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# On the Internet and Sovereignty

SASKIA SASSEN\*

## INTRODUCTION

The focus of this brief essay is on the two basic constructs in Dean Henry H. Perritt's article—the Internet and sovereignty.<sup>1</sup> My argument is that the matters of democracy, jurisdiction, and international law discussed by Perritt might look different if we based them on a more precise understanding of the architecture of the Internet and the emergence of new non-state centered governance mechanisms which have transformed the meaning of national territorial sovereignty independently from whatever impact the Internet has had so far. We cannot take either of these two categories as givens.

I should promptly add that I find Perritt has made an important contribution to the lively and mostly fruitful debate about the impact of the Internet on sovereignty that has been taking place over the last few years. However, as someone currently researching both issues of sovereignty and the Internet, I am concerned about the broader theoretical and political implications of their faulty or partial characterization and theorization. The implications for technicalities about jurisdiction and international law are less clear to me, and I will leave that for experts on these subjects. My concern here is simply with the basic elements on which Perritt builds his arguments. I sympathize politically with the thrust of these arguments; especially the possibility that the Internet does not simply erode sovereignty, that its effects will partly depend on the nature of the states involved, whether they are liberal or totalitarian,<sup>2</sup> and that the Internet may strengthen democratic practice, therewith furthering broad liberal agendas.<sup>3</sup>

My problem is, first, with some of the features in Perritt's understanding of what the Internet is, particularly the confusion of private and public digital space and his reading of the impact of the growth of commercial and monetized

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1. Henry H. Perritt, Jr., *The Internet as a Threat to Sovereignty? Thoughts on the Internet's Role in Strengthening National and Global Governance* 5 *IND. J. GLOBAL LEGAL STUD.* 423 (1998).

2. *Id.* at 431.

3. *Id.* at 436-41.

uses of the Internet.<sup>4</sup> I am similarly concerned with Perritt's conception of sovereignty; while Perritt's conception factors in the historicity and variability of sovereignty and acknowledges different logics for its representation, his analysis remains framed by the Liberal and Realist poles. In my reading, this formulation brings with it a somewhat unproblematicized acceptance of sovereignty as a given, at a time when we are seeing possibly significant transformations not captured by either school of thought. I have elsewhere described this transformation as a relocation of some components of national state sovereignty to supranational and subnational entities, as well as to actors operating outside national, private or public, legal frameworks. His adherence to the Liberal theory of sovereignty creates its own set of problems in that it lacks a critical perspective on whose claims gain legitimacy in the current period characterized by the ascendance of markets and economic globalization.<sup>5</sup>

Making problematic the two basic categories—the Internet and sovereignty—introduces a number of qualifiers in some of the dualities running through the debate, notably the Realist/Liberal opposition in theories of the sovereign state and the interpretation of the Internet as representing either a fundamental revolution or technological continuity in technologies of communication.

#### I. THE INTERNET'S THIRD PHASE: NOVEL IMPLICATIONS FOR DEMOCRACY

There is little doubt that the Internet is an enormously important tool and space for democratic participation at all levels, for strengthening civil society, and for the formation of a whole new world of transnational political and civic projects. Many of the cases discussed by Perritt illustrate this well, notably the difference the Internet made in some of the struggles associated with the Bosnian-Serb conflict.<sup>6</sup> However, it has also become clear over the last few years that the Internet is no longer what it was in the 1970s or 1980s; it has become a contested space with considerable potential for segmentation and

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4. See Saskia Sassen, *Electronic Space and Power*, in *GLOBALIZATION AND ITS DISCONTENTS: SELECTED ESSAYS* (forthcoming 1998).

