



PROJECT MUSE®

COVID-19 and World Order

Brands, Hal, Gavin, Francis J.

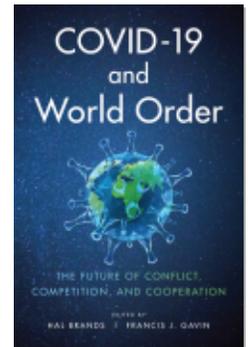
Published by Johns Hopkins University Press

Brands, Hal and Francis J. Gavin.

COVID-19 and World Order: The Future of Conflict, Competition, and Cooperation.

Johns Hopkins University Press, 2020.

Project MUSE. doi:10.1353/book.77593.



➔ For additional information about this book

<https://muse.jhu.edu/book/77593>

[Access provided at 18 Sep 2020 16:59 GMT with no institutional affiliation]



This work is licensed under a Creative Commons Attribution 4.0 International License.

Take It Off-Site

World Order and International Institutions after COVID-19

Janice Gross Stein

COVID-19 changes everything, we are told. We know, almost certainly, that it does not. COVID-19 is an accelerator of global changes that were already under way, much more than it is a generator of sharp shifts in direction. The cumulative impact of these trends that preceded the pandemic was to begin the transition away from American hegemony toward a world order framed by the relationship between China and the United States. The pandemic will accelerate these processes of world order change. Whether that relationship will become one of all-out rivalry or collaborative competition will be determined by the policy choices leaders in both capitals make.

I make three arguments. First, the pandemic has quickened and deepened changes in patterns of global digital-communications infrastructure, trade, and finance that began more than a decade ago. These changes are consistent with a broader pattern of what I call “the rebordering of the world” in the larger context of the framing impact of the deepening conflict between the United States and China and the retreat from globalization and push toward regionalization.

Second, I look briefly at two international institutions—the World Trade Organization (WTO) and the World Health Organization (WHO)—and show why, in

Janice Gross Stein is the Belzberg Professor of Conflict Management in the Department of Political Science and was the founding director of the Munk School of Global Affairs and Public Policy at the University of Toronto (serving from 1998 to the end of 2014).

the context of an increasingly polarized world order, they are less able to fulfill the two critical functions of coordination and control. Dysfunctionality in established international institutions is the lagging indicator of a world order in transition. They are performing poorly not because of bugs in their systems but because their design features are a poor fit with the evolving world order.

Third, I look off-site for innovation in international governance and pay special attention to three different patterns of hybrid governance that have the potential to scale. The first is a scientific network that leapt across borders to share data and then worked with the WHO to purposely build a network of globally connected laboratories. This is a story of governance innovation that begins off-site and scales to include on-site and create a nimble hybrid institution. The second moves from on-site to off-site. When the United States deliberately paralyzed dispute resolution within the WTO, a group of like-minded states developed a work-around that built on WTO processes but moved it off-site. Finally, off-site, international standards-setting bodies that are populated by private companies but work in the shadow of states are making rules for next-generation technologies that will rewire global infrastructure.

A World Order Fractured and Rebordered

THE DEEPENING CONFLICT BETWEEN THE UNITED STATES AND CHINA

The immediate national responses to the pandemic took place within the larger framework of escalating hostility between the United States and China. Although the rhetoric of today focuses on management by China of the virus and worry about overwhelming dependence on Chinese manufacturers of essential health care equipment, that conflict began long before COVID and is playing out in an intense competition for leadership across multiple dimensions. Prominent among these is a fierce struggle for leadership in technology.¹ Years before the coronavirus began to spread, the United States moved to deny China first-mover advantage in building the next-generation digital infrastructure (5G) that will serve as the platform for the Internet of Things.

Why does it matter who builds the next generation of digital infrastructure, and what does this competition for leadership in technology tell us about the characteristics of the evolving world order and governance? Control of communications infrastructure has always been central to great-power dominance and world order.² “Leadership in 5G is a useful proxy,” Eric Schmidt said at the conference that preceded this volume, “because advantage in platform technologies is a strong indicator of global advantage. When we fragment the technology stack, we split the world.”³

The next-generation technology will be the platform for the rapidly expanding digital economy and digital health platforms, and it will be critical to the development and scaling of artificial intelligence, robotics, cyberwarfare, and autonomous weapons that will reshape national and international security. Digital networks are becoming increasingly fused with economic advantage and national security as commerce, public health, and warfare move online. The competition between China and the United States over 5G is of course about technology, but it is also about manufacturing, finance, scale, and the institutions of the next generation that will shape coordination, competition, and collaboration as well as exchange and control. Mapping 5G infrastructure is one way of estimating the parameters of the world order to come.

China's leaders recognized the importance of leadership in technology in the shaping of the global order and invested in the development of 5G networks as a strategic priority. Huawei, China's leading telecommunications company and national champion, has developed a substantial lead in 5G technology. Its costs are lower than those of its three competitors—Nokia, Ericsson, and Samsung—and the quality of its technology is widely, although not universally, regarded as high.⁴

As it became apparent that Huawei was moving to build the next-generation communications infrastructure and reap the benefits of the global first mover, the United States moved to constrain Huawei. It was the Obama administration that in 2016 instructed the Federal Communications Commission to ensure that all 5G technologies met a stringent set of security standards. The Trump administration at first rescinded those instructions but then banned Huawei products from the US government and its contractors, put Huawei on the Entity List, and prohibited the export, either directly or indirectly, of technology by American companies to Huawei.⁵ The Trump administration also put enormous pressure on friends and allies, particularly the "five eyes" that have special intelligence sharing arrangements with the United States, to follow.⁶

The pandemic has accelerated the swing against Huawei in Europe and Canada. Even before the pandemic, Australia had banned Huawei, and New Zealand had imposed increasingly stringent conditions. As the pandemic gathered steam, Britain announced a review of its earlier decision to allow Huawei to build parts of the periphery of its network. Canada has still not yet announced its decision, but it seems increasingly unlikely that, amid a national conversation about shorter supply chains to bolster security, it will permit Huawei to build a significant part of even the periphery of its next-generation network.

