibition of data localization requirements.¹⁹³

¹⁸⁸ Ernst-Ulrich Petersmann, *International Settlement of Trade and Investment Disputes Over Chinese 'Silk Road Projects' Inside the European Union* 5 (Eur. Univ. Inst., Working Paper No. 2020/02, 2020), <https://ssrn.com/abstract=3584173> [<https://perma.cc/JR5-8MLS>].

¹⁸⁹ Shaffer & Gao, *supra* note 180, at 607. See generally Jeremy Garlick & Radka Hovlova, *China's Belt and Road Economic Diplomacy in the Persian Gulf: Strategic Hedging Amidst Saudi-Iranian Regional Rivalry*, 49 J. CURRENT CHINESE AFFS. 82 (2020) (discussing the Chinese approach in the collaboration between China and the Gulf countries).

¹⁹⁰ MARTIN A. WEISS, CONG. RSCH. SERV., R44754, ASIAN INFRASTRUCTURE INVESTMENT BANK 2, 6 (2017). In addition, state capitalism, and especially its Chinese variant, is also propelling the establishment of new "internationalized" domestic institutions, such as Special Economic Zones, and International Commercial Courts. See Dimitropoulos, *supra* note 4, at 89-92.

¹⁹¹ National security is one of the most important considerations for the roll out of the Digital Silk Road. See generally Richard Ghiasy, *China's Belt and Road Initiative: Security Implications and Ways Forward for the European Union*, STOCKHOLM INT'L PEACE RSCH. INST. (Sept. 2018), https://www.sipri.org/sites/default/files/2018-11/bri_digital_policy_brief_and_key_findings.pdf [<https://perma.cc/JE6Q-2T44>] (describing the security implications of the BRI in general and the EU response to such security issues).

¹⁹² Shaffer, *supra* note 21, at 268; see also Dani Rodrik, *What Do Trade Agreements Really Do?*, 32 J. ECON. PERSPS. 73, 75-76 (2018) (suggesting that international trade agreements serve the interests of multinationals corporations).

¹⁹³ See USMCA, *supra* note 128, art. 19.12.

c. Reasserting Digital Sovereignty Through Domestic Law

Domestic law too does not operate in the linear way it has been perceived to function during neoliberalism. Sovereignty takes on multiple dimensions in the form of what is identified here as “isolationist” and “domesticating” reassertion of sovereignty. Isolationist sovereignty reassertion—the traditional way in which sovereignty is perceived to function—addresses two separate threats to domestic legal orders: naturalist on the one side, and nationalist threats on the other. Finally, domesticating sovereignty reassertion policies use domestic law to tame digital naturalism, making it work for the purposes of the state.

i. Isolationist Reassertion of Digital Sovereignty

Until the end of World War II, international law was less relevant for the regulation of cross-border economic transactions. Foreign trade operated mainly with the unilateral opening of national borders.¹⁹⁴ International law was also less relevant for the regulation of foreign investment until relatively recently. This changed with the adoption of the General Agreement on Tariffs and Trade in 1947, as well as the proliferation of BITs and other international investment agreements (IIAs) in the 1960s.

Many countries around the world have started developing robust legal frameworks for the regulation of digital globalization and its various faces and appearances. Some of these responses may qualify as an isolationist reassertion of sovereignty. This mode of interaction between law and the digital world corresponds to the traditional peremptory powers of government. One may differentiate though between two different types of domestic responses: domestic measures aimed at addressing digital globalization in its naturalist variant, and domestic measures aimed at addressing outward digital nationalism.

¹⁹⁴ See, e.g., Brink Lindsey, *Free Trade from the Bottom Up*, 19 CATO J. 359, 362-63 (2000) (pointing out that a “bottom-up” vision of international law, based on unilateral decisions to open borders, is more consistent with economic and political reality than a “top-down” approach, based on international institutions and agreements).

1. Addressing Digital Naturalism

A typical trade restrictive measure until recently would have been a raise in tariff or a tax or a domestic ban or other restriction imposed on a product or service. Countries now may make market access conditional on new types of requirements relating to the digital world, such as restricting the flow of data across borders via the internet.¹⁹⁵ A number of countries have, for example, put in place data localization requirements.¹⁹⁶ These are measures impose local data storage, i.e., the use of local data centers, or may take the form of other restrictions or outright bans on the transfer of data abroad. Mandatory transfer of technology requirements, moreover, may mandate companies to reveal elements of a technology, such as the source code of software.¹⁹⁷

Many examples of domestic digital measures can also be drawn from the response of regulators to crypto-globalization. Some countries have realized the potentially disruptive nature of cryptocurrencies and have pursued command and control as well as various other intermediate regulatory interventions with a view towards protecting domestic public interests from the threat of crypto-globalization.

¹⁹⁵ See Chander & Lê, *supra* note 30, at 721-26; see also NIGEL CORY, INFO. TECH. & INNOVATION FOUND., CROSS-BORDER DATA FLOWS: WHERE ARE THE BARRIERS, AND WHAT DO THEY COST?, (2017) (noting that barriers to transfer data overseas bear significant costs, reducing economic growth and social value); Martina F. Ferracane, *Restrictions on Cross-Border Data Flows: A Taxonomy* 3-5, (Eur. Ctr. Int. Pol. Econ., Working Paper No. 2017-01, 2017), <https://ecipe.org/publications/restrictions-to-cross-border-data-flows-a-taxonomy/> [<https://perma.cc/KJC7-XE2J>] (distinguishing among multiple type of restrictions on cross-border data flows).

¹⁹⁶ See Dan Svantesson, *Data Localisation Trends and Challenges: Considerations for the Review of the Privacy Guidelines*, 8 (OECD, Digital Econ. Paper No. 2020-301, Dec. 2020), https://www.oecd-ilibrary.org/science-and-technology/data-localisation-trends-and-challenges_7fbaed62-en [<https://perma.cc/4C9A-GB5M>]; see also H. Akın Ünver & Grace Kim, *Cross-Border Data Transfers and Data Localization*, (Ctr. Econ. Foreign Pol. Studs., Cyber Policy Paper Series No. 2016-3, June 2016), https://edam.org.tr/wp-content/uploads/2017/03/data_transfers_en.pdf; Marion A Creach, *Assessing the Legality of Data-Localization Requirements: Before the Tribunals or at the Negotiating Table?*, COLUM. FDI PERSPS., June 17, 2019, <https://doi.org/10.7916/d8-p3q6-tn21> [<https://perma.cc/PRQ9-8CY3>] (suggesting that data-localization requirements may be challenged under GATS and IIAs).

¹⁹⁷ Andrea Andrenelli, Julien Gourdon & Evdokia Moïsé, *International Technology Transfer Policies*, at 8, 13 (OECD Trade Policy Papers, No. 2019-222, 2022), <https://doi.org/10.1787/18166873> [<https://perma.cc/R4ME-K9SG>].

China has been the main example of a jurisdiction attempting a major ban on the use of cryptocurrencies. In 2013, the People's Bank of China (PBOC), jointly with other government agencies, issued the "Notice on Precautions Against the Risks of Bitcoins;" the notice mandated banks and other financial and payment institutions to discontinue using and trading in Bitcoin.¹⁹⁸ This was not a direct prohibition of Bitcoin in China, as Bitcoin and other cryptocurrencies could still be used privately. Moreover, in 2017, a committee led again by the PBOC imposed a ban on initial coin offerings.¹⁹⁹ China finally banned the use of cryptoassets in its territory in September 2021.²⁰⁰ In India, similar regulatory efforts were eventually struck down by the Supreme Court.²⁰¹ Even in the United Kingdom, which has adopted one of the most liberal approaches to crypto-globalization, the Financial Conduct Authority banned the sale of crypto-derivatives to retail consumers.²⁰²

Other countries have adopted softer approaches to the regulation of cryptocurrencies. There are three main intermediate responses—most pioneered by U.S. agencies. First, domestic regulators, including the Securities and Exchange Commission (SEC), have issued warnings on the use of cryptoassets by consumers.²⁰³ Second, cryptocurrencies have been subjected to

¹⁹⁸ Gerry Mullany, *China Restricts Banks' Use of Bitcoin*, N.Y. TIMES (Dec. 5, 2013), <https://www.nytimes.com/2013/12/06/business/international/china-bars-banks-from-using-bitcoin.html> [<https://perma.cc/MQ39-JTTW>].

¹⁹⁹ Kenneth Rapoza, *China's "Bitcoin Ban" No Match for Stateless Cryptocurrency Market*, FORBES (Oct. 18, 2017), <https://www.forbes.com/sites/kenrapoza/2017/10/18/chinas-blockchain-bitcoin-ban-no-match-for-stateless-cryptocurrency-market/#2032415e2de6> [<https://perma.cc/F5H5-8QG5>].

