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Chapter 7

Networks, Standards, and Transnational Governance Institutions

“The Net interprets censorship as damage and routes around it.”
-- John Gilmore, Interview, Time Magazine

The story of law’s reoptimization to the demands of the informational economy is not just about the reconfiguration of old, familiar legal institutions but also about the emergence and configuration of new ones. Over the last half century, institutions for transnational governance have multiplied. The landscape of world trade agreements and enforcement processes has grown increasingly complex. New structures for transnational regulation of economic activity have emerged that seem to operate according to their own rules in ways influenced by states but not controlled by them. Other new institutions, created to govern the internet and its constituent protocols and processes, do not operate based on state representation at all.

Each set of transnational processes has met perceived needs arising from the ongoing transformation of the global political economy, and each set of processes also has accelerated that transformation. Their successes and failures and half-completed projects reflect themes that will have become familiar to readers of this book: the importance of global flows of resources and corresponding logics of extractive privilege; the increasingly insistent assertion of logics of interdiction directed at particular, assertedly dangerous flows and the countervailing, equally insistent assertion of logics of platform immunity; the emergence of highly informationalized, managerial techniques and strategies for coordinating global flows; and contestation over the design of institutions for rendering such flows accountable.

This chapter juxtaposes the various governance processes and treats them explicitly as iterations of a new—or, more precisely, emergent—networked legal-institutional form. Although the new institutions differ from each other in many ways, they share a common structure: they are organized as networks constituted around legally or practically mandated standards. And the role of standards within those arrangements is both vitally important and especially easy for legal scholars accustomed to other types of governance texts to overlook.

Each of the scholarly literatures that has grown up around the various institutions described in this chapter has grasped some essential aspects of the network-and-standard dynamic but not others. Legal scholars who study world trade and transnational business regulation have conducted long-running and vigorous debates about the legitimacy and accountability of networked governance processes, and they also have explored the political issues that inevitably complicate the work of transnational standards bodies. Even so, they have paid less attention to the distinctive ways that standards bind such

networks together, and so the two conversations do not fully join up.¹ In part that may be because legal theory traditionally has drawn a distinction between rules and standards that drives in the opposite direction. Within that scholarly tradition, “rules” are granular and demand precise compliance, while “standards” are more flexible and are fleshed out via norms and interpretative conventions.² The standards at the core of transnational legal-institutional arrangements are different creatures entirely.

Legal scholars who study “code as law” are familiar with different literatures about networks and standards, including literatures on how technical standards structure the markets organized around them, and they also have raised persistent, serious concerns about the relationships between and among automated enforcement, lock-step conformity and authoritarian modes of governance. They have tended, however, to situate standards processes within market-based governance frameworks and to understand code’s mandatory nature as an example of the way that code *differs from* law; consequently, they have not taken network-and-standard-based governance seriously as a new legal-institutional type.³ And, for the most part, the two scholarly communities have not engaged in much dialogue with one another.

To posit network-and-standard-based governance institutions as an emergent category of legal institutions is, of course, to beg some basic questions about what makes an institution distinctively legal. One traditional set of answers has to do with the ways that the outcomes produced by such institutions are linked to rulemaking and enforcement authority. Many human activities rely on networks and standards, but legal ordering bites on such activities differently. Violation of a community standard may trigger gossip or ostracism, and departure from a commercial or technical standard may consign the violator to irrelevance or spark a productive standards war, but noncompliance with a legal standard will incur sanctions backed by the full force of state authority.⁴ Another traditional set of answers is more explicitly normative: what makes an institution distinctively legal is its adherence to regular procedural rules and associated rule-of-law values. Communities are accountable only to themselves and markets may mete out consequences that seem arbitrary. According to a thick conception of what makes a legal institution, law’s authoritarian bite is (or should be) mitigated by procedural fairness and conformance with principles of public reason.⁵

As we are about to see, network-and-standard-based governance institutions satisfy each of these definitions in some respects while challenging them in others. For some, that means they are not legal institutions at all, but I think that answer is too pat. We will see that the shift to a networked and standard-based governance structure reshapes modes of lawmaking and enforcement, patterns of contestation over lawmaking authority, and structures for participation and accountability in ways that pose important challenges both to the realizability of traditional rule-of-law values and to traditional conceptions of the institutional forms that those values require. But the rule-of-law constructs that legal theorists traditionally have articulated are themselves artefactual in precisely the two senses with which this book has been concerned. They are the products of earlier contests over the forms of legal authority, and they are outgrowths of the era of text-based communication and of accompanying assumptions about the feasible mechanisms for formulation, justification, and transmission of claims of authority that are now rapidly being outpaced by sociotechnical change.⁶ If the new network-and-standard-

based governance institutions are to serve the overarching institutional functions that traditionally have informed thicker versions of rule-of-law thinking—functions that, to borrow Martin Krygier’s formulation, temper the arbitrary exercise of power—both institutions and constructs will need to adapt.⁷

Global Assemblages for Economic and Technical Coordination

The processes of world trade regulation, transnational business regulation, and internet governance span many different subject areas and involve many different participants and interests. The institutions through which those forms of regulation are conducted also vary considerably from one another in terms of their rules for membership and participation. Even so, juxtaposing the various institutions and processes reveals important resemblances. In what follows, I borrow from and expand upon the frameworks sketched by Terence Halliday and Greg Shaffer in the domain of legal theory and by Heather McKeen-Edwards and Tony Porter in the domain of political economy. Network-and-standard-based governance institutions are situated within larger assemblages for transnational legal ordering. Their operations reflect complex and mutually interpenetrating sets of relationships and practices that involve a heterogeneous array of public, private, and public-private actors and associations.⁸ Even formally multilateral arrangements are increasingly multistakeholderist as a practical matter, and standards and expert standard-making activities play increasingly prominent roles in constituting the substance of governance arrangements.⁹ Information-economy flows and assets have become focal points for transnational governance activities, and information-economy disputes about cross-border information flows increasingly have brought different networked governance arrangements into contact, and conflict, with one another.

The Emergence and Metamorphosis of World Trade

Global institutions for world trade play a central role in the story of informational capitalism’s emergence and continuing evolution. The global logics of production and extraction that have become characteristic of informational capitalism rely heavily on legal frameworks for facilitating cross-border flows of goods, materials, people, and information, and those logics have elicited corresponding changes in the structure and operation of the world trade system. For most of the twentieth century, the system of world trade governance revolved around the framework established under the General Agreement on Tariffs and Trade (GATT). Policymaking within that framework was dominated for the most part by the United States. In the 1990s, however, the landscape of world trade governance began to change rapidly. New multilateral instruments dramatically expanded the scope and reach of the existing regime, and competing avenues for trade policymaking also began to emerge. Last but not least, giant transnational corporations have become powerful players in the world trade landscape.

In terms of coverage, three features of the emergent constellation of trade-related governance arrangements are especially important. First, norms of liberalization do not simply relate to manufactured goods nor even to cross-border flows of raw materials and intermediate inputs to more complex products. Following the important Uruguay Round of negotiations, which concluded in the 1990s and produced both the World Trade

Organization (WTO) as a powerful new enforcement body and the General Agreement on Trade in Services (GATS), liberalization of cross-border trade in services has emerged as a separate, powerful logic driving the articulation and expansion of trade obligations.¹⁰ That logic is intimately bound up with the patterns of resource reconceptualization described in Chapter 1. As we saw there, networked information and communication technologies have catalyzed the dematerialization and informationalization of labor and finance, which in turn facilitate the cross-border provision of many types of information-based services and accelerate cross-border flows of capital and investment.

Second and relatedly, imperatives relating to intellectual property protection and enforcement have become more pronounced and more pressing. The Uruguay Round also produced a new protocol on Trade-Related Aspects of Intellectual Property Rights (TRIPS), and the United States and other developed countries have continued to advance additional initiatives designed to strengthen protections, deepen enforcement obligations, and rationalize ownership of intellectual goods across borders. Political economists studying post-TRIPS treaty-making efforts have found that the presence or absence of new intellectual property terms has become an important factor prompting business interests to support new proposed international agreements.¹¹ For their part, however, developing countries have grown increasingly resistant to proposals for stronger enforcement and protection emanating from the global North. Such proposals, they argue, reflect rent-seeking by already-powerful industries rather than good-faith efforts to help developing economies engage in capacity-building; consequently, they are far more likely to widen existing wealth disparities than to narrow them. Protection of indigenous groups' interests in biological and cultural resources also has become an important point of contention in such negotiations.¹²

Third, multilateral arrangements for technical standard-making play increasingly prominent roles within the world trade apparatus. The Uruguay Round produced two new agreements on technical standardization, one relating to global food safety and another to standardization as a strategy for minimizing technical barriers to trade. Adherence to relevant international standards is now mandatory unless deviation can be justified—and the extent to which domestic protective considerations may justify deviations on matters viewed as “technical” first and foremost has become an important point of contention. Because the WTO does not develop standards itself, the turn toward technical standardization also entails considerable de facto reliance on the outputs of transnational standard-setting bodies. For all of these reasons, questions about the politics of standard-setting and of standards-based governance have become important recent additions to the scholarly research agendas of international trade scholars and policymakers.¹³

Although the Uruguay Round was intended to strengthen and extend the existing multilateral trade regime, its conclusion also marked the start of a pronounced and unanticipated shift in the institutional structure of world trade governance. The process of reaching new agreements under the established multilateral framework slowly ground to a halt as efforts to negotiate additional trade liberalization requirements encountered a variety of obstacles. Those included violent protests against the human costs of globalization (in Seattle in 1999), disagreements over access to patent-protected medicines in the developing world (in Doha in 2001), and differing views of agricultural protection measures adopted by developed countries (in Cancun in 2003).¹⁴ Meanwhile,

trade negotiators from developed economies began to shift their efforts toward framing and securing new bilateral free trade agreements. The thickening network of bilateral agreements in turn shaped proposals for new multilateral and regional instruments that included both new substantive obligations and mandates for new and powerful dispute resolution processes.¹⁵

The United States spearheaded the initial move toward bilateral and multilateral agreements negotiated outside the WTO framework, but the so-called Washington Consensus on trade liberalization subsequently has begun to fragment, and other significant initiatives have emerged. Many interpreted the U.S.-led negotiations over the Trans Pacific Partnership (TPP), which did not include China, as an effort to constrain emergent Chinese economic power. Partly in response, the Regional Coalition for Economic Participation (RCEP) launched an effort to negotiate a new, pan-Asian trade protocol in which China has played a significant role. Meanwhile, after the Trump Administration withdrew the United States from negotiations over the TPP, the remaining nations finalized the agreement but changed some of its provisions to fit their own priorities.¹⁶

In parallel with these changes in institutional structure, the landscape of world trade governance and world trade activism also has broadened to include a more heterogeneous assortment of actors and interests. In particular, transnational corporations and cooperative business associations wield increasing *de facto* power in setting trade policy priorities. In part this power flows through traditional channels of influence. Powerful economic actors have long enjoyed privileged access to national policymakers and have learned to exploit that access to demand stronger and more effective protection for their global supply chains.¹⁷ But global logics of production and extraction also have elicited new networked models of influence that flow outside state-sanctioned channels. A giant transnational corporation with operations in many countries can assert interests within all of them and can formulate and advance a unified strategy for furthering those interests.¹⁸ Increasingly importunate assertions of corporate interest also have catalyzed experimentation with new forms of dispute resolution, most notably procedures for so-called investor-state dispute settlement that allow corporations to assert claims directly against states whose domestic regulations allegedly violate trade liberalization obligations.¹⁹ Last and importantly, as the next section describes, transnational corporations and their business associations actively participate in national, international, and private standard-setting processes.

A final cross-cutting strand in the increasingly complex landscape of world trade governance involves the emergence of an active transnational community of civil society activists seeking to broaden access to and participation in governance processes. Exploiting the same networked connectivity that has enabled global concentrations of economic power, civil society NGOs have worked to build alliances with one another and to coordinate their efforts for maximum effect. Civil society groups have worked to draw public attention to failures of transparency and accountability at all stages of the trade governance cycle, from domestic discussions about agenda-setting to negotiations over new trade instruments to dispute resolution. At each stage, they have advocated for greater attention to the broader public interests served (or disserved) by both existing and prospective governance arrangements.²⁰

Collapsing Hierarchies in Transnational Regulation

The transnational economic governance landscape also includes a large and varied group of regulatory arrangements, some well established and others more emergent, that extend through and around the boundaries of nation-states. Some arrangements originate with the United Nations (UN) or its member agencies. Others are cooperative ventures among subnational regulators or among other entities that play well-established quasi-regulatory roles, such as central banks. Others involve subnational regulators in collaboration with private industry oversight bodies and trade associations, and still others involve coordination directly among nonstate actors. Like world trade governance processes, transnational regulatory processes produce complex standards intended to structure the behaviors of both corporations and governments. And, as in the case of world trade, a pervasive and cross-cutting theme in both the theory and the practice of transnational regulation is the increasing power of private “stakeholders” in the domains of both standard-making and dispute resolution.

Providing a full catalog of transnational regulatory processes is a project well beyond the scope of this chapter. For my purposes here, it is useful simply to draw the reader’s attention to four broad and general categories of activity that are formally distinct but increasingly convergent as a practical matter.

The first category includes formal, multilateral, bureaucratic processes conducted by the UN and agencies within its organizational umbrella or by independent multilateral entities. Some of those processes involve negotiating and drafting new treaties. For example, since 1990, the UN has shepherded to completion several major environmental accords, including the 1992 United Nations Framework Convention on Climate Change, the 1997 Kyoto Protocol, and the 2015 Paris Climate Agreement. The World Intellectual Property Organization (WIPO) has finalized several new agreements intended to extend and harmonize aspects of the intellectual property laws of member states. Other processes involve standard-making for areas within the organizational remits of existing agencies or agreements. So, for example, the International Labor Organization superintends the development of standards for fair labor practices, the United Nations Forum on Sustainability Standards coordinates the work of five UN member agencies on standards for environmentally responsible manufacturing, and the United Nations Global Compact coordinates the UN’s efforts to implement standards for corporate social responsibility generally. The International Organization for Standardization (ISO), an independent nongovernmental entity in which states are represented by their national standards organizations, also engages in standard-making on a variety of business-related matters, including corporate social responsibility.²¹

Although membership in the UN is state-based, participation in the policymaking and regulatory processes unfolding under its aegis reflects the increasingly pervasive influence of nonstate actors and especially commercial actors. In 1996, the UN liberalized the criteria that civil society organizations and other nongovernmental organizations must meet to gain consultative status. As Melissa Durkee has explained, the revised criteria have afforded business interests the opportunity to gain entry into those processes via NGOs of their own. Commercial NGOs have systematically exploited that opportunity, navigating with relative ease the bureaucratic requirements that some civil society organizations have found trickier.²² Additionally, many of the standard-making

initiatives mentioned in the previous paragraph are formally structured as public-private collaborations.²³

A second category of transnational regulatory processes involves specialized, freestanding accords between and among subnational regulators and other established sectoral institutions. For example, financial regulators and central bankers engage in extensive, cooperative cross-border governance of financial market activities, and data protection regulators work collaboratively on various policy issues.²⁴ Such arrangements comprise a thickening network of “soft law” that structures and coordinates industry activities. Here again, public-private collaboration, delegation of oversight authority to private economic actors, and standard-making are recurring themes. For example, global money center banks have played major roles in the development of risk assessment algorithms and capital adequacy standards; private transnational associations spanning fields from securities to insurance to accounting perform a wide variety of governance functions both on their own and in cooperation with government actors; and technical standards play important roles in facilitating transnational financial flows.²⁵

There is a notable and steadily increasing overlap between processes in the first two categories and those in the third, which consists of standard-making that emanates from the private sector in the first instance. The universe of private standard-making activities is large and diverse. Transnational corporations engage in standard-making to facilitate their own operations and those of their supply chains, and industry associations coordinate standardization activities in areas that their members perceive as mutually beneficial. Service professionals such as accountants, engineers, and information technology consultants employ extensive and well-developed standards to guide their work, which in turn informs financial, technical, and information systems design practices more generally. Compliance with private standards is formally voluntary, but standard-making processes produce distinctive sociotechnical configurations—reporting formats, performance benchmarks, and so on—that work to channel industry behavior into compliant patterns.²⁶

Also notably, the outputs of both private standard-making processes and public-private standard-making collaborations have begun to migrate into the domain of world trade. As noted in the previous section, the WTO framework includes two agreements mandating reliance on relevant international technical standards. In addition new bilateral and multilateral trade agreements covering labor, environmental regulation, and corporate social responsibility often refer to privately developed standards in those domains.²⁷ As a result, standard-making activities constitute a new avenue for private firms and associations to shape the formulation of trade obligations, including especially provisions intended to delineate the appropriate reach of domestic protective mandates.