5. See SASKIA SASSEN, *LOSING CONTROL? SOVEREIGNTY IN AN AGE OF GLOBALIZATION* (1996).

6. Perritt, *supra* note 1, at 432.

privatization.<sup>7</sup> We cannot take its democratic potential as a given simply because of its interconnectivity. We cannot take its "seamlessness" as a given simply because of its technical properties. Lastly, we cannot take its bandwidth availability as a given simply because of the putative exponential growth in network capacity with each added network.<sup>8</sup>

This is a particular moment in the history of digital networks, one when powerful corporate actors and high performance networks are strengthening the role of private digital space and altering the structure of public digital space, that is, the Internet. Digital space has emerged not simply as a means for communicating, but as a major new theater for capital accumulation and the operations of global capital.<sup>9</sup>

There is insufficient recognition that there is tension between some of the features of the Internet that promote openness and interconnectivity, on the one hand and, on the other, the rapid growth of software that seeks to facilitate and expand private appropriation and use of the Internet. The first phase of the Internet was confined largely to a community of insiders—scientists and select government agencies. That community invented communication standards and communication protocols that ensured access for all the members of that community. The second phase of the Internet, centered in the 1980s, opened it up to a far larger and less specialized community. This strengthened the democratic and open character of the Internet and made it a space of distributed power that limits the possibilities of authoritarian and monopoly control. It is now well known that the particular features of the Internet are in part a function of the early computer hacker culture that designed software that strengthened the original design of the Internet—openness and decentralization—and sought to make the software universally available for free. However, with the establishment of the World Wide Web in 1993 and its large scale discovery by

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7. See Sassen, *Electronic Space and Power*, *supra* note 4.

8. Usually referred to as Moore's Law. Gordon Moore, Intel co-founder, predicted in 1965 that processor power would double every 18 months. Joshua Cooper Ramo, *Chips Ahoy: Two Dazzling Technical Advances Promise to Fuel the Computer Revolution-At Least for a Few More Years*, *TIME*, Oct. 6, 1997, at 72, 72. Robert Metcalfe, whose dissertation led directly to his invention of the Ethernet in 1973, posited the power of a network—how much it can do—to the square of the number of connected machines:  $P(n)=n^2$ . That is, each newly connected PC boosts the power of the network not geometrically but exponentially. Joshua Cooper Ramo, *Welcome to the Wired World*, *TIME*, Feb. 3, 1997, at 30.

9. Much of the writing about electronic space and network power, however, has been shaped by the properties of the Internet, especially its first two phases.

business by 1995, the Internet has entered a third phase, one characterized by attempts to commercialize it.<sup>10</sup>

The main point, in terms of Perritt's argument, is that this commercialization, which he regards as an extension of the positive aspects of the Internet,<sup>11</sup> may in fact have negative consequences for the civic and political potential of the Internet and, in that regard, negative impacts on the Liberal state agenda. This commercialization is pursued through the development of software that can simultaneously capitalize on the Internet's features and implement billing and payment systems, and it is pursued through the extension of copyrights—the opposite of the early hacker culture. In my research, I have come to regard the Internet as a space produced and marked through the software that gives it its features. There are significant implications attached to the fact that the leading Internet software design focus in the last two years has been the design of "firewalls" and, in the last few months, the development of so-called virtual business networks that operate over the Internet via "tunneling" and encryption.<sup>12</sup> Both of these represent private appropriations of a public space.<sup>13</sup> The rapid growth of this type of software in the Internet does not necessarily strengthen the publicness of the Internet. This is especially significant if there is less production of software aimed at strengthening the publicness of the Internet.<sup>14</sup>

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10. Commercialization can enter the Internet in several ways. One is the emergence of firms that sell access services to speed up access. This is not an essential service to gain access, but it is a convenience, and an option for those with the income to pay for it. Another is the possibility of adding value (including commercial value) to Internet features through the incorporation of voice and image, which consume enormous bandwidth and hence may eventually be more easily subjected to premium pricing mechanisms than is e-mail. When we consider the enormous amount of software design effort that is now going into producing programs that can ensure safe credit card processing and other types of electronic payment, then we can see that commercialization is likely to increase even though today it is minor. This could stimulate the creation of World Wide Web sites that incorporate the latest developments of voice and image and could charge for access. I think of the growing use of voice and image for non-essential uses as a de-greening of the Internet. E-mail is a system of astounding efficiency and "ecological-soundness." Voice and image with their enormous consumption of bandwidth are much less so.