²⁰⁰ PEOPLE'S BANK OF CHINA, NOTICE ON FURTHER PREVENTING AND RESOLVING THE RISKS OF VIRTUAL CURRENCY TRADING AND SPECULATION (2021), <http://www.pbc.gov.cn/en/3688253/3689012/4353814/index.html> [<https://perma.cc/6MXJ-3E6B>]; *China Declares All Crypto-Currency Transactions Illegal*, BBC NEWS (Sept. 24, 2021), <https://www.bbc.com/news/technology-58678907> [<https://perma.cc/D9BV-8VMK>].

²⁰¹ *Supreme Court Ends RBI's 2019 Ban on Banks Dealing in Cryptocurrency*, HINDUSTAN TIMES (Mar. 4, 2020), <https://www.hindustantimes.com/india-news/supreme-court-ends-rbi-s-ban-on-banks-dealing-in-cryptocurrency/story-Q99whSgHNG01oGOX7FyTxN.html> [<https://perma.cc/G47E-EX2E>].

²⁰² FIN. CONDUCT AUTH., PROHIBITING THE SALE TO RETAIL CLIENTS OF INVESTMENT PRODUCTS THAT REFERENCE CRYPTOASSETS (2020) (UK).

²⁰³ See *Investor Alert: Bitcoin and Other Virtual Currency-Related Investments*, SEC. & EXCH. COMM'N (May 7, 2014), https://www.sec.gov/oiea/investor-alerts-bulletins/investoralertsia_bitcoin.html [<https://perma.cc/5W7U-GLH5>] (making investors aware about the potential risks of investing in Bitcoin and other virtual

“neighboring” regulatory regimes and disciplines. For example, one of the first cryptocurrency-related measures adopted in the United States was the imposition of an anti-money laundering regime.²⁰⁴ Likewise, the SEC has successfully placed cryptocurrencies under its regulatory scope by imposing sanctions on unauthorized traders operating securities online for cryptocurrencies.²⁰⁵

Another application of a neighboring regime may be observed in jurisdictions that have rigid data protection laws in place, such as the European Union’s GDPR. In this case, the application of data protection laws has been largely unintended. The GDPR’s data protection principles and blockchain technology seem largely incompatible. There are three main issues:²⁰⁶ (a) the difficulty of identifying a “controller” on a blockchain;²⁰⁷ (b) the extent to which there is (active) consent by blockchain users for the processing of their data;²⁰⁸ and (c) the GDPR is based on such principles as data minimization and the right to be forgotten.²⁰⁹ Most of these principles seem to be in conflict with two of the most fundamental

currency); *see also* EBA Warns Consumers on Virtual Currencies, EUR. BANKING AUTH. (Dec. 12, 2013), <https://www.eba.europa.eu/eba-warns-consumers-on-virtual-currencies> [<https://perma.cc/N28A-YSWZ>] (warning consumers, among others, on lack of regulation, other risks, and tax implications).

²⁰⁴ Fin. Crimes Enf’t Network, Dep’t of Treasury, Guidance FIN-2013-G001, Application of FinCEN’s Regulations to Persons Administering, Exchanging, or Using Virtual Currencies (Mar. 18, 2013) <https://www.fincen.gov/sites/default/files/shared/FIN-2013-G001.pdf> [<https://perma.cc/K6GT-38JP>].

²⁰⁵ *See SEC Sanctions Operator of Bitcoin-Related Stock Exchange for Registration Violations*, SEC. & EXCH. COMM’N (Dec. 8, 2014), <https://www.sec.gov/news/press-release/2014-273> [<https://perma.cc/4SEA-YN9V>]. According to the SEC, investments in cryptoassets may be considered as securities for the purposes of U.S. securities laws. *See Final Judgment Entered Against Trendon T. Shavers A/K/A “Piratreat40” – Operator of Bitcoin Ponzi Scheme Ordered to Pay More Than \$40 Million in Disgorgement and Penalties*, SEC. & EXCH. COMM’N (Sept. 22, 2014), <https://www.sec.gov/litigation/litreleases/2014/lr23090.htm> [<https://perma.cc/46EA-NYGB>]. The same approach has been adopted by the SEC with regard to ICOs. *See The DAO*, Exchange Act Release No. 81207, 2017 WL 7184670, at *11-15 (July 25, 2017); *see also Framework for “Investment Contract” Analysis of Digital Assets*, SEC. & EXCH. COMM’N (Apr. 3, 2019), <https://www.sec.gov/corpfin/framework-investment-contract-analysis-digital-assets> [<https://perma.cc/4HA3-7BYK>] (discussing the applicability of the *Howey* test to cryptocurrencies).

²⁰⁶ *See* Dimitropoulos, *supra* note 33, at 171-72.

²⁰⁷ *See* GDPR, *supra* note 146, arts. 89, 94(1) (discussing the protection of natural persons with regard to the processing of personal data and the free movement of such data, and repealing Directive 95/46/EC).

²⁰⁸ *See id.* art. 6.

²⁰⁹ *See id.* arts. 5(1)(b), (e).

features of blockchain technology: information on a blockchain is visible to every node and information cannot be removed from a blockchain.²¹⁰

Third, many countries have introduced various taxation schemes for cryptocurrencies.²¹¹ For example, the Internal Revenue Service (IRS) issued a notice clarifying that while virtual currencies are used by consumers in the same way as legal tender, the disposition of Bitcoin is, unlike cash, a taxable transaction to the consumer.²¹²

A fourth emerging intermediate approach is the elaboration of specialized regimes for the regulation of cryptoassets and blockchain technology more generally. The New York State Department of Financial Services, for example, introduced the BitLicense framework. BitLicense creates a comprehensive licensing regime for a very wide range of intermediaries of virtual currency service providers, including exchanges, wallets, dealers, and administrators.²¹³ The rules require registration and licensing for some of them. The Uniform Law Commission developed a model law called the “Regulation of Virtual Currency Business Act” for the regulation of virtual currencies, which is largely like the BitLicense framework.²¹⁴

2. Addressing Outward Digital Nationalism

Apart from private investors, governments of emerging economies also opt to invest abroad using SOEs, SWFs, and other similar vehicles. In Western markets, there is a concern that sovereign investors, above all Chinese SOEs, will not invest abroad

²¹⁰ Dimitropoulos, *supra* note 33, at 172.

²¹¹ See generally Omri Marian, *Are Cryptocurrencies Super Tax Havens?*, 112 MICH. L. REV. FIRST IMPRESSIONS 38, 46 (2013) (describing the mechanisms by which “cryptocurrencies” could replace tax havens for tax-evaders).

²¹² I.R.S. Notice 2014-21, I.R.B. 2014-16 (Apr. 14, 2014).

²¹³ N.Y. COMP. CODES R. & REGS. tit. 23, § 200 (2020).

²¹⁴ UNIFORM REGUL. OF VIRTUAL-CURRENCY BUSINESSES ACT (NAT’L CONF. OF COMM’RS ON UNIF. STATE L. 2017); see also TIMOTHY G. MASSAD, IT’S TIME TO STRENGTHEN THE REGULATION OF CRYPTO-ASSETS, 36 (2019), <https://www.brookings.edu/wp-content/uploads/2019/03/Timothy-Massad-Its-Time-to-Strengthen-the-Regulation-of-Crypto-Assets.pdf> [<https://perma.cc/6Y4D-AU6F>] (citing the Uniform Regulation of Virtual-Currency Businesses Act).

based on market and commercial criteria.²¹⁵ The concern has grown since Chinese companies began investing in new technologies and critical infrastructure.²¹⁶

States have the sovereign power under international law to regulate the entry and establishment of foreign investors in their jurisdiction.²¹⁷ Governments are increasingly exercising this power.²¹⁸ One may distinguish between two different types of foreign investment control mechanisms: outright prohibition and screening of foreign investment.²¹⁹ Many jurisdictions are extending the scope of their investment screening mechanisms (ISMs) to cover “national security” threats arising from foreign investment in digital

²¹⁵ See Haiyan Zhang & Daniel Van den Bulcke, *China’s Direct Investment in the European Union: A New Regulatory Challenge?* 12 ASIA EUR. J. 159, 162 (2014).

²¹⁶ See Brigitte Zypries, Michel Sapin & Carlo Calenda, Letter to Commissioner Cecilia Malmström (Berlin, Feb. 2017) (available online at https://www.bmwi.de/Redaktion/DE/Downloads/S-T/schreiben-de-fr-it-an-malmstroem.pdf?__blob=publicationFile&v=5 [<https://perma.cc/3AY4-7F2U>]) (making the case for the need of the European Union to respond to the lack of reciprocity of access of European companies with an edge in the technological sector to foreign markets).

²¹⁷ Government measures for the control of foreign investment aimed at market access fall outside the scope of most IIAs unless market access is explicitly granted to foreign parties. See U.N. Conference on Trade & Development, *World Investment Report 2019: Special Economic Zones*, 92, U.N. Doc. UNCTAD/WIR/2019 (2019).