The map looks very different across Africa, the Middle East, and Latin America. Even before the pandemic, Huawei had a commanding position in most of Africa, enabled by China's significant investment through the digital Belt and Road Initiative. America's two closest allies in the Gulf, Saudi Arabia and the United Arab Emirates, had both announced partnerships with Huawei. In Asia, Japan has banned Huawei, and India is now considering doing so, but Malaysia, Vietnam, and Thailand are all considering allowing Huawei to build significant parts of their networks.

The emerging pattern of the next-generation global communications infrastructure, already clear before the outbreak of the pandemic, shows a world divided and demarcated by the growing competition between the United States and China for leadership in next-generation technology.⁷ The line of division is fuzzier at times than the map suggests, because networks in some countries are agglomerations built on combinations of suppliers, including Huawei as well as Nokia, Ericsson, and Cisco, that are building backbone. Especially in Europe, foreshadowing arguments that would be made forcefully during the pandemic, governments chose to use a multiplicity of suppliers, hoping to reduce their dependence on any one supplier in the marketplace.

COVID-19 has only deepened and sharpened that fuzzy line that was already running across the global map, creating sharp strategic dilemmas for smaller powers and challenging the way international institutions function.⁸ The decisions governments make about Huawei in the next few years will foreshadow the way they navigate a world order that is increasingly framed by deepening competition between the two great powers, each weakened in different ways by the pandemic.

THE REBORDERING OF THE WORLD

Layered on top of the fissure created by the broad competition between China and the United States is a process that I call "rebordering." As the pandemic spread, rebordering became visible to the naked eye as governments embargoed the export of critical health equipment and closed their borders to travel. Even the United States and Canada, in a decision that is unprecedented in their history, closed their border to all but essential goods and services. In Europe, where until 2016 borders had largely disappeared, borders thickened quickly in response to the spread of the coronavirus.

This process of rebordering, along with the newly heightened importance of geography and place, also predates the pandemic. China, of course, led the way in rebordering by creating its Great Firewall to block citizens' access to outside in-

formation in the name of “digital sovereignty.” In 2019, Russia passed a law that allows the Kremlin to cut Russia off from the internet by requiring providers to install special filters and routers controlled by Roskomnadzor, the state communications agency. That equipment can block access to information that the Kremlin considers harmful and, in a crisis, redirect or cut off traffic completely. Russia also plans to create its own domain names, separate from the Internet Corporation for Assigned Names and Numbers, challenging the governance institution that assigns names through its domain name system. Iran has already built its own national intranet, known as the “halal net,” which has a separate hardware backbone of cables, servers, and data centers. Tehran can close off access to the World Wide Web but still provide a suite of digital services inside the country. Cuba also has a national intranet as does North Korea.⁹

Rebordering was also visible in the growing chorus of demands from governments in open societies that data that their citizens generated be “localized.” As societies become increasingly digital, citizens have become more concerned about who controls their data. The push for data localization, where governments are insisting that their citizens’ data be stored on servers physically located in their own country, reinforces the importance of place. The visual imagery of “clouds” notwithstanding, geography and borders, which never really went away, were back with a vengeance even before COVID-19.

The pandemic will give a substantial push forward to localization. National borders will become even more prominent in the integrated physical-digital world that we are moving toward and pose new challenges for governance.

RETREAT FROM GLOBALIZATION TOWARD REGIONALIZATION

Reinforcing the impact of the deepening conflict between China and the United States and rebordering has been the retreat of globalization and the growth of regionalization. These three trends have converged to amplify their effects.

The pandemic swept through large parts of the world when globalization was already in retreat. In the last two decades of the 20th century, the pursuit of efficiency and just-in-time delivery accelerated the development of integrated global supply chains. The ratio of trade in goods to world gross domestic product reached 39% in 1990 and then rose steeply to a peak of 61% in 2008. By 2019, trade as a share of output in the global economy was lower than it was before the financial crisis, as were cross-border financial flows, which peaked in 2007.¹⁰ The picture, however, is not uniform. Trade in services is up, as are flows of data across borders. International travel and migration were at all-time highs before the pandemic. The

multiple dimensions of what we have packaged together under the loose label of “globalization” do not run in the same direction and are difficult to aggregate.

The regionalization of trade began long before the pandemic and is likely to accelerate in its wake. Global trade negotiations that gave rise to the international institution that governed world trade, the World Trade Organization, had lost momentum by the end of the last century. Governments moved increasingly to regional and bilateral agreements to accelerate trade. Within regions, trade grew in the three regions that account for the bulk of world trade—Asia, led by China; Europe, led by the European Union; and North America, led by the United States. In the last few years, as the Trump administration began weaponizing trade and imposing tariffs, trade between the United States and China has also declined dramatically. And automation, robotics, and 3D printing are all accelerating regionalization and the shortening of supply chains.