11. Perritt, *supra* note 1, at 439-40.

12. This saves companies the cost of private computer networks and frame relay connections. I return to this later.

13. I am not referring here to the privatization of infrastructure that has also taken place over the last two years. MCI has become a major owner of backbone structures that support the TCP/IP based network we call the Internet.

14. For example, the failure of Digital City Berlin and of Digital City Vienna. The original Digital City, Amsterdam, remains a lively and dynamic public space. It has taken enormous work and time on the part of a group of dedicated founders and members to ensure its survival.

In my reading, excessive commercialization, far from strengthening the Internet's democratic potential, as Perritt maintains, can threaten it. Much of the commercial potential and economic activities Perritt locates in the Internet<sup>15</sup> are actually part of private digital networks or firewalled (*i.e.*, privatized) sites in the Internet, a subject I return to later. However, even the far more limited world of commerce can bring some problematic consequences to the democratic potential of the Internet.

The Internet as a space of distributed power can thrive even against growing commercialization. Non-commercial uses still dominate the Internet today, but the race is on to invent ways to expand electronic commerce and to ensure the safety of payment transactions. It is not easy. At the 1997 Aspen Roundtable on Electronic Commerce, an annual event that brings together the CEOs of the main software and hardware firms as well as the key venture capitalists in the sector, insiders established that there are considerable limits to the medium and that it will probably always cater to a particular set of niche markets, with a few possible exceptions.<sup>16</sup>

However, Internet activists may have to reinvent its representation as a universal space. It may continue to be a space for *de facto* (*i.e.*, not necessarily self-conscious) democratic practices. However, it will be so partly as a form of resistance against overarching powers of the economy and of hierarchical power, rather than the space of unlimited freedom which is part of its representation today. The images we must bring into this representation increasingly need to deal with contestation and resistance, rather than simply the romance of freedom and interconnectivity or the new frontier.

One important aspect of Perritt's argument about the positive democratic effect of the Internet is that there has been a proliferation of non-commercial uses and users. Civil society, whether it be individuals or non-governmental organizations (NGOs), is a very energetic presence in cyberspace. From struggles around human rights, the environment, and workers' strikes around the world to genuinely trivial pursuits, the Internet has emerged as a powerful medium for non-elites to communicate, support each other's struggles, and create the equivalent of insider groups on scales ranging from the local to the global.

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15. See, *e.g.*, Perritt, *supra* note 1, at 438-39.

16. See THE SIXTH ANNUAL ASPEN INSTITUTE ROUNDTABLE ON INFORMATION TECHNOLOGY, THE GLOBALIZATION OF ELECTRONIC COMMERCE (Aspen, Colorado, August 21-23, 1997) (forthcoming 1998).

The political and civic potential of these trends is enormous. The Internet offers the possibility for interested citizens to act in concert. Several authors have examined the possibility of enhancing democratic practices through the formation of communities on the Internet and the possible role of governments in supporting them.<sup>17</sup> The possibility of doing so transnationally at a time when a growing set of issues is seen as escaping the bounds of nation states makes this even more significant. We are also seeing a greater variety of subcultures on the Internet, which has until recently been dominated by young, white men, especially from the United States. The growth of global corporate actors has also profoundly altered the role of government in the digital era and, as a consequence, has further raised the importance of civil society in electronic space as a force through which a multiplicity of public interests can, wittingly or not, resist the overwhelming influence of the new global corporate world.