²¹⁸ See Gisela Grieger, *EU Framework for FDI Screening*, at 4 (Eur. Parliamentary Rsch. Serv., PE 614.667, 2019), [https://www.europarl.europa.eu/RegData/etudes/BRIE/2018/614667/EPRS_BRI\(2018\)614667_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2018/614667/EPRS_BRI(2018)614667_EN.pdf) [<https://perma.cc/54J9-N2MG>]. See generally S. T. Anwar, *FDI Regimes, Investment Screening Process, and Institutional Frameworks: China Versus Others in Global Business*, 46 J. WORLD TRADE 213 (2012) (highlighting the trend since at least since 2012).

²¹⁹ See Markus Burgstaller, *Sovereign Wealth Funds and International Investment Law*, in *EVOLUTION IN INVESTMENT TREATY LAW AND ARBITRATION* 163 (Chester Brown & Kate Miles eds., 2011) (presenting a tripartite categorization).

According to UNCTAD there are three major types of ISMs: sector-specific, cross-sectoral, and entity-specific. U.N. Conference on Trade & Development, *supra* note 217, at 93; see also Theodore H. Moran, *CFIUS and National Security: Challenges for the United States, Opportunities for the European Union* 11 (Feb. 19, 2017) (draft paper) (available at <https://www.piie.com/commentary/speeches-papers/cfius-and-national-security-challenges-united-states-opportunities> [<https://perma.cc/3D8J-TFH2>]); Karl P. Sauvant, *Driving and Countervailing Forces: A Rebalancing of National FDI Policies*, in *YEARBOOK ON INTERNATIONAL INVESTMENT LAW & POLICY* 215, 215 (Karl P. Sauvant ed., 2009). See generally Alvin G. Wint, *Liberalizing Foreign Direct Investment Regimes: The Vestigial Screen*, 20 WORLD DEV. 1515 (1992) (assessing progress made by governments in changing processes and structure of foreign investment screening).

technologies.²²⁰ The scope of review powers of the Committee of Foreign Investment in the United States (CFIUS), for example, has been extended recently to cover critical technologies,²²¹ as well as the protection of critical (physical and virtual) infrastructure.²²² Similar developments are taking place in other jurisdictions that traditionally have been open to foreign investment, such as the United Kingdom.²²³ ISMs are an effort to avert digital nationalist tendencies gone global.

ii. Domesticating Reassertion of Digital Sovereignty

Except for the efforts to restrain globalization, states are also developing strategies of globalization management that involve an effort to make use of and capitalize on—rather than repudiate—economic globalization with the introduction, for example, of domestic investment laws, special economic zones, international commercial courts, and sovereign wealth funds.²²⁴

Similar developments have been taking place in the sphere of digital globalization. Such domesticating strategies focus on enabling,²²⁵ rather than restraining, developments in the digital world with a view towards promoting cross-border digital trade, as well as attracting digital FDI to their jurisdiction. The World Economic Forum, building on the work of the United Nations Conference on Trade and Development (UNCTAD), has identified

²²⁰ U.N. Conference on Trade & Development, *World Investment Report 2018: Investment and New Industrial Policies*, 83-84 (2018) (highlighting that this trend has been taking place mostly amongst Western countries).

²²¹ Defense Production Act § 721(a)(4), § 50 U.S.C. 4565.

²²² *Id.* § 721(a)(6).

²²³ See National Security and Investment Act 2021, c. 25 (UK) <https://www.legislation.gov.uk/ukpga/2021/25/contents/enacted> [<https://perma.cc/58E6-5EGJ>] (defining seventeen defined sensitive sectors for investment screening—almost all of them being drawn from the field of new technologies, including Advanced Robotics; Artificial Intelligence; Computing Hardware; Cryptographic Authentication; Data Infrastructure; Quantum Technologies; Synthetic Biology); see also Regulation 2019/452 of the European Parliament and of the Council of 19 March 2019 on Establishing a Framework for the Screening of Foreign Direct Investments into the Union, PE/72/2018/REV/1, 2019 O.J. (L 791) 1-14; Carbis Bay G7 Summit Communiqué, *supra* note 5, ¶ 26 (establishing an Investment Screening Expert Group and reiterating that ISMs should respect the principles of open markets, transparency and competition).

²²⁴ Dimitropoulos, *supra* note 4, at 74, 92.

²²⁵ See *infra* section III.b.i.

three potential strategies for governments to attract digital FDI:²²⁶ policies enabling investment in new digital activities, such as ridesharing apps; policies enabling investment in the adoption of digital services by traditionally non-digital firms, such as telemedicine and mobile banking; policies enabling investment in digital and physical infrastructure that relates to digital technologies.

The increase in uses and value of the cryptoasset and blockchain markets has also led to a response by national governments in an effort to regulate blockchains. Regulation is largely influenced by how national regulators understand blockchain and cryptoassets. I discussed above how government intervention is often restricting.²²⁷ Other governments, or other regulators within the same jurisdiction, sometimes adopt more favorable approaches to blockchain. This is mostly the case when regulators focus on the technological aspects of blockchain rather than its transfer-of-value functions.²²⁸

Governments have adopted enabling policies in favor of cryptoassets and other blockchain applications in the private and financial markets, such as policies to promote FinTech startups.²²⁹

²²⁶ Matthew Stephenson, World Econ. F., *Digital FDI Policies, Regulations and Measures to Attract FDI in the Digital Economy*, at 8 (Sept. 2020); Matthew Stephenson, How to Attract 'Digital FDI' and Sustainable FDI for COVID-19 Recovery 2-3 (May 21, 2020) (unpublished paper) (available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3621464 [<https://perma.cc/BZ38-M7L8>]); Matthew Stephenson & Nivedita Sen, *How Digital Investments Can Help the Covid-19 Recovery*, WORLD ECON. F. (Apr. 15, 2020), <https://www.weforum.org/agenda/2020/04/covid-19-digital-foreign-direct-investment-economic-recovery/> [<https://perma.cc/Q355-BG69>] (discussing the role digital FDI can play in economic and financial recovery from the COVID-19 recession). The work of the WEF builds and expands on U.N. Conference on Trade & Development, *World Investment Report 2017: Investment and the Digital Economy* (2017).

²²⁷ *Supra* Section II.c.i.

²²⁸ See Georgios Dimitropoulos, *Global Currencies and Domestic Regulation: Embedding through Enabling?*, in REGULATING BLOCKCHAIN: TECHNO-SOCIAL AND LEGAL CHALLENGES 112, 126-27 (Philipp Hacker, Ioannis Lianos, Georgios Dimitropoulos & Stefan Eich eds., 2019).

Different regulators take different views on the legal nature of cryptocurrencies—sometimes treating them as money, sometimes treating them as commodities; see, e.g., FinCEN, *supra* note 204 (on the former approach); *In re Coinflip, Inc., d/b/a Derivabit*, and Francisco Riordan, CFTC No. 15-29, 2015 WL 5535736 (Sept. 17, 2015) (on the latter approach). The U.K. Jurisdiction Taskforce suggested that cryptoassets can be treated as property, followed by *AA v. Persons Unknown & Ors, Re: Bitcoin* [2019] EWHC (Comm) 3556, and *Toma v. Murray* [2020] EWHC (Ch) 2295.

²²⁹ See Dimitropoulos, *supra* note 228.

Financial regulators often adopt regulatory sandboxes for new financial service participants. Regulating through sandboxes means the lowering of licensing barriers for market entry, reaching sometimes to FinTech licensing exemptions.²³⁰ Regulatory sandboxes are often accompanied by the launch of innovation hubs. Their role is to help FinTech startups comply with applicable laws and regulations, including regulatory sandboxes.²³¹

Similar enabling responses may be identified in other areas of digital and crypto-globalization, such as smart contracts. Arizona has passed measures to make signatures, records, and contracts secured through blockchain technology legally valid.²³² Another piece of legislation forbids any county from prohibiting individuals from “running a node on blockchain technology in a residence.”²³³ Washington adopted a law to support digital signature verification with the use of distributed ledger technology.²³⁴ Similar measures have been adopted or are in the pipelines in many more states.²³⁵

²³⁰ Regulatory sandboxes allow businesses to test new products, services, business models, and delivery mechanisms in a more relaxed – than the ordinary – regulatory environment. See FIN. CONDUCT AUTH., REGULATORY SANDBOX, 1 (Nov. 2015), <https://www.fca.org.uk/publication/research/regulatory-sandbox.pdf> [<https://perma.cc/R6XS-UKBE>] (U.K.).

²³¹ The U.K. FCA’s “FCA Innovation,” for example, operates an Innovation Hub and a Regulatory Sandbox. See *FCA Innovation – Fintech, Regtech, and Innovative Business*, FIN. CONDUCT AUTH., <https://www.fca.org.uk/firms/innovation> [<https://perma.cc/39UR-F5WQ>].

²³² ARIZ. REV. STAT. ANN. § 44-7061 (2020); H.B. 2417, 53d Leg., 1st Reg. Sess. (Ariz. 2017) (“[A] contract relating to a transaction may not be denied legal effect, validity or enforceability solely because that contract contains a smart contract term.”).

