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Article

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What Is the Constitution of Cyberspace Like?

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Abstract:

Cybersapce, as a normative order, can be usefully understood as having a constitution, and debates about its regulation as constitutional debates. As with more familiar constitutions, these debates concern the procedures through which the rules making up the normative order of cyberspace are made and changed, the participants in these procedures, the limits on the scope and substance of these rules, and the values which these rules serve to realize. The lessons of "real life" constitutionalism, notably about the limits of constitutional design and the importance of structural protections for liberty are thus applicable in cyberspace.

Keywords: constitutionalism, cyberspace, democracy, digital constitutionalism, rule of law

1. From Independence to Constitution-Making

A long time ago—in prehistoric days—in 1996 to be precise—John Perry Barlow declared the independence of cyberspace[1]. Much like its famous predecessor, this manifesto reflected the thought of people who were "aggressive, violent in their language, fond of abstractions, prolific of doctrines universally applicable and universally destructive"[2]. Its swaggering assertions have not held true, if they ever were[3]. Its confident demands have not been met. From a distance of a quarter of a century, the days of what Nicolas Suzor described as the "exceptionalist treatment of cyberspace"[4] appear, at best, "romantic"[5].

Although the revolutionary rhetoric of Barlow's Declaration continues to fascinate some of those who think about the ways in which cyberspace is governed[6], the world has changed a great deal. Governments, the "weary giants of flesh and steel" whom Barlow

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[1] J.P. Barlow, *A Declaration of the Independence of Cyberspace*, 8 February 1996, at https://projects.eff.org/~barlow/Declaration-Final.html>.

[2] J.N. Friggs, R.V. Laurence (Eds.), J.E.E. Dahlberg-Acton, *Lectures on the French Revolution*, London, 1910, 34.

[3] See M.D. Birnhack, N. Elkin-Koren, *The Invisible Handshake: The Reemergence of the State in the Digital Environment* in 8 *Virginia Journal of Law & Technology* 6, para 10 (2003).

[4] N. Suzor, *The Role of the Rule of Law in Virtual Communities* in 25 *Berkeley Technology Law Journal* 1817, 1822 (2003).

[5] See L.B. Solum, *Models of Internet Governance* in L.A. Bygrave, J. Bing (Eds), *Internet Governance: Infrastructure and Institutions*, Oxford, 2009, 48, 57.

[6] See e.g. A. Pin, *Hate Speech on the Web* in *Law and Religion Forum*, 21 September 2022, https://lawandreligionforum.org/2022/09/21/pin-on-hate-speech-on-the-web/.

taunted, may be "immigrants" in cyberspace[7], but so were the ancestors of Thomas Jefferson. They proved less powerless in this realm than Barlow and his fellow revolutionaries imagined[8]. And they have been joined by other giants too, no less substantial for inhabiting the cloud.

Yet it would be wrong to conclude that the revolution that Barlow and others heralded was simply undone by a counter-revolution driven by the state and a few corporate behemoths. As Lord Acton observed, the spirit that animated the original Declaration of Independence also dissipated quickly enough[9]. But it was succeeded not by a counter-revolution, but by "a period of construction"[10] that led to the drafting and ratification of the Constitution of the United States. The ideas of the revolutionary period, Lord Acton said, were the Americans' "cutting"; those of the period that followed were their "sewing"[11].

Cyberspace today is in a similar period of construction. It is a contested realm, where not only specific rules are always subject to challenge and revision, but even the most basic questions of power and legitimacy remain open. Interested parties, including governments, corporations, international or non-governmental organizations, or individuals, seek to influence or direct the constant changes of the rules of cyberspace—not only legalislated rules, but also contracts which private firms make with or impose on their users, social norms, and, not least importantly, what Lawrence Lessig has called "code"[12]—and resist the influence and direction of others.

Our understanding of these bewildering processes will be enriched if we think about the controversies surrounding internet governance as episodes in a debate about the development of a constitution of cyberspace. The creation of a new constitutional order inevitably spurs competition among those who hope to exercise power or authority under it and resistance from those who fear that they will be left out, and this is as true in cyberspace as "in real life". Hence, the lessons of "real life" constitutionalism are relevant to the development of the constitution of cyberspace.

Indeed, the suggestion that we can usefully think of the regulation of cyberspace in constitutional terms is not new; indeed something very near to the phrase "the constitution of cyberspace" has already been used[13]. The idea goes at least as far back as Lessig's *Code*, which called for cyberspace to be "set[] upon a certain constitution," meaning "an architecture—not just a legal text but a way of life—that structures and constrains social and legal power, to the end of protecting fundamental values"[14]. But

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[7] J.P. Barlow, cit.
[8] See *eg* D.R. Johnson, D.G. Post, *Law and Borders—The Rise of Law in Cyberspace* in 48 *Stanford Law Review* 1367, 1996, 1390.
[9] See J.E.E. Acton, cit., 34.
[10] Ivi.
[11] Ivi, 30.
[12] L. Lessig, *Code Version 2.0*, New York, 2006.
[13] D. Redeker, L. Gill, U. Gasser, *Towards digital constitutionalism? Mapping attempts to craft an Internet Bill of Rights* in 80 *International Communications Gazette* 302, 303 (2018) ("the potential constitutionalization of cyberspace").
[14] L. Lessig, cit., 4.

Lessig did not explain the theoretical foundations or draw out the implications of this metaphor.

In the last five years or so, the idea of "digital constitutionalism" has received more sustained scholarly attention. The belief that constitutionalism in cyberspace as elsewhere involves the constraint of power and the protection of fundamental rights and values has endured[15]. The proponents of "digital constitutionalism" see cyberspace as a realm of danger, where the legitimacy of power is in question[16] and the very humanity of those who venture in is imperiled[17]. However, the threat no longer comes solely or perhaps even primarily from "social and legal power" wielded by the state, but rather from private actors, especially those who operate platforms on which large numbers of individual interact[18]. It is their power, accordingly that must be constrained. Doing so requires—though this is not always clearly articulated—the empowerment of the state or of supranational entities such as the European Union[19]; the platforms' alleged takeover of the state's functions is seen with suspicion[20], and state power must be reinvigorated to bring private actors to heel and so protect individuals.