COVID-19 will very likely accelerate these trends even further. The pandemic led to heightened awareness of the importance of secure supply chains and strategic reserves that can meet the needs of vulnerable populations. The language of shortened supply chains and “onshoring” is hardly new, but it is now used more widely and with added urgency by political coalitions that seek at a minimum to diversify supply chains so that no government is hostage to a single manufacturer or a single country.

These changes in trade patterns map onto divisions that were becoming clear to analysts whose focus is technology. Writing before the pandemic, Steven Weber argued that there will soon be several regional economies defined not principally by geography but by technological boundaries written in standards and data flow practices, both institutions of informal governance. He suggests that the emergence of friction at the borders of these regions is intentional on the part of governments and is unwillingly and grudgingly accepted by global firms.¹¹

There is a lively debate about how far regionalization and rebordering can go. The tensions run in multiple ways. It is not clear, for example, that regional supply chains will provide the security governments and publics are currently seeking through rebordering. In the early days of the pandemic, governments slapped export bans on face masks and personal protective equipment. A global black market running on cash drove purchases of scarce supplies, often through third-party intermediaries. The immediate response to COVID-19 has been overwhelmingly national. Regional and international institutions were largely out of sight, especially at the beginning of the pandemic.

This argument questions how well regionalization will withstand pressures from national governments. Yet governments have historically experienced difficulty in maintaining short supply chains in areas of strategic focus. These are likely to be shorter-term concerns, restricted to the acute phase of the epidemic. A second quite different argument questions how far rebordering can go in a world economy that runs on global supply chains. Rebordering imposes economic consequences and, consequently, governments, Henry Farrell and Abraham Newman claim, are “chained to globalization.”¹² Even China and the United States, now competing across multiple dimensions, are aware of the significant economic and commercial consequences and are anxious to pursue the increasing returns to connection.

There is always friction between firms that seek economies of scale and governments that seek to assert control over their borders and provide security to their citizens. The two tendencies coexist and one constrains the actions of the other, but it is the relative balance and the directional trend that matter and give shape and texture to world orders. In the last decade, after more than twenty-five years of hyper-globalization, control and rebordering have become relatively more important. The pandemic can only accelerate that trend. As appreciation by governments of the political risks of efficiency and the value of resiliency grow, the incentive to pay a higher premium for some resilience and to decouple, at least in part, from globalization in strategic areas can only increase.¹³

Institutions and Governance in a Precarious World Order: The Spaces in Between

INTERNATIONAL INSTITUTIONS IN HEALTH AND TRADE

International institutions that provide critical functions of control and coordination evolve, disappear, or adapt to the world order in which they live.¹⁴ The Concert of Europe, a loosely constituted intergovernmental institution, shaped the expectations and beliefs of European leaders and governance in a 19th-century balance-of-power system. It did not survive the outbreak of major war and was replaced by the League of Nations.¹⁵ The league disappeared not only because of its institutional deficiencies but also because it was nested in a world order with few shared beliefs, contested norms, and big powers that sought to disrupt the system.

After World War II, the United States created a set of international institutions, anchored within a framework of openness and liberalism, through the exercise of its hegemonic power. A tradition of liberal institutional scholarship reflected these

norms and focused on solving information and coordination problems among states in a world where states wished to cooperate and were constrained only by their fear of cheating.¹⁶ It is these institutions that now find themselves under pressure as the international order becomes increasingly precarious.

COVID-19 has shone the spotlight on two institutions within that broader network, the World Health Organization and the World Trade Organization. The WHO was created in 1948 in the rush of international institution building that followed the war. The WTO evolved almost forty years later out of an earlier looser agreement on trade and tariffs. Both these institutions are intergovernmental, depend on member states for their budgets and for agreement on norms and rules, work by consensus, and are effective only when they are able to provide meaningful control and coordination in the spaces that go beyond the state.

The two institutions play very different roles in their respective domains. The WHO broadly promotes, protects, and coordinates work on public health globally. The WTO grew out of the need for effective dispute resolution mechanisms as global trade deepened. It works far more within the shadow of the law than does the WHO. Both of these institutions have come under sustained attack in the last few years by the United States. The Trump administration has weaponized its funding for the first and the legal system in the second, claiming that these institutions do not serve US interests.

Much ink has been spilled on proposals to “reform” these institutions to improve their effectiveness, but reform is largely beside the point. The future of these institutions depends on the larger beliefs that are evolving as the United States loses its hegemonic status and on the “goodness of fit” with a world order that is in transition and generating forces that undermine these institutions.¹⁷

President Donald Trump, alleging that the WHO was overly deferential to China in the early stages of the pandemic, blocked a joint commitment by the G20 to strengthen the mandate of the WHO and give it additional resources to coordinate the response globally to the pandemic, threatened to withdraw the United States from membership, and withheld its annual funding contribution.

