The Janus Face of the Liberal International Information Order: When Global Institutions Are Self-Undermining

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Abstract Scholars and policymakers long believed that norms of global information openness and private-sector governance helped to sustain and promote liberalism. These norms are being increasingly contested within liberal democracies. In this article, we argue that a key source of debate over the Liberal International Information Order (LIIO), a sub-order of the Liberal International Order (LIO), is generated internally by "self-undermining feedback effects," that is, mechanisms through which institutional arrangements undermine their own political conditions of survival over time. Empirically, we demonstrate how global governance of the Internet, transnational disinformation campaigns, and domestic information governance interact to sow the seeds of this contention. In particular, illiberal states converted norms of openness into a vector of attack, unsettling political bargains in liberal states concerning the LIIO. More generally, we set out a broader research agenda to show how the international relations discipline might better understand institutional change as well as the informational aspects of the current crisis in the LIO.

Are open international information flows compatible with democratic societies? A few years ago, no one would have thought to ask this question. Although there was an extensive literature describing how open information flows might destabilize illiberal regimes,[1] most scholars assumed that these information flows supported liberal domestic order and vice versa.

Now, however, there is contention within liberal states themselves over the benefits of the Liberal International Information Order (LIIO)—the arrangements through which communication and data are governed in the global economy.[2] US public trust in platform companies such as Facebook has collapsed,[3] while senior European officials have warned that these companies are undermining democracy through "privatized de facto manipulation of who you're going to vote for."[4] Such problems

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1. See Diamond 2010; Howard 2010; Sanovich, Stukal, and Tucker 2018; Shirky 2008.

2. See Adler and Drieschova 2021; Benkler, Faris, and Roberts 2018; Hansen and Lim 2019; Lazer et al. 2018.

3. See, for example NBC News/Wall Street Survey 2019. Available at <https://www.documentcloud.org/documents/5794861-19093-NBCWSJ-March-Poll-4-5-19-Release.html>, accessed 14 September 2020.

4. Victoria Waldersee, "EU's Vestager Backs Twitter for Banning Political Ads, Berates Facebook," *Reuters*, 7 November 2019. Available at <https://www.reuters.com/article/us-eu-antitrust-twitter-facebook-idUSKBN1XH2I2>, accessed 14 September 2020.

are leading policymakers to question norms of openness and self-regulatory governance arrangements.[5]

In this article we examine how an apparently hitherto stable set of liberal international arrangements has become the focus of political contention within liberal societies. We employ recent historical institutionalist (HI) scholarship on "self-undermining feedback effects"[6]—the propensity of institutional arrangements to undermine their own political conditions of survival over time—to understand how this happened.[7] Our account shows how current contestation had its origin in earlier disputes about the governance of global information flows and their interaction with domestic information environments.

We demonstrate this dynamic by focusing on those aspects of the LIIO that are responsible for managing the Internet and digital communication. In the 1990s, the order escaped the grasp of traditional multilateral arrangements such as the International Telecommunications Union (ITU) as the Internet led to massive increases in information flows and convergence in communications technologies. These flows seemed to bolster liberal democracies while corroding the control of illiberal states, which came to see the information order as an existential threat. The United States and US technology companies supported the creation of a private-sector-led information economy and governance system, while illiberal states adapted to a hostile international environment by changing their domestic practices.

These choices had unexpected consequences. Illiberal states converted openness into a vector of attack, redeploying domestic insulation tactics to target democratic states, while private actors allowed governance structures to drift away from their objectives. This has provoked new contention in liberal states over open international information flows and private sector governance.

This article contributes to a number of important scholarly debates. First, we hope to provide a better understanding of the role of information in world politics. As Simmons argued, the field of international relations has yet to understand how "new ways of producing and communicating information [have] changed the nature of power among states [and] altered the relationship between governments and the governed."[8] In this article, we hope to show how information shaped and is shaping the evolution of the Liberal International Order (LIO). As the editors of this special issue have suggested, the LIO includes a variety of "sub-orders."[9] We explain how one suborder—the LIIO—has changed over time, integrating hitherto disconnected debates about global Internet governance, the comparative politics of information control, the origins of the platform economy, and transnational

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5. Clarke and Knake 2019.
6. See Busemeyer et al. 2019; Greif and Laitin 2004; Jacobs and Weaver 2015; Skogstad 2017.
7. See Farrell and Newman 2010, 2014; Fioretos 2011; Rixen, Viola, and Zürn 2016.
8. Simmons 2011, 589.
9. Lake, Martin, and Risse 2021.

disinformation. Rather than viewing illiberal disinformation attacks as an exogenous shock to liberal societies, we demonstrate how they emerged from the LIIO itself.

Second, we show how the relationship between domestic and international liberalism can work differently than has been commonly supposed. Apparently mutually reinforcing aspects of the liberal order (placing international institutions above states; flows of money, trade, and information among them and domestic institutions within them) may, under changed circumstances, be mutually undermining.

Third, we hope to contribute to the study of change in international politics and the future of the LIO. Current debates about the LIO often begin from the efforts of Deudney and Ikenberry to develop an account of "structural liberalism" as a counterweight to realist pessimism.[10] These arguments rely on an increasing-returns logic in which success feeds on success, creating the conditions for the order's continued growth and resilience. However, as the introductory article to this special issue emphasizes, key challenges to the LIO come from within.[11] We will demonstrate how institutions may undermine their sustaining conditions, generating change not just through external shocks such as war but also through gradual internal decay and repurposing.

The LIIO: Openness and Private-Actor Governance

What is the LIIO, and how does it affect politics? We define an information order as the norms and governance structures that shape communication and data in the global economy during a given period. Like other aspects of the LIO, the LIIO is a sub-order that bridges international and domestic liberalism in the relevant issue domain. The current information order is "liberal" because it supports free flows of information across borders, facilitated both by international civil rights and a variety of private sector governance arrangements that regulate data,[12] which reflects not only the initial preferences of liberal states such as the United States but also the preferences of the private actors to whom they delegated governance.

The current order's norms emphasize the benefits of open information flows while its governance arrangements have been delegated to private actors. Of course, this is not the only possible LIIO. During the postwar period, the LIIO provided common technical standards around a norm of interconnection, but allowed states considerable room to intervene on issues of price and market access.[13] The governance structures involved institutions such as the ITU where states had an interest in cooperating, and unregulated contestation where they did not.[14] Different norms and/or governance structures may also characterize subdomains of communication such as satellites, television broadcasting, voice telephony, and Internet communications.

10. Deudney and Ikenberry 1999.
11. Adler-Nissen and Zarakol 2020. Lake, Martin, and Risse 2021.
12. See DeNardis 2014; Mueller 2010; Newman and Bach 2004.
13. Cowhey 1990.
14. Krasner 1991.

The growth of the Internet in the 1990s radically challenged the order. The Internet was organized around principles of open access that made it easy for local information networks to join the global communication infrastructure (hence, the Internet's name, which was derived from "Internetting").[15] It also relied on a content-neutral set of protocols (the Transmission Control Protocol/Internet Protocol [TCP/IP]), which did not in principle distinguish among voice telephony, text transmission, and audiovisual broadcasting. This promised to reground global information flows and their associated norms and governance structures on the common platform of the Internet.

Changing technology further enabled a political effort by the United States to shape the LIIO according to its "open door" understanding of the liberalizing consequences of the free exchange of information.[16] US policy shifted governance structures from multilateral bodies such as the ITU to private actors such as the Internet Corporation for Assigned Names and Numbers (ICANN), a nonprofit organization incorporated under Californian law to regulate the Internet's domain name system, and to platform company Terms of Service.[17]

Private-actor governance arrangements were bolstered further by domestic laws such as Section 230 of the US Communications Decency Act (CDA), which insulated firms from private action and allowed them to voluntarily remove content without legal liability, which encouraged them to set up private schemes of regulation.[18] The United States prevented the ITU from expanding its jurisdiction to the Internet, specifically excluding it from the international forums where it negotiated the new arrangements with its allies.[19] New ideologies of "multistakeholderism" and self-regulation gave firms and technical experts, often based in the United States in general and in Silicon Valley in particular, the effective ability to regulate themselves and a large stake in the governance process.

The new LIIO had political consequences. Both liberal and illiberal states want to preserve their own forms of domestic rule. Open global information flows seemed to reinforce the internal governance arrangements of democratic states, which rely on decentralized decision making and communication structures. Illiberal states, in contrast, fear that open flows will undermine their control over information and allow their domestic opponents to coordinate with each other.[20] The previous LIIO, which was based on multilateralism and national control, made it easier for illiberal states to block changes that might undermine their domestic rule than it was for the new LIIO, which shifted key aspects of decision making from national governments and multilateral settings to private actors who might not be responsive to governments.