## II. DISTINGUISHING PRIVATE AND PUBLIC DIGITAL SPACE

It has become important to distinguish the Internet and private digital space. Many of Perritt's assertions about economic processes, dynamics, and potentials are happening in private digital space and have little to do with the Internet.<sup>18</sup> I consider this a serious, though fairly common, confusion.<sup>19</sup> Most financial activity and other significant digital economic activities take place in private digital networks. Further, much of the use firms make of the Internet today assumes the form of firewalled web sites and, increasingly, privatized "tunnels"—the new citadels on the Internet. This is not likely to strengthen democratic practice.

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17. See, e.g., HOWARD RHEINGOLD, *THE VIRTUAL COMMUNITY: HOMESTEADING ON THE ELECTRONIC FRONTIER* (1993).

18. See Perritt, *supra* note 1, at 439 (discussing global markets); See also *id.* at 440 (discussing military uses).

19. When it comes to the broader subject of network power, most computer networks are private. It might be worth repeating that even if we consider only Internet Protocol (IP) compatible networks, and we examine the figures for the period preceding the explosion of business interest in the Internet, it becomes evident that during this period most networks were private: just counting networks (as opposed to traffic volume), in 1994 there were about 40,000 IP compatible networks, but the Internet itself accounted for about 12,000 of these. That leaves a lot of network power that may not necessarily have the attributes of the Internet. Indeed, much of this is concentrated power and reproduces hierarchy rather than distributed power. The financial markets, operating largely through private electronic networks, are a good example of an alternative form of electronic network power. The three properties of electronic networks, speed, simultaneity, and interconnectivity, have produced strikingly different outcomes in this case from those of the Internet.

Private digital networks are also making possible forms of power other than the distributed power made possible by public digital networks.<sup>20</sup> The financial markets illustrate this well. The three properties of electronic networks—speed, simultaneity, and interconnectivity—have produced orders of magnitude far surpassing anything we had ever seen in financial markets. The consequence has been that the global capital market now has the power to discipline national governments, as became evident during the Mexico "crisis" of December 1994 and the current Asian crisis, when investors were capable of leaving en masse, and the foreign currency markets had the orders of magnitude to alter exchange rates radically for some of these currencies.<sup>21</sup> It may also be significant that although in some ways the power of these financial electronic networks rests on a kind of distributed power—millions of investors and their millions of decisions—it ends up as concentrated power. The trajectory followed by what begins as a form of distributed power may assume many forms, in this case, one radically different from that of the Internet.

It signals the possibility that network power is not inherently distributive. Intervening mechanisms can re-shape its organization. To keep it as a form of distributed power requires that it be embedded in a particular kind of structure. In the case of the Internet, besides its feature as a network of networks and its openness—two crucial elements—it may well be the absence of excessive commercialization that has allowed it to thrive the way it has.

### III. EMERGENT CYBER-SEGMENTATIONS

There are at least three distinct forms of what one could think of as cyber-segmentation.<sup>22</sup> One of these is the commercializing of access, a familiar subject. A second is the emergence of intermediaries to sort, chose, and evaluate information for paying customers. A third, and the one I want to focus

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20. In this regard, it seems to me that we need to re-theorize electronic space and uncouple it analytically from an exclusive focus on the properties of the Internet which have so sharply shaped our understanding. See, e.g., Saskia Sassen, *Electronic Space and Power*, in *GLOBALIZATION AND ITS DISCONTENTS*, *supra* note 4.

21. The other half of this argument has to do with questions of normativity—the fact that the global financial markets are not only capable of deploying raw power but also have produced a logic that now is seen as setting the criteria for "proper" economic policy. The International Monetary Fund conditionality has some of these features. There is an emerging literature on this. See, e.g. SASSEN, *LOSING CONTROL*, *supra* note 5, at 34-48.

22. Thus I use the term cyber-segmentation to describe a condition that is different from the fact that the thousands of networks that constitute the Internet have distinct policies, designs, and protocols. One of the great contributions of the early community that designed the communication standards and debugged the systems over the last several decades was to make possible passage among these networks through a set of protocols.

on briefly here, is the formation of privatized firewalled corporate networks on the World Wide Web.

