

Networks, Standards, and Network-and-Standard-Based Governance

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The Net interprets censorship as damage and routes around it.

—John Gilmore, Interview, *Time Magazine*

INTRODUCTION

This chapter, adapted from a forthcoming book on the evolution of legal institutions in the networked information society, situates the disruptive effects of networked digital technologies within a longer process of institutional change catalyzed by the gradual emergence of an informationalized global political economy. Over the last half century, institutions for transnational economic 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. This chapter juxtaposes the various governance processes and treats them explicitly as iterations of a new – or, more precisely, emergent – networked legal-institutional form.¹ It also considers the relationship(s) between that institutional form and new platform entities that wield enormous de facto power – though not (yet) formally acknowledged sovereign authority – based on their control of infrastructures and protocols for networked, social communication.

Although networked governance institutions differ from one another in many ways, they share a common structure: They are organized as networks constituted around standards. Each of the scholarly literatures that has grown up around the various institutions described in this chapter has grasped some essential aspects of

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¹ Julie E. Cohen (2019), *Between Truth and Power: Legal Constructions of Informational Capitalism*, New York: Oxford University Press.

the network-and-standard dynamic but not that of others. Legal scholars who study transnational business regulation have interrogated the political legitimacy of networked governance processes, and they also have explored the political issues surrounding the development of international technical standards. Even so, they have paid less attention to the ways that standards bind networks together, and so the two conversations do not fully join up.²

Legal scholars who study “code as law” have explored 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 illustrating how 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 different scholarly communities have not engaged in much dialogue with one another.

To posit networked 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. 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.⁴

² On networked governance, see, for example, John Braithwaite (2006), “Responsive Regulation and Developing Economies,” *World Development* 34(5): 884–898; Kal Raustiala (2002), “The Architecture of International Cooperation: Transgovernmental Networks and the Future of International Law,” *Virginia Journal of International Law* 43(1): 1–92; Anne Marie Slaughter (2004), *A New World Order*, Princeton, NJ: Princeton University Press. On standards in transnational governance, see, for example, Panagiotis Delimatsis, ed. (2015), *The Law, Economics, and Politics of International Standardization*, New York: Cambridge University Press; Harm Schepel (2005), *The Constitution of Private Governance: Product Standards in the Regulation of Integrating Markets*, Portland, OR: Hart Publishing.

³ See, for example, Lawrence Lessig (1998), *Code and Other Laws of Cyberspace*, New York: Basic Books; Joel R. Reidenberg (1998), “Lex Informatica: The Formulation of Information Policy Rules through Technology,” *Texas Law Review* 76(3): 553–593. For a brief flirtation with the idea of Internet governance processes as “hybrid” code- and law-based institutions, see Laurence B. Solum (2009), “Models of Internet Governance,” in *Internet Governance: Infrastructure and Institutions*, eds. Lee A. Bygrave and Jon Bing, New York: Oxford University Press, pp. 48–91.

⁴ For a summary and analysis of the major strands of Anglo-American rule-of-law theorizing, see Richard H. Fallon, Jr. (1997), “‘The Rule of Law’ as a Concept in Constitutional Discourse,” *Columbia Law Review* 97(1): 1–56. For a broader comparative discussion, see Mireille Hildebrandt (2016), *Smart Technologies and the End(s) of Law: Novel Entanglements of Law and Technology*, Northampton, MA: Edward Elgar, pp. 133–156.

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 law at all, but I think that answer is too pat. The shift to a networked and standard-based governance structure poses important challenges both to the realizability of 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 – 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.⁵ If the new governance institutions are to serve the overarching values that traditionally have informed thicker versions of rule-of-law thinking, both institutions and constructs will need to adapt. Here, I lay some groundwork for that project.

The first part of the chapter provides an overview of the rich and varied assortment of transnational, networked governance arrangements. The next part identifies five important features of the network-and-standard-based legal-institutional form that challenge traditional understandings of how legal institutions – institutions constrained by the rule of law – ought to operate. The final part of the chapter provides a brief introduction to information platforms and the functions they perform and considers whether platforms are best understood as stakeholders or as emergent information-era sovereigns.

NETWORKS AND STANDARDS IN TRANSNATIONAL GOVERNANCE

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. Some assign membership and participation rights to nation states while others operate differently, and some are more highly formalized than others. Even so, juxtaposing the various institutions and processes also reveals equally important ways in which they resemble one another: They are organized as networks, the networks are constituted around standards designed to facilitate and structure flows of economic and communicative activity, and the formulation and administration of those standards reflect the increasing influence of private economic power.

The global logics of production and extraction that have become characteristic of informational capitalism rely heavily on governance arrangements for facilitating crossborder flows of trade. Norms of liberalization do not simply relate to manufactured goods or even to crossborder flows of raw materials and intermediate inputs to

⁵ Hildebrandt, cited in note 4, pp. 174–185.

more complex products. Following the important Uruguay Round of negotiations, which produced the World Trade Organization (WTO), the General Agreement on Trade in Services (GATS) and the protocol on Trade-Related Aspects of Intellectual Property Rights (TRIPS), liberalization imperatives relating to services, information, and intellectual goods have emerged as separate, powerful logics driving the articulation and expansion of trade obligations.⁶ The Uruguay Round also produced two important agreements on international technical standardization that have generated increasing momentum toward scientific (and quasi-scientific) rationalization of liberalization rules.⁷