The fourth and final template for transnational business governance involves assemblages for private arbitral dispute resolution. This form of transnational regulation mirrors the outsourcing experiments discussed in Chapter 5, but with an important difference. In domestic litigation, parties to commercial contract disputes generally do not opt out of court entirely but instead use contract to develop customized procedural rules.²⁸ In the transnational context, such parties rely heavily on arbitration when disputes arise. Private power is starkly evident in the operation of these systems, which some commentators have likened to the *lex mercatoria* through which medieval merchants and

craftsmen resolved their own disputes. Three different commercial conventions, one sponsored by the UN and the other two freestanding, supply default rules for interpreting cross-border agreements and resolving disputes before arbitrators drawn from the international business bar. Parties to a transaction may alter the default rules and procedures by contract, and the results of dispute resolution generally remain private. The conventions and their associated arbitral bodies compete with one another for clientele and strive to produce results that client communities will find sensible and congenial.²⁹ Not all political regimes have proved equally hospitable to that system, but “new legal hubs”—exceptional zones sited within such regimes but governed by separate institutions—have emerged to fulfill dispute resolution demands.³⁰

Order without Law? From Rough Consensus to Internet Multistakeholderism

A final important site of transnational legal-institutional entrepreneurship is the internet and its constituent protocols and processes. Among cyberlaw scholars, the emergence, formalization, and ongoing evolution of governance arrangements for the internet have excited intense interest. Those scholars, however, have relied heavily on conceptual frameworks that locate internet governance principally within the realms of technical design and private ordering rather than that of law.³¹ The literatures on transnational governance, meanwhile, have paid relatively little attention to internet governance institutions, treating them as instances of purely technical oversight or, in one notable example, as manifestations of a modern-day *lex mercatoria* that information technology businesses and trademark owners use to govern themselves.³² As we will see in this section, those characterizations are too simple to describe either the origins of internet governance or what internet governance has become. Institutional structures for global network governance add to our growing catalog of emergent transnational legal-institutional models, supplying new templates for the configuration and exercise of network-and-standard-based governance authority.

One important constellation of governance arrangements relates to the information transfer protocols used to move information from one node on the network to another. Most prominently, the Internet Engineering Task Force (IETF), a voluntary membership organization of computer technologists, oversees the continuing evolution of the TCP/IP protocols, which serve as the internet’s foundational standards for information transmission. Notably, the IETF originated in a struggle over technical merit and bureaucratic turf but also political philosophy. Most experts viewed the TCP/IP protocols as technically superior, but the ISO preferred a different standard that it had helped to develop and had a greater expectation of continuing to control. The IETF was the brainchild of a group of computer scientists determined that the evolution of standards for networked digital communication would follow a different path. Their rejection of the ISO’s proposed standard was also a rejection of an institutional process that they perceived as slow and bureaucratic and a deliberate embrace of participatory direct democracy by those with the necessary technical qualifications to contribute to the project of building and maintaining the best possible network.³³ In the words of founding IETF member David Clark: “We reject: kings, presidents and voting. We believe in: rough consensus and running code.”³⁴ The particular brand of idealism that Clark expressed resonated with the meritocratic orientation and libertarian political leanings of many of his fellow computer technologists, and it became the IETF’s operating credo.

Another important constellation of arrangements relates to the internet's namespaces. To avoid Balkanization of the internet into incompatible networks, the tables used to link internet addresses to definite nodes and map human-readable domain names to those addresses must be identical. Initially, the internet's core addressing and routing functions were managed by a researcher at the University of Southern California pursuant to an agreement with the U.S. Department of Defense. As internet connectivity began to spread beyond government and educational institutions, however, it became apparent that a more formalized and robust set of governance arrangements was required. Once again, those most directly involved in the development and oversight of the relevant protocols resisted proposals for formalizing namespace governance that would have vested control in established government or multilateral institutions, and once again, the reasons were not only technical but more fundamentally political and ideological. After a period of intense turmoil, the most visible result of those struggles was a new legal-institutional formation, the Internet Corporation for Assigned Names and Numbers (ICANN), a not-for-profit transnational governance corporation chartered under California law but accountable via its constitutive documents to a global community of stakeholders. Controversially, the U.S. Department of Commerce retained residual authority over namespace governance until 2016.³⁵

The disputes that surrounded the formation of ICANN reflected a complex set of political and ideological cross-currents. According to some, the internet could not become a truly global information infrastructure while still under U.S. oversight because such oversight would work to enable, or more minimally preserve space for, the assertion of U.S. geopolitical and economic hegemony. According to others, the internet had emerged and thrived precisely because of its embeddedness in U.S.-style free expression values and norms. According to some, established pathways for transnational governance, including especially those under the aegis of the UN, boasted both unblemished legitimacy and the capacity to address the full range of relevant policy issues, including especially those relating to economic development and inclusiveness. According to others, the protocol wars of the 1980s had decisively established that legacy entities such as the ISO and the UN were inadequate to the task of stewarding cutting-edge technological protocols that must evolve in real time. According to some, U.S.-based operational oversight was too prone to cooptation by capitalist and neoliberal economic and political ideologies. According to others, UN-based oversight would be too vulnerable to holdup engineered by authoritarian states wishing to assert greater control over internet traffic for their own political reasons. The eventual form that ICANN assumed is conventionally understood as a compromise resolution of those disputes (although, as we are about to see, observers differ on the extent of the compromise).³⁶ For its part, although the UN has continued to assert an interest in the institutional arrangements for namespace governance, it also has tacitly acknowledged the critiques leveled at it, constituting a new Internet Governance Forum as both a venue for ongoing high-level policy discussions and a bully pulpit for those attempting to ensure greater attention to democratic and distributive values.³⁷

For U.S. legal scholars and members of the nascent technology policy community, both the IETF's rejection of governance by governments and the disputes that surrounded the formation of ICANN resonated with other prominent themes in scholarly and contemporary thought. To legal scholars steeped in the traditions of liberal

political theory, the IETF was enlightened self-government brought to improbable life. Its existence in seeming defiance of the dysfunctions of other ostensibly democratic institutions demonstrated that direct, deliberative democracy could function and flourish.³⁸ Judged by that standard, ICANN represented a fundamentally unaccountable privatization of oversight authority, so those scholars labored to convince ICANN to adopt additional mechanisms for public input and participation.³⁹ Other scholars of a more libertarian bent were attracted by the rejection of regulatory oversight in favor of enlightened, meritocratic self-rule; for these scholars, ICANN's organization illustrated the potentially transformative power of contract and incorporation to supplant state-based lawmaking.⁴⁰

But as the rejection of governance by governments become more solidly entrenched, something strange began to happen: Disputes over process and representation began to catalyze the emergence of more formal governance structures and the codification of rules and procedural conventions to guide their operation. Several decades in, the new governance institutions are both like and unlike more traditional legal institutions. Their outputs are paradigmatically not “law” in the sense that they have not been codified by legislators and regulators or distilled into precedential nuggets by courts, and they are not (directly) accountable to states. Both their outputs and their operations, however, have become both more recognizably lawlike and more like those of the other institutions this chapter has described.

As ICANN has matured, it has undergone considerable institutional hybridization, developing more regularized pathways for policymaking and participation. Its public meetings are attended by a diverse and vocal group of stakeholders, and membership in its working groups—where much of its real business is done—is formally open to all comers. It has adopted formal consultative procedures for governments and civil society organizations and, following the issuance of a report by the Council of Europe interrogating ICANN's compliance with human rights guarantees, has become somewhat more attentive to input from the latter.⁴¹ ICANN's evolution, however, also reflects other themes that this section has explored. ICANN was chartered as a California public benefit corporation not only to “promot[e] the global public interest in the operational stability of the Internet” but also to “lessen[] the burdens of government.”⁴² As the internet's constitutive liberalization norms have been filtered through the lens of neoliberalized and explicitly multistakeholderist institutional design, they have produced institutional responses optimized to the needs of ICANN's most active and well-resourced stakeholders. As we will see later in this chapter, ICANN's most notable characteristic is its extreme solicitude for intellectual property interests. ICANN's rules also encode policy decisions about a variety of other issues ranging from registrant privacy to freedom of expression, and those decisions tend to reflect the policy preferences of powerful corporate and government actors.

The IETF's original simple, flat structure also has undergone dramatic change. Today, although membership remains voluntary and policy-making consensus-based, the IETF comprises two principal divisions made up of over 100 working groups, overseen by two steering groups and advised by two different boards. Working groups follow elaborate protocols for documenting their activities, communicating with other groups, and reporting to the steering groups and advisory boards. There is a process (so far, never

used) for administrative appeals.⁴³ Although many members would strenuously resist the characterization, the IETF has taken on some characteristics of the sorts of governance processes that it initially had rejected, with its system of RFC's and administrative oversight functioning in a way roughly analogous to the system of guidances, advisories, and internal oversight adopted by federal administrative agencies.⁴⁴ Along the way, the IETF membership also has needed to learn how to identify, understand, and address a broad range of policy questions. In particular, issues relating to tracking and filtering—and, therefore, to privacy, surveillance, censorship, intellectual property enforcement, and freedom of expression—have complicated ostensibly technical discussions and taxed the commitment to decision-making based on rough consensus about technical merit alone.⁴⁵

Last and importantly, as Laura DeNardis explains, although the IETF and ICANN have commanded an outside share of scholarly attention, the assemblages for global network governance within which those entities are situated are more complex.⁴⁶ Many other entities perform standard-making activities relevant to information transfer across nodes and connected devices, and those entities are heterogeneous in structure and composition. Some are formally multilateral, others are private technical associations, and still others more closely resemble private standards bodies. For example, the World Wide Web Consortium (W3C), a private membership organization, oversees the development of the hypertext protocols that constitute the Web. The W3C has different tiers of membership for different types of stakeholders, with large technology corporations paying the highest fees and wielding corresponding influence. The International Telecommunications Union (ITU), a UN-affiliated entity that oversees standards relating to broadcast technologies, supervises standards for internet telephony, and the Institute of Electrical and Electronic Engineers, a technical professional organization, coordinates the evolution of standards for wireless interconnection.⁴⁷ ICANN's highly visible processes for policing domain name allocation similarly represent only one component of a more complex assemblage for namespace governance. The databases that map human-readable domain names, however allocated, to network addresses are far more vital to operational continuity. A small group of entities—including universities, research consortia, government entities, and private corporations—maintains those databases pursuant to agreements with the Internet Assigned Numbers Authority (IANA), an organization whose operations are now administered by an affiliate of ICANN. Those agreements constitute a form of privatized governance by a tightly knit community of technical peers.⁴⁸ Internet governance does not occur at any single site but rather emerges via the interlinked outputs of a wide variety of sites and processes.

Colliding Mandates: Global Assemblages and Cross-Border Information Flows

Within the emergent landscape of institutions and assemblages for transnational legal ordering, governance problems involving cross-border flows of intellectual property and data have become flashpoints, in part because of rapid technological change but also because such problems tend to implicate multiple governance regimes. In an era when many services are provided via digital information and communications networks, cross-border information flows seem to fall squarely within the province of regimes governing trade in services. The new information-economy actors that profit from those services—including global platform companies and financial services firms but also any firm that

engages in offshoring of functions such as customer support and human resources—have interests in defining and controlling their own global operations in ways that may include transfers of data for processing, cloud storage spanning multiple jurisdictions, and cross-border provision of services to end users. Data flows between networked devices—ranging from personal communications devices to industrial sensors—are central concerns of internet governance processes. Cross-border flows and operations also may implicate a variety of other transnational regulatory concerns and instruments, including those relating to financial stability, fair labor practices, privacy, intellectual property protection, and national security, to name just a few. Unsurprisingly, controversies over regulation of cross-border flows are now frequent occurrences and have become powerful catalysts of continuing institutional evolution..

To begin with, cross-border information flows that relate to trade in services introduce a baseline level of institutional complexity that flows from the way the GATS protocol was drafted. Although the GATT protocol encompasses all physical goods and materials that are not expressly excluded, the GATS protocol was drafted to cover only those categories of services that signatory states expressly designate. Disputes before the WTO about alleged barriers to trade therefore must begin by considering whether or not the challenged practices are covered.⁴⁹ The United States and other developed countries have worked to expand treaty coverage for various types of information services via bilateral and multilateral agreements, both by enumerating specific categories and by including so-called “free flow” provisions.⁵⁰

Consider next the ways that cross-border flows complicate intellectual property enforcement. From one perspective, flows of content are information services that are covered only if the parties to the dispute have agreed to liberalization; from another, they may be substitutes for physical goods whose importation would be subject to the nondiscrimination obligations of the GATT; from a third, they require respect for territorial distribution arrangements negotiated by rightholders and their domestic licensees; from a fourth, they may implicate criminal law enforcement provisions.⁵¹ Contests over how far to extend logics of intellectual property interdiction within trade regimes have led to protracted battles. The global entertainment industries have pushed repeatedly for stronger interdiction requirements, while platform firms and other information businesses wishing to make new kinds of information services available have opposed such requirements. (All industries, however, have supported strengthened protection for trade secrets.) Trade negotiators and law enforcement officials acting within the frameworks established by multilateral cooperative agreements have seemed especially unsure how to understand the implications of cloud storage. As we will see later in this chapter, contests over interdiction capabilities also have become regular features of internet standards processes.⁵²

Conflicts over global flows of personal data are even more complex. Generally speaking, differences in data protection obligations create incentives for organizations to collect and process data in jurisdictions with more lenient rules and to transfer data collected elsewhere to those jurisdictions for processing. Exploiting a dynamic that Anu Bradford has termed the “Brussels Effect,” the European Union has worked to export its higher standards for personal data protection to the rest of the world by setting strict limits on cross-border transfers of data relating to its citizens.⁵³ The U.S. government,

loath to commit to the European model but seeking access to data both on its own behalf and on behalf of U.S. companies, has sought compromise arrangements that would permit data to flow. A viable compromise has proved elusive, however. In 2015, following the Snowden revelations about widespread, systematic communications surveillance by the U.S. government, the European Court of Justice invalidated a safe harbor agreement covering data transfers to the United States that had required laborious negotiations between the U.S. State Department and the European Commission. As of this writing, that court is considering a legal challenge to the replacement agreement, styled the U.S.-E.U. Privacy Shield and finalized in 2016.⁵⁴ Meanwhile, bilateral trade negotiations between the United States and the European Union over a series of agreements intended to expand liberalization requirements for trade in services have periodically threatened to upend the compromises negotiated by data protection and law enforcement interests. The diplomatic struggles over cross-border data flows also reflect the growing influence of U.S.-based information businesses, including especially the dominant global platform firms, seeking a regulatory environment more hospitable to their interests and activities.⁵⁵

Importantly, moreover, although the various U.S.-E.U. negotiations over flows of personal data have commanded the lion's share of scholarly and media attention, they are not the only relevant regulatory and institutional developments on the global scene. In the years following enactment of the European Union's 1995 Data Protection Directive, the Asia-Pacific Economic Cooperation bloc, which includes the United States, formulated its own set of privacy principles. In form, those principles resemble certain aspects of the European data protection framework; in substance, however, they are friendlier to the cross-border flows upon which the regional economies of the Pacific Rim increasingly rely.⁵⁶ As described earlier in this chapter, those economies have become a significant force driving the evolution of new mega-regional trade agreements that include new provisions designed to liberalize restrictions on cross-border data flows. Both the post-U.S. version of the TPP and the RCEP include such provisions.⁵⁷

Members of the BRICS (Brazil, Russia, India, China, and South Africa) group of countries, meanwhile, have pursued different kinds of authority over cross-border flows for their own, varied reasons. In the case of Russia, which aspires to recapture its former geopolitical power, the motivations for control appear straightforwardly political. As we will see in more detail later in this chapter, Chinese motivations and behavior are more complex. The Chinese state has sought both to control information flows for political reasons and to further China's status as a rising global economic powerhouse, and the latter goal has entailed more systematic attention to global coordination mechanisms. In Brazil, concern about the growing power of giant global information businesses prompted the introduction of comprehensive digital economy legislation, the Marco Civil. Ultimately, however, an active lobbying campaign by those businesses successfully defeated data localization requirements that had been intended to protect Brazilians' rights of privacy vis-à-vis foreign technology companies and their governments.⁵⁸ The Indian relationship to informational capitalism has been even more complicated. Indian companies spanning the gamut from giant transnationals to small start-ups are deeply involved in the emerging global information processing economy, both as participants in outsourcing chains and as developers in their own right. At the same time, however, a growing chorus of civil society advocates concerned about vulnerability to data

harvesting has made India one of the most active locations for legal struggles over both data protection and the conditions of internet access.⁵⁹

Points of Convergence: Six Problematics of Network-and-Standard-Based Governance

As noted at the start of this chapter, transnational governance processes are organized as networks constituted around standards. Recall from Chapter 1 that a *network* is a mode of organization in which hubs and nodes rather than fixed hierarchies structure the flows of transactions and interactions. The legal and political implications of that mode of organization are vigorously debated. Some commentators have characterized structures for networked participation and governance as radically democratizing, while others have worried about the massive, fluid, and seemingly ungovernable concentrations of power that network organization enables.⁶⁰ Two important recent books about power and global political economy explore the importance of networked organization for political economy generally, articulating new theoretical models of networked social, political, and communication power.⁶¹ The idea of a “flat” world—in which everything is connected to and affects everything else—also has captured the imagination of pundits and commentators.