However, while I share the belief in the fruitfulness of constitutionalism as a lens through which to examine the development of the (self-)regulation of cyberspace, I consider their understanding of constitutionalism as incomplete at best, and misshapen at worst. The image they see through this lens is accordingly distorted by an emphasis on rights of uncertain provenance, and the limitation of an abstract "power", regardless of its source. For my part, I argue that constitutions, including that of cyberspace, are concerned with the structure of rule-making at least as much as with the limitation of power and the protection of rights, and that this has important implications for the application of constitutional ideas to cyberspace.

It is perhaps useful to explain the origins of this perspective. Briefly, it proceeds from a constitutional culture where the claim that "the constitution is no more and no less than what happens", so that "[e]verything that happens is constitutional … [a]nd if nothing happened that would be constitutional also"[21] is notorious, perhaps even *outré*, but nonetheless recognizable as getting at a valid and significant point. Without conceding that everything that happens in constitutional, we ought to recognize that constitutions are of all sorts, not all of them devoted to "fundamental rights", democracy, or even the rule of law. And, furthermore, we need to understand that before we seek to either

[15] See N. Suzor, *Digital Constitutionalism: Using the Rule of Law to Evaluate the Legitimacy of Governance by Platforms* in *Social Media + Society* 1, 4 (2018); C. Padovani and M. Santoniello, *Digital constitutionalism: Fundamental rights and power limitation in the Internet eco-system* in 80 *International Communications Gazette* 295, 296-97 (2018); D. Redeker, L. Gill and U. Gasser, cit., 303; G. de Gregorio, *The rise of Digital Constitutionalism in the European Union* in 19 *I•CON* 41, 41-42, 58 (2021).
[16] N. Suzor, *Digital Constitutionalism*, cit., 1-2.
[17] See C. Padovani and M. Santoniello, cit., 295-96; G. de Gregorio, cit., 70.
[18] N. Suzor, *Digital Constitutionalism*, cit.; G. de Gregorio, cit., 47, 66.
[19] G. de Gregorio, cit., 45, 67.
[20] See C. Padovani and M. Santoniello, cit., 298; G. de Gregorio, cit., 42.
[21] J.A.G. Griffith, *The Political Constitution* in 42 *Modern Law Review* 1, 19 (1979).

denounce what happens as unconstitutional or reform an existing constitution, we need to understand what it is—all of it—and how it works.

This article thus seeks to understand the (emerging) constitution of cyberspace on its own terms, instead of proceeding to assess it in accordance with the a standard allegedly inherent in the very concept of constitutionalism. I elaborate on what I mean by constitution in the context of cyberspace in Part 2. I argue that a constitution is a framework that regulates the coming into being, change, and disappearance of the rules of a normative order, specifying who can take part in decisions about rules, the procedures by which these decisions are made, the limits on the scope of the rules, and the values which these rules can and cannot serve. I also describe the process of emergence of constitutions. In Part 3, I turn to the ongoing emergence of the constitution of cyberspace, beginning with an overview of some of its salient characteristics, and then examining in some detail various kinds of constitutional rules at stake in the debates about the regulation of cyberspace. The concluding Part 4 outlines some lessons that "real life" constitutionalism holds for those involved in developing the constitution of cyberspace.

2. Constitutions, Offline and On

2.1. The Nature of Constitutions

In order to usefully apply constitutional thinking to cyberspace, we must first be clear on what constitutions are, and what they are not. For instance, constitutions are not necessarily codified texts containing the basic rules about a nation's system of government, like the Constitution of the United States or the Constitution of the Italian Republic. Indeed, constitutions are not necessarily legal texts or even legal rules; nor are they exclusively a feature of political communities.

Far from being necessarily "written" or even legal instruments, the constitutions of states encompass "structures, processes, principles, rules, conventions and even culture that constitute the generic ways in which public power is exercised"[22]. But constitutions are not necessarily about public power either. Organizations, from clubs to student societies to multinational corporations, have constitutions too: "every organisation has a constitution," in the sense of a "set[] of rules which define and constitute" it[23]. These rules specify, for example, who directs the organization and makes or changes more detailed rules for its functioning, and lay down the procedure that must be followed.

To speak of cyberspace as having a constitution, however, a further step is required, since it not an organization at all. It can, however, be understood as what Kelsen called a normative order, that is "a system of norms regulating human behavior"[24]. To be sure, when speaking of the normative order of cyberspace, the word "system" must be understood rather or loosely. The norms regulating the behavior of people, organizations, and even algorithms in cyberspace originate from a variety of sources; they are not unified

[22] M.S.R. Palmer, *Using Constitutional Realism to Identify the Complete Constitution: Lessons from an Unwritten Constitution* in 54 *American Journal of Comparative Law* 587, 589 (2006).
[23] N.W. Barber, *The Constitution, The State and the European Union* in 8 *Cambridge Yearbook of European Legal Studies* 37, 54 (2005) (footnote omitted).
[24] H. Kelsen, *Pure Theory of Law*, M. Knight, transl., Berkley, 2002, 4.

and validated by a single basic norm, as Kelsen argued the norms of a legal system are. They are connected by their subject-matter—they regulate a particular sphere of human activity—rather than by their provenance. Nonetheless, it makes sense to describe them as a normative order, just as one could speak of a normative order of international trade encompassing, for example, rules of international law, *lex mercatoria*[25], commercial practice, etc.

And the normative order of cyberspace, just like that of international trade, or that of a corporation or a polity, is usefully understood as having a constitution, in the sense of a set of norms about the rules of that normative order. More precisely, constitutions govern the making of the rules of a normative order. They determine the procedures by which rules come into being, change, or disappear, and the identity of the participants in these procedures. More implicitly, constitutions also define the values which these rules help realize. The constitution of a state or of any other organization (that is, in Neil MacCormick's words, of an "institutional normative order"[26]), is an obvious example of the constitution of a normative order, but not the only one. Such a constitution is likely to have further functions; it may, for example, set up mechanisms for the enforcement and interpretation of these rules. But all this is in addition to the core role of regulating the appearance, change, and disappearance of the normative order's rules.