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15. See Hafner and Lyon 1998; Leiner et al. 2009.
16. McCarthy 2010.
17. Bach 2010.
18. Kosseff 2019.
19. MacLean 2008.
20. Sanovich, Stukal, and Tucker 2018.

Stability and Change in the LIIO

Our central question is how the LIIO has come to be contested in liberal states. Classic accounts emphasized an increasing-returns logic, in which the order strengthens its foundations by reshaping the interests and beliefs of its participants. This approach explains early phases of the LIIO, but provides little guidance on when orders might undermine their own political support. We employ recent HI scholarship to offer an alternative account, emphasizing how institutions might generate endogenous dynamics that undermine themselves. We briefly review the increasing-returns logic before introducing our alternative approach.

Increasing Returns and Digital Liberalism

Most standard accounts of the LIO rely on an understanding of institutional change developed by Deudney, Ikenberry and their colleagues.[21] They deployed HI arguments about path dependence and feedback between institutions and interests to argue that liberal institutions could transform relations among states, reducing the fear that power asymmetries would be used by great powers to the disadvantage of smaller ones.[22] Liberal internationalism and domestic liberalism would then reinforce each other. Under the World War II order, "institutions created at the early moments of postwar order building … have actually become more deeply rooted in the wider structures of politics and society of the countries that participate within the order."[23] Over time, the universe of liberal states would expand: "free trade can spread and strengthen liberal democracy. The expansion of capitalism … tends to alter the preferences and character of other states in a liberal and democratic direction, thus producing a more strategically and politically hospitable system."[24] As Ikenberry later described it, "the institutional logic of increasing returns is useful in explaining the remarkable stability of the post-1945 order among the industrial democracies."[25]

Simple increasing-returns-type arguments underpinned US policy toward the LIIO. US actors were able to restructure the LIIO because of the rise of the Internet and the end of the Cold War. They believed that the LIIO's governance structures and stress on open communication would become self-reinforcing over time, strengthening democracy within liberal states and spreading democracy and liberal values to autocratic regimes.[26] The framework was developed in close consultation with US business, privileging open access to the global infrastructure and

21. Deudney and Ikenberry 1999.
22. For the classic presentation of the HI argument, see Pierson 2000.
23. Ikenberry 1998–99, 71.
24. Deudney and Ikenberry 1999, 192.
25. Ikenberry 2017, 68.
26. Kiggins 2015.

interoperability, on the belief that free flows of information, like free flows of trade, would both help US business and create a more liberal world.[27]

Scholars too argued that social media would strengthen democracies, making it easier for individuals to organize and participate.[28] As open platforms for communication and information spread across the world, it was believed that they would empower domestic political actors committed to liberal political principles to press for concessions that would cement and widen their freedoms, expanding information exchange and democratic norms in a virtuous spiral.[29]

As in the LIO more generally, the increasing-returns argument expresses an expectation that the LIIO will reinforce itself over time because open communications and private-actor governance arrangements strengthen liberalism on both the international and domestic levels.

Self-Undermining Feedback

Although such increasing returns arguments help explain the steady expansion of the LIIO, they are less well positioned to understand challenges within it. Here, we draw on an alternative strand of historical institutionalist work that focuses on *incremental* and *endogenous* change, in contrast to path-dependence models, which emphasize increasing returns, exogenous shocks, and punctuated equilibrium. This literature helps make sense of how the key elements of the order—openness and private-actor governance—have become sources of contestation.

Self-undermining feedback effects have not received sustained attention in the field of international relations, although they feature prominently in the comparative and Americanist literature on historical institutionalism.[30] It has been two decades since historical institutionalist arguments about increasing returns and path dependence were imported into international relations scholarship about the LIO. In the intervening period, historical institutionalists have become notably more skeptical about straightforward path-dependence arguments, which are "better at articulating the mechanisms of reproduction behind particular institutions than … at capturing the logic of institutional evolution and change."[31]

This has led scholars to move away from studying "exogenous shocks that bring about radical institutional reconfigurations," to focus instead on "shifts based in endogenous development that often unfold incrementally."[32] Historical institutionalist assumptions that institutions were highly stable gave way to the realization that they changed gradually as a result of endogenous forces, giving rise to a

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27. Ibid.
28. See Castells 2015; Shirky 2008.
29. See Diamond 2010; Howard 2010; Hussain and Howard 2013; Shirky 2008.
30. See Busemeyer et al. 2019; Greif and Laitin 2004; Jacobs and Weaver 2015; Skogstad 2017.
31. Thelen 2003, 211.
32. Mahoney and Thelen 2009, 2–3.

complementary literature among formal modelers on how institutions might affect the parameter values that made them possible, potentially stabilizing or undermining them,[33] and a new literature in historical institutionalism on self-undermining feedback loops.[34] The latter occur when existing institutional arrangements generate dynamics that undermine the political support that allowed them to come into being. Most recently, synthetic accounts look to bridge the work of scholars such as Pierson (who pioneered the study of path dependence and increasing returns) with those who focused on endogeneity such as Hacker and Thelen, so as to understand how this may occur.

Such arguments see institutions less as equilibria than as sites of contentious politics, riddled with contradictions and tensions.[35] These contradictions may result from political compromises during enactment, incomplete implementation, intentional disruption efforts, or unintended dynamic consequences that unfold over time. Regardless of the source, they generate incentives for disadvantaged political actors facing veto points or institutional roadblocks to experiment with ways to protect and defend their political interest, potentially expanding the choice set for political actors seeking to alter the institutional context in future rounds of contestation.[36]

This new consensus among comparativist and Americanist scholars of HI looks to understand the specific mechanisms of endogenous change and institutional decay and transformation, focusing in particular on "conversion" and "drift."[37] These two mechanisms may complement each other in specific empirical situations, but they are analytically distinct. Conversion happens when "political actors are able to redirect institutions or policies to new ends—that is, use them for purposes beyond their original intent."[38] For example, Hacker, Pierson, and Thelen argue that private actors were able to use the "preliminary ruling mechanism" of the European Court of Justice in unexpected ways to challenge national policies that they disliked, greatly increasing the restrictive force of European law for European Union member states.

Drift occurs when institutions are difficult to modify, even when their environment has shifted, so that they produce unexpected effects. Here, championing the policy status quo may ironically turn into a strategy of change. Hacker, Pierson, and Thelen describe how political actors such as Alan Greenspan celebrated how "technological change" permitted "existing regulatory structures to be bypassed … allowing market-stabilizing private regulatory forces [to] gradually displace many cumbersome, increasingly ineffective government structures."[39] They note that the "failure of policymakers to respond to new market behaviors and technologies" was partly the result of intense lobbying by the financial industry. Another classic example

33. Greif and Laitin 2004.
34. See Busemeyer et al. 2019; Greif and Laitin 2004; Jacobs and Weaver 2015; Skogstad 2017.
35. See Moe 2005; Orren and Skowronek 1996.
36. See Jacobs and Weaver 2015; Mahoney and Thelen 2009.
37. Hacker, Pierson, and Thelen 2015.
38. Ibid.
39. Ibid.

comes from welfare systems that fail to index benefits to inflation, reducing effective payments over time.

Hacker, Pierson, and Thelen suggest that conversion and drift are most likely to occur when there are very limited opportunities for the formal revision of policies or institutions, for example, as the result of there being multiple veto players. They argue that these mechanisms "overcome the sharp dichotomy once posed between moments of openness when institutions are crafted and highly constrained processes of reproduction once institutions are in place."[40] Hence, they provide a historical institutionalist understanding of institutional trajectories that is an alternative to the increasing-returns arguments that international relations scholars have typically made.

We adapt these arguments on self-undermining feedbacks to global politics, where the tensions and contradictions between international institutions and domestic political regimes open up new space for political change, generating feedback processes that not only limit the extent of an order's domestic penetration but may also undermine key aspects of the order.[41]

This account suggests that illiberal states faced considerable challenges in the current LIIO. Information openness potentially helped regime opponents to mobilize and organize against the elites. As a wide-ranging comparative literature on "dictators' dilemmas" notes, illiberal states face trade-offs in (1) controlling their societies, while (2) allowing actors within those societies sufficient information to, for example, engage in growth-promoting economic activities that mitigate other possible threats to the regime.[42] Communications technologies such as social media could help to mitigate these trade-offs, but only if they were tightly controlled,[43] which the LIIO made more difficult.