In response to widespread concern that the WHO was overly deferential to China in the very early phase of the pandemic, an overwhelming majority of its members voted in favor of a review of the WHO’s management of the pandemic at some future date. This is not the first time members have pushed for an independent review of the performance of the organization. In the wake of SARS in 2003, the World Health Assembly, the governing body of the WHO, strengthened the International Health Regulations, the core legal requirements for state con-

duct in health emergencies. The revisions strengthened the WHO's surveillance capabilities, gave the director-general the power to declare an international emergency, and required member states to develop the capacity to detect and respond to outbreaks of disease. In the wake of Ebola, independent experts assessed the WHO's performance and made recommendations that led to the Health Emergencies Program that is today supplying masks and test kits to low-income countries upon request.¹⁸ New agencies—the World Bank's Pandemic Emergency Financing Facility and the Africa Centres for Disease Control and Prevention—deepened the ecosystem of global health management. Nevertheless, as Steven Hoffman observed, the WHO can “advise but never direct; guide but never govern; lead but never advocate; evaluate but never judge.”¹⁹ Its members deliberately reject intrusive surveillance and actively keep the WHO weak.

The reforms did not give the WHO an independent intelligence capability, the power to conduct investigations, or to enforce compliance. Like all other intergovernmental institutions, it is reliant on what member states do and on the information that they provide. The politicization of the WHO was predictable in the context of an already tense relationship between China, where the disease began, and a president in Washington who managed the pandemic in such a shambolic way.

Although the WTO could not be more different than the WHO, politicization played a similar role in paralyzing that institution. The WTO, created in 1995, systematized international trade governance and provided for binding dispute resolution that provided some predictability in trade disputes. It also made it easier for members to lose trade disputes as it enabled elected officials to deflect blame and to comply. As one long-time analyst of the WTO observed, “winning is great, but sometimes losing is better.”²⁰

Over the next twenty-five years, the WTO evolved in two important ways that made it both more effective and more vulnerable. First, it expanded its remit to deal with issues like government procurement and trade facilitation and in so doing embedded norms in international trade governance that were increasingly contested over time. Second, judicial conflict management became more important as almost three-quarters of panel reports were cross-appealed. The Appellate Body (AB) became the core of dispute resolution, evolving toward a fully independent trade court.²¹

As the AB became more important, it became an obvious target for politicization by a dissatisfied United States. Since 2017, the Trump administration, angered by a ruling that it claimed “filled in new content” and amounted to judicial activism, refused to join in the consensual process of appointing AB members to replace

those who were finishing their terms. The AB only has one remaining member and is unable to function. The conventional view of the WTO as the victory of law over politics misses the point. The Trump administration's capacity to weaponize dispute resolution is the victory of politics over law and governance.

GOVERNANCE MOVES OFF-SITE

Both these institutions mirror great-power tensions, contested norms, and evolution away from the liberal international order in which they were created. That one is ineffective and the other paralyzed should be no surprise. Yet governance is vital in both trade and health, even more so as the world order shifts, trade patterns change, and the spread of infectious diseases accelerates. Where are sites of governance beyond formal international institutions that may be nimbler? The dysfunctional institutions linger on, but new governance grows up off-site in their shadow and new hybrids evolve.

I look at three different paths to innovation: the first moves from on-site to off-site; the second begins off-site and scales to include on-site to create hybrid governance; and the third is largely off-site in the private sector.

A coalition of WTO members have moved governance off-site but build on on-site processes. Canada and the European Union have led a process to conclude an interim agreement that replicates as closely as possible the appellate process of the WTO. Provided that both parties agree, they can resort to Article 25—an existing mechanism to resolve trade disagreements—as an interim appeal arbitration procedure for any future disputes.²²

Members have also turned increasingly to plurilateral deals among coalitions of the willing, to preferential trade agreements, and to regional trade agreements. Many of these agreements, however, are written with WTO text “incorporated,” freeing up negotiators to work on “WTO plus” provisions. And some agreements like the United States–Mexico–Canada Agreement, which the United States has ratified, provide that any disputes over incorporated text must go to the WTO for resolution. Governance is now hybrid, working in and out of as well as around the WTO.²³

Innovation in the governance of global health, less constrained by the need for law and precedent, began off-site but scaled to include the WHO. The signature form of governance are agile arms-length networks that operate within the shadow of the WHO. Like in the WTO, the move long predates the outbreak of COVID-19.

The Global Influence Surveillance and Response Network, known as the flu network, was established in 1952. The network began informally among scientists

who worked with a model of open science to share data across borders. Over time it evolved to become a hybrid model of governance and now includes more than 140 national labs that are networked together through six WHO Collaborating Centers. Governments and foundations support the network, and scientists, participating without direct compensation, make horizontal peer-to-peer decisions about which strains of the flu virus to include in seasonal vaccines.

After a five-year negotiation, the network formalized its status and practices inside the WHO to ensure the global supply of vaccines. In 2011, the Pandemic Influenza Preparedness Framework replaced the informal virus exchanges with a formal system requiring licenses to accompany the transfer of potential pandemic strains. Manufacturers of vaccines that benefit from the flu network must share benefits in return and disputes are referred to binding international arbitration. The informal network and the international organization needed each other and evolved together to create a hybrid pattern of governance. As Amy Kapczynski concludes, “[the flu network] . . . has characteristics of both significant openness—its information products are almost all freely shared with the public—and significant governance.”²⁴

The flu network played a critical role in the early management of COVID-19. Kapczynski estimates that 85% of the national public health laboratories that are now testing for COVID-19 are associated with the flu network. This was a network-in-waiting for scientists who early on recognized the severity of the threat. And the platform on which Chinese scientists first posted the COVID-19 virus sequences was the Global Initiative on Sharing All Influenza Data, a site created to share virus data.²⁵

The flu network is only one example of a network that operates within the shadow of an international organization. Another is Gavi, the Global Alliance for Vaccines and Immunizations founded by the Bill & Melinda Gates Foundation that works closely with the United Nations in a somewhat different hybrid model. With COVID-19 now reported in almost all GAVI-eligible countries, the alliance is providing immediate funding to enable countries to protect health care workers, perform vital surveillance and training, and purchase diagnostic tests. The Global Health Security Agenda, another hybrid model, brings together states, international organizations, and a private-sector roundtable that commit to elevating global health security as a national priority. It organizes technical experts and task forces to surge capacity when needed. It seeks advice from the WHO but operates independently of it in an effort to move in a more focused and nimble way.