²³³ ARIZ. REV. STAT. ANN. § 11-269.22 (2020); see also ARIZ. REV. STAT. ANN. § 13-3122 (2020); H.B. 2216, 53d Leg., 1st Reg. Sess. (Ariz. 2017).

²³⁴ S.B. 5638, 66th Leg., Reg. Sess. (Wash. 2019) (recognizing the validity of distributed ledger technology). Washington State has also taken a series of actions in the direction of recognizing cryptocurrencies. See *Bitcoin and Virtual Currency Regulation*, WASH. DEP’T OF FIN. INSTS., <https://dfi.wa.gov/bitcoin> [<https://perma.cc/NK8Y-NJMX>].

²³⁵ See Nick Chong, *Hawaiian Banks May Soon Dabble in Crypto: Lawmakers File Friendly Bill*, BLOCKONOMI, <https://blockonomi.com/hawaiian-banks-dabble-in-crypto/> [<https://perma.cc/8LHP-9GNL>] (discussing a draft bill that has been proposed in the State of Hawaii proposing to make it legal for banks to store digital assets, including “virtual currencies,” “digital securities,” and “open blockchain tokens”); JOHN MIRKOVIC, BLOCKCHAIN PILOT PROGRAM: FINAL REPORT (2017), <http://cookrecorder.com/wp-content/uploads/2016/11/Final-Report-CCRD-Blockchain-Pilot-Program-for-web.pdf> [<https://perma.cc/3957-RPYF>] (discussing efforts in Cook County, Illinois, to move towards a blockchain-based system for the transfer of real property); Pete Rizzo, *Delaware Governor Signs Blockchain Bill into Law*, COINDESK (July 24, 2017), <https://www.coindesk.com/delaware-governor->

The use of blockchain technology has already moved from the private to the public sector. Governments are using blockchain in increasingly varied ways, including for identity management and attestation and retention of government records, such as land tile registration.²³⁶ Governments in jurisdictions such as Estonia,²³⁷ Malta,²³⁸ and Dubai in the United Arab Emirates²³⁹ use blockchain as part of a broader approach to deliver government services to their citizens and beyond.

Central banks all over the world have been working on the development of retail and wholesale central bank digital currencies (CBDCs).²⁴⁰ Venezuela has developed the “Petro,” and Sweden’s Riksbank has long been exploring an “e-krona.” The PBOC, while it banned the use of cryptocurrencies in China,²⁴¹ has been developing the “digital yuan” with the goal of improving its ability to track money electronically as it changes hands, thus helping to combat money laundering and other illegal activities.

CBDCs operate in a peer-to-peer and decentralized manner and could be used to complement or substitute for physical money and become an alternative to traditional bank deposits. They are not cryptocurrencies per se; rather, they are blockchain-based fiat

signs-blockchain-legislation-law [https://perma.cc/9Y6Q-K5BH] (discussing initiatives in Delaware to allow corporations to issue shares on the blockchain).

²³⁶ See Diego Cagigas, Judith Clifton, Daniel Diaz-Fuentes & Marcos Fernandez-Gutierrez, *Blockchain for Public Services: A Systematic Literature Review*, 9 IEEE ACCESS 13904, 13916 (2021), <https://ieeexplore.ieee.org/document/9326290> [https://perma.cc/BG87-LDAD]; Silvia Semenzin, David Rozas & Samer Hassan, *Blockchain-Based Application at a Governmental Level: Disruption or Illusion? The Case of Estonia*, 41 POL’Y & SOC’Y 386 (2022).

²³⁷ Estonia was among the first countries to develop a vision for an electronic State through its E-Estonia initiative. See *We Have Built a Digital Society and We Can Show You How*, E-ESTONIA, <https://e-estonia.com/> [https://perma.cc/3BP8-L5PG].

²³⁸ In 2018, Malta introduced three legislative instruments for the promotion of new technologies, with an emphasis on distributed ledgers: Innovative Technology Arrangements and Services Act (2018); Virtual Financial Assets Act (2018); Malta Digital Innovation Authority Act (2018).

²³⁹ See Aisha Bin Bishr, *Dubai: A City Powered by Blockchain*, 12 INNOVATIONS: TECH., GOVERNANCE, GLOBALIZATION 4 (2019).

²⁴⁰ See Ashley Lannquist, *10 Ways Central Banks are Experimenting with Blockchain*, WORLD ECON. F. (Apr. 3, 2019), <https://www.weforum.org/agenda/2019/04/blockchain-distributed-ledger-technology-central-banks-10-ways-research/> [https://perma.cc/X3NF-V5RC] (on possible central bank uses of blockchain beyond CBDC).

²⁴¹ *Supra* Section II.c.i.1.

currencies—a digital form of blockchain-powered fiat money with legal tender status.²⁴²

The plans of introducing CBDCs have an explicitly international orientation. By issuing a digital currency, the PBOC, for example, hopes that the digital yuan would enable increased speed and lower costs in cross-border transactions.²⁴³

Overall, states putting in place measures in favor of domesticating sovereignty reassertion are trying to reap the benefits of crypto- and other forms of digital globalization using their own sovereign powers.

III. TOWARDS A NEW LAW AND POLITICAL ECONOMY FRAMEWORK FOR DIGITAL GLOBALIZATION

Technology is profoundly political.²⁴⁴ The above analysis highlights the insufficiency of traditional categories, theories, and frameworks of law and political economy to capture developments in the digital world. The current stage of globalization is characterized by putting the law to use to achieve different goals and objectives. The law is not defined only by the goals and values dictated by the once dominant ideologies of neoliberalism and economic globalization. This Article has identified a role for international law that in the neoliberal political economy framework would have been played by domestic law. It has also identified a role for domestic law that in this framework would have been played by international law.

This Part provides a new narrative for digital globalization based on an alternative political economy framework that sees an

²⁴² El Salvador, in a move that fascinated the crypto-world, recently adopted Bitcoin as legal tender. Tim Fries, *El Salvador Has Adopted Bitcoin as Official Legal Tender - but Will Other Countries Follow?*, WORLD ECON. F. (Sept. 30, 2021), <https://www.weforum.org/agenda/2021/09/el-salvador-officially-adopts-bitcoin-as-legal-tender-but-will-other-countries-follow/> [https://perma.cc/KNQ5-QVPW].

²⁴³ See Binance Research (Jinze & Etienne), *First Look: China's Central Bank Digital Currency: Overview of the expected characteristics from China's CBDC*, BINANCE RSCH. (Aug. 28, 2019), <https://research.binance.com/en/analysis/china-cbdc#fnref-12>, at 2.3.1. Overall, China is actively trying to back the Chinese yuan as the next international currency. Joel Slawotsky, *U.S. Financial Hegemony: The Digital Yuan and Risks of Dollar De-Weaponization*, 44 FORDHAM J. INT'L L. 39, 49 n.6, 84-87 (2020).

²⁴⁴ Winner, *supra* note 22, at 122.

equal role for domestic and international law in addressing the broader digitalization of society. This framework draws on a long line of scholarship that aims to provide an “integrated” understanding between domestic and international law beyond the dichotomies developed in the past decades.

The recent efforts towards the Cornwall Consensus confirm this integrated law and political economy framework for digital globalization. The Cornwall Consensus is a vision for a fairer international order; one that will take digital globalization into consideration and that will be more responsive to the ones in need of protection. The means to achieve these goals pass through domestic law as well as a new vision for international law.

a. An Integrated Law and Political Economy Framework

Theory of the modern state has been developed around the epistemological condition of the state of nature. The state of nature, according to Thomas Hobbes and his intellectual progeny, is a state of anarchy individuals find themselves in before forming civil society.²⁴⁵ The epistemological starting point of modern international law is anarchy, too;²⁴⁶ the “domestic analogy” has shaped international law and international relations.²⁴⁷ States find themselves in the same relationship as individuals before forming civil society—that of a constant anarchical state of war against each other. Anarchy remains the dominant paradigm in international relations.²⁴⁸ States must ultimately rely upon their resources for

²⁴⁵ HOBBS, *supra* note 66, at 151-75.

²⁴⁶ G. LOWES DICKINSON, *THE INTERNATIONAL ANARCHY* 15 (1926); *see also* KENNETH WALTZ, *THEORY OF INTERNATIONAL POLITICS* (1979) (popularizing the term in international relations scholarship).

²⁴⁷ Hedley Bull, *Society and Anarchy in International Relations*, in *INTERNATIONAL THEORY: CRITICAL INVESTIGATIONS* 75, 75 (James Der Derian eds., Palgrave Macmillan, London, 1995).

²⁴⁸ Anarchy provides the foundation and starting point for all contemporary theories of international relations—realism, liberalism, neorealism, and neoliberalism. *See generally* Helen Milner, *The Assumption of Anarchy in International Relations Theory: A Critique*, 17 *REV. INT’L STUD.* 67 (1991) (exploring anarchy in international relations).

survival.²⁴⁹ In international legal scholarship, anarchy does not have to lead to chaos; chaos is not a final condition but a constant risk.²⁵⁰

The starting point of anarchy has given rise to different traditions of international law and international relations, as well as traditions on the relationship between domestic and international law. International relations scholar Hedley Bull has identified three patterns of thought in the history of the system of modern states.²⁵¹ Bull's classification is based on the perceived role of the state in international ordering; morality and law play different roles in the three different patterns.