2.2. The Development of Constitutions

Before examining the ways in which constitutions regulate the rules of their normative orders, we need to consider a logically prior question: how do constitutions themselves appear and change? In a world where "written" texts are seen as the paradigmatic examples of constitutions, it is tempting to assume that constitutions are "made" by "framers" or "founders," in a solemn "constitutional moment," after careful planning, much reflection, and a great deal of debate. It is also tempting to think that, insofar as there is an alternative to constitution-making based on, in Alexander Hamilton's words, "reflection and choice", it is for "societies … to depend for their political constitutions, on accident and force"[27]. Yet it is a mistake to assume that these are the only options.

Of course, constitutions of normative orders other than states can also come into being and change in these two ways—deliberate constitution-making on the one hand, "accident and force" on the other. The two can also be combined. The constitution of a corporation, for example, will reflect both such sets of influences: on the one hand, the articles of incorporation, which will be the outcome of a conscious constitution-making process; on the other, the corporate law imposed by the state, some rules of which must also be seen as an integral part of the corporate constitution, since they shape the way that constitution regulates the corporation's normative order. From within the corporate normative order, the state rules are a forcible imposition (albeit not necessarily an unwelcome one).

[25] For a comparison between the "law of Cyberspace" and *lex mercatoria*, see D.R. Johnson, D.G. Post, cit., 1389.
[26] N. MacCormick, *Institutions and Laws Again* in 77 *Texas Law Review* 1429, 1431 (1999).
[27] Alexander Hamilton, *The Federalist No. 1* in J.E. Cooke, *The Federalist*, Middletown, 1961, 3, 3.

However, there is a third mechanism of constitutional creation and change which Hamilton's dichotomy ignores altogether[28]. Constitutions can also be "grown" or, to use Hayek's phrase, the products of "spontaneous development" rather than of acts of will or mere circumstance.[29] Adjudication is one well-known mechanism of constitutional growth, as Dicey notably pointed out. He argued that that "some polities, and among them the English constitution … far from being the result of legislation, in the ordinary sense of that term, are the fruit of contests carried on in the courts on behalf of the rights of individuals"[30]. Hayek too emphasized the role of adjudication in the spontaneous development of the law through the articulation by judges of standards of just conduct which they recognized but did not create[31]. While Hayek rejected the relevance of this process to constitutions[32], this was a mistake, caused by Hayek's failure to consider the possibility that the rules of just political conduct which are part of any constitution come into being and are articulated in much the same way as rules of just conduct in other areas.

But the focus on courts and individual rights is too narrow. The contests that shape a constitution neither only concern the rights of individuals nor only take place in the courts. Constitutions include, as Dicey himself pointed out, conventional rules that are not articulated or possibly even recognized by courts and which instead develop as a result of actions and sometimes contests that take place in the political arena. They also include, as I explain below, principles and values, which, like conventions, can be recognized by courts or by political actors without having been created by them.

Over time, the process of growth can work serious transformations on a constitution. The British constitution (along with other the Westminster-type constitutions), is probably the best-known evidence for this proposition. Although it has in some important respects been changed deliberately by legislation[33], many of its crucial features—such as the subjection of Crown prerogative to law or "responsible government"—are products of growth reflected in judicial decisions, constitutional conventions, or indeed political discourse[34]. But even highly formalized constitutions, such as that of the United States, are affected by processes of gradual growth which can sometimes alter their character—as the transformation of the role of the Electoral College has arguably done in the United States.

The constitutions of normative orders other than states also change as a result of similar growth processes. Indeed, insofar as such constitutions are often less formalized than those of states and thus less amenable to deliberate amendment, the role of gradual growth is even more significant in their case. Such growth may be less reflected in judicial decisions, since in many cases these constitutions will not be justiciable in state courts and will lack court-like mechanisms of their own. However, as these normative orders

[28] See e.g. R.A. Epstein, *The Classical Liberal Constitution: An Uncertain Quest for Limited Government*, Cambridge, MA, 2014, 26.
[29] F.A. Hayek, *Law, Legislation and Liberty*, vol. 1, *Rules and Order*, London, 1973.
[30] A.V. Dicey, *Introduction to the Study of the Law of the Constitution*, 8th ed., London, 1915, 192.
[31] See F.A. Hayek, cit., 85-88, 118-123.
[32] Ivi, 134-35.
[33] E.g. *Constitutional Reform Act*, 2005, which, among other things, set up the Supreme Court of the United Kingdom.
[34] See A. Schwartz, *The Changing Concepts of the Constitution* in 42 *Oxford Journal of Legal Studies* 758 (2022).

develop and their constitutions require clarification or elaboration, new or different constitutional rules will emerge, whether as a result of an implicit adjustment of expectations or in the process of settlement of disputes, for which court-like institutions are not the only possible forum.

2.3. The Contents of Constitutions

What sort of rules, then, does one find in constitutions, be they deliberately made, grown, or indeed imposed by force? As outlined above, they will be rules about rules: about how the rules of the normative order governed by the constitution appear and change; about who is involved in these processes; about the limits, if any, on the form and content of these rules; and about the values towards which these rules are directed. Let us now consider each of these categories in some more detail.

The constitution of any normative order will provide for a way in which the rules that make it up change: new rules come into being, existing rules are modified, and old rules cease to be valid. Even in the absence of what Hart called "rules of change", a normative order does not remain static, although it only changes through gradual processes that might not be perceived or understood by those subject to it. The more a normative order is formalized, the more explicit the "rules of change" of its constitution become. But its "complete constitution" must account not only for the existence of informal rules but also for the possibility that such rules can change, or new such rules can appear, by informal processes.

Furthermore, the processes by which the rules of a normative order change need not all happen within that normative order itself. For example, a legislated change to the mandatory rules of a jurisdiction's corporate law will amend the constitutions of the corporations subject to that law—from outside these constitutions. Similarly, if customary international law is part of a domestic legal order, domestic law will change with international custom, which changes according to rules that have nothing to do with the rules of change of the domestic legal order. The constitution of a normative order that includes rules from another order necessarily provides for the possibility that these rules will change in accordance with that other order's own rules of change.

Thus the "complete constitution" of a normative order of any degree of complexity is likely to refer to a number of procedures by which its rules might change. The rules of a state can change by legislation, as a result of judicial decisions, as a consequence of the actions of political actors, by virtue of the development of an international customary law or *jus cogens*, and sometimes even because of the changes in the law of another state which they incorporate by reference. The ways and means of change in the rules of less formal normative orders might be similarly varied.