For many decades, the multilateral regime organized around the framework established under the General Agreement on Tariffs and Trade was the principal source of trade liberalization standards, but a series of rapid and pronounced shifts in the institutional structure of world trade governance began to occur in the mid-1990s. As noted earlier, the Uruguay Round produced several new multilateral instruments and a powerful new enforcement body, the WTO, which began operations in 1995. Following the Uruguay Round, however, the process of reaching new agreements under the established multilateral framework has ground to a halt, and trade negotiators have shifted their efforts toward framing and securing new bilateral free trade agreements. The thickening network of bilateral agreements has in turn shaped proposals for new multilateral and regional instruments.⁸ Although the initial impetus for the turn toward bilateral and multilateral agreements negotiated outside the WTO framework came from the United States and other developed economies, the so-called Washington Consensus on trade liberalization has begun to fragment and other significant initiatives have emerged. For example, the Regional Coalition for Economic Participation (RCEP) has launched an effort to negotiate a new, pan-Asian trade protocol.

In parallel with the 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 business associations wield increasing *de facto* power in setting trade policy priorities. In part, that 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

⁶ For two very different perspectives on the origins and effects of trade liberalization logics, see William J. Drake and Kalypto Nicolaidis (1992), "Ideas, Interests, and Institutionalization: "Trade in Services" and the Uruguay Round," *International Organization* 46(1): 37–100; Jane Kelsey (2008), *Serving Whose Interests? The Political Economy of Trade in Services*, New York: Routledge-Cavendish, pp. 76–88.

⁷ See, generally, Delimatsis, ed., cited in note 2.

⁸ For a sampling of perspectives on these developments, Todd Allee and Andrew Legg (2016), "Who Wrote the Rules for the Trans-Pacific Partnership?," *Research and Politics* July–September 2016: 1–9; Kyle Bagwell, Chad P. Bown, and Robert W. Staiger (2016), "Is the WTO Passé?," *Journal of Economic Literature* 54(4): 1125–1231; Nitsan Chorev and Sarah Babb (2009), "The Crisis of Neoliberalism and the Future of International Institutions: A Comparison of the IMF and the WTO," *Theory and Society* 38(5): 459–484.

protection for their global supply chains.⁹ But global logics of production and extraction also translate into new networked models of influence that flow outside state-sanctioned channels, and assertions of corporate interest also have prompted experimentation with new forms of dispute resolution that allow corporations to assert claims directly against states.¹⁰ Meanwhile, exploiting the same networked connectivity that has facilitated global concentrations of economic power, civil society groups have worked to challenge asserted failures of transparency and accountability, building alliances with one another and coordinating their efforts for maximum effect.¹¹

The landscape of transnational economic governance 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 national regulators or among other entities that play well-established quasi-regulatory roles. For example, financial regulators and central bankers engage in extensive, cooperative crossborder governance of financial market activities, and data protection regulators work collaboratively on various policy issues.¹² Other regulatory arrangements involve UN officials or national regulators in collaboration with private industry oversight bodies and trade associations.

As in the case of world trade, pervasive and crosscutting themes in both the theory and the practice of transnational regulation are the increasing importance of standard-setting activities and the growing power of private “stakeholders.”¹³ The universe of standard-making activities is large and diverse and comprises a thickening network of “soft law” that structures and coordinates economic conduct. Many of the UN’s standard-making initiatives are structured as public–private collaborations.¹⁴ Additionally, in 1996, the UN adopted a consultative process intended to give civil society organizations and other nongovernmental organizations (NGOs) a formal

⁹ See Christopher Ingraham, “Interactive: How Companies Wield Off-the-Record Influence on Obama’s Trade Policy,” *Washington Post*, February 8, 2014, <https://perma.cc/UPN6-DHKD>.

¹⁰ Joachim Pohl, Kekeletso Mashigo, and Alexis Nohen (2012), “Dispute Settlement Provisions in International Investment Agreements: A Large Sample Survey,” OECD Working Papers on International Investment 2012/02, <https://perma.cc/VN6T-GT64>.

¹¹ Margaret E. Keck and Kathryn Sikkink, eds. (1998), *Activists Beyond Borders: Advocacy Networks in International Politics*, Ithaca, NY: Cornell University Press, pp. 1–43.

¹² Chris Brummer (2012), *Soft Law and the Global Financial System*, New York: Cambridge University Press; Charles D. Raab (2011), “Networks for Regulation: Privacy Commissioners in a Changing World,” *Journal of Comparative Policy Analysis: Research and Practice* 13(2): 195–213.

¹³ See, generally, Mark Raymond and Laura DeNardis (2015), “Multistakeholderism: Anatomy of an Inchoate Global Institution,” *International Theory* 7(3): 572–616.

¹⁴ Benedicte Bull and Desmond McNeill (2007), *Development Issues in Global Governance: Public-Private Partnerships and Market Multilateralism*, New York: Routledge, pp. 1–22; Marco Schäferhoff, Sabine Campe, and Christopher Kaan (2009), “Transnational Public-Private Partnerships in International Relations: Making Sense of Concepts, Research Frameworks, and Results,” *International Studies Review* 11(3): 451–474.

avenue for providing input into its policymaking processes. Business NGOs have been especially active users of that process.¹⁵ Transnational corporations engage in standard making to facilitate their own operations and those of their global supply chains, and industry associations may work to coordinate those activities.¹⁶ In the domain of financial governance, private transnational associations spanning fields from securities to insurance to accounting perform a wide variety of governance functions.¹⁷

Also notably, the outputs of both private and public–private standard-making processes have begun to migrate into the domain of world trade. In particular, new bilateral and multilateral trade agreements covering labor, environmental regulation, and corporate social responsibility often refer to such standards.¹⁸ As a result, standard-making activities constitute a new and fruitful avenue for private economic actors wanting to shape the formulation of trade provisions intended to delineate the appropriate reach of domestic protective mandates.