A Hobbesian or realist tradition lies at the one end of the continuum. In this tradition, international politics is seen as a constant state of war of all against all. International politics is a zero-sum game; the interests of one state exclude the interests of the others. The law itself has little to say except maybe for certain limited "rules of prudence or expediency."²⁵²

The Grotian or internationalist tradition stands in the middle of this continuum of theories of international relations. This tradition sees international politics as taking place within a society of states: the international society.²⁵³ While accepting the original premise of the Hobbesian pattern that international politics is made by states, it does not accept that states are continuously at war; instead, states are limited in their conflicts by common rules and institutions. Coexistence and cooperation in the society of states are predicated upon common "imperatives of morality and law" within a framework of common rules and institutions.²⁵⁴ The idea of organized cooperation lies between the two extremes of the complete absence of international organized collaboration, which is the premise of the first pattern, and the desire for world government, which is suggested by the third pattern of thought.²⁵⁵

²⁴⁹ WALTZ, *supra* note 246, at 102.

²⁵⁰ See Robert O. Keohane, *Institutional Theory and the Realist Challenge after Cold War*, in NEOREALISM AND NEOLIBERALISM: THE CONTEMPORARY DEBATE 269, 283 (David A. Baldwin ed., 1993) (discussing uncertainty as a characteristic feature of international affairs).

²⁵¹ HEDLEY BULL, *THE ANARCHICAL SOCIETY: A STUDY OF ORDER IN WORLD POLITICS* 23-26 (2d ed. 1995).

²⁵² *Id.* at 24.

²⁵³ *Id.* at 25.

²⁵⁴ *Id.* at 25-26.

²⁵⁵ See MAZOWER, *supra* note 94, at xiii.

On the other end of the spectrum, a Kantian or cosmopolitan tradition puts forward the idea of all-encompassing cosmopolitanism based on federation.²⁵⁶ This pattern focuses on “trans-national social bonds that link individuals as human beings.”²⁵⁷ It highlights a community of all men as a descriptive and normative category in international relations. This community has the potential to subsume the system of states into a community of humankind beyond interstate relationships. It also highlights the cooperative dimensions of international politics and the significance of law and international morality. International law and morality will eventually lead to the formation of a cosmopolitan society as a community of mankind.²⁵⁸

This typology is now heavily contested by international relations and international legal scholars.²⁵⁹ Recent work on Hobbes shows that the English political philosopher was not a Hobbesian in the way presented by Bull or otherwise commonly understood in international relations theory.²⁶⁰ Hobbes has been, instead, reinterpreted as a theorist of international order – the first theorist of a different line of thought in international political economy and international relations and law.²⁶¹ This line of thought has been

²⁵⁶ Cosmopolitan legal theory, arguably founded on Kant’s philosophy, is contrasted to “Hobbesian realism.” See, e.g., Jürgen Habermas, *A Political Constitution for the Pluralist World Society?*, 34 J. CHINESE PHIL. 331-42 (2007); see ARAVIND GANESH, *RIGHTFUL RELATIONS WITH DISTANT STRANGERS: KANT, THE EU, AND THE WIDER WORLD* (2021).

²⁵⁷ BULL, *supra* note 251, at 24.

²⁵⁸ *Id.* at 25.

²⁵⁹ See EDWARD KEENE, *BEYOND THE ANARCHICAL SOCIETY: GROTIUS, COLONIALISM AND ORDER IN WORLD POLITICS* 12-39 (2002) (describing the weaknesses of Bull’s position; according to Keene, Bull codified the mainstream dogma of the time while making it easier for contemporary theories to use these three theories as their starting point).

²⁶⁰ See Richard Tuck, *The “Modern” Theory of Natural Law, in THE LANGUAGES OF POLITICAL THEORY IN EARLY-MODERN EUROPE* 99, 99-119 (Anthony Pagden ed., 1987) (discussing the relation between Pufendorf, Hobbes, Grotius and Suárez); see also RICHARD TUCK, *PHILOSOPHY AND GOVERNMENT 1572-651* (1993) (discussing Hobbes’ early philosophy).

²⁶¹ See ISTVAN HONT, *POLITICS IN COMMERCIAL SOCIETY: JEAN-JACQUES ROUSSEAU AND ADAM SMITH* 5-8 (Béla Kapossy & Michael Sonenscher eds., 2015) (describing Hobbes’ theory on commercial sociability); see also David Singh Grewal, *The Domestic Analogy Revisited: Hobbes on International Order*, 125 YALE L.J. 620, 663-80 (2016) (transposing similar ideas onto international legal theory).

handed over to such political theorists as Jean Jacques Rousseau and Immanuel Kant.²⁶²

The idea of perpetual peace dominated eighteenth century perceptions on how states would exit the state of nature and the condition of anarchy.²⁶³ Kant had a deterministic approach to international politics which suggested that perpetual peace would eventually prevail around the world.²⁶⁴ A world state was not such a solution for the Prussian philosopher.²⁶⁵ The first and foremost step towards perpetual peace is state formation—the gradual transformation of European states into constitutional republics.²⁶⁶ This translates legally into developing domestic legal regimes showcasing respect for their citizens and granting them further civil liberties and rights.

At the same time, anarchy has a positive function for Kant. Republican transformation could only occur if the European states of his time were pressured by the threat and external fear of war. International anarchy may thus provide the necessary impetus to reform domestic politics and the law.²⁶⁷ Domestic law, in this approach, forms an important layer of international order; it is only through domestic law that peace can be achieved. The same may be said about the relationship between domestic law and foreign commerce.

With the constitution of the modern state and the rise of commercial societies,²⁶⁸ commerce became, according to David Hume, an “affair of state.”²⁶⁹ Yet another area where the rivalry among sovereigns came to expression in the Hobbesian state of

²⁶² RICHARD TUCK, *THE RIGHTS OF WAR AND PEACE: POLITICAL THOUGHT AND THE INTERNATIONAL ORDER FROM GROTIUS TO KANT* 109-39 (Oxford Univ. Press 1999).

²⁶³ See generally, IMMANUEL KANT, *PERPETUAL PEACE: A PHILOSOPHICAL ESSAY* (M. Campbell Smith trans., 1795) (describing the elements required for achieving international peace).

²⁶⁴ *Id.*

²⁶⁵ A world state would be a “soulless despotism,” ungovernable and eventually leading back to square one of international relations: anarchy. *Id.* at 155-56.

²⁶⁶ *Id.* at 120-28.

²⁶⁷ Immanuel Kant, *Idea for a Universal History with a Cosmopolitan Purpose*, in *KANT'S POLITICAL WRITINGS* 41, 50 (Hans Reiss ed., H. B. Nisbet trans., 1970).

²⁶⁸ ADAM SMITH, *AN INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS* 22 (Edwin Cannan ed., 1937).

²⁶⁹ David Hume, *Of Civil Liberty* (1741), in *ESSAYS: MORAL, POLITICAL, AND LITERARY* 87, 88 (Eugene Miller, rev. ed., Indianapolis, Ind: Liberty Classics 1987).

war;²⁷⁰ economic war was added to political rivalry.²⁷¹ “Jealousy of trade” became the equivalent of the anarchical condition in the international economy.²⁷² Some scholars thus saw the modern system of states as largely incompatible with international trade,²⁷³ yet others saw that international commerce would eventually pacify states in their interaction.²⁷⁴

Kant’s position was somewhere in the middle. Kant was generally favorably predisposed towards international commerce;²⁷⁵ abuses of the spirit of commerce, and the severe countermeasures that might be used to address them, would still not prevent the expansion of commerce around the globe.²⁷⁶ Commercial interests would encourage states to promote peace since trade brings profits, which are in the mutual interest of all states, and peace is more welcoming to trade than war. Promoting peace requires negotiations, which means international interaction. Instead of the jealousy of trade, the “spirit of commerce” as expressed in economic and commercial interests would have the result of pacifying relations among European states, as well as

²⁷⁰ See *id.* at 88-89.

²⁷¹ Istvan Hont, *The Political Economy of the ‘Unnatural and Retrograde’ Order: Adam Smith and Natural Liberty*, in *FRANZÖSISCHE REVOLUTION UND POLITISCHE ÖKONOMIE [FRENCH REVOLUTION AND POLITICAL ECONOMY]* 122, 122-49 (Maxine Berged., 1989); cf. ADAM SMITH, *AN INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS* 82-83 (London: A. Strahan and T. Cadell, 1776).