Networked governance arrangements, however, are not simply networks; they are also institutions.⁶² And *standards*—structured protocols for conforming the activities of multiple nodes in a network—play an important and undertheorized role in their structure and operation. This section explores the various points of mismatch between the rule-of-law tradition in legal theory and the operation of the network-and-standard-based legal-institutional form. It begins by reconsidering two points of conventional wisdom about network organization and its relationship to power.

First, the assertion that network organization is inherently more democratic than other forms of organization because it facilitates the expression and circulation of dissenting views is open to serious question. It is true that, because network organization is nonhierarchical, even an enormously powerful hub cannot prevent information from flowing around it through other nodes.⁶³ Additionally, scholars affiliated with the new governance movement in transnational legal theory have rightly noted that network-and-standard-based governance has many potential benefits. It is resilient and flexible, offering stability while permitting localized experimentation and innovation, and depending on the details of implementation it can be extraordinarily inclusive.⁶⁴ Yet the turn to network-and-standard-based governance also invites certain predictable dysfunctions. Within networked governance arrangements, the ability to route around interruptions works most reliably to the benefit of the powerful. The same networked affordances that enable the dissident to evade the censor also enable economically or politically dominant parties—parties that enjoy hub status—to work around inconvenient negotiating stalemates and avoid inconvenient regulatory burdens in particular locations or within particular regulatory regimes. Put more succinctly, power interprets regulatory resistance as damage and routes around it.

Second, the observation that network organization is nonhierarchical can be somewhat misleading. From an internal perspective, network organization around a

standard imposes a form of hierarchical ordering that inheres in the standard itself. If other networks organized around other standards are available, the nature of any particular standard may not matter much. But a standard invested with legal significance is not *just* a standard because participants lack the authority to depart from it. So too with a standard such as the basic internet protocol that exacts universal adherence as a practical matter. Network organization under conditions of legally or practically mandated standardization signals a de facto relocation of legal authority into the standard. That authority may be quite exacting as to the forms of compliance, and it also may afford new opportunities for the exercise of economic and political power.

The powerful critiques of transnational governance arrangements that have emerged within legal scholarship still have not fully assimilated the hybridity of the networked legal-institutional form. Both the ability of power to route around inconvenient regulatory resistance and the relocation of authority into the standard strain traditional accounts of *law*, reliably eliciting institutional features that seem very different from those that a system of the rule of law would require. The same developments also strain conventional understandings of *standards* and *standardization*, reliably foreclosing the kinds of pathways that facilitate competition, correction, and stabilization in the contexts where standards are more usually studied.

It has become vitally important to understand the ways that the intersecting vectors of governance, law, and standardization are transforming one another. This section identifies and develops six important directions for inquiry, which relate to the nature of standard-making authority; the available pathways for contesting and changing the reigning standard; the available pathways for coopting network-and-standard-based governance mechanisms to serve authoritarian political and geopolitical interests; the mechanisms for political accountability; the vernaculars in which mandatory standards are articulated, applied, and contested; and the possibility of nonstate yet functionally sovereign power.

Dominance as Hegemony: The Problem of Unchecked Authority

One distinctive characteristic of emergent transnational legal-institutional arrangements is the way that network-and-standard-based organization reshapes the exercise of policymaking authority. Within such arrangements, policy dominance—or the ability to shape the content and direction of policy without interference—is both more absolute than it typically is within more traditional legal settings and more immediate than it typically is in technology standards markets. When instituted against a background of vastly unequal geopolitical power, networked organization under conditions of mandated standardization has resulted in policy hegemony relatively unchecked by political or structural constraints.

In democratic societies with rule-of-law traditions, legal institutions are recognizable as such in part because of their adherence to regular, reasoned processes for making, enforcing, and contesting rules.⁶⁵ This is not to suggest that such processes work perfectly or even well. As of this writing, idealistic pronouncements about the redemptive power of democratic politics and democratic constitutionalism have become increasingly difficult to credit. But certain high-level constraints on institutional behavior—and in particular the principles of separation of powers, procedural due process, and public

reason—have commanded widespread adherence in democratic societies and have limited arbitrary exercises of official power.

Dominance in technology standards markets confronts different kinds of limits. Although networks do exhibit lock-in effects, various forms of competition remain possible (we will consider those forms more closely in the next section). Consumers who feel that exit is not a reasonable option retain the option of voice; even monopolists can and do respond to public shaming.⁶⁶ And of course, if those conditions fail, antitrust or consumer protection authorities may intervene to restore them. Most importantly for the point I wish to make here, in paradigmatic, discrete technology standards markets, the connection between market dominance and policy dominance tends to be indirect. In the era of copper wires and common carriage requirements, telephone carriers could not filter out undesirable or unlawful conversations. The standards governing such matters as the layout of a typewriter keyboard or the arrangement of prongs on an appliance plug are thoroughly agnostic as to their users' political beliefs and policy commitments.

Many contemporary disagreements over technology policy arise precisely because the emergence of networked information and communications technologies has set protocol and policy on converging paths. Generally speaking, dominant hubs within digital communications networks possess enormous power to block or structure flows of activity. Technology critics often posit that the operator of a dominant operating system, social network, or search platform might use (or is already using) its power over interconnection standards to shape the substance of what is communicated, while technology evangelists tend to downplay that possibility. The frequent and widely publicized disagreements between members of the two camps conceal some important common ground: If a private commercial entity (or indeed any entity) did have the power to leverage its control of an interconnection standard into policy-setting power over unrelated matters, that would be undesirable.

Network-and-standard-based legal-institutional arrangements connect protocol and policy directly to one another and eliminate separation between them. Within such arrangements, the point of mandated standardization is exactly to specify the kinds of flows that must, may, and may not travel via the network. The policy is the standard and vice versa. Power over one translates directly into power over the other. Under background conditions of vastly unequal geopolitical power, that equivalence sets up the two interlocking dynamics that produce policy hegemony. On one hand, a dominant network enjoys *network power*—which David Grewal defines as the self-reinforcing power of a dominant network and Manuel Castells explains as a power that is “exercised not by exclusion from the networks, but by the imposition of the rules of inclusion”—simply by virtue of its dominance.⁶⁷ On the other, if a particular hub within a dominant network exercises disproportionate control over the content of the standard, then networked organization will amplify that hub's authority to set policy and legally mandated standardization will amplify it still further. When network-and-standard-based legal-institutional arrangements are instituted under background conditions of vastly unequal geopolitical power, network power translates into policy hegemony. And policy hegemony is power that may be exercised without regard for the basic, high-level rule-of-law constraints that obtain in more traditional institutional settings.

Developments in the domains of world trade governance and transnational business regulation over the second half of the twentieth century mapped straightforwardly to this theoretical model (we will consider some more recent anomalies in the next section). The magisterial study of emergent global business law completed in 2000 by John Braithwaite and Peter Drahos traced the emergence and consolidation of U.S. policy hegemony across a wide and varied set of domains. A decade later, Grewal's explication of the concept of network power in the context of the world trade system again spotlighted that hegemony and linked it to control of the standards mandating trade liberalization.⁶⁸

The case of internet governance is more complicated. To ordinary observers, internet governance processes might appear to be chiefly concerned with technical matters—with protocol first and foremost and policy only secondarily. And for U.S. observers, internet governance processes additionally might appear to have avoided the problem of U.S. policy hegemony precisely because of their sui generis, multistakeholder design. But neither perception is entirely accurate. Technical governance functions and policy choices are inextricably intertwined, and the choices made by internet governance bodies are invariably infused with ideological precommitments, including both those of their memberships and those embedded in their institutional design.⁶⁹ Although IETF membership is formally individual, U.S.-based technology companies are heavily represented in the IETF's working groups, and the W3C's corporate membership tier is dominated by U.S.-based technology companies. The choice to constitute ICANN as a California corporation tethers it to a peculiarly American set of operational conventions, and ICANN's multistakeholder design reflects a long-standing and largely bipartisan U.S. preference for a strong private-sector role in internet governance—that is, for corporatized multistakeholderism over state-based multilateralism.⁷⁰ And the responses of all three institutions to the policy problems that have repeatedly bedeviled them—from privacy and surveillance to content regulation and censorship to intellectual property enforcement to network security—have tended to reflect the particular norms of flow enshrined in U.S. information law and policy. In short, although internet governance processes were designed to avoid state-based control, network power and resultant policy hegemony are difficult to outrun.

Legal Standards Wars: The Problem of Regulatory Arbitrage

A second striking characteristic of emerging global networked legal-institutional arrangements relates to the mechanisms available for changing a governing standard. Networked organization under legally or practically mandated standardization is simultaneously sclerotic and unstable at the margins. On the one hand, mandated standardization intensifies lock-in to the current standard by foreclosing many of the pathways for change that ordinarily would exist. On the other, it incentivizes efforts at regulatory disintermediation by those favoring a different or modified standard, and those efforts may gain purchase to the extent that the network remains open to new patterns of interconnection.

It is useful to begin by considering the mechanisms through which standards can change over time in market settings. Carl Shapiro and Hal Varian distinguish between evolution and revolution, with the former consisting of gradual change while maintaining backward compatibility with the original standard and the latter involving a sharp,

disjunctive break between new and old standards.⁷¹ Such changes may be implemented cooperatively, or two (or more) parties may seek conflicting changes, as in the case of the Blu-ray and HD DVD standards for digital video storage and playback, which maintained backward compatibility with the regular DVD format but were incompatible with one another. If the parties cannot agree on which course is best, a standards war may ensue. As Shapiro and Varian explain, the decision whether to precipitate a standards war is an economic and strategic one. Even a disjunctive break without backward compatibility may succeed if it can be justified to the proponent's installed base of customers.

In struggles to shape the future of a legally mandated standard, the mandatory structure of networked legal-institutional arrangements narrows the universe of possible outcomes. Gradual evolution is most feasible when it moves in directions that are compatible with the dominant standard's underlying policy commitments. In theory, gradual retrenchment from the hegemonic norm is also possible; in practice, however, one cannot fall below the threshold level of compliance that the standard requires absent cooperative agreement to extend forgiveness. Consider ICANN's 2007 decision to expand the number of top-level internet domains. In theory, that decision provided an opportunity to broaden the base of second-level domain ownership; in reality, the new top-level domains were rapidly subjected to rules for allocating second-level domains that incorporated existing, pro-trademark logics.⁷² In the domain of world trade, some commentators have thought that the trade negotiations commenced by the Asian nations under the auspices of the RCEP might offer an opportunity to chart a gradual path away from U.S.-dominated intellectual property norms toward new norms better calibrated to stimulate economic development across the region. As Anupam Chander and Madhavi Sunder show, however, certain provisions of the underlying WTO framework militate against such a departure; for example, under the "most favored nation" rule, Asian nations seeking to grant one another preferable treatment would also need to grant such treatment to the United States and the member states of the European Union.⁷³

Revolution against a background of mandated standardization is more difficult still. Absent cooperative agreement to depart from the dominant standard, revolutionary change—or, in the language of technologists, forking the standard—requires not only confidence in one's installed base but also willingness to court diplomatic or even geopolitical instability. In the domain of world trade, disjunctive changes without backward compatibility risk starting trade wars; in the various domains of transnational business regulation, departure or threatened departure from agreed conventions can roil markets and create diplomatic incidents. Internet governance institutions have powerful norms against forking network standards. When such proposals have originated—generally from states that are geopolitical outsiders—they have commanded little sympathy or support and have been unable to generate networked momentum of their own.⁷⁴ A systemic shock can create impetus for a mutually agreed disjunctive break; so, for example, as Chapter 6 discussed, the 2008 financial crisis generated momentum to tighten standards for measuring bank capital adequacy both in the United States and globally. Absent such a shock, however, revolutionary change is unlikely.

Standards wars can be horizontal or vertical, however, and this means that even dominant standards are characterized by their potential amenability to disintermediation by a rival standard that sits closer to the relevant activity. So, for example, although

Microsoft's Windows operating system still holds a significant share of the personal computing market, it is no longer the most important interface for those wishing to market applications to personal computer users. Web browsers provide an alternative interface for many applications, as do social networks and mobile operating systems. Techniques for object-oriented programming have introduced "write once, run everywhere" practices and norms to the world of software development, shifting the locus of competition to rival software developer kits and to online app stores curated by a variety of old and new technology companies.⁷⁵ Most recently, the "internet of things" and the emergent market for smart products have opened new channels for companies seeking to become the intermediary of choice for as many online interactions as possible.⁷⁶

Networked governance arrangements organized around legally mandated standardization are similarly vulnerable to disintermediation by adjacent governance arrangements. When developing nations began to balk at additional extensions to the WTO regime, which they saw as entrenching the already considerable advantages accruing to intellectual property-producing industries based in developed economies, U.S. trade negotiators simply routed around the WTO, negotiating new bilateral and multilateral agreements incorporating the stronger provisions they wanted to see enshrined as new network standards.⁷⁷ Developing nations fought back with a different routing strategy, gradually organizing around a proposed "development agenda" for the WIPO and lobbying successfully to make it part of WIPO's official program. The WIPO Development Agenda thereby briefly became an entry in the ongoing intellectual property standards war.

In legal standards wars, however, opportunities for regulatory disintermediation more reliably benefit already-powerful interests that can move quickly to exploit potential regime workarounds. As Laurence Helfer has described, developing nations' effort at "regime shifting" via WIPO enjoyed only temporary success.⁷⁸ Developed countries returned to WIPO in force and ensured that the only subsequent agreement that WIPO has managed to shepherd to completion, the 2013 Marrakesh Treaty on access to published works for the visually impaired, contains language constraining developing countries' ability to enact access-promoting exceptions.⁷⁹ Meanwhile, the copyright industries of the global North have appropriated regime-shifting tactics to their own ends, lobbying both ICANN and the W3C to introduce interdiction mandates into both the internet domain registration rules and the basic protocols for exchanging information via the World Wide Web.⁸⁰

As a different example, consider evolving arrangements for governance of cross-border transfers of personal information. As discussed earlier in this chapter, the European Union has worked to institutionalize stronger data protection norms around the world but has been stymied by the policy hegemony of the United States and by the rising economic influence of Asian nations. Faced with increasingly aggressive demands for data protection emanating from the European Union, parties seeking liberalization have shifted their emphasis toward inserting strengthened mandates for cross-border flow in trade agreements. Privacy NGOs have worked to thwart trade workarounds for data protection obligations, but that project has become more difficult as the center of gravity has shifted into trade governance, which had not traditionally been a focus of

transnational privacy activism, and toward Asia, where civil society organizations focused on privacy and data protection had not traditionally maintained a significant presence. And here again, ICANN has emerged as an important focus of regime shifting efforts; even European data protection authorities have largely acquiesced in the organization's continuing failure to require protection of WHOIS registry data that complies with applicable data protection standards.⁸¹ Each of these developments destabilizes settled expectations about where authority to regulate data protection and cross-border transfers of personal data resides and about what the reigning standard is and what it requires.