Despite repeated attempts, illiberal states could do little directly to change the order itself because liberal states controlled key veto points. Hence, these illiberal states sought just the opposite: to insulate themselves from the order, using domestic institutions and digital networks to create structures that would defuse internal challenges.[44] Some of these structures were highly effective (notably in China and Saudi Arabia), whereas others were only intermittently so (Iran, Egypt, Tunisia). In addition to direct censorship, illiberal states developed novel strategies to respond to the external constraints imposed by the LIIO. They increasingly experimented with new information-manipulation methods such as surveillance, friction, and flooding to divide actors who might mobilize to constrain or even overturn domestic rulers.[45]

This, however, did not involve simple second-image reversed dynamics of global pressure leading to domestic insulation. We are now in a third stage, where the

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40. Ibid.
41. See Farrell and Newman 2010; Fioretos 2017; Newman 2017.
42. See Bussell 2011.
43. Gunitsky 2015.
44. See Boas 2006; Deibert and Rohozinski 2010; Lynch 2011; Wallace 2016.
45. See King, Pan, and Roberts 2013; Roberts 2018; Tucker et al. 2017.

unanticipated consequences of the liberal international information order for liberal states are becoming clear. Domestic liberal institutions may as readily be drowned by a surfeit of information as starved by its lack. As Tim Wu describes, under open information orders, "it is no longer speech itself that is scarce, but the attention of listeners."[46]

This has set off self-undermining processes that are reshaping the two key features of the LIIO: openness and private-actor governance. Illiberal states that were unable to contest the LIIO directly discovered that information techniques that helped promote domestic stability might potentially promote instability in liberal states. Indeed, standard assumptions that technology exports from liberal to illiberal states might undermine political stability may have been thrown into reverse, as illiberal states sought to convert openness into a vector of attack.[47]

At the same time, private-actor-based governance structures underwent institutional drift as internal organizational priorities diverged from governance objectives. As platform companies turned to data-driven advertising, their business model increasingly clashed with liberal political governance principles. New media ecosystems, driven by the imperative to maximize "engagement," favored controversial and fringe material while offering opportunities for political entrepreneurs to exploit and widen fissures in political knowledge.[48] The combination of illiberal states converting open information flows and private-actor governance institutions drifting from their original purpose generated new tensions within democratic societies.

This account contrasts with more conventional arguments that would invoke either two-level-games-style interstate bargaining or second-image-reversed-style claims to explain patterns of contention. These would expect illiberal states to seek to stabilize their rule against the threat of open communications flows through international negotiations or domestic policy. Both expect durable equilibria where illiberal forces succeeded or failed to change global rules so as to block information openness, or where domestic insulation strategies either worked or were undermined. Our historical institutionalist approach, in contrast, anticipates that processes of conversion or drift may lead to changes in how the LIIO works, which in turn give rise to contention in liberal states. This sheds light on how an open information regime that initially disadvantages illiberal systems may come later to disadvantage liberal actors instead. Table 1 summarizes these expectations and how they contrast to alternative arguments in the existing literature.

In the following sections, we examine how self-undermining feedback processes shaped the evolution of the LIIO, contrasting our account with more conventional arguments stressing increasing returns or autocratic stability. These would respectively expect international-level growth in the LIIO or domestic-level illiberal pressure

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46. Wu 2017.

47. Here we join Adler-Nissen and Zarakol 2020 and Tourinho 2021 in emphasizing how resistance to the LIO results from the interaction between domestic and international factors.

48. Tufekci 2018.

TABLE 1. *Theoretical expectations of the relationship between LIIO and contestation*

		Logic	*Expectation*	*Finding*
A1	Digital Liberalism	Increasing returns. The LIIO spurs and supports domestic liberalization and vice versa in a positive feedback loop.	Data flows foster and strengthen democracy at the domestic level and generate support for open international communication.	Global information flows have not generally increased democratization or support for information openness.
A2	Autocratic Stability	Two-level game and second image reversed. Illiberal states contest or insulate themselves from open information flows.	The open information order will coexist with islands of closure and control. Illiberal states will use international negotiations to limit openness.	China's Great Firewall offers strong evidence of autocratic interests in limiting openness. International negotiations to change the order have had limited impact.
A3	Self-Undermining Feedback	LIIO's emphasis on openness and private-actor governance generate new contestation and vulnerabilities in the order.	Domestic illiberal responses to information openness lead to conversion of open information flows, while drift allows platform companies to follow business interests at the expense of domestic liberalism, leading to increased contention in liberal states.	Contention within liberal states over information openness and private-actor governance. Facebook internal documents provide evidence of disconnection between platform company self-regulation and liberalism.

to reform the order or isolate from it. Our historical institutionalist approach anticipates that interactions between the domestic and international spaces are important and bidirectional.

Illiberal Challenges to the LIIO Blocked

In this section, we show how contention emerged in the LIIO as US actors pursued increasing returns strategies while illiberal actors grew worried about open information flows and sought to challenge them. Ultimately, the US-led LIIO based on openness and self-regulation was able to skirt most of these challenges.

US leaders believed that open communications would help disseminate liberalism globally in a virtuous feedback loop. Already in the 1990s, President Bill Clinton quipped that attempts to recreate censorship in cyberspace were "sort of like trying to nail Jello to the wall."[49] Scholars such as Shirky and Diamond wrote about the transformative nature of open information flows, depicting the enormous potential benefits of "liberation technology," which enabled "citizens to report news, expose wrongdoing, express opinions, mobilize protest, monitor elections, scrutinize

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49. Clinton 2000.

government, deepen participation, and expand the horizons of freedom."[50] "Web 2.0" social media sites such as Facebook, YouTube, and Twitter made it quick and easy for people to publish content that could be seen by many others.[51]

Such views influenced policy and business debate as well as scholarship. US Secretary of State Condoleezza Rice created a Global Internet Freedom Task Force in 2006,[52] and began to actively fund efforts to develop and spread anti-censorship technology toward the end of the George W. Bush administration. These efforts continued under both Republicans and Democrats, as the US government "comprehensively link[ed] the provision of the Internet in a form that enhances the free flow of information to the development and expansion of democratic government internationally [suggesting] a causal connection between democracy and the free flow of information—the provision of the free flow of information will lead to democratic government."[53]

In 2010, Secretary Hillary Clinton gave a much-heralded speech, outlining a US policy dedicated to promoting Internet freedom abroad, emphasizing the freedom to access information, for individuals to generate content, and to participate in citizen-to-citizen communication.[54] Former State Department senior adviser Jared Cohen and former executive chairman of Google Eric Schmidt argued that "oppressive [g]overnments … will find it more difficult to maneuver as their citizens become more connected" and that "populations with access to virtual space and new information will continually protest against their repressive or non-transparent governments online, in effect making the state of revolutionary gestures permanent."[55]

Democratic optimism about information flows was matched by pessimism among authoritarian states. These countries had been largely disengaged from the creation of the LIIO in the 1990s. China had a "marginal" position in early policy debates over the Internet,[56] while Russia's attention was consumed by its internal political and economic upheavals. They were soon worried, however, by a wave of revolutions that appeared to be driven, at least in part, by decentralized communications networks, and were certainly treated as such in public debate.[57] Many illiberal regimes believed that social media had played an important role in facilitating the "color revolutions" in the former Soviet Union as well as the Arab Spring. The failure of most of these revolutions to produce stable democratic governments was of scant consolation. Authoritarian governments furthermore conflated the unplanned consequences of

50. See Diamond 2010, Shirky 2008.
51. See Blake Hounshell, "The Revolution Will Be Tweeted," *Foreign Policy*, 20 June 2011. Available at <https://foreignpolicy.com/2011/06/20/the-revolution-will-be-tweeted />, accessed 14 September 2020; Shirky 2011.
52. Dobriansky 2008.
53. McCarthy 2010, 99.
54. Clinton 2010.
55. Cohen and Schmidt 2013, 35, 124.
56. Goldsmith 2018; Shen 2016.
57. See Howard 2010; Hussain and Howard 2013; Warren 2015.

social media for their own stability with the deliberate, if haphazard efforts of the United States to turn social media into a global force for change.