²⁷² David Hume, *Of the Jealousy of Trade* (1758), in *ESSAYS: MORAL, POLITICAL, AND LITERARY* 327, 327-31 (Eugene Miller ed., Indianapolis, Ind: Liberty Classics rev. ed. 1987); see also ISTVAN HONT, *JEALOUSY OF TRADE: INTERNATIONAL COMPETITION AND THE NATION-STATE IN HISTORICAL PERSPECTIVE* 390 (2006); *COMMERCE AND PEACE IN THE ENLIGHTENMENT* (Béla Kapossy, Isaac Nakhimovsky, Sophus A. Reinert & Richard Whatmore eds., 2017); *MARKETS, MORALS, POLITICS: JEALOUSY OF TRADE AND THE HISTORY OF POLITICAL THOUGHT* (Béla Kapossy, Isaac Nakhimovsky, Sophus A. Reinert & Richard Whatmore eds., 2018) (discussing the notion of “jealousy of trade” in different historical and political contexts).

²⁷³ See JOHANN GOTTLIEB FICHTE, *THE CLOSED COMMERCIAL STATE* 106-07, 117-18 (Anthony Curtis Adler trans., CUNY Press 2013). See generally, ISAAC NAKHIMOVSKI, *THE CLOSED COMMERCIAL STATE: PERPETUAL PEACE AND COMMERCIAL SOCIETY FROM ROUSSEAU TO FICHTE* 63-98 (2011) (elaborating on Fichte’s theory).

²⁷⁴ ALBERT O. HIRSCHMAN, *THE PASSIONS AND THE INTERESTS: POLITICAL ARGUMENTS FOR CAPITALISM BEFORE ITS TRIUMPH* 61-63 (3d ed. 2013) (discussing eighteenth-century *doux commerce* theories, which held that commercial exchange was pacifying and civilizing. *Doux commerce* was espoused among others by Baron De Montesquieu, David Hume, and Adam Smith).

²⁷⁵ Samuel Fleischacker, *Values Behind the Market: Kant’s Response to the Wealth of Nations*, 17 *HIST. POL. THOUGHT* 379, 379 (1996).

²⁷⁶ KANT, *supra* note 263, at 112, art. 4 (explaining the role of credit in foreign affairs).

between them and polities in the other continents.²⁷⁷ While war would set in motion the gradual transformation of European states into republics, commerce would act as the means of allowing the development of human relations into a cosmopolitan order.²⁷⁸ Eventually for Kant, the connections developed by commerce made it possible to imagine the further transformation of an international community through law.²⁷⁹

The above discussion reveals a more nuanced picture of Kant than “Kantianism” as understood in classic international relations theory.²⁸⁰ Kant’s perception of the relationship between international and domestic law suggests that the gradual republican transformation of states would increasingly exclude violence and anarchy altogether. Perpetual peace and cosmopolitan unification pass through domestic law.²⁸¹

While favoring cosmopolitan ideals such as perpetual peace and cosmopolitan purpose, Kant was not necessarily in favor of institutionalizing these same ideas, at least at the international level. In the economic sphere, while international commerce might be essential to achieve economic prosperity and perpetual peace, the means to achieve these goals would have to pass through domestic law. The failure to make this distinction between values and principles on the one side and institutions on the other is largely responsible for how this line of political economy has been misunderstood in contemporary scholarship.

This strand of international political economy boldly imagined an international law based on international principles and values – an international law that was not necessarily reflected in positive international law or international institutions. This was, in fact, according to Hedley Bull, how the law of nations was understood

²⁷⁷ See *id.* at 157

²⁷⁸ *Id.* at 139; see also NAKHIMOVSKI, *supra* note 273, at 66-67.

²⁷⁹ KANT, *supra* note 263, at 139, 142 (explaining the relation between “far distant territories”).

²⁸⁰ See Hersch Lauterpacht, *Sovereignty and Federation in International Law*, in 3 INTERNATIONAL LAW: COLLECTED PAPERS 19, 25 (E. Lauterpacht ed., 1977) (“When in 1795 Kant formulated the articles of a federation of peoples for the mutual guarantee of independence and the preservation of peace, he regarded it as essential that the member States should possess a democratic constitution However, the federation of Kant was not a federal State; it was a confederation, presupposing the continued existence of sovereign States.”).

²⁸¹ Nakhimovski, *supra* note 273, at 106 (discussing Fichte and currency regulations).

even in the Grotian tradition²⁸² and before the era that David Kennedy has identified as the “era of international institutions” in international law.²⁸³

Kant also identified another two layers of public law besides international law: constitutional law and cosmopolitan law.²⁸⁴ Kant held the view that was becoming prevalent in his time that international law was the law regulating interactions among states. At the same time, he placed great emphasis on cosmopolitan law as a body of law concerned with the status of individuals as human beings as opposed to individuals as citizens of a state, as well as the status of individuals in their exchanges with states of which they were not citizens. In this cosmopolitan law, “individuals and states, standing in an external relation of mutual reaction, may be regarded as citizens of one world-state. . . .”²⁸⁵ The main difference between international law and cosmopolitan law is their addressees:²⁸⁶ while international law is the law regulating the relationship between states, cosmopolitan law regulates the relationship between individuals and states. In Kant’s classification, “citizens of the world” possess cosmopolitan rights independent of their nationality.²⁸⁷

Kant was vague about the potential institutionalization of cosmopolitan law.²⁸⁸ In this line of political economy, cosmopolitan goals, values, and principles transcend international society independent of the ways in which they may materialize and be pursued organizationally and institutionally. The focus is on universalist values without necessarily mandating the means through which they may be institutionalized. Perpetual peace and a cosmopolitan order can be achieved without an international law in the contemporary sense. International institutions may be a complementary but not a necessary condition for peaceful coexistence of nations.

²⁸² BULL, *supra* note 251, at 30.

²⁸³ David Kennedy, *The Move to Institutions*, 8 CARDOZO L. REV. 841, 842 (1987).

²⁸⁴ Cosmopolitan law appears in the third definitive article of Perpetual Peace. KANT, *supra* note 263.

²⁸⁵ *Id.* at 119.

²⁸⁶ Pauline Kleingeld, *Kant’s Cosmopolitan Law: World Citizenship for a Global Order*, 2 KANTIAN REV. 72, 74 (1998).

²⁸⁷ IMMANUEL KANT, *THE METAPHYSICS OF MORALS* 6:353-354 (Lara Denis ed., Mary Gregor trans., 2017). The “right to hospitality” is the most important cosmopolitan right. KANT, *supra* note 263, at 138-39.

²⁸⁸ Kleingeld, *supra* note 286, at 81.

Domestic law may instead contribute to the realization of international legal principles and values. Ultimately, what matters is the “proper” republican constitution of states. The difference between international and cosmopolitan law also lies in the sources of the two bodies of law. International values can also be guaranteed via domestic law and institutions.²⁸⁹

This alternative vision of an integrated law and political economy framework that is now resurfacing with digital globalization confirms the empirical observations made above.²⁹⁰ This framework confirms that one layer of law may perform more than one function; there are no assigned functions to the different layers of law. Domestic law may perform “international” functions, and international law may perform “domestic” functions. The recent efforts towards the Cornwall Consensus confirm this integrated law and political economy framework as a paradigm for the structuring of the international order and its digital variants.

The final section of this Article turns to a discussion of the Cornwall Consensus and the new international (digital) order it envisages.

b. The Cornwall Consensus: Towards a New Digital Order

Many of the assumptions that have helped give rise to our understanding of the relationship between society and new technologies are flawed or exaggerated.²⁹¹ For example, the main tenet of theories of techno-globalism is the disappearance of the state.²⁹² In reality, neither the origin of new technologies has always been global,²⁹³ nor the envisaged outcome been the elimination of

²⁸⁹ See Patrick Capps & Julian Rivers, *Kant's Concept of International Law*, 16 LEGAL THEORY 229, 230 (2010) (“[P]roperly constituted states through their collective actions could perform the administrative functions of the international legal order.”).

²⁹⁰ See *supra* Part II.

²⁹¹ But see ARNOLD PACEY, TECHNOLOGY IN WORLD CIVILIZATION: A THOUSAND-YEAR HISTORY (1990) (discussing the impact of technology on government, military, and other kinds of organizations). See generally DAVID EDGERTON, THE SHOCK OF THE OLD: TECHNOLOGY AND GLOBAL HISTORY SINCE 1900 (suggesting that most of the standard assumptions about technology upon which studies of technology and global history are founded are flawed).

²⁹² Edgerton, *supra* note 37, at 10-11.