A final example involves disintermediation of protective labor regulation. Scholars who study global and transnational labor regulation have long recognized that domestic protective mandates are vulnerable to reconceptualization as non-tariff barriers to trade.⁸² Although other transnational regulatory arrangements might function as meaningful counterweights to obligations emanating from trade governance arrangements, transnational protective labor regulation also is in the process of being disintermediated from within. The parallel turns toward private standard-making for global supply chains and public-private collaboration in standard-making more generally work to shift the center of gravity of such activities, making the development of standards for global fair labor practices increasingly a private affair.⁸³ As a result, the push to incorporate externally developed labor standards within free trade agreements, noted earlier in this chapter, probably is best understood as an attempted colonization of protective labor regulation by trade rather than vice versa.

In theory at least, a system of the rule of law is not supposed to work this way. An important principle associated with the ideal of the rule of law is that legal rules should be applied consistently, and the ideal of consistency in turn implies a degree of constancy. Put simply, legal rules should be relatively stable, and so should procedures for changing them.⁸⁴ In fact, the ideal of legal constancy has been under siege since the complex legal ecologies of the late twentieth century began to offer a wider and more complex array of possibilities for regulatory arbitrage than those within which the rule-of-law ideal was first articulated. Domestically as well as transnationally, both regulated entities and local sovereigns have learned to identify and exploit gaps and loopholes. Even so, however, in domestic settings each strategy confronts built-in limits. At the end of the day, there is an institutional actor with the power to exercise jurisdiction over the challenged conduct, to superintend a reasoned but finite process of contestation over what the law ought to be, and then to say with authority what the law is. Relative to that benchmark, the new networked governance arrangements manifest both frustrating path-dependence and a destabilizing failure of finality. Rule-of-law constructs developed for hierarchical legal systems have little to say about criteria for ensuring consistency and constancy within network-and-standard-based governance institutions.

Network Power and Moral Hazard: The Problem of the Authoritarian End Run

A third distinctive attribute of global network-and-standard-based governance arrangements is a particular kind of moral hazard that concerns the relative importance of economic and political liberalization. In the era of ascendant neoliberal governmentality, as economic liberalization has become the primary driver of innovation in transnational legal ordering, the overriding importance ascribed to facilitating flows of cross-border

economic activity sets up the conditions for a dynamic that I will call the authoritarian end run. In brief, an authoritarian regime wishing to stint its liberalization obligations in the interest of maintaining its political control often may do so with impunity because of the dominant network's interest in maintaining and consolidating its economic dominance.

Recall that network power operates by harnessing and disciplining the desire for inclusion. That mechanism presents trade-offs for the policy hegemon—the party that enjoys dominant hub status—as well as for other network participants. Simply put, there are downsides to sanctioning or expelling members for standards violations, and those downsides may lead both the policy hegemon and other network participants to overlook certain types of infractions—especially those that can plausibly be characterized as purely domestic in scope—to preserve flows of goods, services, and information across borders and within corporate supply chains. So, for example, developed nations historically have been willing to minimize the importance of certain labor practices in developing countries, to overlook local restrictions on religious and press freedoms, and to excuse certain endemic forms of gender discrimination.⁸⁵

Above all else, authoritarian states seek to control unwanted flows of information within and across their borders. In the early years of the internet era, maintaining such control required assistance from foreign technology providers. So, for example, China imposed filtering requirements on Western platform companies such as Google and Yahoo! as a condition of operating within its borders. Less visibly, many regimes seeking to capture the benefits of networked digital communications while minimizing the perceived political costs sought out technology vendors willing to develop and implement surveillance and filtering capabilities at the backbone and server levels. Western governments anxious to negotiate and expand free trade agreements did nothing to discourage such arrangements and ignored arguments that the resulting restrictions violated existing trade-in-services agreements and undercut liberalization norms.⁸⁶

To the extent that the authoritarian end run entails subverting the dominant standard for purposes dictated by conflicting political goals, it is broadly consistent with the dynamic of the legal standards war described in the previous section, but it is also different. In the short term, it is a shirking strategy available to entities lacking the power or the motivation to provoke a standards war. In the longer term, it is a strategy that implicates what Castells calls *network-making power*—the power to constitute a rival network by establishing alternative conditions of interconnection.⁸⁷ The authoritarian end run is a strategy for alternative network-making around standards that blend elements of economic liberalization with elements of mercantilist central planning and political control.

In the contemporary geopolitical landscape, the principal author of the authoritarian end run is China. Chinese trade policy and information technology policy have emerged as powerful and mutually reinforcing components of a larger strategy for pursuing policy hegemony over standards for global economic, technical, and information exchange.

China is a member of the WTO and an important participant in the mega-regional RCEP negotiations, but it also practices an alternative form of network-making directed

toward development and control of physical and digital infrastructures. Now known in English as the Belt and Road initiative, the Chinese program for physical infrastructure development seeks to facilitate flows of labor, goods, and raw materials across continents and oceans under conditions that advance Chinese economic interests. Relying on bilateral investment treaties and contracts negotiated with host governments and other local counterparties, the Chinese state and Chinese firms have financed and built roads, railway and shipping lines, and ports and terminals across the Asian continent and throughout East Africa and Europe. Belt and Road projects have opened new distribution channels for Chinese-manufactured goods and new markets for Chinese labor. In the longer term, the Chinese vision for the initiative also envisions it underpinning new, China-centered global supply chains.⁸⁸ Developing economies, most notably India, have begun to object that they incur all of the debt for Belt and Road projects and receive very little of the economic gain.⁸⁹ Some developed economies, however, appear to be hedging their bets. In another example of the legal standards war dynamic, the China-led Asian Infrastructure Investment Bank (AIIB), a principal vehicle for financing Belt and Road projects, has positioned itself as an alternative to the Western-led International Monetary Fund. Although the United States has declined to join the AIIB, citing concerns about China's refusal to include rule-of-law and human rights benchmarks in its financing agreements, powerful economies such as Germany and Canada have chosen differently.⁹⁰

Chinese information technology policy also has become a powerful tool for alternative network-making. Over the last decade, the Chinese information technology sector has grown rapidly and (as of this writing) includes two firms that rank among the world's 20 largest: search and social networking firm Tencent and e-commerce giant Alibaba.⁹¹ Whereas the United States fostered the growth of new information intermediaries by granting them broad legal immunities, the Chinese strategy for developing a domestic information technology sector combined draconian restrictions on foreign technology companies with highly enterprising—and, U.S. companies have alleged, coercive and underhanded—technology acquisition programs. Meanwhile, the Chinese government invested heavily in homegrown alternatives, providing early-stage funding, tax subsidies, and other incentives, and it also waived or overlooked limits on foreign direct investment to attract other investors.⁹² As Chinese technology firms moved out of the start-up stage and began building market share, they also benefited from the relative absence of domestic antitrust and consumer protection oversight, engaging in rapid and strategic diversification both horizontally and vertically. In particular, the leading Chinese platform firms offer fully integrated mobile payment systems, and large numbers of Chinese citizens who previously lacked access to credit cards, bank accounts, and other developed world financial conveniences have flocked to their services.⁹³

As the Chinese information technology sector has matured and turned toward new markets, affordances for both economic development and state control of communications infrastructure have emerged as central elements in the Chinese state's pursuit of global economic dominance. Tencent, Alibaba, and other Chinese platform companies have begun to make inroads in developing markets across Asia, Africa, and the Middle East, and Chinese hardware manufactures such as Huawei and Xiaomi sell equipment ranging from backbone servers to mobile phones across the developing world. In terms of development, capabilities for mobile payment, banking, and credit have driven rapid penetration within populations hungry for modernization.⁹⁴ For client states

inclined to control information flows to their own populations, meanwhile, Chinese firms' relative willingness to work with host governments to implement filtering and surveillance in their own markets is a selling point—and a powerful rebuttal to those Western observers who initially believed that the Chinese insistence on censorship and surveillance mandates would prove self-defeating.⁹⁵

The combined result of these technology policy initiatives is “a geopolitical enclave in which computational architectures and informational actors are coming together into what could be deservedly termed the Red Stack”—a networked communications infrastructure offering the ability to layer separation and control on top of the underlying connectivity afforded by the basic internet protocols.⁹⁶ Notably, because the Red Stack leverages powerful and preexisting economic and political motivations, its expansion does not depend on the success or failure of efforts by other BRICS countries, most notably Russia and Brazil, to encourage development of a separate BRICS internet, nor is a separate internet necessary as a technical matter.⁹⁷

Although one benefit of the Red Stack is the capacity for more effective state censorship, the technology companies whose offerings comprise the Red Stack benefit handsomely from other types of cross-border information flows and from transnational governance arrangements designed to facilitate them. More generally, the authoritarian end run differs from the legal standards war in a critical respect that relates to the degree to which it entails courting open conflict with the dominant network that it seeks to displace. Because the dominant network and its dysfunctions afford important benefits, the authoritarian end run seeks to deepen ties, not to make waves.⁹⁸

At the same time, the authoritarian end run also involves the use of soft power to deepen moral hazard by strengthening intellectual ties. As China has grown wealthier, so have its state-funded universities and research institutions. Where previously the principal connections between Chinese and Western universities were the Chinese students who traveled to Western universities to learn and the Western scholars who traveled to China to teach and conduct research, newly wealthy Chinese institutions now reach out directly to their Western counterparts, funding programs for research cooperation and intellectual exchange. Other outreach programs target journalists in developing countries, offering resources that include all-expenses-paid trips and access to state-of-the-art media facilities. Like the tech-industry political outreach programs that Chapter 3 described, Chinese outreach programs have implicit conditions attached. In particular, they discourage attention to matters related to internal control of information flows and suppression of dissent for political reasons. Scholars and journalists involved with such programs have begun to report that they are changing the discussion about China, its political economy, and its global role in meaningful ways.⁹⁹

The authoritarian end run has an ambivalent relationship to the rule of law. On one hand, both Chinese trade policy and Chinese technology policy emphasize centralized control by state institutions. One byproduct of China's accession to membership in the WTO and its movement toward greater economic liberalization has been modernization of domestic courts and other formal governance institutions along the lines that the WTO's obligations require. To the extent that concerns about the rule of law in the era of networked governance hinge on the disintegration of sovereign authority, one might argue that some components of the Chinese strategy are more compatible with

traditional, hierarchical governance models. On the other, the rule-of-law construct that Chinese global governance initiatives enshrine is thin, emphasizing regularity and predictability over transparency and contestability—features that Chinese information technology policy, in particular, works to eliminate. And for those reasons, the authoritarian end run does not offer new mechanisms for tempering arbitrary power but instead creates new obstacles to the project of developing such mechanisms.

Extreme Multistakeholderism: The Problem of Public Accountability

A fourth striking characteristic shared by the processes described in this chapter is their unusual mechanisms for political accountability. Emergent network-and-standard-based governance arrangements are strikingly inhospitable to traditional mechanisms for instilling accountability within legal institutions, and they also have invited powerful new variations on rent-seeking by nonstate actors. The success of those rent-seeking strategies in turn has inspired new networked tactics for civil society mobilization, but civil society actors seem continually to be outmaneuvered by transnational business interests. Both developments mark the emergence of a new model of public participation in governance, which I will call extreme multistakeholderism. It is amenable to practice by those entities or coalitions that are both sufficiently well-resourced to monitor governance processes unfolding concurrently at multiple sites and sufficiently well connected to gain access to processes and documents that may be shrouded in secrecy.

In theory, many of the transnational regulatory processes described in this chapter incorporate delegation-based accountability mechanisms.¹⁰⁰ In the United States for example, trade policy is the domain of the executive, and the executive in turn is accountable to the Senate, which must consent to ratification of new treaties, and to the voting public, which may repudiate an administration's trade policies at the ballot box. Interventions in transnational business regulatory processes also emanate from the executive branch and its constituent agencies and commissions, many of which are headed by political appointees.

In practice, both trade policy processes and transnational regulatory processes are far more accountable to private economic interests than to either of their official constituencies. The reasons are partly structural. In general, network-and-standard-based transnational governance arrangements have grown up between and around more traditional legal institutions in ways that have rendered them both relatively impervious to the sorts of checks and balances that those institutions are accustomed to exercising and relatively receptive to assertions of economic power. In the United States, for example, members of the industries affected by trade agreements sit on trade advisory councils that operate outside the purview of open-government laws, and new “fast-track” procedures have been devised to move newly ratified agreements through the congressional approval process without opening them up to bothersome second-guessing. Both arrangements are thought to be justified by the executive's broad authority to conduct diplomatic relations with foreign countries.¹⁰¹ Both in the United States and worldwide, trade negotiators routinely withhold information about the texts under discussion from citizens and media organizations in their own countries.¹⁰² Like the domestic regulatory mechanisms studied in Chapter 6, transnational regulatory processes are procedurally entrepreneurial and may also incorporate substantial privatization components—as was the case, for example, with bank capital regulation before the 2008

crash—so traditional mechanisms for political accountability tend not to reach them directly.¹⁰³ The courts, for their part, are inclined to regard both trade policy choices and transnational regulatory undertakings as nonjusticiable because they involve matters committed to the discretion of political actors.¹⁰⁴

Other reasons for the pervasive influence of private economic interests are ideological. Narratives about the virtues of “multistakeholderism” as a modality of governance have become a pervasive and cross-cutting theme in scholarly and policy discussions about the design of transnational governance arrangements. Both in theory and in practice, multistakeholder processes can involve a wide variety of actors.¹⁰⁵ Multistakeholderist narratives, however, typically express neoliberal ideologies about governance as an arena for regulatory entrepreneurship by affected interest groups.

Internet governance processes that rely on delegation-based accountability work differently and somewhat better. The particular form of incorporation chosen for ICANN—that of a California public benefit corporation—imposes a set of accountability mandates that break down loosely into three types: directors must consider the interests of all stakeholder groups rather than just a narrower group of shareholders, the corporation must prepare annual reports that create an adequate level of transparency about its operations, and directors or shareholders who feel that the corporation has deviated from its public-regarding mandate may sue the corporation.¹⁰⁶ As noted previously, ICANN attempts to fulfill its multistakeholder mandate principally via representation; board nominations are made by an independent committee and are subject to regional diversity mandates, anyone may join the working groups that generate policy proposals, and there are formal consultative processes for certain important constituencies. ICANN also takes its transparency mandate seriously. In addition to reporting annually on various dimensions of its performance and operations, it has adopted a variety of other measures to keep its constituencies informed, some taken from the corporate toolkit (e.g., quarterly performance calls) and others from the transnational governance toolkit (e.g., multilingual reporting).¹⁰⁷

In practice, though, the choice of a multistakeholder-based model for public input has produced—and was intended to produce—a significant policy tilt toward relatively well-resourced interests concerned chiefly with protection of trademarks and other intellectual property. The capture of policy decisions relating to allocation of second-level domain names by trademark interests has been widely remarked. Courts in the United States and other countries around the world may set aside particular decisions favoring mark owners but lack authority in the context of such proceedings to pass judgment on the legitimacy of the dispute resolution processes more generally.¹⁰⁸ ICANN’s continuing resistance to implementing data protection measures for the rich trove of personal information contained in the WHOIS domain registry databases reflects the demands of intellectual property interests and national law enforcement authorities—and those of information businesses engaged in data aggregation and data mining—for unimpeded access to that information.¹⁰⁹ In theory, the California court system retains jurisdiction of lawsuits challenging ICANN’s fulfillment of its public mission, but it is difficult to imagine such a suit producing meaningful change in any of ICANN’s policies.

The other traditional mechanism for political accountability involves direct participation. Some internet standards governance arrangements adopt this model, but

here too underlying patterns of power and access can operate to impede participatory democracy. As noted previously, although membership in the IETF and its constituent working groups is exercised on an individual basis, as a practical matter participation is heavily corporatized. At the W3C, which recognizes organizational membership, corporate influence over policymaking is an acknowledged fact.

From a theoretical perspective, these developments are unsurprising. Within networked governance arrangements, one would expect both assertions of power and assertions of counterpower to exhibit returns to scale.¹¹⁰ The networked governance processes described in this chapter bear out that expectation. The lengthy, intricate, and globally distributed nature of transnational legal-institutional processes sets an effective lower bound on the kinds of entities that can participate effectively. Entities that are both vertically integrated and operationally nimble—in general, large transnational corporations and their trade associations—have the easiest time surmounting the threshold requirements for policy influence. The affordances of networked media and communication infrastructures offset geographical limits to some extent but also favor those best positioned to make use of them to coordinate interventions across multiple, far-flung sites.