The existence of cyber-segmentations means that beyond unequal conditions for access to the Internet, once in cyberspace users will also encounter an unequal geography of access—in this case to certain features, certain sites, and certain high-speed connections. Those who can pay for it will have fast speed servicing, and those who cannot will increasingly find themselves in very slow lanes. For instance, Time Warner ran a pilot project in a medium sized community in the United States to research whether customers would be willing to pay rather high fees for fast services; they found that customers would—that is, those who could pay.

Perhaps one of the most significant new developments is the use of the World Wide Web and firewalls by firms to set up their own internal computer networks. Rather than using costly computer systems that need expert staffing and employee training, firms can use the World Wide Web to do what those systems do at almost no cost and with little need for expert staffing. Firms save enormous amounts of money by using the World Wide Web for their own internal corporate purposes. Around 1995, businesses discovered that the World Wide Web is a great medium to communicate with customers, partners, and investors. Now they are using the World Wide Web to set up internal networks surrounded by firewalls. Beyond very elementary uses such as providing information about new developments and establishing directories that can be updated easily, these intranets create access to a firm's various databases and make them easy to use for everyone in the firm, no matter what computer systems, software, or time zone they are in. Firms can avoid complicated, costly, and time consuming retrieval procedures which have often meant that these databases were of little use in decisionmaking.

Private intranets use the infrastructure and standards of the Internet and World Wide Web, a cheap and astoundingly efficient method compared to other forms of internal communication systems. For instance, Lotus Notes, the leading provider of internal computer network technology, has far more complexity than is often necessary; furthermore, it is expensive and requires expert staffing. Because World Wide Web browsers run on any type of computer, the same electronic information can be viewed by any employee. Intranets using the World Wide Web can pull all the computers, software, and databases of a corporation into a single system that enables employees to find information wherever it is in the system.

Is this a private appropriation of a public good? It seems to me there are definite elements of this here, especially in view of the millions of dollars firms can save. Are the firewalled intranets and tunnels the citadels of electronic space? The formation of private intranets on the World Wide Web is probably one of the sharper instances of cyber-segmentation.

In part, these cyber-segmentations result from the fact that digital space is embedded. We cannot read it as a purely technological event and in terms merely of its technical capacities. It is inscribed by the structures and dynamics within which it is embedded: the Internet is a different type of space from the private networks of the financial industry; and the firewalled corporate sites on the World Wide Web are different from the public portion of the World Wide Web. Beyond the questions of intentionality and use lies the question of infrastructure: electronic space is going to be far more available in highly industrialized countries than in the less-developed world and far more present for middle class households in developed countries than for poor households in those same countries.

Digital space, whether private or public, is partly embedded in actual societal structures and power dynamics: its topography weaves in and out of non-electronic space. In the case of private electronic space, this feature carries enormous implications for the theorization of digital space, for the results of the digitalization of economic activity, and for the conditions through which governments and citizens can act on this new electronic world of the economy and power. The embeddedness of private economic electronic space entails the formation of massive concentrations of infrastructure, not only worldwide dispersal, and a complex interaction between conventional communications infrastructure and digitalization.<sup>23</sup>

There is no purely digital economy and no completely virtual corporation. This means that power, contestation, and inequality, in brief hierarchy, inscribe electronic space. And, although the digitalized portions of these industries, particularly finance, have the capacity to subvert the established hierarchies, new hierarchies are being formed, born out of the existing material conditions underlying power and the new conditions created by electronic space.

It is for these reasons that it becomes so important to take seriously the threats to the distributed power—the absence of hierarchy—of the Internet. Yes,

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23. These are dynamics that lie at the heart of my model about the digitalization of leading economic sectors in global cities. *See generally* SASKIA SASSEN, *THE GLOBAL CITY* (1991).

it is a space of freedom; but it is also increasingly a contested space, and that means it is a space of resistance.