²⁹³ See generally MARIANA MAZZUCATO, THE ENTREPRENEURIAL STATE: DEBUNKING PUBLIC VS. PRIVATE SECTOR (2013) (discussing the pivotal role of the state

the state.²⁹⁴ Moreover, while techno-globalism has propagated the liberation of society from the political constraints of the state, new technologies have often resulted in centralization and hierarchical control rather than liberation of individuals and society.²⁹⁵ The same indeterminacies shape the assumptions at the other end of the continuum. The notion of “national technology” is largely inaccurate, especially in times of crisis. For example, in autocratic and nationalistic periods, it is the national technologies of autocracy that are quick to internationalize.²⁹⁶

The emerging Cornwall Consensus under the auspices of the G7 brings digital technologies and digital globalization to the center stage of the contemporary international order. Cornwall envisages a new social contract for digital technologies.²⁹⁷ It imagines a relationship between the law and the digital world that will be largely different from the relationship between law and economic globalization as was developed during the twentieth century. Cornwall does not envisage a universalist digital globalization. It aims instead at reclaiming digital naturalism through a process of devolution. International law is also to take a new shape in the digital sphere and beyond: that of plurilateralism.

i. Digital Devolution

To address the challenges posed by economic globalization and neoliberalism, states have turned to more political international fora such as the G7 and the Group of 20 (G20), and beyond.²⁹⁸ The G7 has

in furthering innovation and entrepreneurship); MARIANA MAZZUCATO, *THE VALUE OF EVERYTHING: MAKING AND TAKING IN THE GLOBAL ECONOMY* (2018) (claiming that the world’s major economic advances—including railways, automobiles, pharmaceutical, as well as contemporary technological innovations—are the result of state-driven innovation).

²⁹⁴ See Edgerton, *supra* note 37, at 13 (detailing the military origins of radio, and its connection to national power); *id.* at 14 (discussing the impact of the state system on the innovation of various weapons, aviation, and telecommunications).

²⁹⁵ Winner, *supra* note 22, at 132; see also Andrea Kendall-Taylor, Erica Frantz & Joseph Wright, *The Digital Dictators: How Technology Strengthens Autocracy*, 99 *FOREIGN AFFS.* 103, 104 (2020) (discussing “digital autocracies”).

²⁹⁶ Edgerton, *supra* note 37, at 18.

²⁹⁷ See *supra* text accompanying notes 9 and 11.

²⁹⁸ The United States and the European Union announced in September 2021, for example, the establishment of a new EU-US Trade and Technology Council. See European Commission Press Release Statement/21/4951, EU-US Trade and Technology Council Inaugural Joint Statement (Sept. 29, 2021).

formed a Panel on Economic Resilience that recently came up with some key policy recommendations to strengthen collective economic resilience.²⁹⁹ Building on the work of the Panel, the G7 leaders issued in June 2021 the Carbis Bay G7 Summit Communiqué titled “Our Shared Agenda for Global Action to Build Back Better.”

The result of this process was the Cornwall Consensus, taking its name after the location where the G7 meeting took place. The Cornwall Consensus mimics in its title the Washington Consensus, the constitution of the neoliberal world order.³⁰⁰ G7 leaders hoped that Cornwall will replace the Washington Consensus as the constitution of a post-financial crisis and post-pandemic world. Cornwall’s goal is to achieve “a new consensus and restore public trust in a rules-based, free, fair and open economic system.”³⁰¹ The Consensus builds on traditional notions of international ordering favoring a “rules-based world order.” Free trade should remain one of the main pillars of this order.³⁰² Multilateralism—both multilateral agreements as well as multilateral dispute settlement, such as before the WTO—remain important in the new world envisaged by Cornwall.

Economic globalization demanded that trade and investment be regulated at the international level by institutions created by multilateral and other international agreements. As discussed above,³⁰³ domestic law during the years of economic globalization was largely seen as unimportant or sometimes inhibitive of the international order, and international law.

The Cornwall Consensus offers a different vision of international ordering in the post-Washington Consensus world. Domestic and international rules are given equal weight in a future vision of better global governance aimed at economic resilience.³⁰⁴ International ordering envisaged by Cornwall passes through domestic law. The

²⁹⁹ See generally G7 PANEL ON ECON. RESILIENCE, KEY POL’Y RECOMMENDATIONS, *supra* note 5 (outlining interventions the G7 is taking to meet collective challenges).

³⁰⁰ Williamson, *supra* note 11. The Bretton Woods institutions and IIAs such as BITs reinforced the Washington Consensus and requested from the South and East to engage in free trade and investment. See, e.g., Chantal Thomas & Joel P. Trachtman, *Editors’ Introduction*, in DEVELOPING COUNTRIES IN THE WTO LEGAL SYSTEM 1, 9-10 (Chantal Thomas & Joel P. Trachtman eds., 2009); SONIA E. ROLLAND, DEVELOPMENT AT THE WORLD TRADE ORGANIZATION 51-52 (2012).

³⁰¹ CORNWALL CONSENSUS, *supra* note 5, at 1.

³⁰² See Carbis Bay G7 Summit Communiqué, *supra* note 5, ¶¶ 27-36.

³⁰³ *Supra* Section I.b.

³⁰⁴ CORNWALL CONSENSUS, *supra* note 5, at 2.

starting point of the consensus is domestic law.³⁰⁵ Cornwall aims to “build back the State.”³⁰⁶

The new consensus also recognizes the important place of digital technologies and digital globalization. It acknowledges both their societally significant potential as well as their risks for contemporary societies.³⁰⁷ Cyberspace, for example, is recognized as a future frontier.³⁰⁸ The digital sphere is elevated to the status of one of the four themes central to economic resilience – alongside health, trade and climate.³⁰⁹

Cornwall imagines thus a devolved digital order. The digital devolution propelled by Cornwall must be seen in the light of the above discussed integrated political economy. While some domestic measures may be suggesting a move away from international law as developed during the years of economic globalization, almost all of them take place in an environment of broader acceptance of international principles and values. Domesticating reassertion of digital sovereignty is an effort by some governments to make use of domestic law and policies to achieve results that in a globalized world would have been pursued through the means of international law.³¹⁰ Domestic policies and measures adopted under the mode of domesticating reassertion of sovereignty are especially indicative of a furtherance of international or cosmopolitan principles and values rather than a repudiation thereof.³¹¹

Overall, while using domestic law, Cornwall reaffirms the commitment of countries to the main principles and values of international law in the digital sphere.

³⁰⁵ *Id.* at 1 (“[E]conomic resilience starts at home and primarily owes itself to sound, inclusive and sustainable domestic policies . . .”).

³⁰⁶ See generally Mazzucato, *supra* note 8 (detailing the need for strengthening public sector capabilities to tackle challenges).

³⁰⁷ Cyber-space is for example recognized as a future frontier. Carbis Bay G7 Summit Communiqué, *supra* note 5, ¶ 31.

³⁰⁸ *Id.* ¶ 31.

³⁰⁹ G7 PANEL ON ECON. RESILIENCE, KEY POL’Y RECOMMENDATIONS, *supra* note 5, at 1.

³¹⁰ Scholars have highlighted the more “enabling” nature of the law in its interaction with technology. Sheila Jasanoff, for example, has explained that “[t]he law today not only interprets the social impacts of science and technology but also constructs the very environment in which science and technology come to have meaning, utility, and force.” SHEILA JASANOFF, SCIENCE AT THE BAR: LAW, SCIENCE, AND TECHNOLOGY IN AMERICA 16 (1997); see also Georgios Dimitropoulos, *supra* note 228, at 115.

³¹¹ One could remark this represents a “Kantian moment” in domestic law. See *supra* Section III.a.

ii. Digital Plurilateralism

Cornwall does not put forward efficiency as the constitutive principle of the digital order. It asserts instead that bridging the digital divide and “promoting digital literacy worldwide” should be understood as one of the greatest challenges in the future for humanity.³¹² The consensus also invites states to regulate digital globalization considering the interests of the states, as well as “all parts of . . . countries,” and “all peoples across the globe, especially the poor.”³¹³

While affirming free trade, the G7 leaders make a commitment to a fairer international order, one that will be based on the principle of equality of opportunities for all individuals and support for the poor.³¹⁴ The same is true for investment. While economic and financial recovery in the post-COVID world must be “investment-led,” investment should be made in such a way as to become “more inclusive.”³¹⁵

Even before the current influx of domestic measures for the regulation of digital globalization, most states had taken up the challenge of addressing the issues arising out of digital globalization and the rise of the digital economy with new RTAs and other forms of PTAs.³¹⁶ Cornwall does not necessarily deny the central role of PTAs in the post-neoliberal world order.³¹⁷ Its hope though is that international multi-state coordination and cooperation will take place within multilateral institutions such as the WTO.

³¹² Carbis Bay G7 Summit Communiqué, *supra* note 5, ¶ 32; *see also* U.N. Conference on Trade & Development, *supra* note 226, at 189-210; Aaronson & Leblond, *supra* note 126, at 269 (focusing on digital divides across states, in the US, the EU, and China, on the one side, and the rest of the international community, on the other).

³¹³ Carbis Bay G7 Summit Communiqué, *supra* note 5, ¶ 27.

³¹⁴ *See id.* ¶ 27.

³¹⁵ *See* G7 PANEL ON ECON. RESILIENCE, KEY POL'Y RECOMMENDATIONS, *supra* note 5, at 7.

³¹⁶ *See supra* Section I.b.ii.