Russia, for example, came to see open flows as a political threat. A 2013 review on information technology by Russian leadership concluded, "The views presented here are strongly consistent with leadership statements in asserting that the Russian state is at risk at home and abroad from US and allied IW [Information Warfare] and IO [Information Operations] specifically aiming to undermine the Russian government and manipulate the domestic political playing field."[58]

Other illiberal states had similar concerns, including China, which came to think of Internet freedom as synonymous with regime destabilization.[59] Min Jiang, a scholar of Chinese Internet policy warned, "In the eyes of the Chinese government, most of the discussion on the topic [internet freedom] seems more or less a plot to overthrow its rule. American Internet giants Google, Facebook, and Twitter somehow seem like extensions of the US State Department."[60]

Illiberal states such as China and Russia sought to use international negotiations to return control of the Internet to a more traditional multilateral framework, where they would have veto power, and to recreate an information order built around norms of national sovereignty. Their push for change was temporarily reinforced by the unhappiness of US allies with the LIIO's private-sector governance arrangements. Liberal states that were more friendly to government regulation than the United States was saw the information order as threatening fundamental rights such as privacy, as well as threatening the competitiveness of their incumbent firms.[61]

The reform camp, however, was internally divided.[62] Illiberal states preferred traditional multilateral institutions such as the ITU, where they believed that they would have greater influence. Liberal states disagreed. Some, such as Japan, were willing to acquiesce to the US position on multistakeholderism. Others, such as the European Union, pressed for a stronger role for government, while remaining suspicious of the motives of illiberal states. Others still, such as Brazil, harked back to pre-Internet debates about "trans-border data flows," where non-Western countries had sought to have a real say over the global information order.[63] These disputes were complicated by predictable infighting among international organizations and civil society actors.

These disagreements came to a head in the United Nations' World Summit on the Information Society, the culmination of an ITU initiative to re-establish its dominance over global communications governance. Between 2002 and 2005, states and

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58. Blank 2013, 37.

59. Jiangwei Zhang, "China Doesn't Need a Politicized Google," *China Daily*, 20 March 2010. Available at <http://www.chinadaily.com.cn/china/2010-03/20/content_9618252.htm>, accessed 14 September 2020.

60. Jiang 2010, 85.

61. See Bussell 2011; Newman 2008, 2010.

62. Klein 2004; Mueller 2010.

63. Drake 2016.

civil society actors challenged the centrality of ICANN and the US government's control over it at a series of meetings.[64] The result of the summit was a tacit acceptance by the United States that other governments should have greater influence within ICANN as long as they accepted the ICANN framework. The United States succeeded again in blocking any real change in the ITU's role, or any expansion of its authority. Other states were incapable of organizing effectively enough to reverse the choices that the United States had made. The consequence was that the ITU remained moribund while an LIIO based around open information flows and private-actor governance cemented its dominance.

Illiberal states continued to seek multilateral reform of Internet governance with little success. Russia proposed a "Convention on International Information Security" that was intended to delegitimize interference in the internal affairs of states and strengthen the ability of states to limit communication flows for security reasons.[65] Russian concerns were echoed at the United Nations by China, which argued that "practicing power politics in cyberspace in the name of cyber-freedom is untenable."[66] When the revelations by Edward Snowden in June 2013 showed that the United States had been secretly using its privileged position in global information networks in notably illiberal ways, it seemed that states such as Brazil (which had been the target of extensive surveillance) might defect from the blocking coalition. However, moderate US concessions defused the threat.

Paralysis in the ITU allowed large e-commerce firms, most of which were based in the United States, to build their own private international orders, filling in the vacuum with corporate rules, practices, and terms of service.[67] Although ICANN played a crucial technical role, and offered some possible means of influence, the real regime of international information flows was constructed by large private firms that operated outside the control of dissident non-Western states.[68] As a result, true multistakeholderism was increasingly confined to ICANN and technical standards, while self-regulation by firms provided most of the rest of the governance architecture. Sometimes this led in illiberal directions; businesses such as Yahoo! and Microsoft censored information, on behalf of illiberal states, from entering these states' markets.[69]

Some of these international developments supported an increasing-returns account, whereas others suggested its limits. An LIIO that was based on open data flows and private-actor governance survived the determined opposition of illiberal states. However, it is at best unclear that the LIIO helped liberalism to spread globally, as US policymakers hoped. Open data flows played a significant role in the Arab Spring and other revolutions, but it was a less important one than journalistic

64. Klein 2004.
65. See Giles 2012; Jiang 2010; Nocetti 2015.
66. Qun 2011.
67. Farrell 2006.
68. DeNardis and Hackl 2015.
69. Dann and Haddow 2008.

accounts suggested.[70] These revolutions did not lead to an enduring expansion of liberalism to previously illiberal states.

As autocratic stability arguments suggest, illiberal states, which saw the LIIO as a threat, mobilized against it.[71] The failure of illiberal states to build a coalition with dissatisfied liberal states and to overcome key veto points meant that their preferred approach, based on multilateralism and state sovereignty, did not gain traction. The LIIO seemed to form an impregnable international status quo, a version of the "structural liberalism" anticipated by Deudney and Ikenberry.

The self-undermining institutions account helps make clear why the ITU remained moribund. As long as the United States and its allies were willing to act as blocking agents, preventing it from acquiring new responsibilities, the ITU was subject to drift, incapable of performing its designated functions in a dramatically altered global environment. However, the governance arrangements of the new LIIO began to demonstrate unexpected dynamics. Platform companies had effectively become global regulators, and increasingly deployed their power for commercial advantage rather than because of any vestigial attachment to liberal norms, generating increasingly visible tensions between norms and governance within the LIIO.

Conversion and Drift in the LIIO

Unable to change the global regime, illiberal states began experimenting with new information-manipulation strategies that would blunt the consequences of open information flows.[72] In this section, we demonstrate how they converted openness into a vector of attack, challenging liberal states. Moreover, we show how changes in the business practices of platform companies led to institutional drift between their internal economic incentives and their governance objectives. As a result of these two feedback processes, liberal states have come to question key dimensions of the LIIO: openness and private-actor governance.

Digital information flows posed trade-offs in illiberal societies. Blocking problematic content (in the eyes of the state) was likely to lead to the blocking of content that was popular with a country's inhabitants. If, for example, a country blocked all access to YouTube, it was likely to make its own citizens unhappy. If, alternatively, it required YouTube to block access to particular kinds of content, it had to recognize that this would at best be only partly effective.[73]

The country that solved this problem to its own satisfaction was China, which had a big enough internal market that it could drive US-based e-commerce firms out and encourage the growth of economically sustainable domestic competitors that were

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70. Farrell 2012.
71. See also Adler-Nissen and Zarakol 2020.
72. See ibid.; Boas 2006; Deibert et al. 2008; Deibert and Rohozinski 2010.
73. Zuckerman 2015.

more amenable to censorship. The Chinese government developed a series of techniques to censor and filter unwanted information, known respectively as the Great Firewall and the Golden Shield.[74]

Other illiberal regimes such as Russia had opened up the domestic telecommunications sectors in the 1990s, providing access to foreign technology companies. Facebook, Google, and LiveJournal had developed significant market share in Russia by the turn of the millennium, posing a difficult dilemma for the Russian state, which did not then have an appropriate technological infrastructure to impose blunt (and unpopular) censorship techniques.[75]

This led illiberal states to experiment with new domestic approaches to managing information openness, which went far beyond censorship.[76] Instead of, or as well as, simply blocking market access, they converted private-sector governance arrangements to their own purposes. This included adopting hacking techniques such as flooding (overwhelming systems with too much information) and doxing (using private and potentially embarrassing information to damage opponents and discourage opposition), moving from simply filtering unwanted speech to polluting it. Unlike traditional propaganda, which promoted state narratives, these new techniques sought to confuse and overwhelm the ability of people and groups to process information.[77]

China and Russia started using third-party agents or low-level state employees to "flood" social media platforms with propaganda and messages actively intended to sow confusion in communities, making conversation among potential antagonists impossible.[78] In some cases, governments paid "trolls" to intervene in existing social media conversations to shift the terrain, not directly promoting the state message as much as injecting queries or diversions to overwhelm conversation among regime antagonists. In Russia in 2012, for example, trolls pretending to be opposition sympathizers used hyperpartisan content to discourage moderates within the opposition from engaging in mass protests. Very often, the Russian government used trolls to cultivate trusted social media personas that then later spread political content to steer debate.[79] By promoting multiple narratives, distraction, and internal dissent within communities, they sought to stymie collective action.[80]

Illiberal governments used doxing to sow further confusion and discredit opponents, borrowing techniques developed by non-state cyber vigilantes for their online feuds. In 2012, for example, a hacker breached the e-mail and Twitter account of Russian opposition leader Alexey Navalny.[81] Other hacks slowly