#### IV. BEYOND THE INTERNET'S IMPACT: SOVEREIGNTY RECONFIGURED?

The growth of the Internet as a significant space for practices of various kinds is taking place at a time when we see a number of major transformations in national sovereignty. I find it quite impossible to consider the matters raised by Perritt as if sovereignty itself were a stable condition.

There are two issues here. One is the historicity of the character of sovereignty located in the state—that particular kind of intermediary. Over the last few years, we have seen a shift of some components of this sovereignty to other entities—supranational and sub-national as well as non-governmental entities. Who gains legitimacy as a claimant under these new conditions? There are different capacities in different sectors. The Internet could become an extremely important public space for strengthening the claims of non-state actors who lack the resources of globally oriented corporations or of other sectors with considerable resources. The second issue is the need to examine the assumption about the state as the exclusive representative of its people. It is no longer simply a matter of Liberal vs. Realist interpretation. I find this framework confining in Perritt's analysis, even though I agree with his main point that states differ, and that depending on their characterization, they will be more or less affected by the Internet. The notion of the state as the exclusive representative needs to be subjected to critical investigation. Different intermediaries may emerge, including private bodies, in arenas where public bodies used to govern.<sup>24</sup> Seeing the rise of markets and of transnational corporate actors, I cannot help but ask whether Liberal theory and its enactment in political or state practice necessarily imply a Liberal state: we have historically perhaps seen this, but today the elements are there to reconfigure this association.

Further, if we are going to consider issues of sovereignty and democracy, as Perritt seeks to do in his article, then we must ask a critical question about which actors are gaining influence under conditions of digitization and whose claims are gaining legitimacy. For instance, it could be argued that private digital space has had a far sharper impact on questions of sovereignty than the Internet. The globalization and digitization of financial markets have made

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24. See generally SASSEN, *LOSING CONTROL?*, *supra* note 5.

these markets a powerful presence. Indeed, the logic of the global capital markets is today not merely a condition of raw power but one with normative potential. The logic of these markets has contributed to the elaboration of a set of criteria for what is proper government conduct on the economy. This new power of the financial markets is partly a consequence of the orders of magnitude they have reached in good part through their digitalization and the fact that they are globally integrated, two conditions that are mutually reinforcing. The capacity of these markets to affect existing meanings of sovereignty is considerable and, in my view, thus far has been greater than that of the Internet.<sup>25</sup>

New transnational regimes and institutions are creating systems that strengthen the claims of certain actors (corporations and large multinational legal firms) and correspondingly weaken the position of smaller players and states.<sup>26</sup> Ruggie has pointed out that the issue is not whether such new institutions and major economic actors will substitute national states but rather the possibility of major changes in the system of states: "global markets and transnationalized corporate structures . . . are not in the business of replacing states", yet they can have the potential for producing fundamental change in the system of states.<sup>27</sup>

What matters here is that global capital has made claims on national states, and these states have responded through the production of new forms of legality.<sup>28</sup> The new geography of global economic processes, and the strategic territories for economic globalization had to be produced, both in terms of the practices of corporate actors and the requisite infrastructure, and in terms of the work of the state in producing or legitimating new legal regimes.<sup>29</sup> One possible reading of recent developments in the earlier Mexico crisis and in the current

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25. *Id.* at 60-83. See also SASSEN, *THE GLOBAL CITY*, *supra* note 23.

26. See SASSEN, *LOSING CONTROL?*, *supra* note 5, at 1-34.

27. John Gerard Ruggie, *Territoriality and Beyond: Problematizing Modernity in International Relations*, 47 *INT'L ORG.* 139, 143 (1993).

28. In many ways the state is involved in this emerging transnational governance system. This state, however, has itself undergone transformation and has participated in legitimating a new doctrine about the role of the state in the economy. Central to this new doctrine is a growing consensus among states to further the growth and strength of the global economy. See generally *GLOBALIZATION: CRITICAL REFLECTIONS* (James H. Mittelman ed., 1996).