Civil society organizations too have learned to play the multistakeholder game within network-and-standard-based governance processes. They have formed transnational networks that enable them to pool their resources and act cooperatively. We have seen that in the context of intellectual property, those alliances proved powerful enough to route around unresponsive institutions for trade policymaking and find leverage elsewhere—but only temporarily. Similarly, a transnational network of privacy organizations has coordinated efforts both to achieve greater transparency about ongoing regulatory and diplomatic initiatives and to expose and challenge unfavorable provisions under discussion in trade negotiations.¹¹¹ Even as civil society organizations have discovered regime shifting, however, corporate actors and business NGOs such as the International Chamber of Commerce and the International Trademark Owners Association have followed suit, mobilizing the comparatively greater resources of their memberships to shift policymaking efforts into more congenial arenas. Where processes for NGO consultation are more formalized, as in the case of U.N.-sponsored standard-making initiatives, well-resourced business NGOs have rapidly mastered the diplomatic and bureaucratic skills required to make their voices heard loudly.¹¹²

The flip side of procedures guaranteeing both orderly contestation and finality is a political culture prepared to honor their requirements and abide by their results. The political culture of extreme multistakeholderism is different. The practice of extreme multistakeholderism within networked legal-institutional environments is best understood via a videogaming metaphor, as a never-ending process of “leveling up.” Within that process, the rewards flow to those who can access the most up-to-date information and marshal it most effectively on a global playing field. Those who lack comparable resources are doomed to play catch-up, pursuing a threshold of influence that remains continually out of reach.

Technocracy and Its Discontents: The Problem of Publicly Available Law

A fifth distinctive attribute of emergent arrangements for global business governance and global network governance is their highly technocratic character. As we saw in Chapters 5 and 6, the regulatory problems of the informational economy have begun to elicit complex, highly informationalized responses that are managerialist in orientation. The networked legal-institutional form continues both the turn toward flexible and often outsourced dispute resolution described in Chapter 5 and the turn toward privatized, audit-based oversight explored in Chapter 6. That is so in large part because the standards at the core of transnational legal institutional arrangements are managerial ur-texts—dense, complex, and transparent only to those with relevant expertise.

Legal scholars who study transnational regulatory processes have long worried that those processes lend themselves to capture by powerful global elites.¹¹³ It is helpful to understand that tendency as bound up with essential but imperfectly assimilated shifts in the technologies and the media of regulation. Network-and-standard-based legal-institutional arrangements exemplify an approach to mandated standardization that scholars who study sociotechnical assemblages for financial regulation have called the numericization of governance.¹¹⁴ They are developed via expert proceedings and encoded in lengthy, highly technical specifications whose implementation requires ongoing supervision by cadres of managerial elites and professional auditors. The resulting methodological and technical constraints on participation provide entry points for capture motivated by ideology or economic self-interest, but they also can produce subtler perspectival and ideological shifts that reflect the deep and unquestioned commitments of expert communities of practice.

The particular expert register in which transnational governance is conducted varies from setting to setting. In the internet governance context, the language of governance is produced by and for computer scientists and engineers. In world trade governance and transnational financial regulation, the language of governance is predominantly economic and, particularly in financial governance settings, highly quantitative. Environmental and food and drug regulatory processes incorporate technical vernaculars from fields such as climate science, marine ecology, and epidemiology. Other prevailing vernaculars are more generally managerial. For example, detailed operational standards geared to the rhythms of organizational processes and to the benchmarks and reporting conventions used by professional auditors are increasingly common features of transnational environmental and labor regulation.¹¹⁵ Many of the transnational regulatory arrangements surveyed in this chapter also adopt approaches to dispute resolution that are decidedly managerial in orientation. Across multiple domains ranging from trade and foreign direct investment to international business transactions to domain name registration, arbitration superintended by elite members of the relevant private bars is the order of the day.¹¹⁶

In each case, reliance on technical vernaculars produces both some obvious entry barriers and some less obvious obstacles to broadly democratic policymaking. Even where participation in network governance processes is formally open to all comers, as in the case of the IETF's working groups, the learning curve for those without appropriate technical facility is often steep. Civil society organizations in particular have struggled to

attain technical parity with their better-resourced counterparts in the business and technology communities.¹¹⁷ Expertise is required, as well, to understand the ways in which methods and analytical commitments that are ostensibly technical also implicate, reflect, reinforce, and sometimes predetermine policy commitments. Disentangling fact from value and understanding the social construction of technology are perennial problems in science and technology policy, but network organization under legally or practically mandated standardization exacerbates them.¹¹⁸ As substantive policy choices are folded into standards, they become more and more difficult to disentangle, and certain types of especially incommensurable concerns—for example, concerns relating to development of capabilities for human flourishing and protection of fundamental rights—may seem to disappear altogether. The midlevel frameworks for articulating such considerations within expert rubrics tend to be underdeveloped at best.¹¹⁹ Both policy and methodological disagreements become more difficult for outsiders to frame and deploy.

A corollary is that, as technocratic oversight of regulatory functions becomes more solidly entrenched, the (explicit or implicit) political commitments of the expert regulators themselves may become more difficult to identify, contest, and dislodge. So, for example, the pathbreaking “end to end” design of technical protocols for the internet reflected solid technical judgment about robustness to certain kinds of disruptions and also encoded the generally libertarian commitments of the original internet pioneers. As a result, although the internet overall is extraordinarily resistant to disruptions of service, it has proved extraordinarily hospitable to other kinds of threats that exploit networked interconnection.¹²⁰ As we saw in Chapter 6, discourses of risk management that play increasingly important roles in environmental and financial regulation may fail to reckon adequately with certain kinds of large systemic threats. Those discourses and their blind spots also have featured prominently in the corresponding transnational regulatory debates.¹²¹ In the domain of world trade, the leading theoretical models generally have viewed liberalization as an unqualified good, even though developing countries and their advocates charge that the models ignore or undervalue considerations relating to equitable distribution of resources and capability-building for future innovation. Additionally, ascendant discourses about technical standard-making purport to elevate the “scientific” over the political but often operate to submerge political considerations.¹²²

An important element of the rule-of-law ideal is commitment to publicly accessible rules and publicly accessible reasoning about the justifications for particular decisions.¹²³ From that perspective, network organization under legally or practically mandated standardization creates a paradox: Effective control of highly informationalized processes requires governance institutions capable of responding in kind, but the very process of optimizing regulatory controls to highly informationalized processes makes governance processes more opaque and less accountable to broader global publics. The strain that the turn toward technocracy places on ideals of public accessibility and contestability is not confined to the institutions that this chapter has studied. The rule-of-law paradigm has long struggled with questions about how to frame contestation over proffered scientific or quasi-scientific expertise, and those struggles have intensified as debates about risk and injury have become more pervasively informationalized. The turn toward technocracy in transnational governance, however, exacerbates the problem of public impenetrability. As transnational network-and-standard-based governance

arrangements have proliferated, their expert networks have become increasingly opaque, arcane, and self-reinforcing.

Standards, Hubs, and Platforms: The Problem of Private Sovereignty

So far, the discussion in this section has presumed that, within networked governance arrangements, nonstate entities act as stakeholders but only sovereign states function as policy hubs. But that implicit division of roles ignores both the leveling effects of network logics and the amenability of standards to disintermediation. Commentators have long puzzled over the undeniable fact that, although they are nominally stakeholders in transnational networked governance processes, transnational corporations speak with increasingly independent voices in their relationships with sovereign states and also wield considerable governance authority of their own over globally distributed labor and supply chains.¹²⁴ Because of their central importance for global communication and information exchange, the dominant global platform firms push both tendencies to new extremes. The growing power of platform firms has implications that are both conceptual and practical. It raises the possibility that the Westphalian international legal order may be giving way to a hybrid order characterized by interlocking spheres of practical sovereignty and that disintermediation strategies targeting legally or practically mandated standards may in some circumstances reach beyond particular standards to target their associated policy hubs.

From the traditional international relations perspective, it makes no sense to speak of platforms or any other private corporations as sovereigns. Within the Westphalian international legal order, a sovereign state is, most minimally, an entity with a defined territory and a permanent population, the authority to govern its territory, and the capacity to enter into relations with other states.¹²⁵ Platform firms own premises within the territories of nation-states and provide services to citizens of those states. Unlike state sovereigns, they lack authority to use physical force to assert the primacy of their laws or defend the sanctity of their borders. Yet the growing practical sovereignty of platforms over many aspects of their users' everyday lives blurs the boundaries that those criteria impose.

Dominant platforms are unmatched by other transnational corporations in the extent of the authority they wield over the day-to-day experiences and activities of their users. Here again, the terminology developed by Castells in his exploration of communication power in the networked digital era is useful for explicating the various kinds of power that dominant platforms possess. By virtue of their privileged and infrastructural access to flows of information, such platforms wield both network power—which, as we have seen, inheres in the self-reinforcing power of a dominant network and by extension in its standards—and network-making power—or the power to constitute the network and perhaps to reconstitute it along different lines by altering the conditions of interconnection.¹²⁶

The network power and the network-making power of dominant platforms are rooted in the very considerations of territory, population, and enforcement authority that platforms supposedly lack. Platform territories are not contiguous physical spaces but rather are defined using protocols, data flows, and algorithms. Both technically and experientially, however, they are clearly demarcated spaces, and, as we saw in Part I,

platforms guard their virtual borders vigilantly.¹²⁷ Put differently, network-making power is not just theoretical. Dominant platform firms have used combinations of boilerplate and technical protocols to structure the commercially important layers of their operations as walled gardens within which the conditions of interconnection are strictly controlled, and they have gradually but inexorably reconfigured the networked information environment in ways that reinforce their dominance over the conditions of data collection and knowledge production.

As to population, dominant platforms such as Facebook, Google, and Apple have user populations that number in the billions, vastly eclipsing the populations of all but the largest nation-states.¹²⁸ To be sure, there are differences between platform usership and citizenship: Citizenship is constitutive of juridical identity, whereas platform usership is not. Nation-states make citizenship difficult to attain and easy to relinquish, while for digital platforms the reverse is true. The logic of platform membership is a network logic that relies on lock-in, and it persistently undercuts the strategies of exit and voice through which users police more ordinary commercial relationships. The increasingly indispensable nature of the services that platforms provide makes exit practically infeasible for many users. Voice is also less feasible precisely because the enforcement authority of platforms is real and immediate. Platforms govern their domains with a quiet tenacity, using protocols and interface design to structure permitted conduct—for example, sponsored search results, Facebook “likes” and “tags,” Twitter retweets—and imposing internal sanctions ranging from content removal to account suspension or cancellation for disfavored conduct.¹²⁹

Sovereign authority also must be recognized as such by other sovereigns, and here the picture is muddier. As we have seen throughout the book, the sovereignty of platforms is emergent and performative. The dominant U.S. platform firms acting in their capacity as surveillance intermediaries actively and theatrically resist certain kinds of incursions by nation-states on their own governance authority. In court systems around the world, they have simultaneously defended against production requests for data stored domestically and declined to comply with production requests for data stored overseas. In regulatory fora, they have engaged in protracted negotiation with competition regulators, transportation and labor regulators, data protection authorities, and tax authorities.¹³⁰

Although some of these controversies also implicate users’ rights of privacy, expression, and association, platforms more often seem to be principally concerned with establishing their own regulatory independence. Platforms also increasingly practice diplomacy in the manner of sovereign actors. Facebook’s privacy team travels the world meeting with government officials to determine how best to satisfy their concerns while continuing to advance Facebook’s own interests, much as a secretary of state and his or her staff might do. Such efforts recently bore unprecedented fruit when Denmark announced the appointment of a digital ambassador whose portfolio focuses on relations with the giant platform companies. That decision in turn may inform discussions now underway in various other European settings about the desirability of appointing new government “ministers for digital.”¹³¹

The nature of the sovereignty that dominant platforms claim to exercise and the extent of the policy disintermediation to which their ambitions extend are also unclear. Speaking at a recent network security conference, Microsoft’s president crystallized one

version of that ambition, sketching a future in which platform firms function as “a trusted and neutral digital Switzerland.”¹³² As we saw in Chapter 4, however, networked information and communication providers, including the dominant platform firms, have pursued more collaborative relationships with governments on both matters of national security and law enforcement, and they also have at times forged such relationships on matters of technology policy more generally.¹³³ And as discussed above, the dominant Chinese platforms have been more amenable to partnering with national governments on a wide variety of policy and governance initiatives.

It is worth noting that, within transnational governance arrangements, the emergent authority of platforms is greatest precisely where the links to state sovereignty are most tenuous: within the interlinked complex of internet governance processes. As already noted, in general the major information technology firms and their employees play active roles in network governance processes. Google and Facebook each operate substantial privatized internet “backbone” infrastructures—the interconnection facilities that link different pieces of the global network together—and Google and Amazon have acquired extensive domain name portfolios that map to other elements of their market expansion strategies.¹³⁴ But platform firms also have begun to assert their preferences more directly within trade and transnational regulatory settings, most notably with regard to arrangements for governing cross-border data flows. They have played a central role in crafting the case for stronger trade-related protection of data flows that might counteract European-style data protection mandates.¹³⁵

In sum, concentrated stakeholder control of the networked communications infrastructure can produce and perhaps is beginning to produce an inversion of law- and policy-making authority, through which some stakeholders become policy hubs in their own right. Theories of international relations that deny the possibility of private sovereignty are ill-equipped to respond to that possibility. Reconceptualizing the arena for transnational governance in a way that expressly accounts for both network-and-standard-based governance and the network-making power of dominant platforms has become an increasingly important project.

Designing Institutional Forms for Rule of Law 2.0

Just as contests over accountability for industrial-age harms shaped the forms of legal institutions and the content of legal doctrine in an earlier era, so the contests now playing out within network-and-standard-based legal-institutional settings will determine the structure of the legal system in the emerging, globalized, postindustrial era. The new transnational processes follow network laws and standardization dynamics, and that organization explains a great deal about their inconsistency with traditional rule-of-law formulations. Network power actively routes around inconvenient sources of friction, whatever their origin, and network organization around mandated standardization resists conventional mechanisms for direct contestation and public accountability.

Taking networks and standards seriously as organizing principles for law raises urgent questions about whether and how network-and-standard-based governance institutions might be configured differently—and underscores the high costs of failing to pursue such efforts. The disconnects between network-and-standard-based governance

and rule-of-law ideals point to the beginning of an important institutional design project that emphasizes both the ultimate problem of arbitrary power and the ultimate goal of accountability to global networked publics. That project also must contend with both the power of the authoritarian end run and the growing practical sovereignty of platforms, offering new and more effective strategies to address the challenges those developments pose for the realization of rule-of-law aspirations in the networked information era.

¹ On networked governance, see, for example, Julia Black, “Constructing and Contesting Legitimacy and Accountability in Polycentric Regulatory Regimes,” *Regulation and Governance* 2 (2008): 137-164; John Braithwaite (2006), “Responsive Regulation and Developing Economies,” *World Development* 34 no. 5 (2006): 884-898, Kal Raustiala, “The Architecture of International Cooperation: Transgovernmental Networks and the Future of International Law,” *Virginia Journal of International Law* 43 no. 1 (2002): 1-92; Anne Marie Slaughter, *A New World Order* (Princeton, NJ: Princeton University Press, 2004); see also Gregory Shaffer, “Theorizing Transnational Legal Ordering,” *Annual Review of Law and Society* 12 (2016): 231-253. On standards in transnational governance, see, for example, Panagiotis Delimatsis, ed., *The Law, Economics, and Politics of International Standardization* (New York: Cambridge University Press, 2015); Tim Buthe & Walter Mattli, *The New Global Rulers: The Privatization of Regulation in the World Economy* (Princeton: Princeton University Press, 2011); Dieter Kerwer, “Rules that Many Use: Standards and Global Regulation,” *Governance: An International Journal of Policy, Administration, and Institutions* 18 no. 4 (2005): 611–632; Colin Scott, “Standard Setting in Regulatory Regimes,” in *Oxford Handbook of Regulation*, eds. Robert Baldwin, Robert Cave, & Martin Lodge (New York: Oxford University Press, 2010), 104-119; Harm Schepel, *The Constitution of Private Governance: Product Standards in the Regulation of Integrating Markets* (Portland, Ore.: Hart Publishing, 2005). The most comprehensive effort to integrate discussion of standards within discussion of networks is David Singh Grewal, *Network Power: The Social Dynamics of Globalization* (New Haven: Yale University Press, 2008), 25-43, 193-214.