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74. MacKinnon 2008; Roberts 2018; Zuckerman 2015.
75. Sanovich 2018. LiveJournal was eventually bought by a Russian company.
76. Guriev and Treisman 2019.
77. Sanovich, Stukal, and Tucker 2018.
78. Roberts 2018.
79. See Kurowska and Reshetnikov 2018; Sobolev 2019.
80. See King, Pan and Roberts 2013; Roberts 2018; Tucker et al. 2017 .
81. Andrey Tselikov, "Russia: Hacker Hell, Scourge of the RuNet," *Global Voices*, 23 July 2012. Available at <https://globalvoices.org/2012/07/23/russia-hacker-hell-scourge-of-the-runet/>, accessed 14 September 2020.

leaked information about opposition figures to create confusion within the opposition community. As Pomerantsev and Weiss conclude: "If at the advent of the Internet age, online activity was seen as essentially politically liberating, a censorship-busting tool that would undermine authoritarian regimes, it is quickly turning into a weapon for postmodern dictatorships like the Kremlin's, which rely more on manipulating societies from inside than on direct oppression."[82]

All of these strategies deployed open communication flows—which were supposed to reinforce the spread of liberalism—in illiberal ways. Specifically, they sought to flood open debate with divisive or distracting material that would make it more difficult for anyone to organize social action outside the state.[83] It became increasingly clear that under certain circumstances, the LIIO could provide significant benefits to illiberal rulers.[84]

Such domestic information techniques were converted by illiberal states for offensive as well as defensive purposes globally. Russia, for example, targeted Ukraine as a test case, after the election of a pro-Western government that Russia saw as a direct attack on its influence in the "near abroad," and a possible dress rehearsal for an information attack on Russia itself. Russia sponsored a range of activities, including the use of flooding and other domestic disinformation campaigns on an international level, hacking election systems, promoting conspiracies and false information, and creating fake social media accounts, which were used to generate confusion and distraction.[85] In his analysis of the 2014 Ukraine conflict, Sanovich identifies the link between domestic and foreign troll accounts: "many of the bot accounts used in this conflict were created years in advance … it is likely that these accounts were used for purely domestic purposes (for example, against Russian opposition, on behalf of Putin or Medvedev) before they were deployed to wage a Russian propaganda war in Ukraine and beyond."[86]

The same tactics of flooding, doxing, and disinformation were then deployed in the US presidential election of 2016, the Brexit vote in the United Kingdom, and various electoral campaigns in Europe. Russian operatives hacked presidential candidate Hillary Clinton's e-mail server and then leaked information to the media. These activities were paired with social media campaigns in which trolls sponsored by Russia's Internet Research Agency engaged in far-reaching disinformation campaigns. Kate Starbird and her collaborators find that Russian trolls sought to develop trusted social media personas to insinuate themselves into conversation on both the left and right.[87] In 2020, Chinese state media as well as Chinese-linked Facebook and

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82. Pomerantsev and Weiss 2014, 17.
83. King, Pan, and Roberts 2013.
84. Gunitsky 2015.
85. Golovchenko, Hartmann, and Adler-Nissen 2018; Andy Greenberg, "How an Entire Nation Became Russia's Test Lab for Cyberwar," *Wired*, 28 June 2017. Available at <https://www.wired.com/story/russian-hackers-attack-ukraine/>, accessed 14 September 2020.
86. Sanovich 2018, 32.
87. Arif, Stewart, and Starbird 2018.

Twitter accounts sought (sometimes ineptly) to promote positive narratives of the Chinese response to the COVID-19 pandemic and undermine trust in US efforts.[88]

These tactics could be employed in liberal societies as well as in illiberal ones because the self-regulatory information order had given platform businesses extraordinary scope to build their own private governance architectures, which aimed more to maximize profits than to prevent abuse. Companies such as Facebook and YouTube constructed vast platforms that allowed individuals to upload content and share it widely on an extraordinary and unprecedented scale. The companies monetized data aggregation through advertising, relying on machine learning techniques that sought to maximize "engagement" as measured by attention maintenance and click-throughs. A confidential internal Facebook investigation frankly described the consequences: "Our algorithms exploit the human brain's attraction to divisiveness," promoting "more and more divisive content in an effort to gain user attention & increase time on the platform."[89] In an undisclosed 2016 self-study of the platform's effect on far-right extremism in Germany, the company found that "64 percent of all extremist group joins are due to our recommendation tools … Our recommendation systems grow the problem."[90] The business model of "surveillance capitalism," facilitated by legal protections such as the CDA's Section 230, led platform companies to avoid traditional forms of editing and moderation where possible, relying instead on algorithms, which made it hard for them to keep track of the behavior of advertisers and users, let alone to moderate them.[91]

These changes in the LIIO may possibly undermine the shared expectations that liberal democracies rely on, as Adler and Drieschova argue in this special issue. There is an extensive literature suggesting that democratic stability requires, for example, mutually reinforcing beliefs that elections are conducted with a reasonable degree of fairness so that they reflect majority decisions, and that those who lose elections will cede power.[92] We know relatively little about how epistemic polarization (the circumstances under which people may come to disagree over what is true and untrue) as opposed to political polarization (increased partisan disagreement over values) may affect these beliefs. It is plausible that some combination of manipulation strategies (whether by external illiberal actors or by internal ones), algorithms that optimize on divisive content, and second-order beliefs (for example, that others are puppets manipulated by Russian bots) might have destabilizing consequences for liberal societies.

Although these features of the order made it easier for illiberal states to intervene in the politics of liberal states, it is unclear that their interventions had the specific

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88. Molter and Webster 2020.

89. Jeff Horwitz and Deepa Seetharaman, "Facebook Executives Shut Down Efforts to Make the Site Less Divisive," *Wall Street Journal*, 26 May 2020. Available at <https://www.wsj.com/articles/facebook-knows-it-encourages-division-top-executives-nixed-solutions-11590507499>, accessed 28 January 2021.

90. Ibid.

91. Zuboff 2019.

92. Farrell and Schneier 2018; Przeworski 1991.

desired consequences. It is likely, for example, that Russian interference in the 2016 election was less intended to help Donald Trump win than to damage the presumed victor, Hillary Clinton. The scholarly consensus among political scientists is that these techniques were extremely unlikely to persuade people on a sufficiently large scale to change voting outcomes.[93] Ultimately, the question of whether illiberal states succeeded or failed in promoting disinformation, and the consequences of their efforts for democracy, are extremely important for political science, but hard to resolve without better data.

For our more specific purposes here, what is relevant is how these feedbacks from illiberal states have had secondary consequences, leading to a new stage of fundamental contention within the LIIO. On the one hand, these strategies are undermining the commitment of core liberal states to self-regulatory governance arrangements. Both the Democratic and Republican candidates in the 2020 presidential election have called for the abolition of Section 230, with Joe Biden specifically arguing that Russian manipulation and its interaction with platform business models justifies such reform.[94] A 2017 German law, also known as the Facebook Act, places considerably more responsibility on platform companies to monitor and take down disinformation. France adopted legislation modeled on the German law in 2020. Although French courts ultimately stuck down much of the law, the European Court of Justice acted to reinterpret the EU equivalent of Section 230 (Article 15 of the E-Commerce Directive) making it easier for EU member states to order platform companies to take down problematic content. Policymakers in the United States and Europe have called for a democratic Internet "league," with only limited interactions with illiberal states, and its own suppliers of network technology, excluding Chinese telecommunications manufacturers such as Huawei. Other key states such as India are introducing legislation that sharply limits platform companies' protection when they publish politically controversial content. These responses by liberal states signal a retreat from the open-door policy that had played such a central role in the order.

Whether, for example, US presidential candidate Biden's fears about Russian bots are justified or not, they are politically consequential. Politicians across liberal states are converging on the position that the LIIO's self-regulatory governance arrangements are problematic for liberalism, and that open information flows may hurt rather than help liberal societies.

Disagreements within democratic states[95] have created an opening for illiberal states to revive the ITU, press for rules and standards that would privilege "data sovereignty," and potentially fragment the LIIO. In 2018, former Alphabet CEO

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93. Bail et al. 2020.

94. Editorial Board, Interview with Joe Biden, *New York Times*, 17 January 2020. Available at <https://www.nytimes.com/interactive/2020/01/17/opinion/joe-biden-nytimes-interview.html>, accessed 14 September 2020.