A final important site of transnational legal-institutional entrepreneurship is the Internet and its constituent protocols and processes. The most prominent governance arrangements for the Internet are formally non-state-based and multistakeholder-oriented. The Internet Engineering Task Force (IETF), a voluntary membership organization of computer technologists, oversees the continuing evolution of the Internet's foundational standards for information transmission, and the Internet Corporation for Assigned Names and Numbers (ICANN), a not-for-profit transnational governance corporation chartered under California law, oversees governance of the domain name system. An assortment of other organizations – some formally multilateral and some private – also play important roles, however. For example, the International Telecommunications Union, a UN-affiliated body, superintends standards for wireless telephony, and the Institute of Electrical and Electronic Engineers, a technical professional organization, coordinates the evolution of standards for wireless interconnection. The databases that map human-readable domain names to network addresses are maintained by a small group of entities – including

¹⁵ Melissa J. Durkee (2017), "Astroturf Activism," *Stanford Law Review* 69(1): 201–268; Melissa J. Durkee (2018), "International Lobbying Law," *Yale Law Journal* 127(7): 1742–1826.

¹⁶ Klaas Hendrik Eller (2017), "Private Governance of Global Value Chains from Within: Lessons for Transnational Law," *Transnational Legal Theory* 8 (3): 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(3) (2009): 711–744; Schepel, *The Constitution of Private Governance*, cited in note 2.

¹⁷ Heather McKeen-Edwards and Tony Porter (2013), *Transnational Financial Associations and the Governance of Global Finance: Assembling Wealth and Power*, New York: Routledge.

¹⁸ See, for example, Jordi Agusti-Panareda, Franz Christian Ebert, and Desiree LeClerq (2015), "ILO Labor Standards and Trade Agreements: A Case for Consistency," *Comparative Labor Law and Policy Journal* 36(2): 347–380; Orr Karassin and Oren Perez (2018), "Shifting between Public and Private: The Reconfiguration of Global Environmental Regulation," *Indiana Journal of Global Legal Studies* 25(1): 97–130; Kevin Kolben (2011), "Transnational Labor Regulation and the Limits of Governance," *Theoretical Inquiries in Law* 12(2): 403–437.

universities, research consortia, government entities, and a few private corporations – pursuant to contracts with the Internet Assigned Numbers Authority, an entity for many years overseen by the US Department of Commerce and now administered by an affiliate of ICANN.¹⁹

Technical standard making is front and center in Internet governance, but Internet governance arrangements also play more substantive and comprehensive roles in the governance of global networked communications, and do so via increasingly elaborate institutional structures.²⁰ Under pressure from a diverse mix of global stakeholders, ICANN has developed regularized pathways for participation, including formal consultative procedures for national governments and civil society organizations.²¹ At its inception, the IETF was a self-selected community of volunteers that rejected “kings, presidents, and voting” in favor of “rough consensus and running code.”²² Today, although membership remains voluntary and policy-making consensus-based, it comprises two principal divisions made up of over one hundred 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. At the same time, as in the cases of trade and transnational economic regulation, private economic power also plays a highly visible role in Internet governance. Private technology firms are well-represented in myriad working groups and steering committees, and as the Internet’s constitutive liberalization norms have been filtered through the lens of multistakeholder-based institutional design, they have produced institutional responses optimized to the needs of the most active and well-resourced stakeholders.²³

NETWORKS, STANDARDS, AND THE RULE OF LAW: FIVE PROBLEMATICS

A *network* is a mode of organization in which hubs and nodes structure the flows of transactions and interactions. Some commentators have characterized structures for

¹⁹ On the complexity of assemblages for Internet namespace and protocol governance, see generally Laura DeNardis (2014), *The Global War for Internet Governance*, New Haven, CT: Yale University Press, pp. 45–55, 63–76.

²⁰ For comprehensive refutations of the view that Internet governance is a purely technical activity, see Laura DeNardis (2009), *Protocol Politics: The Globalization of Internet Governance*, Cambridge, MA: MIT Press; DeNardis, cited in note 19; Milton Mueller (2004), *Ruling the Root: Internet Governance and the Taming of Cyberspace*, Cambridge, Mass: MIT Press. See also Roger Cotterrell (2012), “What Is Transnational Law?,” *Law and Social Inquiry* 37(2): 500–524.

²¹ On the evolving civil society role, see Stefania Milan and Niels ten Oever (2017), “Coding and Encoding Rights in Internet Infrastructure,” *Internet Policy Review* 6(1). On the involvement of governments and on ICANN’s design more generally, see Raymond and DeNardis, cited in note 13.

²² Andrew L. Russell (2006), “‘Rough Consensus and Running Code’ and the Internet-OSI Standards War,” *IEEE Annals of the History of Computing* 28(3): 48–61.