Closely related to the issue of the different procedures by which the rules of a normative order change is that of the participants in these procedures. This issue encompasses a number of questions. Whose decisions and actions influence the contents of a normative order's rules? How do these people or organizations come to occupy this role? What is their respective importance and who among them prevails in the event of conflict?

States (as well as sub- and supra-national entities such as Canadian provinces or the European Union) have very elaborate rules on who participates in their rule-making procedures. These include rules surrounding the enactment of legislation, from definitions of citizenship and voting rights, to rules regulating the conduct of pre-electoral debate and of elections, to rules of parliamentary procedure; rules defining the qualifications for membership in and the appointment to the constitutional and ordinary judiciary (to the extent that judicial decisions are able to change the law); and potentially many other rules, from those regulating succession in monarchies to those regulating the process of publication of administrative regulations. Not all—indeed comparatively few—of these rules typically appear in constitutional documents, but they are nonetheless constitutional in a substantive sense.

These examples show that actors chosen in a variety of ways can participate in the rule-changing processes within the same normative order. And of course, to the extent that such an order relies on the rules that belong in the first instance to a different order, those who (wittingly or not) make, change, and unmake these rules become also participants in the changing of the rules of the order which incorporates them. The rules surrounding their identity thus become an implicit part of the incorporating order's "complete constitution."

A third part of a normative order's constitution consists in the limitations on the scope or contents of that order's norms. States have traditionally been reluctant to acknowledge such limits. The longstanding position of the British constitutionalists, for example, was that "Parliament … has the right to make or unmake any law whatever"[35], as Dicey famously put it. This position has now been almost universally abandoned; besides the United Kingdom, New Zealand is the only country in the world of which this is still true even as a matter of strict law[36].

The most familiar examples of constitutional rules limiting the scope or contents of normative orders are surely bills or charters of rights found in the constitutions of most states, which for the most part impose limits on the contents of the laws the state may validly impose. Other examples from constitutions of state include provisions circumscribing the scope of a legislature's legislative competence for the purpose of implementing a federal division of powers, or rules limiting the delegation of legislative power to the executive branch. But "complete constitutions" of states also include implicit, informal limits on legislative power. These might, for example, be conventions preventing the amendment of legislation which, though constitutional in substance, is as a matter of strict law subject to the ordinary amendment procedure[37].

As for non-state normative orders, whether formalized or not, they do not even claim the sort of plenary law-making powers that states did and, on paper, still might. The ambit of their rules is inherently limited. The normative order of a corporation applies within that corporation or to that corporation in its dealings with the outside world, but not to other

[35] A.V. Dicey, cit., 38.
[36] See New Zealand Bill of Rights Act, 1990, s. 4.
[37] See e.g. M.S.R. Palmer, cit., 609ff.

corporations except its subsidiaries. And the constitution of such a limited normative order can further preclude some potential rules even within its intended scope.

A final element of a normative order's constitution is the values or principles that the rules of a normative order reflect[38]. These purposes, values, or principles need not be explicit. Although they are sometimes explicitly stated in a formal constitution, whether in its operative provisions or in a preamble, they are perhaps more often only implicit in the constitution's rules. The formalization of a normative order might somewhat reduce the degree to which these assumptions are unstated, but by no means eliminates them. It is worth noting, too, that, as already noted above, normative orders include spontaneously developed rules that do not serve a specific purpose. Such rules nevertheless reflect a community's implicit understanding of right and wrong (hence Hayek's description of them as "rules of just conduct"), and thus certain values. The values to which a normative order's spontaneously developed rules tend are part of its constitution, because they influence and guide the further development of its rules, whether deliberately made or spontaneously grown.

3. The Constitution of Cyberspace

3.1. Just How Different Is It?

It is time to turn to the constitution of cyberspace itself. In various ways, it is quite different from those that are most familiar to us—the constitutions of states. It is not formalized (a point which, understandably, the "digital constitutionalism" scholarship adverts to). Its rules are drawn from a bewildering variety of sources. It depends to a considerable extent on technology, which evolves much faster than the laws, practices, and opinions that animate national constitutions. It is, above all, still unsettled and contested.

At the same time, we should not overstate these differences. No constitution is entirely formalized or flows from a single source. No constitution is ever entirely settled and certain. Constitutional practices and interpretations can always be contested and sometimes change. Constitutions are subject to the influence of technological change. All this is even truer of constitutions of non-state normative orders than of those of states. The former are, on the whole, better comparison points for the constitution of cyberspace, although the degree to which it implicates fundamental rights means that reference to the latter is natural.

That said, two salient characteristics of the constitution of cyberspace deserve special attention. The first of these is its pluralistic nature. More than even the "complete constitution" of most familiar normative orders, it recognizes a variety of sources of rules. These include state and supranational law, whether specifically directed to the regulation of or of more general application, such as the general rules of copyright law, and whether legislative, administrative, or judicial in origin; rules developed by non-governmental organizations such as ICANN; and the rules imposed by commercial organizations on those who wish to use their services. Some of these rules – ICANN's for example – are applicable throughout cyberspace. Others only apply in parts of cyberspace, whether

[38] J.A.G. Griffith, cit., would deny this.

limited (however imperfectly) by offline political geography or by the virtual borders of online communities.

In a certain sense, the constitution of cyberspace is thus a federal one. To borrow a phrase used by Heather Gerken, it "push[es] federalism all the way down"[39], recognizing that not only traditionally recognized as sovereigns but all manner of other entities are important loci of rule- and decision-making, albeit in cyberspace the word "local" can seldom be understood in a geographical sense. The constitution of cyberspace also pushes federalism all the way up, to such global bodies as the ICANN. As Lessig observed, this all-the-way-up-and-down decentralization results in there being, in cyberspace, "'competing sovereigns,' … each [of whom] act[s] to mark this space with [its] own distinctive values"[40]. For Lessig, this is "the hardest problem" in understanding and reshaping the constitution of cyberspace[41].