95. Clarke and Knake 2019.

Eric Schmidt predicted a bifurcated Internet split between a more closed and surveillance-oriented Chinese-based system and a more open Western-based one.[96] Now, Russia is seeking to create a localized domain name service that would allow it to cut itself off from global networks. China is pushing for a radical redesign of the underlying standards of the Internet at the ITU, to facilitate centralized control, in what it calls "New IP," for "New Internet Protocol."[97]

Neither an increasing-returns nor an autocratic-adjustment approach helps us to understand how these challenges arose or why they are taking hold. Increasing-returns accounts of the LIIO start from the proposition that the spread of open information flows will reinforce other aspects of liberalism. These accounts find it difficult to explain how the core liberal norm of the LIIO—open communications flows—could lead to contention within liberal societies themselves. As the history shows (and as autocratic-adjustment arguments expect), illiberal states sought to insulate themselves to protect their domestic systems of rule. However, these theories would lead them to predict continued stalemate between illiberal and liberal regimes, each with its own preferred rules, rather than the development of feedback loops that could turn the logic and workings of a liberal communications order against itself.

A self-undermining approach, in contrast, helps in understanding this unexpected development as a product of conversion and drift. Illiberal states faced new challenges from the LIIO, which they were unable to change directly. Through trial-and-error experimentation, they converted the order's norms of open communication to domestic illiberal uses, dividing their own opposition, and potentially creating confusion and disarray within liberal societies. These effects were amplified by drift as the business incentives of platform firms to whom governance had been delegated generated political tensions—and contention—within the liberal societies that are their primary hosts.

Conclusion

We apply new scholarship on incremental change in historical institutionalism to improve our understanding of change in a sub-order of the LIO, the LIIO. We chart how key features of the LIIO—its commitment to openness and private-actor governance—have had unexpected consequences as a result of drift and conversion. Information flows that at one point were depicted as "mass psychological campaigns" against illiberal states are now seen as undermining liberal ones. Instead of generating

96. Lora Kolodny, "Former Google CEO Predicts The Internet Will Split in Two—and One Part Will Be Led by China," *CNBC,* 20 September 2018. Available at <https://www.cnbc.com/2018/09/20/eric-schmidt-ex-google-ceo-predicts-internet-split-china.html>, accessed 14 September 2020.

97. Madhumita Murgia and Anna Gross, "Inside China's Controversial Mission to Reinvent the Internet," *Financial Times,* 27 March 2020. Available at <https://www.ft.com/content/ba94c2bc-6e27-11ea-9bca-bf503995cd6f>, accessed 28 January 2021.

a stable equilibrium of openness through increasing returns, the information order has been a site of ongoing global contestation.[98] Dissatisfied actors within the LIIO (illiberal states) found traditional resistance strategies—intergovernmental negotiations—largely blocked, but over time they were able to convert the order's norms and governance structures for their own purposes.[99] This is, in part, the result of the tensions generated by frictions between international and domestic institutions over time,[100] spurring political experimentation that has fed back into and repurposed the LIIO.

Rather than predicting inevitable decline or resilience, we argue that the future of the LIIO will depend in part on how this contention over information openness is filtered through the domestic political systems of liberal states and international governance structures. As the illiberal consequences of liberally inspired self-regulatory governance become clear, some social media companies, such as Twitter, have started to implement restrictions on political advertising and sought to limit the spread of falsehoods that might damage democracy. Others, such as Facebook, have sought to create new institutional forms that promise accountability, while in practice continuing much as before. The LIIO's future also depends on international politics. Recent efforts by illiberal states to revive the ITU as a key policy forum, and liberal state concerns over Section 230 and its equivalents in other jurisdictions, suggest that the private-actor governance structures of the LIIO will enjoy less political support than they had in the past. More generally, our account shifts attention away from stable orders and self-reinforcing equilibria toward instability and contentious politics. It suggests that contention within liberal states is not a simple product of exogenous attacks from illiberal states but is instead a partial consequence of the order itself.

Our article contributes to theoretical debates by illustrating the limits of the standard increasing-returns arguments about the LIO, which are better at explaining persistence than at explaining change, and hence are poorly suited to explaining internal challenge and breakdown. Instead, we help introduce a literature in comparativist historical institutionalism that is an alternative to the historical institutionalist ideas that have been more commonly employed in international relations, emphasizing incremental and endogenous change processes and building bridges between the two subfields.[101]

An important next step in this research agenda will be to better specify the scope conditions for self-undermining feedbacks. Hacker, Pierson, and Thelen argue that dissatisfied actors are most likely to pursue incremental-change strategies when direct institutional change is blocked.[102] This comports with our narrative, in

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98. Börzel and Zürn 2021.
99. For more on outsider resistance to the LIO, see Tourinho 2021.
100. For analogous patterns in the context of trade, see Goldstein and Gulotty 2021.
101. See Farrell and Newman 2010; Fioretos 2017; Newman 2017.
102. Hacker, Pierson, and Thelen 2015.

which illiberal states turned to conversion because it was clear that direct challenge to the LIIO through multilateral bodies would fail to overcome the US control of the relevant veto points. As work on increasing returns and path dependence has progressed, it has moved to better specify such boundary conditions at the domestic level: international relations scholars must emulate these efforts as they study self-undermining feedback in the global context.

More broadly, our account puts information where it should be: at the heart of research in international affairs.[103] Despite the obvious importance of information technology to world politics, the topic has received remarkably little attention in leading journals such as *International Organization*. This article provides an initial corrective, integrating disparate debates on global Internet governance, the comparative politics of information control, and transnational disinformation in a common framework that demonstrates the interactions among them, which others may usefully build upon, or argue against, as appropriate.

Finally, we emphasize that if we are properly to understand the global information order, we not only need to place it at the heart of international relations; we also need to integrate insights from other scholarly disciplines including computer science and communication.[104] This synthesis is urgently required because new informational challenges present further possibilities of global transformation. For example, new techniques such as generative adversarial networks allow the production of extraordinarily realistic-seeming audiovisual content, and (some of the time) can detect it. How might these techniques transform international politics and security, where distrust and sparse information are already endemic? Even more pressing, what are the possible consequences of authoritarian experimentation with monitoring techniques, including facial and gait recognition, pattern detection, and detection of other characteristics?[105] Might such techniques intersect with existing structures of "surveillance capitalism"[106] in liberal states to create a reverse form of the "liberation technology" mechanism that Internet enthusiasts used to celebrate, and if so, under what circumstances would it diffuse across states, and what would its consequences be? How will the pressure to increase "contact tracing" in the wake of the coronavirus pandemic change domestic and international politics?

Rather than seeing liberal and illiberal states as disconnected, we suggest that they are entangled in the same global information structures, and may enmesh themselves further even as they struggle to liberate themselves from shared dependencies. The LIIO, like other aspects of the LIO, has made liberal and illiberal states more interdependent. Once we recognize that this interdependence does not ineluctably lead to the spread of liberalism, we can begin to think more clearly about the new politics of the LIO, and investigate its vulnerabilities as well as its resilience.

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103. See Brien and Helleiner 1980; Cowhey 1990; Farrell and Newman 2019a, 2019b; Simmons 2011.
104. Ferrara 2017; Shao et al. 2018.
105. Weber 2019.
106. Zuboff 2019.

References

Adler, Emanuel, and Alena Drieschova. 2021. The Epistemological Challenge of Truth-Subversion to the Liberal International Order. *International Organization* 75 (2). <https://doi.org/10.1017/S0020818320000533>.

Adler-Nissen, Rebecca, and Ayşe Zarakol. 2020. Struggles for Recognition: The Liberal International Order and the Merger of its Discontents. *International Organization* 75 (2). <https://doi.org/10.1017/S0020818320000454>.

Arif, Ahmer, Leo Graiden Stewart, and Kate Starbird. 2018. Acting the Part: Examining Information Operations within #BlackLivesMatter Discourse. *Proceedings of the ACM on Human-Computer Interaction* 2 (CSCW): <https://doi.org/10.1145/3274289>.

Bach, David. 2010. Varieties of Cooperation: The Domestic Institutional Roots of Global Governance. *Review of International Studies* 36 (3):561–89.

Bail, Christopher, Brian Guay, Emily Maloney, Aidan Combs, D. Sunshine Hillygus, Friedolin Merhout, Deen Freelon, and Alexander Volfovsky. 2020. Assessing the Russian Internet Research Agency's Impact on the Political Attitudes and Behaviors of American Twitter Users in Late 2017. *Proceedings of the National Academy of Science* 117 (1):243–50.

Benkler, Yochai, Robert Faris, and Hal Roberts. 2018. *Network Propaganda: Manipulation, Disinformation, and Radicalization in American Politics*. Oxford University Press.

Blank, Stephen. 2013. Russian Information Warfare as Domestic Counterinsurgency. *American Foreign Policy Interests* 35 (1):31–44.