²³ DeNardis, cited in note 19, pp. 70–71, 226–230; Raymond and DeNardis, cited in note 13.

networked participation and governance as radically democratizing, while others have worried that the absence of definite chains of command undermines democratic accountability.²⁴ Important recent books about power and global political economy by David Singh Grewal and Manuel Castells explore the importance of networked organization for political economy generally, articulating new theoretical models of networked social, political, and communication power.²⁵ Network-and-standard-based governance arrangements, however, are not simply networks; they are also institutions.²⁶ This section seeks to identify with greater precision 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 legal 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.²⁷ Within networked governance arrangements, however, the ability to navigate 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 to circumvent inconvenient negotiating stalemates and avoid inconvenient but localized regulatory burdens. *Within networked governance arrangements, 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 that may not matter much. But a standard invested with legal significance is not *just* a standard because

²⁴ Well-known expressions of network optimism include Yochai Benkler (2006), *The Wealth of Networks: How Social Production Transforms Markets and Freedom*, New Haven, CT: Yale University Press; Anupam Chander (2013), *The Electronic Silk Road: How the Web Binds the World Together in Commerce*, New Haven, CT: Yale University Press; Joshua Cohen and Charles F. Sabel, "Global Democracy?," *N.Y.U. Journal of International Law & Politics* 37(4): 763–797. More measured evaluations include Jack Goldsmith and Tim Wu (2008), *Who Controls the Internet? Illusions of a Borderless World*, New York: Oxford University Press; Laurence R. Helfer (2004), "Regime Shifting: The TRIPs Agreement and New Dynamics of International Intellectual Property Lawmaking," *Yale Journal of International Law* 29(1): 1–84; Anna di Robilant (2006), "Genealogies of Soft Law," *American Journal of Comparative Law* 54(3): 499–554.

²⁵ David Singh Grewal (2008), *Network Power: The Social Dynamics of Globalization*, New Haven, CT: Yale University Press; Manuel Castells (2009), *Communication Power*, New York: Oxford University Press.

²⁶ See, generally, Milton L. Mueller (2010), *Nations and States: The Global Politics of Internet Governance*, Cambridge, MA: MIT Press, pp. 41–46.

²⁷ On network organization generally, see Albert-Laszlo Barabasi (2002), *Linked: The New Science of Networks*, Cambridge, MA: Perseus Publishing.

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 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. From the perspective of traditional legal theory, this point is easy to miss 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.²⁸ Network organization under conditions of legally or practically mandated standardization is a different creature entirely.

The powerful critiques of transnational governance arrangements that have emerged within legal scholarship still have not fully assimilated the hybridity of the network-and-standard-based 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 pathway 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 five 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 governance mechanisms to advance authoritarian political and geopolitical interests, the mechanisms for political accountability, and the vernaculars in which mandatory standards are articulated, applied, and contested.

Dominance as Hegemony: The Problem of Unchecked Authority

One distinctive characteristic of emergent global networked legal-institutional arrangements is the way that network-and-standard-based organization reshapes the exercise of lawmaking authority. Within such arrangements, a dominant party's ability to shape policy 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, network organization under conditions of mandated standardization has resulted in policy hegemony relatively unchecked by political or structural constraints.

²⁸ Duncan Kennedy (1976), “Form and Substance in Private Law Adjudication,” *Harvard Law Review* 89(8): 1685–1778; Pierre Schlag (1985), “Rules and Standards,” *UCLA Law Review* 33(2): 379–430.

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 policy and for contesting policy choices. This is not to suggest that such processes always work perfectly or even well. But certain high-level constraints on institutional behavior – in particular, principles of separation of powers and procedural due process and commitments to giving reasons for official actions – also have been widely acknowledged in democratic societies.

Dominance in technology standards markets confronts different kinds of limit. Although networks do exhibit lock-in effects, various forms of competition remain possible (we will consider those forms more closely in the next section).²⁹ Additionally, in paradigmatic, discrete technology standards markets, the connection between market dominance and policy dominance tends to be indirect. 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.

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 flow that must, may, and may not travel via the network. The policy is the standard and vice versa, and 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.³⁰ 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.

Developments in the domains of world trade governance and transnational business regulation over the second half of the twentieth century mapped straightforwardly to this lock-in-based theoretical model (we will consider some more recent anomalies in the next section), enabling the consolidation of US policy hegemony across a wide and varied set of domains.³¹ The case of Internet governance is more complicated. US observers, in particular, tend to think that Internet governance

²⁹ On network lock-in, see Michael L. Katz and Carl Shapiro (1985), “Network Externalities, Competition, and Compatibility,” *American Economic Review* 75(3): 424–440.

³⁰ Grewal, cited in note 25, pp. 4–8; Castells, cited in note 25, p. 43.

³¹ See generally John Braithwaite and Peter Drahos (2000), *Global Business Regulation*, New York: Cambridge University Press.

processes have avoided the worst excesses of US policy hegemony precisely because of their *sui generis*, multistakeholder design. As noted earlier, however, private technology companies, including especially the dominant US technology firms, wield considerable influence within Internet governance processes, and the turn to multistakeholderism reflects a long-standing and largely bipartisan preference in the United States for a strong private-sector role in Internet governance.³² It is unsurprising, then, that the responses of marquee institutions such as ICANN and the IETF 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 US information law and policy.

Legal Standards Wars: The Problem of Regulatory Arbitrage

A second striking characteristic of emerging global network-and-standard-based legal-institutional arrangements relates to the mechanisms available for changing a governing standard. On 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 accessible via new points 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.³³ 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.

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 unless there is cooperative agreement to extend forgiveness.