Also part of the ecosystem of informal governance are the networks of scientists that share information freely across borders in real time on platforms that are committed to open science and recognized by peers as clearinghouses for new research. Infectious disease specialists and virologists collaborate on websites and email chains to exchange information and sound alarms. An email chain developed among scientists by January 2020 was peppered with alarms that the novel coronavirus was highly infectious and serious. Virologists also come together for a weekly podcast series, *This Week in Virology*, to discuss the latest research.²⁶ By January, most were sounding an alarm about the severity of a virus that was circulating in Wuhan. By early February, scientists from Oxford and Tsinghua University led the creation of the Open COVID-19 Data Working Group that assembled detailed records for over 10,000 cases.²⁷ These informal exchanges in a broad variety of networks are critical sites of information sharing, early warning, and policy proposals for prevention and mitigation. They were generally far ahead of formal institutions that lagged emerging patterns in the data and strategic response.

How can this rich pool of information and expertise be better tapped in the future to provide better prevention, warning, and rules for disease management? Creative ideas for arms-length institutions are already being floated. One is to create an arms-length health stability board that would work in the shadow of the WHO just as the international Financial Stability Board, created in 2009 in the wake of the global financial crisis, played a significant role in deepening the resilience of the large banks in systemically important global financial markets.²⁸ A health stability board would focus only on preparedness, management, and response to threats to global health. Similarly, a Johns Hopkins University epidemiologist, Caitlin Rivers, has proposed the creation of a center for epidemic forecasting, similar to the National Weather Service.²⁹

Analogous to the plurilateral agreements that are reshaping trade are coalitions of willing states that are coming together to finance and push the WHO forward. Costa Rica and Chile launched the COVID-19 Technology Access Pool with the WHO to make vaccines, tests, and treatments accessible to all. Almost forty states have signed on. Austria is leading a group of first movers, or countries that quickly flattened the curve of infection, to support the WHO and will likely be joined by the European Union, especially Germany, and by India and the African Union; all seeking a way through the US-China competition.³⁰ These new networks and institutions will be useful sites of innovation in governance only if they remain open to accepting new members so that they can scale.

Finally, the extraordinary role played by standard-development organizations in setting policies, making rules, and establishing norms is worthy of attention. Standard-setting processes appear to be “neutral,” yet it has long been recognized that these processes are far more than technical.³¹

Governance of critical digital infrastructure for the next generation is happening off-site in several ongoing standard-setting processes for 5G. Standards shape information flows and innovation policy, influence competitiveness, and advantage some companies at the expense of others. Some of these processes are industry led and have multiple stakeholders, while others are government led and multilateral.³² The United States prefers industry-led processes, but it does not enable and coordinate the participation of engineers from its private-sector companies the way China does in these processes.³³ China also actively steers the government-led multilateral processes. On-site and off-site, Huawei, enabled directly or indirectly by China, is playing an outsized role in shaping the standards for 5G, deepening its role as the preeminent builder of the hardware and firmware for the next-generation networks and its role as a rule maker in the next iteration of digital governance.³⁴

The Advantage of Interdependence

Henry Farrell and Abraham Newman have argued that the cross-national layering of international institutions and “rule overlap” help to create new power asymmetries that cannot be reduced to measures of state power. Two implications follow from this analysis. First, international institutions contribute to reshaping the power of states and transnational actors and, indirectly, world order. In this sense, international institutions are far more important than what they do. Second, centrality in these international networks allows states to weaponize interdependence to their advantage.³⁵

Centrality remains as important in the off-site and hybrid networks that I have described as it is in formal institutions. Indeed, it may be more important as formal institutions do less work, and rule making, norm setting, and governance increasingly move into hybrid networks that can scale.

States that are central to these hybrid networks will continue to have an advantage. To win, however, these states must play. China, for example, has used its centrality in multilateral standard-setting bodies to advance international standards on 5G that advantage Huawei, and it has coordinated participation of engineers from Chinese companies in industry standard-setting bodies to give Huawei first-mover advantage with all its benefits. It has deepened its involvement in the

International Telecommunication Union and its commitments to the WHO. Other governments are taking governance off-site and designing institutional work-arounds or add-ons to the institutions that Washington paralyzes. They are also creating plurilateral coalitions of the willing that include the private sector, foundations, and nongovernmental organizations as well as governments to engage in policy development, norm setting, and rule making.

Not so the United States. Under President Trump, the United States is leaving the field. It has announced its intention to withdraw from the WHO, has paralyzed dispute resolution in the WTO, and remains outside the new network for dispute resolution that is being created. Recently, it has sent confusing signals to engineers from its big companies about their participation in standard-setting bodies.