Boas, Taylor C. 2006. Weaving the Authoritarian Web: The Control of Internet Use in Nondemocratic Regimes. In *How Revolutionary Was the Digital Revolution*, edited by John Zysman and Abraham Newman, 361–78. Stanford University Press.

Börzel, Tanja, and Michael Zürn. 2021. Contestations of the Liberal International Order: From Liberal Multilateralism to Postnational Liberalism. *International Organization* 75 (2). <https://doi.org/10.1017/S0020818320000570>.

Brien, Rita Cruise, and Gerald K. Helleiner. 1980. The Political Economy of Information in a Changing International Economic Order. *International Organization* 34 (4):445–70.

Busemeyer, Marius R., Aurélien Abrassart, Spyridoula Nezi, and Roula Nezi. 2019. Beyond Positive and Negative: New Perspectives on Feedback Effects in Public Opinion on the Welfare State. *British Journal of Political Science* 50 (2):1–26.

Bussell, Jennifer. 2011. Explaining Cross-National Variation in Government Adoption of New Technologies. *International Studies Quarterly* 55(1):267–80.

Castells, Manuel. 2015. *Networks of Outrage and Hope: Social Movements in the Internet Age*. John Wiley.

Clarke, Richard A., and Robert K. Knake. 2019. *The Fifth Domain: Defending Our Country, Our Companies, and Ourselves in the Age of Cyber Threats*. Penguin.

Clinton, Hillary. 2010. Internet Freedom. *Foreign Policy*, 21 January. Available at <https://foreignpolicy.com/2010/01/21/internet-freedom/>.

Clinton, William Jefferson. 2000. Address on Permanent Normal Trade Relations with China. 8 March. Available at <https://www.c-span.org/video/?155905-1/permanent-normal-trade-relations-china%5Eand%5Estart=1849>.

Cohen, Jared, and Eric Schmidt. 2013. *The New Digital Age: Reshaping the Future of People, Nations and Business*. Vintage.

Cowhey, Peter. 1990. The International Telecommunications Regime: The Political Roots of Regimes for High Technology. *International Organization* 44 (2):169–99.

Dann, Gary, and Neil Haddow. 2008. Just Doing Business or Doing Just Business: Google, Microsoft, Yahoo! and the Business of Censoring China's Internet. *Journal of Business Ethics* 79(3):219–34.

Deibert, Ronald, and Rafal Rohozinski. 2010. Liberation vs. Control: The Future of Cyberspace. *Journal of Democracy* 21 (4):43–57.

Deibert, Ronald J., John G. Palfrey, Rafal Rohozinski, and Jonathan Zittrain. 2008. *Access Denied: The Practice and Policy of Global Internet Filtering*. MIT Press.

DeNardis, Laura. 2014. *The Global War for Internet Governance*. Yale University Press.

DeNardis, Laura, and Andrea M. Hackl. 2015. Internet Governance by Social Media Platforms. *Telecommunications Policy* 39 (9):761–70.

Deudney, Daniel, and John Ikenberry. 1999. The Nature and Sources of International Liberal Order. *Review of International Studies* 25 (2):179–96.

Diamond, Larry. 2010. Liberation Technology. *Journal of Democracy* 21 (3):69–83.

Dobriansky, Paula. 2008. New Media vs. New Censorship: The Authoritarian Assault on Information. Remarks of Paula J. Dobriansky to Broadcasting Board of Governors, 10 September. Available at <https://www.hsdl.org/?view&did=234390>. Accessed 14 September 2020.

Drake, William. 2016. Background Paper for the Workshop on Data Localization and Barriers to Transborder Data Flows 14–15 September, The World Economic Forum Geneva. Available at <http://www3.weforum.org/docs/Background_Paper_Forum_workshop%2009.2016.pdf>. Accessed 14 September 2020.

Farrell, Henry. 2006. Regulating Information Flows: States, Private Actors, and E-commerce. *Annual Review of Political Science* 9:353–74.

Farrell, Henry. 2012. The Consequences of the Internet for Politics. *Annual Review of Political Science* 15: 35–52.

Farrell, Henry, and Abraham L. Newman. 2010. Making Global Markets: Historical Institutionalism in International Political Economy. *Review of International Political Economy* 17 (4):609–38.

Farrell, Henry, and Abraham L. Newman. 2014. Domestic Institutions Beyond the Nation-State: Charting the New Interdependence Approach. *World Politics* 66 (2):331–63.

Farrell, Henry, and Abraham L. Newman. 2019a. *Of Privacy and Power: The Transatlantic Struggle Over Freedom and Security*. Princeton University Press.

Farrell, Henry, and Abraham L. Newman. 2019b. Weaponized Interdependence: How Global Networks Shape State Coercion. *International Security* 44(1):42–79.

Farrell, Henry, and Bruce Schneier. 2018. Common Knowledge Attacks Against Democracy. Unpublished Manuscript. Berkman-Klein Center, Harvard University

Ferrara, Emilio. 2017. Disinformation and Social Bot Operations in the Run Up to the 2017 French Presidential Election. Available at <https://arxiv.org/abs/1707.00086>. Accessed 14 September 2020.

Fioretos, Orfeo. 2011. Historical Institutionalism in International Relations. *International Organization* 65 (2):367–99.

Fioretos, Orfeo. 2017. *International Politics and Institutions in Time*. Oxford University Press.

Giles, Keir. 2012. Russia's Public Stance on Cyberspace Issues. In *2012 Fourth International Conference on Cyber Conflict*, 1–13. IEEE.

Goldsmith, Jack. 2018. *The Failure of Internet Freedom*. Knight First Amendment Institute.

Goldstein, Judith, and Robert Gulotty. 2021. America and the Trade Regime: What Went Wrong? *International Organization* 75 (2). <https://doi.org/10.1017/S002081832000065X>.

Golovchenko, Yevgeniy, Mareike Hartmann, and Rebecca Adler-Nissen. 2018. State, Media and Civil Society in the Information Warfare over Ukraine: Citizen Curators of Digital Disinformation. *International Affairs* 94 (5):975–94.

Greif, Avner, and David Laitin. 2004. A Theory of Endogenous Institutional Change. *American Political Science Review* 98 (4):633–52.

Gunitsky, Seva. 2015. Corrupting the Cyber-Commons: Social Media As a Tool of Autocratic Stability. *Perspectives on Politics* 13 (1):42–54.

Guriev, Sergei, and Daniel Treisman. 2019. Informational Autocrats. *Journal of Economic Perspectives* 33 (4):100–127.

Hacker, Jacob, Paul Pierson, and Kathleen Thelen. 2015. Drift and Conversion: Hidden Faces of Institutional Change. In *Advances in Comparative-Institutionalist Analysis*, edited by James Mahoney and Kathleen Thelen, 180–208. Cambridge University Press.

Hafner, Katie, and Matthew Lyon. 1998. *Where Wizards Stay Up Late: The Origins of the Internet*. Touchstone.

Hansen, Isabella, and Darren J. Lim. 2019. Doxing Democracy: Influencing Elections Via Cyber Voter Interference. *Contemporary Politics* 25 (2):150–71.

Howard, Philip N. 2010. *The Digital Origins of Dictatorship and Democracy: Information Technology and Political Islam*. Oxford University Press.

Hussain, Muzammil, and Philip Howard. 2013. What Best Explains Successful Protest Cascades? ICTs and the Fuzzy Causes of the Arab Spring. *International Studies Review* 15(1):48–66.

Ikenberry, John. 1998/1999. Institutions, Strategic Restraint, and the Persistence of American Postwar Order. *International Security* 23 (3):43–78.

Ikenberry, John. 2017. The Rise, Character, and Evolution of International Order. In *International Politics and Institutions in Time*, edited by Karl Orfeo Fioretos, 59–75. Oxford University Press.

Jacobs, Alan M., and R. Kent Weaver. 2015. When Policies Undo Themselves: Self-Undermining Feedback as a Source of Policy Change. *Governance* 28 (4):441–57.

Jiang, Min. 2010. Authoritarian Informationalism: China's Approach to Internet Sovereignty. *SAIS Review of International Affairs* 30 (2):71–89.

Kiggins, Ryan David. 2015. Open for Expansion: US Policy and the Purpose for the Internet in the Post-Cold War Era. *International Studies Perspectives* 16 (1):86–105.

King, Gary, Jennifer Pan, and Margaret E. Roberts. 2013. How Censorship in China Allows Government Criticism but Silences Collective Expression. *American Political Science Review* 107 (2):326–43.