³² Kal Raustiala (2016), "Governing the Internet," *American Journal of International Law* 110(3): 491–503; see also Raymond and DeNardis, cited in note 13.

³³ Carl Shapiro and Hal R. Varian (1999), "The Art of Standards Wars," *California Management Review* 41(2): 8–32.

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 support and have been unable to generate momentum.³⁴ A systemic shock can create impetus for a mutually agreed disjunctive break; so, for example, the 2008 financial crisis generated the momentum required to tighten standards for measuring bank capital adequacy.³⁵ 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 dominates 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. More recently still, the “Internet of things” and the emergent market for smart home assistants have opened new channels for companies seeking to become the intermediary of choice for as many online interactions as possible.

Networked governance arrangements organized around legally mandated standardization are similarly vulnerable to disintermediation by adjacent governance arrangements. So, for example, when developing nations began to balk at additional extensions to the TRIPS agreement that they saw as benefiting developed economies, US 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. Developing nations fought back, gradually organizing around a proposed “development agenda” for the World Intellectual Property Organization (WIPO), a constituent body of the United Nations. The WIPO Development Agenda thereby briefly became an entry in an intellectual property standards war. Developing nations’ effort at “regime shifting” enjoyed only temporary success, however, because developed countries returned to WIPO in

³⁴ See, generally, Daya Kishan Thussu (2015), “Digital BRICS: Building a NWICO 2.0?”, in *Mapping BRICS Media*, eds. Kaarle Nordenstreng and Daya Kishan Thussu, New York: Routledge, pp. 242–263; see also Tracy Staedter, “Why Russia Is Building Its Own Internet,” *IEEE Spectrum*, January 17, 2018, <https://perma.cc/6UU4-NNJG>.

³⁵ See Brummer, cited in note 12, pp. 233–265.

force and asserted their own interests.³⁶ Meanwhile, the copyright industries of the Global North have appropriated regime-shifting tactics to their own ends, working to introduce interdiction mandates directly into arrangements for Internet governance.³⁷

As a different example, consider evolving arrangements for governance of cross-border transfers of personal information. The European Union has worked to export its high standards for personal data protection to the rest of the world, whereas parties seeking greater liberalization – including especially dominant global platform firms headquartered in the US – have shifted their emphasis toward inserting strengthened mandates for crossborder flow into bilateral and multilateral trade agreements, including especially agreements involving the Asian nations that are increasingly significant players in the emerging crossborder data servicing economy.³⁸ 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 have not traditionally had a significant presence. And here again, Internet governance has emerged as an important focus of regime shifting efforts; for example, even European data protection authorities have largely acquiesced in ICANN's continuing failure to require adequate privacy protections for WHOIS registry data.³⁹ Each of these developments destabilizes settled expectations about where authority to regulate crossborder transfers of personal data resides and about what the reigning standard requires.

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. In fact, those ideals have been under siege since the complex legal ecologies of the late twentieth century began to offer a wider and more complex

³⁶ Laurence R. Helfer (2004), "Regime Shifting: The TRIPs Agreement and New Dynamics of International Intellectual Property Lawmaking," *Yale Journal of International Law* 29(1): 1–84.

³⁷ Annemarie Bridy, (2017) "Notice and Takedown in the Domain Name System: ICANN's Ambivalent Drift into Online Content Regulation," *Washington and Lee Law Review* 74 (3): 1345–1388; Peter Bright, "DRM for HTML5 Finally Makes It as an Official W3C Recommendation," *ArXiv*, September 18, 2017, <https://perma.cc/Z9P6-2JLW>.

³⁸ For analyses of the interplay between data protection and multilateral trade instruments, see Svetlana Yakovleva and Kristina Irion (2016), "The Best of Both Worlds? Free Trade in Services, and EU Law on Privacy and Data Protection," *European Data Protection Law Review* 2(26): 191–208; Graham Greenleaf (2017), "Free Trade Agreements and Data Privacy: Future Perils of Faustian Bargains," in *Transatlantic Data Privacy Relations as a Challenge for Democracy*, eds. Dan Svantesson and Dariusz Kloza, Antwerp: Intersentia, pp. 181–212; Graham Greenleaf (2018), "Looming Free Trade Agreements Pose Threats to Privacy," *International Report: Privacy Laws & Business* 152: 123–127.

³⁹ Stephanie E. Perrin (2018), "The Struggle for WHOIS Privacy: Understanding the Standoff between ICANN and the World's Data Protection Authorities," unpublished dissertation, Faculty of Information, University of Toronto, pp. 243–253.

array of possibilities for regulatory arbitrage than those within which the rule-of-law ideal was first articulated. Even so, 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, and to say what the law is. Relative to that benchmark, the new networked governance arrangements manifest both frustrating path dependence and a destabilizing failure of finality.

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. As economic liberalization has become the primary driver of innovation in transnational legal ordering, and the overriding importance often ascribed to facilitating flows of crossborder 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 tradeoffs 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 infraction – 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.⁴⁰

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 not an exit strategy but rather 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 for alternative network making around standards that blend elements of economic liberalization with elements of

⁴⁰ Anu Bradford and Eric A. Posner (2011), “Universal Exceptionalism in International Law,” *Harvard International Law Journal* 52(1): 3–54, 36.

mercantilist central planning and political control. Above all else, authoritarian states seek to control unwanted flows of information within and across their borders.