29. Representations that characterize the national state as simply losing significance fail to capture this very important dimension, and reduce what is happening to a function of a putative global-national duality—what one wins, the other loses. I view deregulation not simply as a loss of control by the state but as a crucial mechanism to negotiate the juxtaposition of the inter-state consensus to pursue globalization and the fact that national legal systems remain as the major, or crucial instantiation through which guarantees of contract and property rights are enforced.

Asian crisis, but also in a more structural context—the adoption of neoliberal economic principles by governments wanting to join the global economic markets—is that these markets have emerged as non-state "actors" whose claims have acquired a new legitimacy.<sup>30</sup>

This then invites us to raise a whole set of questions about how certain actors have gained this legitimacy in their claims, and in the case of the specific concerns in Perritt's article, how the development of digitalization has favored some actors over others. Against this reading, the impact of the digitization of finance on national state sovereignty has thus far been far more significant than anything we have seen coming from the Internet.

Put this way, it still leaves unaddressed the question about the future impact of the Internet. And here I would say that commercialization may well dampen the impact of the Internet in terms of political practices. I return to my earlier point about the importance of strengthening the variety of cultures active on the Internet as well as the importance of struggles for greater bandwidth for civil society actors and for those organizations who cannot pay for increasingly scarce bandwidth.

In my opinion, the risk with Perritt's analysis of this particular issue is complacency about the democratic potential of the Internet. The potential is there, but we cannot take it for granted, nor can we assume that commercialization is simply going to strengthen this democratic potential. It may well be the case that in the context of the former centrally planned economies of Central Europe and the former Soviet Union, commerce on the Internet is a democratizing practice—at least for a while. The privatization of portions of the Internet, electronic commerce, and the almost inevitably associated strengthening of intellectual property rights on the Internet, are all to be taken seriously. If uses by civil society multiply, grow, strengthen, and raise the interconnections among various non-state actors in various locations across the globe, then there is probably less to worry about. However, right now, there is not enough of this, and the risk is that we are left with a poor man's Internet, with slow connections, in competition for bandwidth with entities that can pay for expensive technology or, for that matter, not so

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30. There are two distinct issues here. One is the formation of new legal regimes that negotiate between national sovereignty and the transnational practices of corporate economic actors. The second issue is the particular content of this new regime, one which contributes to strengthen the advantages of certain types of economic actors and to weaken those of others.

expensive but still involving costs that often cannot be afforded by many community organizations or underfunded sectors of civil society.

## V. THE INTERNET AND REGULATION

A different issue of sovereignty is raised in Perritt's discussion about the possibilities of regulating the Internet. I think Perritt's qualified answer to this question makes a contribution. I agree with his assessment that if there is to be some kind of regulation it is going to be very different from what we have usually understood by regulation. It is certainly the case that in many ways the Internet escapes or overrides most conventional jurisdictions.

Here I would like to focus briefly on a fact that has been left out of the discussion: there *is* a central authority overseeing some of the crucial features of the Internet.<sup>31</sup> This does not mean that regulation is *ipso facto* possible. It merely signals that the representation of the Internet as escaping all authority is simply inadequate.<sup>32</sup> The nature of this authority is not necessarily akin to regulatory authorities, but it is a gate-keeping system of sorts and raises the possibility of oversight capacities. Even though these oversight capacities would entail considerable innovation in our concepts of regulation, they signal that there are possibilities overlooked in a faulty characterization of the architecture of the Internet.

The only centrally managed function of the Internet is the allocation and maintenance of the global system of addresses. It involves the control and assignment of the numbers that computers need to locate an address. It therefore can instruct all the top "root servers" of the Internet—the computers that execute address inquiries—and the servers will accept these instructions. This is, clearly, a power of sorts. However, it has not been formalized, in good part because its origins lie in the first phase of the Internet. It is the power held by the group of computer scientists who invented the communication protocols and agreed on the standards that make the Internet work today. They worked at debugging the systems over the last twenty years and did so not necessarily

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31. There are also more specific issues that may affect the regulation of particular forms of digital activity through a focus on infrastructure. There are different types of infrastructure for different types of digital activities, for instance, financial markets versus consumer wireless phones. This is a subject I have elaborated elsewhere. See Saskia Sassen, *The State and the Global City*, in *GLOBALIZATION AND ITS DISCONTENTS*, *supra* note 4.