² Duncan Kennedy, “Form and Substance in Private Law Adjudication,” *Harvard Law Review* 89 no. 8 (1976): 1685-1778; Pierre Schlag, “Rules and Standards,” *UCLA Law Review* 33 no. 2 (1985): 379-430.

³ The analogy originates with Lawrence Lessig, *Code and Other Laws of Cyberspace* (New York: Basic Books, 1998). For a brief flirtation with the idea of internet governance processes as “hybrid” code- and law-based institutions, see Laurence B. Solum, “Models of Internet Governance,” in *Internet Governance: Infrastructure and Institutions*, eds. Lee A. Bygrave & Jon Bing (New York: Oxford University Press 2009), 48-91.

⁴ On the state monopoly of violence and the centrality of violence for the state, see Anthony Giddens, *The Nation-State and Violence: Volume 2 of a Contemporary Critique of Historical Materialism* (Berkeley, Calif: Univ of California Press, 1987), 18-19; Francis Fukuyama, “Liberalism Versus State-Building,” *Journal of Democracy* 18, no. 3 (2007): 10-13.

⁵ Theories of the rule of law vary in their thickness. For a summary and analysis of the major strands of thought about the rule of law in the Anglo-American legal tradition, see Richard H. Fallon, Jr., “‘The Rule of Law’ as a Concept in Constitutional Discourse,” *Columbia Law Review* 97 no. 1 (1997): 1-56. For a broader comparative discussion of the rule-of-law ideal, see Mireille Hildebrandt, *Smart Technologies and the End(s) of Law: Novel Entanglements of Law and Technology* (Northampton, Mass.: Edward Elgar, 2015), 133-56.

⁶ Hildebrandt, *Smart Technologies and the End(s) of Law*, 174-85.

⁷ Martin Krygier, “The Rule of Law: Pasts, Presents, and Two Possible Futures,” *Annual Review of Law and Social Science* 12 (2016): 199-229.

⁸ Terence C. Halliday & Gregory Shaffer, “Transnational Legal Orders,” in *Transnational Legal Orders*, eds. Terence C. Halliday & Gregory Shaffer (New York: Cambridge University Press, 2015), 3-72; Heather McKeen-Edwards & Tony Porter, *Transnational Financial Associations and the Governance of Global Finance: Assembling Wealth and Power* (New York: Routledge, 2013); see also Gregory C. Shaffer, “How Business Shapes Law: A Socio-Legal Framework,” *Connecticut Law Review* 42 no. 1 (2009): 147-183. Broadly speaking, the idea of an assemblage refers to an interlinked set of institutions and actors whose

repeated, purposive operations and interactions define the parameters for ordering. Martin Muller, "Assemblages and Actor-Networks: Rethinking Socio-Material Power, Politics and Space," *Geography Compass* 9 no. 1 (2015): 27-41.

⁹ On the multistakeholderism as an emergent modality of governance, see Mark Raymond & Laura DeNardis, "Multistakeholderism: Anatomy of an Inchoate Global Institution," *International Theory* 7 no. 3 (2015): 572-616. On standards and standard-making, see sources cited in note 1, above.

¹⁰ For two very different perspectives on the increasing importance of logics of liberalization within trade governance arrangements, see William J. Drake & Kalypso Nicolaidis, "Ideas, Interests, and Institutionalization: 'Trade in Services' and the Uruguay Round," *International Organization* 46 no. 1 (1992): 37-100; Jane Kelsey, *Serving Whose Interests? The Political Economy of Trade in Services* (New York: Routledge-Cavendish, 2008), 76-88.

¹¹ Iain Osgood & Yilang Feng, "Intellectual Property Provisions and Support for US Trade Agreements," *Review of International Organizations* 13 no. 3 (2018): 421-55.

¹² Mario Cimoli, et al., eds., *Intellectual Property Rights: Legal and Economic Challenges for Developing Countries* (New York: Oxford University Press, 2014); Olufunmilayo B. Arewa, "Local Communities, Local Knowledge, and Global Intellectual Property Frameworks," *Marquette Intellectual Property Law Review* 10 no. 1 (2006): 155-180.

¹³ See, for example, Alessandra Arcuri, "Global Food Safety Standards: The Evolving Regulatory Epistemology at the Intersection of the SPS Agreement and the Codex Alimentarius Commission," in Delimatsis, ed., *The Law, Economics, and Politics of International Standardization*, 79-103; Panagiotos Delimatsis, "'Relevant International Standards' and 'Recognised Standardisation Bodies' under the TBT Agreement," in Delimatsis, ed., *Law, Economics, and Politics*, 104-36; Hans Lindahl, "ISO Standards and Authoritative Collective Action," in Delimatsis, ed., *Law, Economics, and Politics*, 42-57; Harm Schepel, "Between Standards and Regulation: On the Concept of 'De Facto Mandatory Standards' after *Tuna II* and *Fra.bo*," in Delimatsis, ed., *Law, Economics, and Politics*, 199-214.

¹⁴ Robert E. Baldwin, "Failure of the WTO Ministerial Conference at Cancun: Reasons and Remedies," *The World Economy* 29 no. 6 (2006): 677-696.

¹⁵ For a sampling of perspectives on these developments, see Todd Allee & Andrew Legg, "Who Wrote the Rules for the Trans-Pacific Partnership?," *Research and Politics* July-Sept. 2016: 1-9, doi: 10.1177/2053168016658919; Kyle Bagwell, Chad P. Bown, & Robert W. Staiger, "Is the WTO Passé?," *Journal of Economic Literature* 54 no. 4 (2016): 1125-1231; Nitsan Chorev & Sarah Babb, "The Crisis of Neoliberalism and the Future of International Institutions: A Comparison of the IMF and the WTO," *Theory and Society* 38 no. 5 (2009): 459-484.

¹⁶ David A Gantz, "The TPP and RCEP: Mega-Trade Agreements for the Pacific Rim," *Arizona Journal of International and Comparative Law* 33 no. 1 (2016): 57-69; Peter K. Yu, "The RCEP and Trans-Pacific Intellectual Property Norms," *Vanderbilt Journal of Transnational Law* 50 no. 3 (2017): 673-740; Mireya Solis & Jennifer Mason, "As the TPP Lives On, the U.S. Abdicates Trade Leadership," Order From Chaos, Brookings Institution (Mar. 9, 2018), <https://perma.cc/Z29Y-4LT2>.

¹⁷ See Christopher Ingraham, "Interactive: How Companies Wield Off-the-Record Influence on Obama's Trade Policy," *Washington Post* (Feb. 8, 2014), <https://perma.cc/UPN6-DHKD>.

¹⁸ Melissa J. Durkee, "The Business of Treaties," *UCLA Law Review* 63 no. 1 (2016): 264-321.

¹⁹ For more detailed discussion of ISDS mechanisms, see Chapter 8, pp. 257-60.

²⁰ Margaret E. Keck & Kathryn Sikkink, eds., *Activists Beyond Borders: Advocacy Networks in International Politics* (Ithaca: Cornell University Press, 1998), 1-38.

²¹ Lindahl, "ISO Standards and Authoritative Collective Action"; Kernaghan Webb, "ISO 26000 Social Responsibility Standard as 'Proto Law' and a New Form of Global Custom: Positioning ISO 26000 in the Emerging Transnational Regulatory Governance Rule Instrument Architecture," *Transnational Legal Theory* 6 no. 2 (2015): 466-500; see also Buthe & Mattli, *The New Global Rulers*.

²² Melissa J. Durkee, "Astroturf Activism," *Stanford Law Review* 69 no. 1 (2017): 201-268; see also Melissa J. Durkee, "International Lobbying Law" *Yale Law Journal* 128 no. 7 (2018): 1742-1826.

²³ Benedicte Bull & Desmond McNeill, *Development Issues in Global Governance: Public-Private Partnerships and Market Multilateralism* (New York: Routledge, 2007), 1-22; Marco Schäferhoff, Sabine Campe, & Christopher Kaan. "Transnational Public-Private Partnerships in International Relations: Making Sense of Concepts, Research Frameworks, and Results." *International Studies Review* 11, no. 3 (2009): 451-474.

²⁴ Chris Brummer, *Soft Law and the Global Financial System: Rule Making in the 21st Century* (New York: Cambridge University Press, 2012); Charles D. Raab, “Networks for Regulation: Privacy Commissioners in a Changing World,” *Journal of Comparative Policy Analysis: Research and Practice* 13 no. 2 (2011): 195-213.

²⁵ Chris Brummer, *Minilateralism: How Trade Alliances, Soft Law and Financial Engineering are Redefining Economic Statecraft* (New York: Cambridge University Press, 2014), 96-123; McKeen-Edwards & Porter, *Transnational Financial Associations and the Governance of Global Finance*; Juan A. Marchetti, “Technical Standard-Setting in the Financial Sector,” in Delimatsis, ed., *Law, Economics, and Politics*, 137-59.

²⁶ On standardization work by global transnational corporations, see Durkee, “The Business of Treaties,” 281-82; Klaas Hendrik Eller, “Private Governance of Global Value Chains from Within: Lessons for Transnational Law,” *Transnational Legal Theory* 8 no. 3 (2017): 296-329; Li-Wen Lin, “Legal Transplants through Private Contracting: Codes of Vendor Conduct in Global Supply Chains as an Example,” *American Journal of Comparative Law* 57 no. 3 (2009): 711-744; Schepel, *The Constitution of Private Governance*. On the role of private industry associations in financial standardization, see McKeen-Edwards & Porter, *Transnational Financial Associations and the Governance of Global Finance*. On standardization work performed by and through specialized professions, see McKeen-Edwards & Porter, 79-99; Kerwer, “Rules That Many Use.”

²⁷ See, for example, Jordi Agusti-Panareda, Franz Christian Ebert, & Desiree LeClerq, “ILO Labor Standards and Trade Agreements: A Case for Consistency,” *Comparative Labor Law and Policy Journal* 36 no. 2 (2015): 347-380; Orr Karassin & Oren Perez, “Shifting between Public and Private: The Reconfiguration of Global Environmental Regulation,” *Indiana Journal of Global Legal Studies* 25 no. 1 (2018): 97-130; Kevin Kolben, “Transnational Labor Regulation and the Limits of Governance,” *Theoretical Inquiries in Law* 12 no. 2 (2011): 403-437.

²⁸ Theodore Eisenberg & Geoffrey P. Miller, “The Flight from Arbitration: An Empirical Study of Ex Ante Arbitration Clauses in the Contracts of Publicly Held Companies,” *DePaul Law Review* 56 no. 2 (2007): 335-374; W. Mark C. Weidemaier, “Customized Procedure in Theory and Reality,” *Washington & Lee Law Review* 72 no. 4 (2015): 1865-1943.

²⁹ Susan Block-Lieb & Terence Halliday, “Contracts and Private Law in the Emerging Ecology of International Lawmaking,” in *Contractual Knowledge: One Hundred Years of Legal Experimentation in Global Markets*, eds. Gregoire Mallard & Jerome Sgard (New York: Cambridge University Press, 2016), 350-399; see also Yves Dezalay & Bryant Garth, *Dealing in Virtue: International Commercial Arbitration and the Construction of a Transnational Legal Order* (Chicago: University of Chicago Press, 1996).

³⁰ Matthew S. Erie, “The New Legal Hubs: The Emergent Landscape of International Commercial Dispute Resolution,” *Virginia Journal of International Law* 59 no. 3 (forthcoming, 2019).

³¹ Lessig, *Code and Other Laws of Cyberspace*; A. Michael Froomkin, “Habermas@Discourse.Net: Toward a Critical Theory of Cyberspace,” *Harvard Law Review* 116 no. 3 (2003): 749-873; see also Solum, “Models of Internet Governance.”

³² Galf-Peter Calliess & Peer Zumbansen, *Rough Consensus and Running Code: A Theory of Transnational Private Law* (Portland, Ore.: Hart Publishing, 2010), 137-39. For a notable exception within the transnational governance literature, see Roger Cotterrell, “What Is Transnational Law?,” *Law and Social Inquiry* 37 no. 2 (2012): 500-24.

³³ Janet Abbate, *Inventing the Internet*, (Cambridge, Mass.: MIT Press, 1999), 147-79; Laura DeNardis, *Protocol Politics: The Globalization of Internet Governance* (Cambridge, Mass.: MIT Press, 2009), 25-70; Andrew L. Russell, “‘Rough Consensus and Running Code’ and the Internet-OSI Standards War,” *IEEE Annals of the History of Computing* 28 no. 3 (2006): 48-61.

³⁴ Russell, “‘Rough Consensus and Running Code,’” 55.

³⁵ Memorandum of Understanding Between the U.S. Dep’t of Commerce and ICANN” (Nov. 25, 1998), <https://perma.cc/ZMV2-VLD4>; “USC-ICANN Transition Agreement,” <https://perma.cc/8ZKM-5EM7> (last visited June 21, 2018); U.S. Dep’t of Commerce, Nat’l Telecomm. & Info. Admin., “NTIA Finds IANA Stewardship Transition Proposal Meets Criteria to Complete Privatization” (June 9, 2016), <https://perma.cc/6R2P-Q5UT>.

³⁶ For helpful discussions of the competing arguments and perspectives, see Laura DeNardis, *The Global War for Internet Governance* (New Haven: Yale University Press, 2014), 33-34, 226-30; Milton L. Mueller, *Ruling the Root: Internet Governance and the Taming of Cyberspace* (Cambridge, Mass.: MIT Press,

2002); see also White House, “A Framework for Global Electronic Commerce” (July 1, 1997), <https://perma.cc/HH2M-PRCC>.

³⁷ Dmitry Epstein, “The Making of Institutions of Information Governance: The Case of the Internet Governance Forum,” *Journal of Information Technology* 28 no. 2 (2013): 137-149.

³⁸ Froomkin, “Habermas@Discourse.Net.”

³⁹ A. Michael Froomkin, “Wrong Turn in Cyberspace: Using ICANN to Route Around the APA and the Constitution,” *Duke Law Journal* 50 no. 1 (2000): 17-186; John Palfrey, “The End of the Experiment: How ICANN’s Foray into Global Internet Democracy Failed,” *Harvard Journal of Law and Technology* 17 no. 2 (2004): 409-474.

⁴⁰ See, for example, David R. Johnson & Susan P. Crawford, “The Idea of ICANN,” ICANN Watch (Feb. 12, 2001), <https://perma.cc/TGQ7-GJWB>.

⁴¹ For discussion, see Stefania Milan & Niels ten Oever, “Coding and Encoding Rights in Internet Infrastructure,” *Internet Policy Review* 6 no. 1 (2017): doi: 10.14763/2017.1.442.

⁴² Articles of Incorporation of Internet Corporation for Assigned Names and Numbers, art. 3 (Sept. 30, 1998), <https://perma.cc/85L3-LMCM>.

⁴³ “The IETF Process: An Informal Guide,” Internet Engineering Task Force, <https://perma.cc/DM6S-GB2V> (last visited June 21, 2018); Charles Vincent and Jean Camp, “Looking to the Internet for Models of Governance,” *Ethics and Information Technology* 6 (2004): 161-173.

⁴⁴ See generally Gillian E. Metzger & Kevin M. Stack (2017), “Internal Administrative Law,” *Michigan Law Review* 115 no. 8: 1239-1307, 1250-56.

⁴⁵ Corinne J.N. Cath, “A Case Study of Coding Rights: Should Freedom of Speech Be Instantiated in the Protocols and Standards Designed by the Internet Engineering Task Force?,” Thesis for degree in Master of Science in Social Science of the Internet, Oxford University (Aug. 10, 2015), <https://perma.cc/8F8Q-AGDD>.

⁴⁶ DeNardis, *The Global War for Internet Governance*.

⁴⁷ On these and other examples, see DeNardis, *The Global War for Internet Governance*., 74-76.

⁴⁸ DeNardis, *The Global War for Internet Governance*, 46-55.