In principle, any state with sufficient economic and geopolitical power can wield what Manuel Castells calls network-making power – or the power to constitute its own network by establishing alternative conditions of interconnection.⁴¹ 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 dominance of standards for global economic and technical exchange. The Chinese program for physical infrastructure development, now known in English as the Belt and Road initiative, seeks to facilitate flows of labor, goods, and raw materials across continents and oceans under conditions that advance Chinese economic interests.⁴² The Chinese information technology sector has grown rapidly and now includes two firms that rank among the world's twenty largest: search and social networking firm Tencent and e-commerce giant Alibaba.⁴³

As the Chinese information technology sector has matured and turned toward new markets, affordances for both economic development and state control of communications infrastructure play key roles. 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 like 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.⁴⁴ 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.⁴⁵ 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

⁴¹ Castells, cited in note 25, pp. 45–46.

⁴² Yiping Huang (2016), “Understanding China's Belt & Road Initiative: Motivation, Framework and Assessment,” *China Economic Review* 40: 314–321; Dane Chamorro, “Belt and Road: China's Strategy to Capture Supply Chains from Guangzhou to Greece,” *Forbes*, December 21, 2017, <https://perma.cc/4LYV-EFNW>.

⁴³ PwC, “Global Top 100 Companies by Market Capitalisation,” March 31, 2017, 35, <https://perma.cc/8TNB-TBCA>.

⁴⁴ McKinsey Global Institute, “China's Digital Economy: A Leading Global Force,” August 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>.

⁴⁵ Samm Sacks, “Beijing Wants to Rewrite the Rules of the Internet,” *Atlantic*, June 18, 2018, <https://perma.cc/YFY8-KYM5>.

separation and control on top of the underlying connectivity afforded by the basic Internet protocols.⁴⁶

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 address those concerns. 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 Internet policy, in particular, works to eliminate.

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 networked governance arrangements are strikingly inhospitable to traditional mechanisms for instilling accountability within legal institutions, and they have invited powerful new variations on rent seeking by nonstate actors. That development marks 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.⁴⁷ In the US for example, trade policy is the domain of the executive, and the executive in turn is accountable to the Senate and to the voting public. Interventions in transnational business regulatory processes also emanate from the executive branch and its constituent agencies and commissions. In practice, however, both trade policy processes and transnational regulatory processes are far more accountable to special interests than to their official constituencies. In the U.S., 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; both

⁴⁶ Gabriele de Seta, “Into the Red Stack,” *Hong Kong Review of Books*, April 17, 2018, <https://perma.cc/J5VD-7SH3>.

⁴⁷ Ruth W. Grant and Robert O. Keohane (2005), “Accountability and Abuses of Power in World Politics,” *American Political Science Review* 99(1): 29–43.

arrangements are thought to be justified by the executive's broad authority to conduct diplomatic relations with foreign countries.⁴⁸ Transnational regulatory processes are procedurally entrepreneurial and may also incorporate substantial privatization components, so the traditional mechanisms for executive branch accountability tend not to reach them directly. 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.⁴⁹

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 Californian public benefit corporation – imposes a set of accountability mandates that include both stakeholder representation and transparency obligations. ICANN has adopted a variety of 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).⁵⁰ In practice, however, the stakeholder-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 and more recently also concerned with access to the rich trove of personal information contained in WHOIS domain registry databases.⁵¹

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. Although membership in the IETF and a number of other technical professional organizations active in Internet standard making is exercised on an individual basis, as a practical matter participation is heavily corporatized. The World Wide Web Consortium, a private membership organization that oversees the development of the Web's hypertext protocols, has different tiers of membership for different types of stakeholder, with large technology corporations paying the highest fees and wielding corresponding levels of clout.

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.⁵² The lengthy, intricate, and globally distributed nature of transnational legal-institutional processes sets an effective lower bound on the kinds of entity that can participate effectively. The

⁴⁸ Margot E. Kaminski (2014), "The Capture of International Intellectual Property Law through the U.S. Trade Regime," *Southern California Law Review* 87(4): 977–1052.

⁴⁹ For an illustrative discussion, see *Golan v. Holder*, 565 U.S. 302, 335–336 (2012).

⁵⁰ ICANN, "Accountability and Transparency," <https://www.icann.org/resources/accountability>.

⁵¹ Mueller, *Ruling the Root*, cited in note 20; DeNardis, *The Global War for Internet Governance*, cited in note 19; Perrin, cited in note 39.

⁵² In general, the innovations that "go viral" within networks are those originating from more connected nodes within the network. See Barabasi, cited in note 27, pp. 131–135.

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, farflung sites. Civil society organizations too have learned to play the multistakeholder game, forming transnational networks that enable them to pool their resources and act cooperatively, but corporate actors and business NGOs, including 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.⁵³

The flipside 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 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, continually pursuing a threshold of influence that remains out of reach.

Technocracy and Its Discontents: The Problem of Publicly Available Law

A final distinctive attribute of emergent arrangements for global business governance and global network governance is their highly technocratic character. Some legal scholars who study transnational regulatory processes have worried that those processes lend themselves to capture by elites.⁵⁴ It is helpful to understand that tendency as bound up with essential but imperfectly assimilated sociotechnical shifts. The mandated standards around which networked legal institutions are organized exemplify an approach that scholars who study sociotechnical assemblages for financial regulation have called the numericization of governance.⁵⁵ They are developed via expert proceedings and encoded in lengthy, highly technical specifications whose implementation requires ongoing supervision by cadres of managerial elites.