The distinctive characteristic of the constitution of cyberspace is that many of the rules it comprises as well as many of those which it governs are reflected in or implemented through "code": a software architecture that structures cyberspace as a whole or specific online communities. Lessig has vigorously argued that "code" is a novel and unique instrument of regulation, especially significant because, unlike law or social norms it cannot be broken or evaded (except by a few individuals, hackers); code is, in a way, more similar to the laws of nature than to human laws. The difference might seem to be one of degree but, Lessig contends, it is really one of kind.

In my view, this is somewhat overstated. Code need not be ineluctable, while real life access barriers can be as difficult as code to penetrate, or indeed much more so. There are now, after all, many fewer aircraft hijackings or successful attacks on government buildings than breaches of cybersecurity. More importantly, it is misleading to say that "[c]ode is a regulator in cyberspace because it defines the terms upon which cyberspace is offered"[42]. However significant and unique, code is still only a tool of the people and entities who write or employ it, of "those who set [the] terms"[43] of access to cyberspace, which they use implement their decisions and advance their interests.

That said, Lessig is right that "regulation by code"[44] gives those who engage in it more power than they would often wield in real life. Even imperfectly effective code is likely to be much cheaper to design and implement than an equally effective system of control for the real world. Nor does it require, even as a backstop, the use of physical force to be effective. Code thus gives private actors access to effective coercion without infringing the state's monopoly on the legitimate use of violence.

In doing so, code plays an essential role in creating and sustaining the "federal" nature of cyberspace. It helps define the boundaries between different online communities and give effect to their internal rules. In this way, it can be an instrument of the powerful—for

[39] H.K. Gerken, *Foreword: Federalism All the Way Down* in 124 *Harvard Law Review* 4 (2010).
[40] L. Lessig, cit., 27.
[41] Ivi.
[42] Ivi, 84.
[43] Ivi.
[44] Ivi, 27.

example, the companies that operate online platforms such as social media. But it is also what helps "push federalism all the way down", for example when platforms give their users the ability to regulate access to their profiles, blog posts, etc. These restrictions become almost absolute, such that, except by hacking, one cannot leave the digital equivalent of graffiti, or heckle, or display a protest sign in that part of cyberspace.

The constitution of cyberspace is thus distinctive, although not incomparable with those found offline. It is also, as noted above, unsettled and contested. In the following pages, I provide examples of the contests that are shaping the constitution of cyberspace in relation to each of the main themes constitutions address: the rules of change of their normative order; the identity of the actors involved; the substantive limits on the order's rules; and their underlying values.

3.2. Rules of Change

How do the rules of cyberspace appear or change? The typology developed by Lon Fuller in "The Forms and Limits of Adjudication"[45] is as helpful here as it is offline. There are, he argues, three ways "of reaching decisions, of settling disputes, of defining men's relations to one another": "adjudication, contract, and elections"[46] or, I would suggest, voting more generally. These can also be combined, as for instance when a legislative vote ratifies an agreement such as a treaty or codifies a judicial decision. To these three modes of more or less conscious rule making we must, however, add, a fourth one—the spontaneous emergence of rules in a process of converging practices and expectations[47]. All of these processes are at play in the making of the rules of cyberspace.

As already noted, national, as well as sub- and supra-national law is an important source of the rules of cyberspace. Legislatures vote on laws which attempt to regulate anything from privacy to copyright to the types and prices of products that can be sold online. Courts adjudicate disputes involving such legislation, and articulate common law rules which are arguably, at least to some considerable extent, the result of spontaneous development[48]. Public authorities negotiate settlements with internet companies.

But similar processes also occur without the (direct) involvement of national governments. For example, contract governs the relationship of online platforms with their users. Of course, the terms of service which dictate the respective rights and obligations of users and providers of such platforms are typically contracts of adhesion, which are offered to users on a take-it-or-leave-it basis, but the same is true of many "real life" contracts. A different sort of agreement that is very important for the governance of cyberspace is agreement on (technical) standards that govern the web, reached as a result of negotiations among "stakeholders."

Adjudication outside traditional national courts also plays an important role in the development of the rules of cyberspace. One important non-state adjudicative forum is

[45] L.L. Fuller, *The Forms and Limits of Adjudication* in 92 *Harvard Law Review* 353 (1978).
[46] Ivi, 363.
[47] See e.g. J. Finnis, *Natural Law and Natural Rights*, Oxford, 1980, 238-243.
[48] F.A. Hayek, cit.; A. Beever, *The Declaratory Theory of Law* in 33 Oxford Journal of Legal Studies 421 (2013).

the arbitration process set up by ICANN to resolve disputes about the attribution of domain names when there are competing claims to a domain name, or to a proposed generic top level domain (gTLD), or when a proposed gTLD may be unsuitable for reasons of public order[49]. The ICANN process for making rules relative to domain names is also an example of something resembling a legislative endeavour. Being consensus-based, it does not feature voting as prominently as national legislatures, but a consensus-based rule-making process can still be described as one of voting, albeit based on a rule of unanimity rather than simple majority.

As discussed above, this pluralism is to some extent familiar, because every "complete constitution" of a complex normative order will refer to a variety of rule-making processes. At the same time, the constitution of cyberspace is probably more pluralist than most. Unsurprisingly, as in other constitutional systems but perhaps to an even greater degree, the balance between the different sources of rules, especially between governmental, non-governmental, and private ordering of cyberspace is vigorously contested. For instance, as noted above, the "digital constitutionalism" literature argues that public authorities must assert themselves to a greater extent, reducing the importance of private ordering, and making voting more important than contract.

As any other debate about rule-making procedures, those about the procedures for making the rules of cyber-space involve both "outcome-related" and "process-related" arguments, to borrow Jeremy Waldron's terms[50]. The former are claims about the ability of a given procedure to yield rules that will be best, or better than the alternatives, on some substantive standard; the latter have to do with the legitimacy of the procedure itself. But process-related arguments are very closely connected to the question of the identity of the actors whose views influence the rules, whatever the procedure by which this influence is translated.

3.3. Who? Whom?

Whose views matter when it comes to deciding what the rules of cyberspace will be? Who gets to take part in whatever procedures are set up to create and change these rules? And, who, inevitably, is left voiceless, with the alternative of accepting the decisions of others or leaving cyberspace, or a particular segment of cyberspace, altogether?