⁴⁹ On the increasing importance of digital information flows for cross-border trade and their imperfect fit within the framework established by the GATS, see Anupam Chander, *The Electronic Silk Road: How the Web Binds the World Together in Commerce* (New Haven: Yale University Press, 2013), 142-57; Lee Tuthill & Martin Roy, “GATS Classification Issues for Information and Communication Technology Services,” in Mira Burri & Thomas Cottier, eds., *Trade Governance in the Digital Age: World Trade Forum* (New York: Cambridge University Press, 2012), 157-178; Tim Wu, “The World Trade Law of Censorship and Internet Filtering,” *Chicago Journal of International Law* 7 no. 1 (2006): 263, 266-76.

⁵⁰ On free flow provisions in the electronic commerce chapter of the TPP, see Burcu Kilic & Tamir Israel, “The Highlights of the Trans-Pacific Partnership E-Commerce Chapter,” Public Citizen (Nov. 5, 2015), <https://perma.cc/3ACL-RZBR>. On free flow provisions in the financial services chapter of the Trade in Services Agreement, see Jane Kelsey, Analysis TISA Financial Service Text Dated 27 June 2016, <https://perma.cc/KD5J-YYQR>. See also Mira Burri, “The Governance of Data and Data Flows in Trade Agreements,” *U.C. Davis Law Review* 51 no. 1 (2015): 65-132.

⁵¹ Wu, “The World Trade Law of Censorship and Internet Filtering,” 266-76.

⁵² On industry negotiating strategies with regard to copyright provisions, see Margot E. Kaminski, “The Capture of International Intellectual Property Law Through the U.S. Trade Regime,” *Southern California Law Review* 87 no. 4 (2014): 977, 1019-29. On efforts to secure stronger protection for cross-border flows of trade secret information, see Intellectual Property Rights Industry -Trade Advisory Committee (ITAC-15), “Report on the Trans-Pacific Partnership Agreement” (Dec. 3, 2015), 25-26, <https://perma.cc/SH26-5UHL>; see also Douglas C. Lippoldt & Mark F. Schultz, “Uncovering Trade Secrets—An Empirical Assessment of Economic Implications of Protection for Undisclosed Data,” OECD Trade Policy Papers, No. 167 (2014), <https://perma.cc/DRJ6-KH6H>; Andre Barbe & Katherine Linton, “Trade Secrets: International Trade Policy and Empirical Research,” OECD Trade Policy Papers (Draft Aug. 5, 2016), <https://perma.cc/WG25-RV82>.] For an overview of the issues relating to cross-border cloud storage, see Urs Gasser & John Palfrey, “Fostering Innovation and Trade in the Global Information Society: The Different Facets and Roles of Interoperability,” in Burri & Cottier, eds., *Trade Governance in the Digital Age: World Trade Forum*, 123-54.

⁵³ Anu Bradford, “The Brussels Effect,” *Northwestern University Law Review* 107 no. 1 (2012): 1-67; see also Gregory Shaffer, “Globalization and Social Protection: The Impact of E.U. Rules in the Ratcheting Up of U.S. Privacy Standard,” *Yale Journal of International Law* 25 no. 1 (2000): 1-88.

⁵⁴ Case C-362/14, *Schrems v. Data Protection Comm’r*, 2015. E.C.R. 627 (invalidating safe harbor agreement); EU-U.S. Privacy Shield Framework (July 12, 2016), <https://perma.cc/C92T-C7CJ>; Natasha Lomas, “Facebook Is Trying to Block Schrems II Privacy Referral to EU Top Court,” *TechCrunch* (Apr. 30, 2018), <https://perma.cc/FK6J-JZDJ>.

⁵⁵ For discussion of the interplay between GATS obligations and European data protection requirements, see Svetlana Yakovleva & Kristina Irion, “The Best of Both Worlds? Free Trade in Services, and EU Law on Privacy and Data Protection,” *European Data Protection Law Review* 2 no. 2 (2016): 191-208, doi: 10.21552/EDPL/2016/2/9. On the possibility that the Transatlantic Trade and Investment Partnership (TTIP) might undermine data protection guarantees, see Graham Greenleaf, “Free Trade Agreements and Data Privacy: Future Perils of Faustian Bargains,” in *Transatlantic Data Privacy Relations as a Challenge for Democracy*, eds. Dan Svantesson & Dariusz Kloza (Antwerp: Intersentia, 2017), 181-212; Hielke Hijmans, “The Transatlantic Trade and Investment Partnership and the Developments in the Area of Privacy and Data Protection,” *Legal Issues of Economic Integration* 43 no. 4 (2016): 385-398. On industry lobbying, see “TTIP: A Corporate Lobbying Paradise,” *Corporate Europe Observatory* (July 14, 2015), <https://perma.cc/RJ85-H7FR>; Maira Sutton, Newly Released Emails Reveal Cozy Relationship Between U.S. Trade Officials and Industry Reps Over Secret TISA Deal, Electronic Frontier Foundation (Aug. 26, 2015), <https://perma.cc/5G5A-WWF3>; Nicole Sagener, Report: Lobbyists Heavily Influencing TISA Negotiations, EurActiv (Dec. 13, 2016), <https://perma.cc/TR3H-HSUX>.

⁵⁶ “APEC Privacy Framework 2015,” Asia-Pacific Economic Cooperation (Aug. 2017), <https://perma.cc/Q5WT-58S5>; Graham Greenleaf, “APEC’s Privacy Framework—A New Low Standard,” *Privacy Law and Policy Reporter* 11 no. 5 (2005): 121.

⁵⁷ On the TPP’s implications for data privacy protection and the possible implications of RCEP, see Graham Greenleaf, “Looming Free Trade Agreements Pose Threats to Privacy,” *International Report: Privacy Laws & Business* 152 (2018): 123-27.

⁵⁸ For a sampling of perspectives on Brazilian regulatory efforts, see Anupam Chander & Uyen Le, “Data Nationalism,” *Emory Law Journal* 64 no. 3 (2014): 677-740; Albright Stonehedge Group, “Data Localization: A Challenge to Global Commerce and the Free Flow of Information” (Sept. 2015), <https://perma.cc/9NK8-TP4S>; Francis Augusto Medeiros & Lee Bygrave, “Brazil’s Marco Civil da Internet: Does It Live Up to the Hype?,” 31 no. 1 (2015): 120-130, 126-27.

⁵⁹ McKinsey Global Institute, “India’s Technology Opportunity: Transforming Work, Empowering People” (Dec. 2014), <http://perma.cc/PB8X-RW4J>; Sadanand Dhume, “No Free Internet Please, We’re Indian,” *Wall Street Journal* (Jan. 11, 2016), <https://perma.cc/T2H5-MP5Y>; Adrienne LaFrance, “Facebook and the New Colonialism,” *The Atlantic* (Feb. 11, 2016), <https://perma.cc/2HX3-JGGN>; Sadanand Dhume, “Indians Clash Over National ID,” *Wall Street Journal* (Jan. 25, 2018), <https://perma.cc/6VGB-UFEY>; Jyoti Panday, “India’s Supreme Court Upholds Right to Privacy as a Fundamental Right—and It’s About Time,” Electronic Frontier Foundation (Aug. 28, 2017), <https://perma.cc/DXK6-Z8RD>.

⁶⁰ Well-known expressions of network optimism include Yochai Benkler, *The Wealth of Networks: How Social Production Transforms Markets and Freedom* (New Haven: Yale University Press, 2006); Chander, *The Electronic Silk Road*; Joshua Cohen & Charles F. Sabel, “Global Democracy?,” *N.Y.U. Journal of International Law & Politics* 37 no. 4: 763-797. More measured evaluations include Jack Goldsmith & Tim Wu, *Who Controls the Internet? Illusions of a Borderless World* (New York: Oxford University Press, 2008); Laurence R. Helfer, “Regime Shifting: The TRIPs Agreement and New Dynamics of International Intellectual Property Lawmaking,” *Yale Journal of International Law* 29 no. 1 (2004): 1-84; Anna di Robilant, “Genealogies of Soft Law,” *American Journal of Comparative Law* 54 no. 3 (2006): 499-554.

⁶¹ Grewal, *Network Power*; Manuel Castells, *Communication Power* (New York: Oxford University Press, 2009).

⁶² Milton L. Mueller, *Networks and States: The Global Politics of Internet Governance* (Cambridge, Mass.: MIT Press, 2010), 41-50.

⁶³ On network organization generally, see Albert-Laszlo Barabasi, *Linked: The New Science of Networks* (Cambridge, Mass.: Perseus Publishing, 2002).

⁶⁴ See, for example, Braithwaite, “Responsive Regulation and Developing Economies”; Cohen & Sabel, “Global Democracy?.” As this brief description suggests, there are important political and ideological

differences between the new governance movement in transnational law and the new governance approach to administrative law described in Chapter 6, pp. 187-88.

⁶⁵ Fallon, ““The Rule of Law” as a Concept in Constitutional Discourse,” 8-9.

⁶⁶ On network lock-in, see Michael L. Katz, & Carl Shapiro, “Network Externalities, Competition, and Compatibility,” *American Economic Review* 75 no. 3 (1985): 424-40; on the options generally available to consumers for disciplining market providers of goods and services, see Albert O. Hirschman, *Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations, and States* (Cambridge, Mass.: Harvard University Press, 1970).

⁶⁷ Grewal, *Network Power*, 4-8; Castells, *Communication Power*, 43.

⁶⁸ John Braithwaite & Peter Drahos, *Global Business Regulation* (New York: Cambridge University Press, 2000); Grewal, *Network Power*, 228-35.

⁶⁹ DeNardis, *Protocol Politics*.

⁷⁰ On ICANN, see Kal Raustiala, “Governing the Internet,” *American Journal of International Law* 110 no. 3 (2016): 491-503. On the IETF, see DeNardis, *The Global War for Internet Governance*, 69-70. Of the 20 Internet companies that spend the most on lobbying in the U.S., seven are members of the W3C. Those include Google, Facebook, Alibaba Group, PayPal, Electronic Transactions Association, Netflix, and Dropbox. See “Current Members,” W3C, <https://perma.cc/S8RS-JWZP> (last visited June 21, 2018); “Lobbying/Industry: Internet,” Center for Responsive Politics, <https://perma.cc/5F2C-HCVH> (last visited June 21, 2018).

⁷¹ Carl Shapiro & Hal R. Varian, “The Art of Standards Wars,” *California Management Review* 41 no. 2 (1999): 8-32.

⁷² On the availability of alternative bases for allocation and the power of property logics, see Mueller, *Ruling the Root*, 245-53.

⁷³ Anupam Chander & Madhavi Sunder, “The Battle to Define Asia’s Intellectual Property Law: From TPP to RCEP,” *U.C. Irvine Law Review* 8 no. 3 (2018): 331-61; see also Yu, “The RCEP and Trans-Pacific Intellectual Property Norms.”

⁷⁴ Dana Polatin-Reuben & Joss Wright, “An Internet with BRICS Characteristics: Data Sovereignty and the Balkanisation of the Internet.” Paper Presented at the 4th Usenix Workshop on Free and Open Communications on the Internet (Aug. 18, 2014), <https://perma.cc/EC3C-B3BH>; Tracy Staedter, “Why Russia Is Building Its Own Internet,” *IEEE Spectrum* (Jan. 17, 2018), <https://perma.cc/6UU4-NNJG>; see also Daya Kishan Thussu, “Digital BRICS: Building a NWICO 2.0?,” in *Mapping BRICS Media*, eds. Kaarle Nordenstreng & Daya Kishan Thussu (New York: Routledge, 2015), 242-263. Such failures represent a variation of what Castells calls *networking power*, or the power that members of a dominant network enjoy over outsiders. Castells, *Communication Power*, 42-43. The BRICS countries are represented within Internet governance bodies and processes, but their views about appropriate changes to the standards have been treated as outsider views.

⁷⁵ On Sun Microsystems’ introduction of the “write once, run everywhere” slogan and its attempts to position its own Java technology as the industry standard for cross-platform application development, see Raghu Garud, Sanjay Jain, & Arun Kumaraswamy, “Institutional Entrepreneurship in the Sponsorship of Common Technological Standards: The Case of Sun Microsystems and Java,” *Academy of Management Journal* 45 no. 1 (2002): 196-214.

⁷⁶ Mary J. Cronin, *Smart Products, Smarter Services: Strategies for Embedded Control* (New York: Cambridge University Press, 2010), 34-69 (describing different strategies adopted by large industry players).

⁷⁷ Economists asking the question whether U.S.-driven trade workarounds are efficient or inefficient from an economic perspective have often missed the larger structural point. The pursuit of trade workarounds is an emergent consequence of the networked structure of trade governance and of the networked, interconnected communications infrastructure through which trade negotiations are conducted. For an detailed investigation of the institutional efficiencies and inefficiencies that result from the increased use of trade workarounds, see Bagwell, Bown, & Staiger, “Is the WTO Passé?.”

⁷⁸ Helfer, “Regime Shifting.”

⁷⁹ Martin Senftleben, “A Copyright Limitations Treaty Based on the Marrakesh Model: Nightmare or Dream Come True?” (2017), <https://perma.cc/CJX2-TLAW>.

⁸⁰ Annemarie Bridy, “Notice and Takedown in the Domain Name System: ICANN’s Ambivalent Drift into Online Content Regulation,” *Washington and Lee Law Review* 74 no. 3 (2017): 1345-1388; Peter Bright, “DRM for HTML5 Finally Makes It as an Official W3C Recommendation,” *Ars Technica* (Sept. 18, 2017), <https://perma.cc/Z9P6-2JLW>.

⁸¹ Stephanie E. Perrin, “The Struggle for WHOIS Privacy: Understanding the Standoff Between ICANN and the World’s Data Protection Authorities,” unpublished doctoral dissertation, Faculty of Information, University of Toronto, 2018, 243-53. The GDPR may prompt some changes here, but ICANN has mounted an aggressive defense of existing WHOIS policies. See “ICANN Appeals German Decision on GDPR/WHOIS,” ICANN (June 13, 2018), <https://perma.cc/NH8P-CKMG>.

⁸² Robert Howse, “The World Trade Organization and the Protection of Workers’ Rights,” *Journal of Small and Emerging Business Law* 3 no. 1 (1999): 131-172.

⁸³ Kolben, “Transnational Labor Regulation and the Limits of Governance.”

⁸⁴ Fallon, “‘The Rule of Law’” as a Concept in Constitutional Discourse,” 8-9.

⁸⁵ Anu Bradford & Eric A. Posner, “Universal Exceptionalism in International Law,” *Harvard International Law Journal* 52 no. 1 (2011): 3-54, 36.

⁸⁶ Rebecca MacKinnon, *Consent of the Networked: The Worldwide Struggle for Internet Freedom* (New York: Basic Books, 2012), 31-71. On whether Chinese internet filtering policies amount to trade violations, see Wu, “The World Trade Law of Censorship and Internet Filtering.”

⁸⁷ Castells, *Communication Power*, 45-46.

⁸⁸ Yiping Huang, “Understanding China’s Belt & Road Initiative: Motivation, Framework and Assessment.” *China Economic Review* 40 (2016): 314-321; Hong Yu, “Motivation behind China’s ‘One Belt, One Road’ Initiatives and Establishment of the Asian Infrastructure Investment Bank.” *Journal of Contemporary China* 26, no. 105 (2017): 353-368.

⁸⁹ Yu, “Motivation behind China’s ‘One Belt, One Road’ Initiatives,” 363-67; Indrani Bagchi, “India Slams China’s One Belt One Road Initiative, Says It Violates Sovereignty,” *The Times of India* (May 14, 2017), <https://perma.cc/W7TX-K9BZ>.

⁹⁰ Bin Gu, “Chinese Multilateralism in the AIIB,” *Journal of International Economic Law* 20, no. 1 (2017): 137-158; Yu, “Motivation behind China’s ‘One Belt, One Road’ Initiatives,” 358-62; Andrew Higgins & David E. Sanger, “3 European Powers Say They Will Join China-Led Bank,” *New York Times* (Mar. 17, 2015), <https://perma.cc/KA7S-8NCB>.

⁹¹ PwC, “Global Top 100 Companies by Market Capitalisation” (Mar. 31, 2017), 35, <https://perma.cc/8TNB-TBCA>; see also McKinsey Global Institute, “China’s Digital Economy: A Leading Global Force” (Aug. 2017), <https://perma.cc/X4BD-75TB>; Charles Arthur, “The Chinese Tech Companies Poised to Dominate the World,” *Guardian* (June 3, 2014), <https://perma.cc/W7TP-E89Z>.