³¹⁷ During the era of economic globalization, regionalism has been seen by some as a threat to the integrity of multilateralism and the multilateral trading system (the “spaghetti bowl effect”), while for others regionalism is yet another step toward multilateralism (the “domino effect”). *Compare* JAGDISH BHAGWATI, TERMITES IN THE TRADING SYSTEM 61-71 (2008), *with* Richard Baldwin, *A Domino Theory of Regionalism*, in *EXPANDING MEMBERSHIP OF THE EUROPEAN UNION* 25, 33-36 (Richard Baldwin, Pertti Haaparanta & Jaakko Kiander eds., 1995).

Cornwall thus generally affirms multilateralism. It still envisages a break with the WTO's single-undertaking approach.³¹⁸ The consensus aspires instead to a more flexible WTO and overall multilateral legal order that will allow a broader use of plurilateralism.³¹⁹ Plurilaterals have a long, yet sometimes forgotten, history in the international trade regime.³²⁰ The Multi-Party Interim Appeal Arbitration Arrangement (MPIA) is only the most prominent instantiation of a rich history of plurilaterals.³²¹ Their value-proposition as more generalized instruments of international law is now being explored in academia,³²² as well as

³¹⁸ Marrakesh Agreement Establishing the World Trade Organization, at art. II.2, Apr. 15, 1994, 1867 U.N.T.S. 154.

³¹⁹ Carbis Bay G7 Summit Communiqué, *supra* note 5, ¶ 28.

³²⁰ Meredith Kolsky Lewis, *The Origins of Plurilateralism in International Trade Law*, 20 J. WORLD INV. & TRADE 633, 635 (2021).

³²¹ See generally Multi-Party Interim Appeal Arbitration Arrangement (MPIA), GENEVA TRADE PLATFORM, https://wtoplurilaterals.info/plural_initiative/the-mpia/ [<https://perma.cc/3Z65-UBN5>] (discussing the creation and current status of MPIA).

³²² See generally Bernard M. Hoekman & Petros Mavroidis, *WTO 'à la carte' or 'menu du jour'? Assessing the Case for More Plurilateral Agreements*, 26 EUR. J. INT'L L. 319, 324 (2015) (discussing potential uses for plurilateral agreements); Meredith Kolsky Lewis, *Mega-FTAs & Plurilateral Trade Agreements: Implications for the Asia-Pacific*, in PARADIGM SHIFT IN INTERNATIONAL ECONOMIC LAW RULE-MAKING 419, 419 (Julien Chaisse, Henry Gao & Chang-fa Lo eds., 2017) (discussing different approaches to plurilateral agreements); Bernard M. Hoekman & Charles Sabel, *Open Plurilateral Agreements, International Regulatory Cooperation and the WTO*, 10 GLOB. POL'Y 297, 297 (2019) (discussing open plurilateral agreements); Bernard M. Hoekman, *Urgent and Important: Improving WTO Performance by Revisiting Working Practices*, 53 J. WORLD TRADE 373, 373-76 (2019) (discussing the potential role of plurilaterals in WTO reform); Bernard Hoekman & Charles F. Sabel, *In a World of Value Chains: What Space for Regulatory Coherence and Cooperation in Trade Agreements*, in MEGAREGULATION CONTESTED, *supra* note 159, at 217 (discussing countries' greater focus on plurilateral agreements).

policymaking.³²³ Cornwall's vision is that PTAs will eventually transform into plurilaterals.³²⁴

The consensus also gives guidance on the areas to be developed under the revamped and more plurilateral WTO framework. Digital technologies and e-commerce have the center stage again.³²⁵ Some of the most prominent plurilaterals have historically been developed and adopted in new technologies, notably the Information Technology Agreement (ITA) and the Agreement on Basic Telecommunications (ABT). The WTO established a work program on e-commerce in 1998. This has delivered limited results so far; above all, it has maintained a moratorium on customs duties on electronic transmissions.³²⁶ The stalemate was to some extent overcome during the 11th WTO Ministerial Conference in Buenos Aires in December 2017 with the Joint Initiative on E-Commerce, alongside other initiatives. The e-commerce negotiations were taken up again in the beginning of 2019, and more than eighty members, including the United States and the European Union, are currently negotiating on a plurilateral basis an agreement on e-commerce within the WTO.³²⁷

³²³ See CORNWALL CONSENSUS, *supra* note 5; see also Axel Berger, Clara Brandi, Manfred Elsig, Anwarul Hoda & Xinquan Tu, *Improving Key Functions of the World Trade Organization: Fostering Open Plurilaterals, Regime Management, & Decision-Making*, T20 POLICY BRIEF (Nov. 20, 2020), https://www.g20-insights.org/policy_briefs/improving-key-functions-of-the-world-trade-organization-fostering-open-plurilaterals-regime-management-and-decision-making/ [https://perma.cc/T4P3-CE7B] (differentiating between “closed” and “open plurilaterals”); Peter Draper & Memory Dube, *Plurilaterals and the Multilateral Trading System*, E15 INITIATIVE (Nov. 20, 2020), <https://e15initiative.org/publications/plurilaterals-and-the-multilateral-trading-system> [https://perma.cc/96WN-DBZL].

³²⁴ See Meredith Kolsky Lewis, *Plurilateral Trade Negotiations: Supplanting or Supplementing the Multilateral Trading System?*, ASIL INSIGHTS (July 12, 2013), <https://www.asil.org/insights/volume/17/issue/17/plurilateral-trade-negotiations-supplanting-or-supplementing> [https://perma.cc/Q95L-LU3Q] (discussing the advantages and disadvantages of plurilateralism from the point of view of whether it promotes or obstructs multilateralism).

³²⁵ See Carbis Bay G7 Summit Communiqué, *supra* note 5, ¶ 32.

³²⁶ World Trade Organization, Ministerial Declaration of 20 May 1998, WTO Doc. WT/MIN(98)/DEC/2, 37 ILM 1248 (1998) (regarding the initial agreement on the moratorium); World Trade Organization, Ministerial Declaration of 17 Dec. 2011, WTO Doc. WT/L/843 (regarding its extension).

³²⁷ World Trade Organization, *Joint Statement on Electronic Commerce*, Committee of 25 Jan. 2019 WTO Doc. WT/L/1056 (Jan. 25, 2019); *Joint Initiative on E-commerce*, E-COMMERCE (Nov. 20, 2020), https://www.wto.org/english/tratop_e/ecom_e/joint_statement_e.htm [https://perma.cc/39NV-T656] (including information and historical background on the e-commerce initiative); Ines Willems, *Agreement Forthcoming? A*

In the framework of an integrated political economy, plurilateral agreements have the potential to structure multi-party international collaboration that would take into account the interests of the individual states while at the same time remaining open for other countries to join after they have been established by a core group.³²⁸ “Digital plurilateralism” is a compromise between a past based on multilateralism and the fear of a future of fragmented digital jurisdictions—a future of an integrated global digital order, where domestic and international law will have an equal share in the regulation of the digital world.³²⁹

CONCLUSION

This Article provides an alternative narrative for regulating digital globalization based on an integrated law and political economy framework. This framework sees an equal role for domestic and international law in dealing with universal phenomena such as digital globalization and the broader digitalization of society. The move to domestic law does not necessarily signify a trend for most states to isolate themselves from other states and the international economy. It is rather often an effort to achieve international goals while exercising more control over the types and means of digital globalization. This process is rather more broadly akin to a different version of an international political

Comparison of EU, US, and Chinese RTAs in Times of Plurilateral E-Commerce Negotiations, 23 J. INT’L ECON. L. 221, 221-30 (2020) (comparing domestic, regional and plurilateral approaches to the regulation of e-commerce); Asif Khan, Muhammad Abid Hussain Shah Jillani, Ahmed Arafa Abdelrehim Hammad & Nishan Soomro, *Plurilateral Negotiation of WTO E-commerce in the Context of Digital Economy: Recent Issues and Developments*, 26 J.L. & POL. SCI. 28, 28-31 (2021) (focusing on data localization, source code and algorithm regulation in e-commerce negotiations); see also Burri, *supra* note 115 (discussing ways in which this sort of plurilateralism can be achieved).

³²⁸ See Hoekman, *supra* note 322, at 386, 389.

³²⁹ Georgios Dimitropoulos, *Digital Plurilateralism: Towards Unilateral Multilateralism in International Economic Law?*, (Nov. 2022) (unpublished manuscript) (on file with author). The Indo-Pacific Economic Framework for Prosperity (IPEF) launched in spring 2022 confirms these developments. Its first—out of four—pillar is dedicated to future collaboration in digital trade. See Press Release, White House: Briefing Room, Statement on Indo-Pacific Economic Framework for Prosperity (May 23, 2022), <https://www.whitehouse.gov/briefing-room/statements-releases/2022/05/23/statement-on-indo-pacific-economic-framework-for-prosperity/> [https://perma.cc/2VLD-CXND].

economy compared to the one dominant during neoliberalism and economic globalization. The emerging Cornwall Consensus embodies these transformations in an integrated political economy for digital globalization.