Most fundamentally, these questions concern what we might describe as the citizenship of cyberspace. To the extent that cyberspace is a community, or, more accurately, "a community of communities"[51], who is a member of this community? Is it anyone with an internet connection, or is some level of involvement in the community's functioning required for membership? Is membership limited only to individuals (as membership in

[49] See ICANN, "Objection and Dispute Resolution", online <http://newgtlds.icann.org/en/program-status/odr> (explaining the grounds for objection and the dispute resolution procedure); see also J. Lipton, M. Wong, *Trademarks and Freedom of Expression in ICANN's New gTLD Process* in 38 Monash University Law Review 188, 2012.
[50] J. Waldron, *The Core of the Case against Judicial Review* in 115 *Yale Law Journal* 1346 (2006).
[51] J. Clark, "A Community of Communities", in D. Gruending (Ed.), *Great Canadian Speeches*, Markham, 2004, 196.

national communities is) or is it open to organizations of various sorts? Are all members of this community equal, or do some count for more than others?

At a different level, insofar as there exist procedures for deliberately changing the rules of cyberspace or of its constituent communities, and these procedures do not involve direct democracy, some persons or groups speak and decide for others. They do not necessarily *represent* these others, as legislators represent their constituents in a democratic polity, or as directors represent the shareholders of a corporation. Lessig observed that "[d]emocracy has not broken out across cyberspace"[52], and developments since he wrote have not changed that, notwithstanding Elon Musk's penchant, as the new own of Twitter, for a form of plebiscitary approval for his decisions[53]. But, representative or not, decision-makers voice—or fail to voice—the concerns of the "citizens" of cyberspace, and take decisions which influence them. The legitimacy of these decision-makers' roles can be questioned.

One group of people who are facing such questions, from a number of directions, are the owners, managers, and employees of online platforms, especially social media. The events surrounding Twitter in the weeks preceding the submission of this article are illustrative. On the one hand, disclosure of materials about the operation and management of Twitter prior to its acquisition by Musk seems to lend at least some support to the view that "increasingly intrusive moderation" on the platform resulted in a "lack of clear rules and transparency—coupled with ideological slant"[54]. The biases at play changed with Musk's takeover, but the arbitrary application of rules that are difficult if not impossible to keep track of seems to remain a constant[55]. Of course, ownership and contract provide at least a prima facie justification for the managers of social media company exercising arbitrary or even erratic power, while dissatisfied users are free to leave for competitor platforms.

But, evidently, this reasoning does not satisfy everyone. The "digital constitutionalism" scholarship rests in large part on the belief that market legitimacy is insufficient or even irrelevant in cyberspace[56]. More significantly, in response to (since reversed) suspensions of journalists from Twitter, European Union "commissioner Vera Jourova threatened Twitter with sanctions"[57], which could be imposed under forthcoming European legislation. But it is not obviously the case that—quite apart from longstanding questions about the EU's legitimacy and democratic deficit in relation to its own citizens—the EU has any legitimacy dictate the behaviour of online platforms, all the more in relation to events that do not even implicate its citizens.

This example shows that who speaks for whom, and who evaluates, accepts, or rejects the claims thus made, are no less important and no less fraught questions than those concerning procedures. The answers to these questions, such as they are, are being

[52] L. Lessig, cit., 285.
[53] N. Catoggio, *Off with their Heads* in *The Dispatch*, 16 December 2022, https://thedispatch.com/newsletter/boilingfrogs/off-with-their-heads/.
[54] C. Young, *Are the 'Twitter Files' a Nothinburger?* in *The Bulwark*, 14 December, 2022, https://www.thebulwark.com/do-the-twitterfiles-matter-or-are-they-a-nothingburger/.
[55] See N. Catoggio, cit.
[56] G. de Gregorio, cit., 57; N. Suzor, *Digital Constitutionalism*, cit., 3-4.
[57] M. Matza, S. Read, *Twitter condemned by UN and EU over reporters' ban* in *BBC News*, 16 December 2022, https://www.bbc.com/news/world-us-canada-63996061.

worked out on a case-by-case basis, as a result of complex interactions of national authorities, industry and consumer groups, NGOs, corporations, and even individual internet users.

3.4. Limits

Given the difficulties, both practical and normative, with making rules for cyberspace, and the questionable legitimacy of those engaged in this endeavour, the issue of the limits on these rules' content is especially pressing. The existence of constraints on the rules of a normative order, might alleviate concerns with the legitimacy of the ways by which these rules come into being. However, the form that these constraints should take in the constitution of cyberspace is as contestable as the other aspects of that constitution.

One possibility is that they ought to resemble the guarantees of rights found in most national constitutions: hence, for instance, calls for an "online 'Magna Carta'"[58]. Rights such as freedom of expression, privacy, freedom from discrimination, might conceivably be recognized as protected in cyberspace, whether as part of a codified instrument or as of a grown constitution of the sort envisioned by Dicey. But insistence that the constitution of cyberspace needs "to protect users and their fundamental rights online"[59] is a little simplistic.

The framers of an online bill of rights would face difficult questions—much the same questions, in fact, as the framers of a bill of rights for a national constitution, albeit that the answers may well end up being different. Which rights would they protect? For example, what would they make of (intellectual) property rights, often disregarded by users and ideologically condemned by some participants in the online ecosystem[60], but indispensable to the success and indeed existence of others? What about freedom of contract, of which the advocates of "digital constitutionalism" seem to take a dim view[61], but which is also at the foundation of so much of cyberspace's success? Most fundamentally, is there a right of membership in at least some communities in cyberspace, or are these communities entitled to prevent the entry of or banish those whom they do not trust to comply with their rules? Meanwhile, even if a right may seem to be the object of a broad consensus, the apparent agreement may be quite shallow: witness unending debates and persistent regional disagreements about the boundaries of free speech online, whether in relation to "hate speech" or other matters. And, no less important than the question of which rights are to be protected in cyberspace is the question against whom they are to be protected: only governments or private actors, and if the latter, which ones[62]?