32. See John Perry Barlow, *Declaration of Independence of Cyberspace* (Feb. 9, 1996) <[http://www.eff.org/pub/Publications/John\\_Perry\\_Barlow/barlow\\_0296.declaration](http://www.eff.org/pub/Publications/John_Perry_Barlow/barlow_0296.declaration)>.

under contract by any agency in particular. It is a de facto group which has worked at making the Internet workable since its beginnings.<sup>33</sup> The particular function of assigning addresses is crucial and today is under the control of one particular scientist who has named this function the "Internet Assigned Numbers Authority."<sup>34</sup>

As the Internet has grown and become more international, there appears to be growing concern that a more organized and accountable system is necessary. This signals the presence of sectors with the will to strengthen and develop this central authority. Further, there is at this point in time (February 1998) still a single firm that registers new addresses, working on behalf of the National Science Foundation.<sup>35</sup> The "International Ad Hoc Committee", formed by some of these scientists as a response to the introduction in 1995 of fees for Internet address registrations, can be seen as another instance of a central structure in the Internet. The Committee proposed a Geneva-based body for the governing of the Internet, with the active participation of the International Telecommunications Union and broad international representation.

While the intention behind the proposal is to extricate the address registration power from a firm with monopoly control (and profits), the outcome would be the formation of yet another central governing body for the Internet. The Clinton Administration and the European Union have also put forth proposals for managing the Internet address system.<sup>36</sup> Secondly, while the purpose of such a governing body would not be about regulation per se, its existence and, perhaps more importantly, the necessity of some such body, represents a significant operational opening for some sort of regulation or governance. This is often overlooked in many discussions about the Internet and its freedoms.

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33. One could consider the community of scientists who have worked on making the Internet workable and who have had to reach many agreements on a broad range of technical matters, as a sort of informal central "authority." In most other cultural settings they would probably have become a formal, recognizable body with considerable power. There is an interesting sociology here.

34. With the growth of business interest in the Internet, the de facto authority of the early pioneers of the Internet and their logic for assigning addresses has begun to be criticized. For instance, firms found that their names had already been assigned to other parties and that there was little they could do; the whole idea of brand names and intellectual property rights over a name was not part of the early Internet culture.

35. This firm, Network Solutions, now has a monopoly over the sale of registration permits, though it is basically using the public good represented by the protocols and systems developed by a group of scientists who did it basically for free in the context of a culture foreign to the idea of charging.

36. The Clinton plan would add five new address types and establish a private sector not-for profit organization to oversee the Internet address system. It also seeks to provide a legal framework for handling disputes. The European Union has proposed an international charter for governing the Internet.

## CONCLUSION

The Internet is only one portion of the vast new world of digital space, and many of the dramatic features attributed to the Internet's power to neutralize sovereignty are actually features of private digital networks, such as those used in international finance. Similarly, the key to many of the current transformations and their potential to limit sovereignty may not be the elimination of sovereignty but its unbundling and partial relocation to supra-, sub-, and non-national institutions.

In this regard, Perritt's article on the Internet and sovereignty makes some important contributions to a more qualified analysis in its refusal to consider it an either/or question and to point out that in many circumstances the Internet may strengthen state sovereignty and, most importantly perhaps, the institutions of international law. However it also misreads some of the features of the Internet, confuses private digital space with public digital space (the Internet), and reads some of the positive impacts through theoretical categories that exclude a critical examination of who are emerging as legitimate claimants today under the ascendance of Liberalism in the global economy and in interstate relations and whose claims remain unrecognized.