Klein, Hans. 2004. Understanding WSIS: An Institutional Analysis of the UN World Summit on the Information Society. *Information Technologies and International Development* 1 (3-4):3–13.

Kosseff, Jeff. 2019. *The Twenty-Six Words That Created the Internet*. Cornell University Press.

Krasner, Stephen D. 1991. Global Communications and National Power: Life on the Pareto Frontier. *World Politics* 43 (3):336–66.

Kurowska, Xymena, and Anatoly Reshetnikov. 2018. Neutrollization: Industrialized Trolling as a Pro-Kremlin Strategy of Desecuritization. *Security Dialogue* 49 (5):345–63.

Lake, David A., Lisa L. Martin, and Thomas Risse. 2021. Challenges to the Liberal Order: Reflections on International Organization. *International Organization* 75 (2). <https://doi.org/10.1017/S0020818320000636>.

Lazer, David M.J., Matthew A. Baum, Yochai Benkler, Adam J. Berinsky, Kelly M. Greenhill, Filippo Menczer, Miriam J. Metzger, Brendan Nyhan, Gordon Pennycook, David Rothschild, Michael Schudson, Steven A. Sloman, Cass R. Sunstein, Emily A. Thorson, Duncan J. Watts, and Jonathan L. Zittrain. 2018. The Science of Fake News. *Science* 359 (6380):1094–96.

Leiner, Barry M., Vinton G. Cerf, David D. Clark, Robert E. Kahn, Leonard Kleinrock, Daniel C. Lynch, Jon Postel, Larry G. Roberts, and Stephen Wolff. 2009. A Brief History of the Internet. *Computer Communication Review* 39 (5):22–31.

Lynch, Marc. 2011. After Egypt: The Limits and Promise of Online Challenges to the Authoritarian Arab State. *Perspectives on Politics* 9 (2):301–10.

MacKinnon, Rebecca. 2008. Flatter World and Thicker Walls? Blogs, Censorship and Civic Discourse in China. *Public Choice* 134 (1–2):31–46.

Maclean, Don. 2008. Sovereign Right and the Dynamics of Power in the ITU: Lessons in the Quest for Inclusive Global Governance. In *Governing Global Electronic Networks: International Perspectives on Policy and Power*, edited by William J. Drake and Ernest J. Wilson III, 83–126. MIT Press.

Mahoney, James, and Kathleen Thelen, 2009. *Explaining Institutional Change: Ambiguity, Agency, and Power*. Cambridge University Press.

McCarthy, Daniel R. 2010. Open Networks and the Open Door: American Foreign Policy and the Narration of the Internet. *Foreign Policy Analysis* 7 (1):89–111.

Moe, Terry M. 2005–2006. Power and Political Institutions. *Perspectives on Politics* 3 (2):215–33.

Molter, Vanessa, and Graham Webster. 2020. Virality Project (China): Coronavirus Conspiracy Claims. Stanford Cyber Policy Center, 31 March. Available at <https://cyber.fsi.stanford.edu/news/china-covid19-origin-narrative>. Accessed 14 September 2020.

Mueller, Milton. 2010. *Networks and States: The Global Politics of Internet Governance*. MIT Press.

Newman, Abraham L. 2008. Building Transnational Civil Liberties: Transgovernmental Entrepreneurs and the European Data Privacy Directive. *International Organization* 62 (1):103–30.

Newman, Abraham L., 2010. What You Want Depends on What You Know: Firm Preferences in an Information Age. *Comparative Political Studies* 43 (10):1286–312.

Newman, Abraham L. 2017. Sequencing, Layering and Feedbacks in Global Regulation. In *International Politics and Institutions in Time*, edited by Orfeo Fioretos, 3–36. Oxford University Press.

Newman, Abraham L., and David Bach. 2004. Self-Regulatory Trajectories in the Shadow of Public Power: Resolving Digital Dilemmas in Europe and the United States. *Governance* 17 (3):387–413.

Nocetti, Julien. 2015. Contest and Conquest: Russia and Global Internet Governance. *International Affairs* 91 (1):111–30.

Orren, Karen, and Stephen Skowronek. 1996. Institutions and Intercurrence: Theory Building in the Fullness of Time. *Nomos* 38:111–46.

Pierson, Paul. 2000. Increasing Returns, Path Dependence, and the Study of Politics. *American Political Science Review* 94 (2):251–67.

Pomerantsev, Peter, and Michael Weiss. 2014. *The Menace of Unreality: How the Kremlin Weaponizes Information, Culture and Money*. Vol. 14. Institute of Modern Russia.

Przeworski, Adam. 1991. *Democracy and the Market: Political and Economic Reforms in Eastern Europe and Latin America*. Cambridge University Press.

Qun, Wang. 2011. Work to Build a Peaceful, Secure and Equitable Information and Cyber Space. Paper presented at the First Committee of the 66th Session of the General Assembly on Information and Cyberspace Security, 20 October, New York.

Rixen, Thomas, Lora Anne Viola, and Michael Zürn. 2016. *Historical Institutionalism and International Relations: Explaining Institutional Development in World Politics*. Oxford University Press.

Roberts, Margaret E. 2018. *Censored: Distraction and Diversion Inside China's Great Firewall*. Princeton University Press.

Sanovich, Sergey. 2018. The Origins of Digital Misinformation. In *Computational Propaganda: Political Parties, Politicians, and Political Manipulation on Social Media*, edited by Samuel Woolley and Philip Howard, 21–40, Oxford University Press.

Sanovich, Sergey, Denis Stukal, and Joshua A. Tucker. 2018. Turning the Virtual Tables: Government Strategies for Addressing Online Opposition with an Application to Russia. *Comparative Politics* 50 (3):435–82.

Shao, Chengcheng, Pik-Mai Hui, Lei Wang, Xinwen Jiang, Alessandro Flammini, Filippo Menczer, and Giovanni Luca Ciampaglia. 2018. Anatomy of an Online Misinformation Network. *PloS One* 13 (4): e0196087.

Shen, Hong. 2016. China and Global Internet Governance: Toward an Alternative Analytical Framework. *Chinese Journal of Communication* 9 (3):304–24.

Shirky, Clay. 2008. *Here Comes Everybody: The Power of Organizing Without Organizations*. Penguin.

Shirky, Clay. 2011. The Political Power of Social Media: Technology, the Public Sphere, and Political Change. *Foreign Affairs* 90 (1):28–41.

Simmons, Beth. 2011. International Studies in the Global Information Age. *International Studies Quarterly* 55 (3):589–99.

Skogstad, Grace. 2017. Policy Feedback and Self-Reinforcing and Self-Undermining Processes in EU Biofuels Policy. *Journal of European Public Policy* 24 (1):21–41.

Sobolev, Anton. 2019. Dictators in the Spotlight: What They Do When They Cannot Do Business as Usual. PhD diss., UCLA.

Thelen, Kathleen. 2003. How Institutions Evolve: Insights from Comparative Historical Analysis. In *Comparative Historical Analysis in the Social Sciences*, edited by James Mahoney and Dietrich Rueschemeter, 208–40. Cambridge University Press.

Tourinho, Marcos. 2021. The Co-Constitution of Order. *International Organization* 75 (2). <https://doi.org/10.1017/S0020818320000466>.

Tucker, Joshua A., Yannis Theocharis, Margaret E. Roberts, and Pablo Barberá. 2017. From Liberation to Turmoil: Social Media and Democracy. *Journal of Democracy* 28 (4):46–59.

Tufekci, Zeynep. 2018. The Road from Tahrir to Trump. *MIT Technology Review* 121 (5):10–17.

Wallace, Jeremy L. 2016. Juking the Stats? Authoritarian Information Problems in China. *British Journal of Political Science* 46 (1):11–29.

Warren, T. Camber. 2015. Explosive Connections? Mass Media, Social Media, and the Geography of Collective Violence in African States. *Journal of Peace Research* 52 (3):297–311.

Weber, Valentin. 2019. The Worldwide Web of Chinese and Russian Information Controls. Open Technology Fund working paper series. Available at <https://www.ctga.ox.ac.uk/files/theworldwideweb ofchineseandrussianinformationcontrolspdf>.

Wu, Tim. 2017. *The Attention Merchants: The Epic Scramble to Get Inside Our Heads*. Vintage.

Zuboff, Shoshana. 2019. *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*. Profile Books.

Zuckerman, Ethan. 2015. Cute Cats to the Rescue? Participatory Media and Political Expression. In *Youth, New Media and Political Participation*, edited by Danielle Allen and Jennifer Light, 131–54. University of Chicago Press.

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Key Words