If the United States continues to self-isolate in the wake of COVID-19 and paralyze formal institutions, it will have given up the advantages of centrality that it enjoys in formal international institutions that are now moving into the background. Even more important, the United States risks finding itself alone as others accelerate their move to take governance off-site and create hybrid institutions.

NOTES

1. Graham T. Allison, "The Clash of AI Superpowers," *National Interest* (January–February 2020), <https://www.questia.com/magazine/1G1-610852268/the-clash-of-ai-superpowers>.

2. Heidi J. S. Tworek, *News from Germany: The Competition to Control World Communications, 1900–1945* (Cambridge, MA: Harvard Historical Studies, 2019); Heidi Tworek, "Information Warfare is Here to Stay: States Have Always Fought for the Means of Communication," *Foreign Affairs*, April 25, 2019, <https://www.foreignaffairs.com/articles/germany/2019-04-25/information-warfare-here-stay>; Simone M. Müller and Heidi J. S. Tworek, "The telegraph and the bank: On the Interdependence of Global Communications and Capitalism, 1866–1914," *Journal of Global History* 10, no. 2 (June 2015): 259–283; Laura DeNardis, *The Internet in Everything: Freedom and Security in a World with No Off Switch* (New Haven, CT: Yale University Press, 2020).

3. Eric Schmidt, Keynote address at the World Order after COVID-19 Forum, June 30, 2020.

4. Governments and private-sector telecommunications companies think differently about quality. The private sector thinks about quality in a competitive marketplace largely as features and uptime while governments pay attention to vulnerability. The Huawei Cyber Security Evaluation Centre in Britain, set up by the government but paid for by Huawei, reported in March 2019 that the code in Huawei's products was replete with bugs and claimed that the company had made "no material progress" in fixing vulnerabilities that had been identified the year before. See British Cabinet Office, *Huawei Cyber Security Eval-*

uation Centre Oversight Board: Annual Report 2019, March 28, 2019, <https://www.gov.uk/government/publications/huawei-cyber-security-evaluation-centre-oversight-board-annual-report-2019>.

5. On May 5, 2020, the Bureau of Industry and Security in the Department of Commerce amended its foreign-produced direct product rule and the Entity List to target Huawei's acquisition of semiconductors that are the direct product of certain US software and technology. See US Department of Commerce, *Department of Commerce Adds Dozens of New Huawei Affiliates to the New Entity List and Maintains Narrow Exemptions through the Temporary General License*, <https://www.commerce.gov/news/press-releases/2019/08/departement-commerce-adds-dozens-new-huawei-affiliates-entity-list-and>; and US Department of Commerce, *Commerce Addresses Huawei's Efforts to Undermine Entity List, Restricts Products Designed and Produced with U.S. Technologies*, <https://www.commerce.gov/news/press-releases/2020/05/commerce-addresses-huaweis-efforts-undermine-entity-list-restricts>.

6. Federal Communications Commission, *In the Matter of Fifth Generation Wireless Network and Device Security*, PS Docket 16-353, 2016, accessed March 3, 2020, https://apps.fcc.gov/edocs_public/attachment/DA-16-1282A1Rcd.pdf; Timothy B. Lee, "New Law Bans US Gov't from Buying Tech from Chinese Giants ZTE and Huawei," *Ars Technica*, August 14, 2018, <https://arstechnica.com/tech-policy/2018/trump-signs-bill-banning-feds-from-using-huawei-zte-technology>.

7. The line on the map is thin at the hardware level. Standards are designed to ensure interoperability, and endpoint modems will include multiple radio frequencies, as they do now. Border crossings would become more important, however, if the new 5G digital platforms were not fully interoperable and it becomes clunky to move across the frontier. There is an unexpected wrinkle that may create a frontier in what is supposed to be an interoperable system. The 3GHz and 4GHz spectrum (known as sub-6) that is being used for 5G in most of the rest of the world are exclusive federal bands in the United States that the Department of Defense uses actively. US carriers, unlike their counterparts around the world, turned to mmWave spectrum. This pattern, if it continues, will sharply divide the global market, putting US carriers at a distinct disadvantage. See Milo Medin and Gilman Louie, "The 5G Ecosystem: Risks & Opportunities for DOD," *Defense Innovation Board*, April 2019, https://media.defense.gov/2019/Apr/03/2002109302-1-1/0/DIB_5G_STUDY_04.03.19.PDF; and Paul Triolo, Kevin Allison, and Clarise Brown, *Eurasia Group White Paper: The Geopolitics of 5G* (New York: Eurasia Group, 2018), 18, [https://www.eurasiagroup.net/siteFiles/Media/files/1811-14%205G%20special%20report%20public\(1\).pdf](https://www.eurasiagroup.net/siteFiles/Media/files/1811-14%205G%20special%20report%20public(1).pdf).

8. That fuzzy line may well become sharper as the Internet of Things that runs on 5G networks grows and challenges to interoperability deepen. Already, DeNardis concludes, interoperability is diminishing. DeNardis, *The Internet in Everything*, 135.