⁹² U.S.-China Economic and Security Review Commission, “China’s Techno-Nationalism Toolbox: A Primer” (Mar. 28, 2018), <https://perma.cc/J5AV-L6FA>.

⁹³ Kai Jia & Martin Kenney, “Mobile Internet Business Models in China: Vertical Hierarchies, Horizontal Conglomerates, or Business Groups?,” Berkeley Roundtable on the International Economy Working Paper 2016-6 (July 27, 2016), <https://perma.cc/ZVK7-DJYX>.

⁹⁴ On the global expansion of Chinese technology companies, see McKinsey Global Institute, “China’s Digital Economy: A Leading Global Force” (Aug. 2017), <https://perma.cc/XV5V-7JXU>; Charles Arthur, “The Chinese Tech Companies Poised to Dominate the World,” *Guardian* (June 3, 2014), <https://perma.cc/K7G2-CAFE>.

⁹⁵ Samm Sacks, “Beijing Wants to Rewrite the Rules of the Internet,” *The Atlantic* (June 18, 2018), <https://perma.cc/YFY8-KYM5>. For more detailed discussion of the human rights implications of China’s information technology strategy, see Chapter 8, pp. 264-66.

⁹⁶ Gabriele de Seta, “Into the Red Stack,” *Hong Kong Review of Books* (Apr. 17, 2018), <https://perma.cc/J5VD-7SH3>.

⁹⁷ See sources cited in note 74 of this chapter. By way of comparison, see Louise Matsakis, “What Happens If Russia Cuts Itself Off from the Internet?,” *Wired* (Feb. 12, 2019), <https://perma.cc/DXW8-KZVJ>.

⁹⁸ As Peter Yu describes in the context of intellectual property, Chinese negotiating strategy emphasizes pragmatism and economic development, and China’s evolving interests have led it to chart a middle way between developed countries seeking to impose strong IP obligations and regional partners seeking less stringent obligations. Yu, “The RCEP and Trans-Pacific Intellectual Property Norms.”

⁹⁹ Isaac Stone Fish, “The Other Political Correctness,” *The New Republic* (Sept. 4, 2018), <https://perma.cc/YQH4-HU8Z>; Louisa Lim & Julia Bergin, “Inside China’s Audacious Global Propaganda Campaign,” *Guardian* (Dec. 7, 2018), <https://perma.cc/2KYA-MH7U>.

¹⁰⁰ Ruth W. Grant & Robert O. Keohane, “Accountability and Abuses of Power in World Politics.” *American Political Science Review* 99 no. 1 (2005): 29-43.

¹⁰¹ Kaminski, “The Capture of International Intellectual Property Law Through the U.S. Trade Regime,” 988-1013; Ian Fergusson, “Trade Promotion Authority (TPA) and the Role of Congress in Trade Policy,” Congressional Research Service (June 15, 2015), <https://perma.cc/4QSP-6C9S>.

¹⁰² On the causes and effects of that approach to trade negotiations, see Niels Gheyle & Ferdi De Ville, “How Much Is Enough? Explaining the Continuous Transparency Conflict in TTIP,” *Politics and Governance* 5 no. 3 (2017): 16-28; Chander & Sunder, “The Battle to Define Asia’s Intellectual Property Law”; Michelle Limenta, “Open Trade Negotiations as Opposed to Secret Trade Negotiations: From Transparency to Public Participation,” *New Zealand Yearbook of International Law* 10 (2012): 73-95.

¹⁰³ Chris Brummer, *Soft Law and the Global Financial System: Rule Making in the 21st Century* (New York: Cambridge University Press, 2012), 213-27.

¹⁰⁴ See, for example, *Golan v. Holder*, 565 U.S. 302, 335-36 (2012) (“Congress determined that U.S. interests were best served by our full participation in the dominant system of international copyright protection. . . . The judgment § 514 expresses lies well within the ken of the political branches”).

¹⁰⁵ Raymond & DeNardis, “Multistakeholderism.”

¹⁰⁶ “Benefit Corporations and Flexible Purpose Corporations in California,” Justice and Diversity Center of the Bar Association of San Francisco, <https://perma.cc/HYX6-5T57> (last visited June 29, 2018).

¹⁰⁷ ICANN, “Accountability and Transparency,” <https://perma.cc/B7GE-MRSM>; Rolf H. Weber & Shawn Gunnarson, “A Constitutional Solution for Internet Governance,” 14 *Colum. Sci. & Tech. L. Rev.* 14 no. 1 (2013): 1-71.

¹⁰⁸ On the intent behind ICANN’s structure, see Mueller, *Ruling the Root*, 185-93, 231-38; Raustiala, “Governing the Internet.” On the success of the capture strategy, see Konstantinis Komaitis, *The Current State of Domain Name Regulation: Domain Names as Second-Class Citizens in a Mark-Dominated World*. (New York: Routledge, 2010); see also ICANN, Uniform Domain Name Dispute Resolution Policy, paras. 3(b), 4(k), <https://perma.cc/A9BN-CL4F>; ICANN, Uniform Rapid Suspension, “URS,” ¶13, <https://perma.cc/6JLU-PXTF>.

¹⁰⁹ Perrin, *The Struggle for WHOIS Privacy*, 121-27.

¹¹⁰ In general, the innovations that “go viral” within networks are those originating from more connected nodes within the network. See Barabasi, *Linked*, 131-35. By analogy, the success or failure of assertions of counterpower within regulatory networks can be expected to correlate to the connectedness of the originating nodes.

¹¹¹ “Civil Society Call For Full Transparency About the EU-US Trade Negotiations,” Letter to European Commissioner for Trade (May 19, 2014), <https://perma.cc/M7UK-LAB6>; “Joint Civil Society Statement on Privacy in the Digital Age Submitted to the 27th Session of the UN Human Rights Council,” Human Rights Watch (Sept. 11, 2014), <https://perma.cc/M66G-5JQK>; Global Civil Society Groups Call for Reform of US Surveillance Law Section 702, Access Now (Mar. 1, 2017), <https://perma.cc/6BSY-PPLP>; see also Angelique Carson, “Changing Tactics: The Rise of the Privacy Advocates,” International Association of Privacy Professionals (Sept. 23, 2013), <https://perma.cc/G9KK-H33J>.

¹¹² Durkee, “Astroturf Activism.”

¹¹³ For an especially compelling articulation of this worry, see David Kennedy, “Law and the Political Economy of the World,” in *Critical Legal Perspectives on Global Governance: Liber Amicorum David M. Trubek*, eds. Grainne de Burca, Claire Kilpatrick & Joanne Scott (Portland, Ore.: Hart Publishing, 2014), 65-102.

¹¹⁴ Hans Krause Hansen & Tony Porter, “What Do Numbers Do in Transnational Governance?,” *International Political Sociology*, 6 no. 4 (2012): 409-426, <https://doi.org/10.1111/ips.12001>; see also Kevin E. Davis, Benedict Kingsbury, & Sally Engle Merry, “Indicators as a Technology of Global Governance,” *Law and Society Review* 46 no. 1 (2012): 71-104.

¹¹⁵ Karassin & Perez, “Shifting between Public and Private”; Kolben, “Transnational Labor Regulation and the Limits of Governance”; Webb, “ISO 26000 Social Responsibility Standard as ‘Proto Law’ and a New Form of Global Custom.”

- ¹¹⁶ Block-Lieb & Halliday, “Contracts and Private Law in the Emerging Ecology of International Lawmaking.”
- ¹¹⁷ Timothy H. Edgar, *Beyond Snowden: Privacy, Mass Surveillance, and the Struggle to Reform the NSA* (Washington, DC: Brookings Institution Press, 2017), 123.
- ¹¹⁸ Sheila Jasanoff, *The Fifth Branch: Science Advisers as Policymakers* (Cambridge, Mass.: Harvard University Press, 1990).
- ¹¹⁹ Sally Engle Merry, “Measuring the World: Indicators, Human Rights, and Global Governance,” *Current Anthropology* 52 no. S3 (2011): S83-S95; Sakiko Fukuda-Parr, Alicia Ely Yamin, & Joshua Greenstein, “The Power of Numbers: A Critical Review of Millennium Development Goal Targets for Human Development and Human Rights,” *Journal of Human Development and Capabilities* 15 nos. 2-3 (2015): 105-117; AnnJanette Rosga & Margaret Satterthwaite, “The Trust in Indicators: Measuring Human Rights,” *Berkeley Journal of International Law* 27 no. 2 (2009): 253-315.
- ¹²⁰ For a prescient early treatment of this problem, see Jonathan Zittrain (2008), *The Future of the Internet—And How to Stop It* (New Haven, Conn.: Yale University Press, 2008), 36-57.
- ¹²¹ See, for example, Elizabeth Fisher, Judith S. Jones, & Rene von Schomburg, *Implementing the Precautionary Principle: Perspectives and Prospects* (Northampton, Mass: Edward Elgar, 2006); Kern Alexander, Rahul Dhumale & John Eatwell, *Global Governance of Financial Systems. The International Regulation of Systemic Risk* (New York: Oxford University Press, 2006).
- ¹²² William Krist, *Globalization and America’s Trade Agreements* (Washington, DC: Woodrow Wilson Center Press with Johns Hopkins University Press, 2013); Erik Reinert, *How Rich Countries Got Rich ... and Why Poor Countries Stay Poor* (New York: Carroll & Graf, 2007). On submerged political considerations in standard-making, see sources cited in note 13 of this chapter.
- ¹²³ Fallon, “‘The Rule of Law’” as a Concept in Constitutional Discourse,” 8.
- ¹²⁴ For scholars of international law, the power of transnational corporations to resist state control is a longstanding and thorny problem. See, for example, Claudio Grossman & Daniel D. Bradlow, “Are We Being Propelled Towards a People-Centered Transnational Legal Order?,” *American University Journal of International Law and Policy* 9 no. 1 (1993): 1-26; Beth Stephens, “The Amoralism of Profit: Transnational Corporations and Human Rights,” *Berkeley International Law Journal* 20 no. 1 (2002): 45-90; Gunther Teubner, “Self-Constitutionalizing TNCs? On the Linkage of ‘Private’ and ‘Public’ Corporate Codes of Conduct,” *Indiana Journal of Global Legal Studies* 18 no. 2 (2011): 617-638. Dominant platform firms fit within the narrative of the transnational corporation as both constrained by and resistant to the international legal order, but they also rewrite that narrative in important ways.
- ¹²⁵ See Convention on Rights and Duties of States art. 1, Dec. 26, 1933, T.S. No. 88; Winston P. Nagan & Craig Hammer, “The Changing Character of Sovereignty in International Law and International Relations,” *Columbia Journal of Transnational Law* 43 no. 1 (2002): 141-188 149-50.
- ¹²⁶ Castells, *Communication Power*, 45-46.
- ¹²⁷ On the spatial dimension of user experiences of the internet, see Julie E. Cohen, “Cyberspace as/and Space,” *Columbia Law Review* 107 no. 1 (2007): 210-256.
- ¹²⁸ Facebook, “Newsroom: Company Info,” <https://perma.cc/5RC7-ZPGG> (2.32 billion monthly active users as of December 2018); Xavier Harding, “Google Has 7 Products with 1 Billion Users, Popular Science” (Feb. 1, 2016), <https://perma.cc/2ZYC-LU5C>; Credit Suisse, “Apple Inc. (AAPL.OQ) Company Update,” p. 1 (2016) (estimated 588 million users as of April 2016), <https://perma.cc/TK8F-JTKW>.
- ¹²⁹ Tarleton Gillespie, *Custodians of the Internet: Platforms, Content Moderation, and the Hidden Decisions that Shape Social Media* (New Haven, Conn.: Yale University Press, 2018); Kate Klonick, “The New Governors: The People, Rules, and Processes Governing Online Speech,” *Harvard Law Review* 131 no. 6 (2018): 1598-1670.
- ¹³⁰ On data production requests, see Jennifer Daskal, “Borders and Bits,” *Vanderbilt Law Review* 71 no. 1 (2018): 179-240. On competition issues, see, for example, James Kanter, “European Regulators Fine Microsoft, Then Promise to Do Better,” *New York Times* (Mar. 6, 2013), <https://perma.cc/QQ3Q-4RPS>; Rowland Manthorpe, “Timeline: Google’s Marathon Antitrust Case with the EU,” *Wired* (Apr. 12, 2017), <https://perma.cc/Q2G6-GV6C>; Mark Scott, “E.U. Fines Facebook \$122 Million Over Disclosures in WhatsApp Deal,” *New York Times* (May 18, 2017), <https://perma.cc/9TGZ-47M9>. On transportation and labor issues, see, for example, Daniel Fisher, “Uber Fights Seattle’s Push to Make it Bargain With the Teamsters,” *Forbes* (Mar. 16, 2017), <https://perma.cc/9H84-FRAA>; Mark Scott, “Uber Suffers Bloody Nose in Its Fight to Conquer Europe,” *New York Times* (May 11, 2017), <https://perma.cc/63A2-HKYV>;

Adam Vaccaro, “Uber Doesn’t Want Massachusetts to Limit Driver Hours,” *Boston Globe* (May 12, 2017), <https://perma.cc/6RBC-3ZZ6>. On data protection issues, see William McGeeveran, “Friending the Privacy Regulators,” *Arizona Law Review* 68 no. 4 (2016): 959-1026. On taxation issues, see James Kantner & Mark Scott, Apple Owes \$14.5 Billion in Back Taxes to Ireland, E.U. Says, *New York Times* (Aug. 30, 2016), <https://perma.cc/KL7M-HG38>; Sam Schechner, “Apple Hits Back Over EU-Irish Tax Decision,” *Wall Street Journal* (Dec. 19, 2016), <https://perma.cc/BHD8-FZJ3>; Natalia Drozdiak, “Apple Agrees to Deal with Ireland Over 15 Billion Unpaid Tax Issue,” *Wall Street Journal* (Dec. 4, 2017), <https://perma.cc/NP99-9REK>; Natalia Drozdiak & Sam Schechner, “Europe Steps Up Bid to Boost Taxes on Google, Facebook, Other Internet Giants,” *Wall Street Journal* (Sept. 13, 2017), <https://perma.cc/2CYY-6B8N>; James Kanter, “E.U. Said to Order Luxembourg to Collect Back Taxes From Amazon,” *New York Times* (Oct. 3, 2017), <https://perma.cc/K5VN-92L8>.

¹³¹ Mike Swift, “Facebook to Assemble Global Team of ‘Diplomats,’” *San Jose Mercury News* (May 20, 2011), <https://perma.cc/396G-SUGX>; Gwen Ackerman, “Facebook and Israel Agree to Tackle Terrorist Media Together,” *Bloomberg* (Sept. 12, 2016), <https://perma.cc/E4UU-SRVF>; Adam Taylor, “Denmark is Naming an Ambassador Who Will Just Deal with Increasingly Powerful Tech Companies,” *Washington Post* (Feb. 4, 2017), <https://perma.cc/PCV3-L2J3>; My Pham, “Vietnam Says Facebook Commits to Preventing Offensive Content,” *Reuters* (Apr. 27, 2017), <https://perma.cc/FN45-XLNY>.

¹³² Kate Conger, “Microsoft Calls for the Establishment of a Digital Geneva Convention,” *TechCrunch* (Feb. 14, 2017), <https://perma.cc/78Q3-Q38S>. For an exploration of the meaning and validity of the analogy, see Kristen Eichensehr, “Digital Switzerlands,” *University of Pennsylvania Law Review* 167 no. 3 (forthcoming, 2019).

¹³³ See also David Dayen, “The Android Administration: Google’s Remarkably Close Working Relationship with the Obama White House, in Two Charts,” *The Intercept* (Apr. 22, 2016), <https://perma.cc/QL5K-VT7Y>.

¹³⁴ DeNardis, *The Global War for Internet Governance*, 45-55; Ingrid Lunden, “How Tech Giants Like Amazon and Google are Playing the ICANN Domain Game,” *TechCrunch* (June 13, 2012), <https://perma.cc/3DDS-JUFH>.

¹³⁵ See sources cited in note 55 of this chapter; see also Natasha Singer, “The Next Privacy Battle in Europe Is Over This New Law,” *New York Times* (May 27, 2018), <https://perma.cc/4Q7E-ZBJ9>.