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[58] J. Kiss, *An online Magna Carta: Berners-Lee Calls for Bill of Rights for Web* in *The Guardian*, 12 March 2014, https://www.theguardian.com/technology/2014/mar/12/online-magna-carta-berners-lee-web.
[59] C. Padovani, M. Santoniello, cit., 295.
[60] See e.g. A. Swartz, *Guerilla Open Access Manifesto*, 2008, <http://archive.org/stream/GuerillaOpenAccessManifesto/Goamjuly2008#page/n0/mode/2up>.
[61] N. Suzor, *Digital Constitutionalism*, cit., 8.
[62] See e.g. E. Volokh, *Treating Social Media Platforms Like Common Carriers* in 1 *Journal of Free Speech Law* 377 (2021).

However, the bill of rights approach is not the only one that may serve to constrain the rules of cyberspace. Recognizing that "we should not expect platforms to adopt the heavy standards of a constitutional democracy"[63], Suzor suggests a different one, based on the principle of the rule of law. For example, in keeping with this principle, users of online platforms would be entitled to notice of their rules be given opportunities to provide input when the rules are applied against them. This argument echoes that made for a "culture of justification" in public law: one "in which every exercise of power is expected to be justified" and its legitimacy tested against "the cogency of the case offered in defense of … decisions"[64]. A culture of justification involves ample opportunities for the contestation of the decisions of the authorities[65], but—provided that proper justification is given—imposes few limits on what the authorities can do.

In reflecting on constitutional constraints on the rules of cyberspace, we must keep in mind its "federal" nature, described above. Even within federal states, the rights protected at the national and subnational levels need not be the same[66]. And the differences between the various communities composing cyberspace are far greater than those between a federation and its constituent states. Not every community in cyberspace is able to discharge the burdens that a bill of rights, or even the rule of law as expounded by Suzor or a "culture of justification" would impose on it. Nor is it obvious that all should have to. Indeed, some of them, at least, are rights-bearing agents too, and any attempt to oblige them to respect the rights of others may conflict with their own entitlements. (This dynamic may be especially salient in relation to the freedom of expression.)

Rights in cyberspace may thus look quite different from those in "real life." Indeed, the issue of rights in cyberspace might force us to confront some fundamental questions about rights which we are usually able to avoid when discussing the rights we have as citizens of polities where a commitment to rights is, whatever disagreements there might exist about their precise scope and the best way to protect them, more or less taken for granted. What is the source of rights? Are rights political or pre-political? If the former, then there might be nothing wrong with the lack of democracy or due process in cyberspace. If the latter, however, then as online presence becomes increasingly important in our lives, this lack will be increasingly problematic.

A related question concerns the relationship between the democratic, rights-recognizing, law-bound polities of real life and the usually undemocratic online world, which recognizes different rights and cares relatively little for legal niceties and procedures. Lessig has argued that cyberspace would be afforded more autonomy if were better aligned with the "values of citizen-sovereignty"[67] that prevail in the offline world—or at least within liberal democracies in the offline world. This argument might reflect a simpler or more naïve time, before the ubiquitous preoccupation with populism and

[63] N. Suzor, *Digital Constitutionalism*, cit., 2.
[64] E. Mureinik, *A Bridge to Where? Introducing the Interim Bill of Rights* in 10 *South African Journal of Human Rights* 31 (1994).
[65] M. Cohen-Eliya, I. Porat, *Proportionality and Justification* in 64 *University of Toronto Law Journal* 458, 463 (2014).
[66] See e.g. J.S. Sutton, *51 Imperfect Solutions: States and the Making of American Constitutional Law*, New York, 2018
[67] Lessig, cit., 290.

illiberalism. But it points to the last question I briefly address here: what are the values of the constitution of cyberspace to be?

3.5. Values

The debates about the rules of the constitution of cyberspace to which I have alluded above are a reflection of the disagreements about what its underlying values are to be. These disagreements are much more vivid than those surrounding a mature constitution. The entire ethos of the constitution of cyberspace is still up for grabs, and no question, no matter how fundamental, appears decisively settled.

Take democracy. Beyond the question of the specific procedures to be used in settling the rules of cyberspace, should there be an over-riding commitment to democracy online? Are we content with the present a mix of market relationships and (benevolent?) authoritarianism—a cyberspace governed, through contracts of adhesion, by (enlightened?) despots subject to the discipline of competition and the risk of users leaving their fiefs for those of their rivals? If not, should we aspire to develop institutions that would enable the "citizens" of cyberspace to govern themselves? Or should democracy come to cyberspace from outside, in the form of legislation enacted by national parliaments?

A related question concerns the value of what I described as all-the-way-up-and-down federalism of cyberspace. As a descriptive matter, the constitution of cyberspace, as it now is, is undoubtedly federal in that sense. But normatively, it is possible to argue both for more robust federalism, which leaves communities freer to regulate themselves and limits the power of the central structures to interfere with them, and for a weaker, more centralized version. Calls for greater state regulation of privacy on social networks, or for greater freedom for file-sharing communities, beyond debates about the specific rights at stake, involve the value of federalism in cyberspace.

Both these issues raise, in various ways, the overall question of the relationship between cyberspace and the world "of flesh and steel", especially its politics. Full independence is surely not a realistic possibility, as even cyberspace depends on a physical infrastructure of servers and cables subject to the jurisdiction of states, and as its inhabitants remain citizens and subject to the laws of these states. But cyberspace is sometimes successful in claiming a measure of autonomy for itself, for example resisting certain attempts at regulation by national governments, whether by means of open defiance[68] or widespread evasion of the law. For their part, many states have long recognized the value of at least some autonomy for cyberspace, and were willing to protect it against encroachment, as happened when the International Telecommunications Union attempted to start

[68] See e.g. T. Leaver, *How Google and Facebook Fought Australia's Media Bargaining Code (And Why They Think They Won)* in F. Bailo et al, eds, *Australia's Big Gamble: The News Media Bargaining Code and the Responses from Google and Facebook*. Panel presented at AoIR 2021: The 22nd Annual Conference of the Association of Internet Researchers, 9, http://spir.aoir.org

regulating the internet[69]. Yet such recognition may well have faded in Europe[70], and may be under threat in the United States.

Powerful intermediaries, including (but not limited to) social media platforms and search engines that happen to attract or channel disproportionate numbers of users at any given time make both especially attractive targets for state colonization of cyberspace and useful, possibly willing, collaborators. Michael Birnhack and Niva Elkin-Koren describe this "alliance between nodes of control of the private sector and the State" as the "invisible handshake"[71]. A limited number of highly visible providers of online services are much easier for the states to reach, not only by the traditional instruments of formal regulation but also informally, than the millions of users of these services[72]. This outreach can be friendly, at least ostensibly, but it can also take the form of "jawboning", a form of bullying whereby the state uses the threat of regulation to secure private action it could not lawfully undertake on its own account[73].