9. Until very recently, North Koreans could only access the countrywide Kwangmyong intranet; they can now access a small number of internet sites under tight government scrutiny. See Michael Grothaus, "Get Ready for the 'Splinternet': The Web Might Not Be Worldwide Much Longer," *Fast Company*, September 7, 2018, <https://www.fastcompany.com/90229453/get-ready-for-the-splinternet-the-web-might-not-be-worldwide-much-longer>; Oleg Matsnev, "Kremlin Moves toward Control of Internet, Raising Censorship Fears," *New York Times*, April 11, 2019, <https://www.nytimes.com/2019/04/11/world/europe/russia-internet-censorship.html?searchResultPosition=1>; and Andrei Soldatov, "Why

Russia Might Shut off the Internet: The Kremlin's Long Obsession with Central Control," *Foreign Affairs*, March 29, 2019, <https://www.foreignaffairs.com/articles/russian-federation/2019-03-29/why-russia-might-shut-internet>.

10. Anna Kantrup, Christoph Sprich, Nikolas Kessels, and Stormy Annika Mildner, "COVID-19 and Trade: Not the End of Globalization but Changes in Value Chains to Be Expected," American Institute for Contemporary Germany Studies (AICGS) at Johns Hopkins University, May 6, 2020, <https://www.aicgs.org/2020/05/covid-19-and-trade-not-the-end-of-globalization-but-changes-in-value-chains-to-be-expected/>; Richard Fontaine, "Globalization Will Look Very Different after the Coronavirus Epidemic," *Foreign Policy*, April 17 2020, <https://foreignpolicy.com/2020/04/17/globalization-trade-war-after-coronavirus-pandemic/>.

11. Steven Weber, *Bloc by Bloc: How to Build a Global Enterprise for the New Regional Order* (Cambridge, MA: Harvard University Press, 2019).

12. Henry Farrell and Abraham L. Neuman, "Chained to Globalization: Why It's Too Late to Decouple," *Foreign Affairs* (January–February 2020), <https://www.foreignaffairs.com/articles/united-states/2019-12-10/chained-globalization>; Jon Lindsay, "Correspondence: Debating the Chinese Cyber Threat," *International Security* 40, no. 1 (Summer 2015): 191–195; Jeffrey S. Lantis and Daniel J. Bloomberg, "Changing the Code? Norm Contestation and US Antipreneurism in Cyberspace," *International Relations* 32, no. 2 (June 2018), 158, <https://doi.org/10.1177/0047117818763006>.

13. Janice Gross Stein, *The Cult of Efficiency* (Toronto: Anansi Press, 2002).

14. Danielle Allen, Henry Farrell, and Cosma Rohilla Shalizi, in "Evolutionary Theory and Endogenous Institutional Change," unpublished manuscript, use biological and epidemiological models to analyse the evolution of international institutions over time. Political scientists tend to think of institutions as shared beliefs and expectations that permit coordination and control. Economists think of institutions as patterned information processing that reduces the costliness of transactions. See also Douglas C. North, *Institutions, Institutional Change, and Economic Performance* (New York: Cambridge University Press, 1990); and Eleanor Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action* (New York: Cambridge University Press, 1990).

15. Henry Kissinger, *World Order* (New York: Penguin Books, 2015).

16. Liberal institutionalists argue that international institutions can increase transparency, provide authoritative and credible information, create opportunities for communication, and provide solutions to coordination problems to reduce the fear of cheating. See Robert E. Keohane, *After Hegemony: Cooperation and Discord in the World Political Economy* (Princeton, NJ: Princeton University Press, 1984); John Gerard Ruggie, "International Regimes, Transactions, and Change: Embedded Liberalism and the Postwar Economic Order," *International Organization* 36, no. 2 (1982): 379–415; G. John Ikenberry, *After Victory: Institutions, Strategic Restraint, and the Rebuilding of Order after Major Wars* (Princeton, NJ: Princeton University Press, 2001); G. John Ikenberry, "Liberal Internationalism 3.0: America and the Dilemmas of Liberal World Order," *Perspectives on Politics* 7, no. 1 (2009): 71–87; and Daniel Deudney and G. John Ikenberry, "The Nature and Sources of International Liberal Order," *Review of International Studies* 25, no. 2 (1999): 179–196.

17. Historical institutionalists who traditionally pay attention to path dependency and "stickiness," would expect these institutions to linger long past their best-before date. Far-

rell and Newman explore the endogenous forces that drive institutional change and decay through self-undermining feedback effects. See Henry Farrell and Abraham L. Newman, “The Janus Face of the Liberal International Information Order: When Global Institutions are Self-Undermining,” *International Organization*, forthcoming.

18. Thomas J. Bollyky and David P. Fidler, “It’s Time for an Independent Coronavirus Review: The World Health Organization and Its Member States Must Learn from Their Mistakes,” *Foreign Affairs*, April 24, 2020, <https://www.foreignaffairs.com/print/node/1125983>.

19. Cited by Nathan Vanderklippe, “Chan Reshaped the WHO and Its Ties to China,” *Globe and Mail*, June 13, 2020, A14.

20. Marc Busch, email message to author, June 7, 2020.

21. Rohinton P. Medhora, “The WTO: Ever Mutating, Planned Obsolescence or Unplanned Obsolescence,” *CIGI*, May 11, 2020, <https://www.cigionline.org/articles/wto-ever-mutating-planned-obsolescence-or-unplanned-obsolescence>; Thomas Cottier, “Recalibrating the WTO Dispute Settlement System: Strengthening the Panel Stage,” *CIGI*, April 20, 2020, <https://www.cigionline.org/articles/recalibrating-wto-dispute-settlement-system-strengthening-panel-stage>.