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

⁵³ Durkee, "Astroturf Activism," cited in note 15.

⁵⁴ For an especially compelling articulation of this worry, see David Kennedy (2014), "Law and the Political Economy of the World," in Grainne de Burca, Claire Kilpatrick, and Joanne Scott, eds., *Critical Legal Perspectives on Global Governance: Liber Amicorum David M. Trubek*, Portland, OR: Hart Publishing, pp. 65–102.

⁵⁵ Hans Krause Hansen and Tony Porter (2012), "What Do Numbers Do in Transnational Governance?," *International Political Sociology* 6(4): 409–426.

technical vernaculars from fields such as climate science, marine ecology, and epidemiology. In other transnational settings, the prevailing vernacular is 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.⁵⁶

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.⁵⁷ 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 mandated standardization exacerbates them.⁵⁸ As substantive policy choices are folded into mandated standards, they become more and more difficult to disentangle, and certain types of especially incommensurable concern – for example, concerns relating to development of capabilities for human flourishing and protection of fundamental rights – may seem to disappear altogether.⁵⁹

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 disruption and also encoded the generally libertarian commitments of the original Internet pioneers. As a result, although the Internet overall is extraordinarily resistant

⁵⁶ For a detailed example, see Kernaghan Webb (2015), “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(2): 466–500.

⁵⁷ Timothy H. Edgar (2017), *Beyond Snowden: Privacy, Mass Surveillance, and the Struggle to Reform the NSA*, Washington, DC: Brookings Institution Press, p. 123.

⁵⁸ See, generally, Sheila Jasanoff (1990), *The Fifth Branch: Science Advisers as Policymakers*, Cambridge, MA: Harvard University Press.

⁵⁹ See Sakiko Fukuda-Parr (2011), “The Metrics of Human Rights: Complementarities of the Human Development and Capabilities Approach,” *Journal of Human Development and Capabilities* 12(1): 73–89; Sakiko Fukuda-Parr and Alicia Yamin (2013), “The Power of Numbers: A Critical Review of MDG Targets for Human Development and Human Rights,” *Development* 56(1): 58–65; AnnJanette Rosga and Margaret Satterthwaite (2009), “The Trust in Indicators: Measuring Human Rights,” *Berkeley Journal of International Law* 27(2): 253–315.

to disruptions of service, it has proved extraordinarily hospitable to other kinds of threat that exploit networked interconnection.⁶⁰ The discourses of risk management and cost-benefit analysis that play increasingly important roles in financial and environmental regulation charge can fail to reckon adequately with certain kinds of large systemic threat.⁶¹ In the domain of world trade, the leading theoretical models generally have viewed liberalization as an unqualified good and have tended to discount evidence suggesting that it is also important to provide for equitable distribution and domestic capability building.⁶²

An important element of the rule-of-law ideal is commitment to publicly accessible rules and publicly accessible reasoning about the justifications for official decisions. From that perspective, network organization under 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 arrangements more opaque and less accountable to broader global publics.

PLATFORMS AS EMERGENT TRANSNATIONAL SOVEREIGNS?

So far, the discussion 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.⁶³ Dominant global platform firms – firms that have attained positions as dominant intermediaries within the

⁶⁰ For a prescient early treatment of this problem, see Jonathan Zittrain (2008), *The Future of the Internet—And How to Stop It*, New Haven, CT: Yale University Press, 36–57.

⁶¹ See, for example, Frank Ackerman, Lisa Heinzerling, and Rachel Massey (2005), “Applying Cost-Benefit to Past Decisions: Was Environmental Protection Ever a Good Idea?,” *Administrative Law Review* 57(1): 155–192; Kenneth A. Bamberger (2010), “Technologies of Compliance: Risk and Regulation in a Digital Age,” *Texas Law Review* 88(4): 669–740; James Fanto (2009), “Anticipating the Unthinkable: The Adequacy of Risk Management in Finance and Environmental Studies,” *Wake Forest Law Review* 44(3): 731–756.

⁶² William Krist (2013), *Globalization and America’s Trade Agreements*, Washington, DC: Woodrow Wilson Center Press with Johns Hopkins University Press; Erik Reinert (2007), *How Rich Countries Got Rich . . . and Why Poor Countries Stay Poor*, New York: Carroll & Graf.

⁶³ See, for example, Claudio Grossman and Daniel D. Bradlow (1993), “Are We Being Propelled Towards a People-Centered Transnational Legal Order?,” *American University Journal of International Law and Policy* 9(1): 1–26; Gunther Teubner (2011), “Self-Constitutionalizing TNCs? On the Linkage of ‘Private’ and ‘Public’ Corporate Codes of Conduct,” *Indiana Journal of Global Legal Studies* 18(2): 617–38.

emerging global, networked information and communications infrastructure – push both tendencies to new extremes.

Over the last several decades, the platform has emerged as the core organizational logic of the political economy of informationalism. In other work, I have explored the intertwined functions that platforms provide – intermediation between would-be counterparties and techniques for rendering users legible – and explained how those functions afford unprecedented control of commercial and social interaction.⁶⁴ From an economic perspective, platforms represent infrastructure-based strategies for introducing friction into networks. Platforms provide services that participants view as desirable and empowering, thereby generating and enabling participants to leverage network externalities. At the same time, they use a combination of legal boilerplate and technical protections to assert ownership and control of user data, to police access by app developers and potential competitors, and to maintain their algorithms for search, user profiling, and ad targeting as valuable trade secrets. Those strategies work to pull users closer and keep would-be competitors further away, generating the rich-get-richer dynamics that have produced dominant platforms and continually reinforce their preeminence.