What makes the "invisible handshake" even more powerful is the fact these service providers are playing multiple conflicting roles at once. For one thing, they are the producers of content which can be regulated, and thus interested in fending off or unwelcome government regulation. For another, they are themselves regulators and censors of online content. Both these roles are illustrated in ongoing litigation between groups representing online platforms such as Facebook and American states ostensibly seeking to promote free speech by interfering with these platforms' moderation policies[74]. At the same time, these companies are also market players worried about competition and interested in nudging government regulation in ways that will make it more expensive for competitors to reduce their market share and revenues[75]. There is thus a conflict of interest between the service providers and their users, because the former may be tempted to secure their own independence from regulation or the enactment of anti-competitive regulations by making themselves the instruments of the states' regulation of their users.

This discussion of the "invisible handshake" between governments and private firms acting as their agents, potentially at the expense of the rights and liberties of the users of these firms' services, brings me to the question of the rule of law in cyberspace. We have already seen that it features prominently in some of the "digital constitutionalism" literature as a value that should be imposed on online platforms' interaction with their users. But no less important to consider is whether the rule of law can be upheld when

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[69] See e.g. C.M. Glen, *Internet Governance: Territorializing Cyberspace?* in 42 *Politics and Policy* 635 (2014).
[70] G. de Gregorio, cit.
[71] M.D. Birnhack, N. Elkin-Koren, cit., par. 10.
[72] Ivi, par. 39.
[73] W. Duffield, *Jawboning against Speech How Government Bullying Shapes the Rules of Social Media* in 934 *Cato Policy Analysis* 1 (12 September 2022) https://www.cato.org/sites/cato.org/files/2022-09/pa-934.pdf.
[74] *Netchoice v Paxton*, 27 F.4th 1119 (5th Cir.) (2022); *Netchoice v Attorney General of Florida*, 34 F.4th 1196 (11th Cir.) (2022).
[75] See e.g. J. Lancaster, *Facebook Welcomes Regulations, Specifically Those That Hurt Its Competition* in *Reason* 13 October 2021, https://reason.com/2021/10/13/facebook-welcomes-regulations-specifically-those-that-hurt-its-competition/.

public authorities are involved. The "invisible handshake" makes possible arrangements which elude of legal authorization and the availability of judicial review for government action. The lesson here is that—in cyberspace as offline—the absence of formal law and legal procedures does not always leave room for freewheeling spontaneous ordering. It can also serve to make possible the unconstrained exercise of power.

The last value or principle that I will mention here, but not least, is that of constitutionalism itself. I have argued that, as a normative order, cyberspace will necessarily have a constitution of some sort. But what sort of constitution will it be? To what extent will it be formalized, codified, made into a system, become rigid? Will it become a made constitution, the product of design, of "choice and reflection," or will it remain the product of "accident and force," as it appears to be now? Is, finally, the third possibility between these extremes, spontaneous growth, neither designed nor accidental, a realistic one?

4. Conclusions and Lessons

The aim of this essay was not to argue for specific ways to address the issues of the moment in the area of internet regulation, but to suggest a different and, I hope, fruitful way of thinking about them. That is, we can see cyberspace as a normative order that has a constitution, albeit a very unsettled one, and the ongoing debates about the regulation of cyberspace are constitutional in nature. If this is so, then, perhaps despite what Barlow would have thought, there are lessons to be learned about the settlement of these debates from the constitutions of the world of flesh and steel, provided we have in mind a proper understanding of constitutionalism in that world.

Constitutions are by no means all products of foresight and design. Indeed, even the most enlightened constitutional designers are severely limited in what they can achieve. Despite its framers' commitment to "reflection and choice", the American constitution required the addition of 10 amendments (which subsequently became known as the "Bill of Rights") as virtually the first order of business after its ratification. The iniquities its framers papered over had to be resolved in a civil war, and it took another century to address even on paper the further injustice that was left to fester in the aftermath of that war. All this is not to say that the framers of 1787 were incompetent. The point is rather that "reflection and choice" are, at best, insufficient materials for making a constitution. There is a limit to the ability of any designer to anticipate future needs and to frame a constitution that will suit them.

Nor are constitutions only or even mainly concerned with rights-protection. Their structural aspects are at least as significant as any provisions explicitly addressing rights, and they may well have a decisive influence on whether rights' guarantees, explicit or implicit, are effective. Even if Dicey was wrong to denigrate explicit constitutional statements of rights, he was right to emphasize the importance of remedies, without which such guarantees will stay a dead letter[76]. So too was James Madison, with his insistence that constitutional "parchment barriers" are not so secure a protection for liberty as is the division and separation of power[77]. Instead of concentrating power and

[76] A.V. Dicey, cit., 194.
[77] James Madison, *Federalist No. 48*, in J.E. Cooke (Ed.), cit., 332, 333.

hoping to check it by means of lofty—and inevitably abstract—protections of rights, dividing and breaking power down, giving individuals and local communities opportunities for experimentation and for quitting experiments gone badly will be more likely to preserve their liberty while improving and enriching their lives.

Applied to cyberspace, this does not mean that we should give up on reflecting, and even on choosing. While we should have a modest opinion about the wisdom of our reflections, and similarly modest ambitions for the success of our choices, we may well have to engage in constitutional design in cyberspace; if, hopefully, not wholesale, then on the scale of its constituent communities. But we should avoid the temptation of settling things for all time, and above all that of imposing a single constitutional vision on cyberspace as a whole.

Despite the fashion, including in the "digital constitutionalism" literature, being for worrying about private power online, and seeing the state as the protector of individuals against it, it is in fact states, acting singly or in combination, that risk imposing all-encompassing uniform designs on cyberspace. Such attempts have all too often resulted in crisis and strife in the world of flesh and steel. Cyberspace may never be independent from this world, but it would be a pity to condemn it to repeat that world's blunders and tragedies, and all the more ironic to do so in the hope that this time, things will work out differently.