22. Canada now works with other WTO members under Article 25, including Australia, Brazil, China, the European Union, South Korea, and Mexico. Approximately thirty members have agreed to the interim procedure. See Valerie Hughes, “Approaches to Modernizing the Dispute Settlement Understanding,” *CIGI*, April 20, 2020, <https://www.cigionline.org/articles/approaches-modernizing-dispute-settlement-understanding>.

23. At present there are some 303 preferential trade agreements in force and another 300 notified. This movement off-site is not without cost. As Marc Busch observes, design features are everything when thinking about new governance arrangements, but the big picture is predictability. “Too many separate bodies of rules,” he concludes, “could be as bad as no rules at all.” Marc Busch, email message to author, June 7, 2020.

24. Amy Kapczynski, “Order without Intellectual Property Law: Open Science in Influenza,” *Cornell Law Review* 102, no. 6 (2017): 1539–1615. I draw heavily on her analysis of the flu network.

25. Amy Kapczynski, interviewed by Henry Farrell, email message to author, May 23, 2020.

26. *This Week in Virology* was started in September 2008 by Vincent Racaniello and Dick Despommier, two virologists at Columbia University Medical Center, to have regular informal conversations about viruses. See Vincent Rocaniello and Dick Despommier, “This Week in Virology,” American Society for Microbiology, <https://www.asm.org/Podcasts/Twiv>.

27. Steven Johnson, “Vital Statistics: How Data Became One of the Most Powerful Tools to Fight an Epidemic,” *New York Times Magazine* (June 2020): 45–49, <https://www.nytimes.com/interactive/2020/06/10/magazine/covid-data.html?searchResultPosition=1>.

28. Anita McGahan, “We Need a Financial Stability Board for Health,” *Financial Times*, May 14, 2020.

29. Caitlin Rivers and Dylan George, “How to Forecast Outbreaks and Pandemics,” *Foreign Affairs*, June 29, 2020, <https://www.foreignaffairs.com/articles/united-states/2020-06-29/how-forecast-outbreaks-and-pandemics>.

30. Ilona Kickbusch, “No ‘Back to Normal’ for the WHO,” *CIGI*, June 15, 2020, https://www.cigionline.org/articles/no-back-normal-who?utm_source=cigi_newsletter&utm_medium=email&utm_campaign=maria-ressa.

31. Janet Abbate, *Inventing the Internet* (Cambridge, MA: MIT Press, 1999); Ken Alder, *The Measure of All Things: The Seven-Year Odyssey and Hidden Error That Transformed the World* (New York: Free Press, 2002); Laura DeNardis, *Protocol Politics: The Globalization of Internet Governance* (Cambridge, MA: MIT Press, 2009).

32. The primary industry bodies involved in setting standards for 5G are the 3rd Generation Partnership Project, which includes some 500 representatives that develop standards based on performance and interoperability criteria; the European Telecommunications Standards Institute, which is developing standards for network-function virtualization and multi-access edge computing; and GSM Association, which is developing best practices on important 5G topics. Governments are also negotiating technical specifications and radio spectrum allocation for 5G in the Radiocommunication Sector of the International Telecommunications Union. See Mike Dano, “Another Set of 5G Standards Was Just Released, but No One Really Cares,” *Light Reading: 5G*, April 5, 2019, <https://www.lightreading.com/5g/another-set-of-5g-standards-was-just-released-but-no-one-really-cares/d/d-id/750681>; Stacie Hoffman, Samantha Bradshaw, and Emily Taylor, “Great Power Rivalries in 5G Technology Markets,” in *Concert or Clash among Nations? The Future of Peace and Conflict Diplomacy*, ed. Chester A. Crocker, Fen Osler Hampson, and Pamela R. All (Washington, DC: Georgetown University Press, forthcoming).

33. In 2013, China’s Ministry of Industry and Information Technology, the National Development and Reform Commission, and the Ministry of Science and Technology established the IMT-2020 5G Promotion Group to coordinate the contributions of China’s telecom operators, research institutes, universities, infrastructure equipment manufacturers, and mobile device makers to the international standard setting process for 5G and to plan and execute strategy for standing up standalone 5G networks at scale. See Paul Trilio and Kevin Allison, *The Geopolitics of 5G* (New York: Eurasia Group, 2018): 14, <https://www.eurasiagroup.net/live-post/the-geopolitics-of-5g>.

34. Keith Johnson and Elias Groll, “The Improbable Rise of Huawei,” *Foreign Policy*, April 3, 2019, <https://foreignpolicy.com/2019/04/03/the-improbable-rise-of-huawei-5g-global-network-china>. Farrell and Newman, “The Janus Face of the Liberal International Information Order,” conclude that of the three large firms, Huawei has been the most active in setting the technical standards for 5G networks. See also Christine Fox and Thayer Scott’s chapter in this volume, where they refer to the growing concern in the US Senate that China is systematically coordinating its companies in standard-setting bodies to make the rules for next-generation technologies.

35. Henry Farrell and Abraham L. Newman, “The New Interdependence Approach: Theoretical Development and Empirical Demonstration,” *Review of International Political Economy* 23, no. 5 (2016): 736–756; Henry Farrell and Abraham L. Newman, *Of Privacy and Power: The Transatlantic Fight over Freedom and Security* (Princeton, NJ: Princeton University Press, 2019); Henry Farrell and Abraham L. Newman, “Weaponized Interdependence: How Global Economic Networks Shape State Coercion,” *International Security* 44, no. 1 (2019): 42–79.