As a result of their enormous and growing power over the conditions of information exchange, 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 distinctions developed by Manuel Castells in his exploration of communication power in the networked digital era are useful for explicating the various kinds of power that platforms possess. By virtue of their privileged and infrastructural access to flows of information, 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 for interconnection.⁶⁵

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.⁶⁶ 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 the traditional criteria impose. The network power and the network-making power of platforms are rooted in the very

⁶⁴ Julie E. Cohen (2017), "Law for the Platform Economy," *U.C. Davis Law Review* 51(1): 133–204.

⁶⁵ Castells, cited in note 25, pp. 45–46.

⁶⁶ See Convention on Rights and Duties of States art. 1, December 26, 1933, T.S. No. 88.

considerations of territory, population, and enforcement authority that platforms supposedly lack. Both technically and experientially, platform territories are clearly demarcated spaces.⁶⁷ Google and Facebook also operate substantial privatized Internet “backbone” infrastructures – the interconnection facilities that link different pieces of the Internet together.⁶⁸ 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.⁶⁹ 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 benefits of membership accrue most visibly and predictably to users who maintain permanent and consistent membership. In part for that reason and in part because of the way that platform protocols mediate access to platform territories, the enforcement authority of platforms is real and immediate. Platform protocols structure the forms and flows of permitted conduct – e.g., sponsored search results, Facebook “likes” and “tags,” Twitter retweets – and enable swift imposition of internal sanctions that may range from content removal to account suspension or cancellation.⁷⁰

Sovereign authority also must be recognized as such by other sovereigns, and here the picture is muddier. On one hand, the dominant US platform firms actively and theatrically resist both incursions by nation states on their governance authority and various kinds of national and local regulation. On the other, platform firms have at times pursued more collaborative relationships with governments on both matters of national security and law enforcement and matters of technology policy more generally.⁷¹ As noted earlier, Chinese platform firms have more systematically collaborated with government authorities both at home and abroad. On the global stage, platform firms increasingly practice both diplomacy and transnational networked policymaking 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

⁶⁷ On the spatial dimension of user experiences of the Internet, see Julie E. Cohen (2007), “Cyberspace as/and Space,” *Columbia Law Review* 107(1): 210–255.

⁶⁸ DeNardis, *The Global War for Internet Governance*, cited in note 19, pp. 45–55.

⁶⁹ Facebook, “Newsroom: Company Info,” <https://perma.cc/5RC7-ZPGG> (2.13 billion monthly active users as of December 2017); Xavier Harding, “Google Has 7 Products with 1 Billion Users, Popular Science,” February 1, 2016, <https://perma.cc/zZYC-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>.

⁷⁰ See Tarleton Gillespie (2017), “Governance of and by Platforms,” in Jean Burgess, Alice Marwick, and Thomas Poell, eds., *The SAGE Handbook of Social Media*, Thousand Oaks, CA: Sage, pp. 254–278; Kate Klonick (2018), “The New Governors: The People, Rules, and Processes Governing Online Speech,” *Harvard Law Review* 131(6): 1598–1670.

⁷¹ David Dayen, “The Android Administration: Google’s Remarkably Close Working Relationship with the Obama White House, in Two Charts,” *The Intercept*, April 22, 2016, <https://perma.cc/QL5K-VT7Y>.

a secretary of state and his or her staff might do.⁷² Speaking at a recent network security conference, Microsoft's president sketched a vision of a future in which platform firms function as "a trusted and neutral digital Switzerland," safeguarding private communications against all types of sovereign incursion.⁷³

In short, networked legal-institutional form allows for the possibility of nonstate but functionally sovereign power, and platforms represent an (arguable and emergent) example of such power. Concentrated stakeholder control of the networked communications infrastructure can produce and perhaps is beginning to produce an inversion of law- and policymaking authority, through which certain very powerful platform 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 transnational governance in a way that accounts for the network-making power of dominant platforms has become an increasingly important project.

CONCLUSION

Taking networks and standards seriously as organizing principles for a new legal-institutional form provides a helpful framework for understanding various features of transnational governance arrangements that have perplexed scholars across a number of disciplines. If what such institutions do is not "just" governance – if they represent an emergent form of law for the informational economy, and an increasingly important one – the disconnects between network-and-standard-based governance and rule-of-law ideals point to the beginning of an important institutional design project directed toward rendering them more accountable to global networked publics. That project also must contend with the growing practical sovereignty of platforms and with the challenges such sovereignty poses for the practical realization of rule-of-law aspirations within networked information environments.

⁷² 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*, September 12, 2016, <https://perma.cc/E4UU-SRVF>; My Pham, "Vietnam Says Facebook Commits to Preventing Offensive Content," *Reuters*, April 27, 2017, <https://perma.cc/FN45-XLNY>; Adam Taylor, "Denmark is Naming an Ambassador Who Will Just Deal with Increasingly Powerful Tech Companies," *Washington Post*, February 4, 2017, <https://perma.cc/PCV3-L2J3>.

⁷³ Kate Conger, "Microsoft Calls for the Establishment of a Digital Geneva Convention," *TechCrunch*, February 14, 2017, <https://perma.cc/78Q3-Q38S>.