TAILORING BIOTECHNOLOGIES
Vol. 2, Issue 2, Summer-Fall 2006, pp: 21-48

Electronic Networks, Power, and Democracy

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The organizing effort in this article is to show that networked forms of power are not inherently distributive as is often theorized when the focus is exclusively on technical properties. It does so by focusing on digital interactive domains and by distinguishing the technical properties and capacities of digital networks from the more complex socio-digital formations that such interactive domains actually are. Intervening mechanisms that may have little to do with the technology per se can re shape what technically might be seen as a primary outcome of these networks, such as distributed outcomes with their strong connotation of democracy and participation. Thus the fact of this re-shaping by non-technology specific interventions carries implications for questions of governance and democratic participation.

To examine this empirically, I focus on two cases: electronic networks in finance and electronic activist networks. Both cases are part of global dynamics and both have been significantly shaped by the three properties of digital networks --decentralized access/distributed outcomes, simultaneity and interconnectivity. But these technical properties have produced strikingly different outcomes in each case. In one of the cases, these properties contribute to distributive outcomes: greater participation of local organizations in global networks and thereby help in constituting elementary forms of transboundary public spheres or forms of globality centered in multiple localized types of struggles and agency. In the second case, these same properties have contributed to higher levels of control and concentration in the global capital market even though the power of these financial electronic networks rests on a kind of distributed power, i.e. millions of investors distributed around the world and their millions of individual decisions. In the second of these two cases we might say that the outcome does not stop at the technological capability.

This type of analysis addresses a variety of larger agendas, some theoretical and some political. Theoretically it points to the need for rethinking the character of interactive digital networks and for specifying the actual forma-

tions arising from these mixes of technology and interaction, and the possible new forms of socialite they may be engendering (e.g. Latham and Sassen 2005). In terms of state politics and policy, it addresses some of the many questions and debates concerning the relationship between state authority and the rapid growth of digital networks. This is a subject weighed down by assumptions about the built-in capacities of the Internet to override existing relations of law to territory, notably the much noted fact that firms, individuals, and NGOs can elude government control when operating in cyberspace. One of the effects of these forms of interactive digitization has been to enable the ascendance of subnational scales, such as the global city, and supranational scales, such as global markets, where previously the national scale was dominant. These rescalings do not always parallel existing formalizations of state authority. Thinking about digital networks as inherently democratizing and enhancing participation can then easily lead to notions that their proliferation can only be positive for global governance aimed at the common good. This would be especially so in the broader context of the multiple partial and specific changes in governance systems linked to globalization.

The article examines these questions by focusing on how digitization has enabled the strengthening of older actors and spaces and the formation of novel ones capable of engaging the competence, scope, and exclusivity of state authority. In both of the particular empirical cases selected here digitization has been transformative. One key assumption here is that understanding the imbrications between digitization and politico-economic processes requires recognizing the embeddedness of digital space and resisting purely technological readings of the technical capacities entailed by digitization. The effort is, then, also theoretical in that it contributes to the as yet underdeveloped analytics for understanding digital technology from a social science perspective. Much of the social science work done in this field sees these technologies either as all-powerful or as more of the same, only faster. Both views are deeply flawed and have produced many incorrect forecasts. Developing analytic tools that allow us a better grasp of the conditionalities not even these technologies can escape is critical for the types of questions I raise in this article. The first half of the article examines the role of digitization in shaping today's global capital market and the extent to which it is or is not largely electronic, supranational, and hence able to escape all territorial jurisdictions. The second half examines the formation of types of global politics that run through the specificities of localized concerns and struggles yet can be seen as expanding democratic participation beyond state boundaries. I regard these as noncosmopolitan versions of global politics that in many ways raise questions about the relation of law to place that are the opposite from those raised by global finance.

State Authority Confronts Digital Networks:

Reshuffling the territory-authority link

The condition of the Internet as a decentralized network of networks has contributed to strong notions about its built-in autonomy from state power and its capacity to enhance democracy from the bottom up via a strengthening of both market dynamics and access by civil society.[1] At the core of the Internet are a series of components that are infrastructural: Internet exchanges, national backbone networks, regional networks, and local networks. These infrastructures are often privately owned. Thus while in principle many of the key features of the Internet do indeed have the capacity to enhance democracy, its openness and its technology also contain possibilities for significant indirect control and limitations on access, including once inside the Internet. Furthermore, a large share of electronic networks are private and inaccessible to non-members, among which wholesale financial electronic networks are perhaps the most significant example. There are, then, limitations on what many have considered the inherently democratic character of digital networks.

In this context it becomes important to distinguish between private and public-access digital space. Many assertions about digital dynamics and potentials are actually about processes happening in private digital space and have little to do with the Internet. I consider this a serious, though fairly common confusion. Most wholesale financial activity and other significant digital economic activities take place in dedicated private digital networks.[2] Private

1 What constitutes the Internet is continuously changing (WIO 2002). Some years ago it could still be described as a network of computer networks using a common communication protocol (IP protocol). Today networks using other communication protocols are also connected to other networks via gateways. Further, the Internet is not only constituted by computers connected to other computers: there are also point-of-sale terminals, cameras, robots, telescopes, cellular phones, TV sets, and an assortment of other hardware components that are connected to the Internet. On October 24, 1995, the U.S. Federal Networking Council made the following resolution concerning the definition of the Internet: "'Internet' refers to the global information system that 1) is logically linked together by a globally unique address space based on the Internet Protocol or its subsequent extensions/follow-ons; 2) is able to support communications using the Transmission Control Protocol/Internet Protocol (TCP/IP) suite or its subsequent extensions/follow-ons, and/or other IP compatible protocols; and 3) provides, uses, or makes accessible, either publicly or privately, high level services layered on the communications and related infrastructure described herein" (http://www.itrd.gov/fnc/Internet_res.html).

2 Retail investment and stock trading use the Internet, as does direct online investment, which is mostly retail and represents a minor share of the overall global financial market. Even factoring in its expected tripling in value over the next three or four years will not give it the type of power characterizing the wholesale global financial market I am discussing here.

digital networks enable forms of power other than the distributed power associated with public digital networks. Key instances are wholesale financial markets, corporate intra-nets, and corporate networks bringing together lenders and borrowers; traders of all sorts use private networks, even when they are trading publicly listed stock.

A second distinction that needs to be made is that in the case of interactive digitized domains we cannot assume that the logics guiding users will necessarily correspond to the technical capacities. This perhaps best illuminated by finance given the intensive use it makes of these technologies and its capacity to spend whatever is necessary to get what they need. While digitization of instruments and markets was critical to the sharp growth of the global capital market and thereby enabled the financializing of economic criteria, this outcome was shaped by interests and logics that typically had little to do with digitization per se, even though it was crucial. The logic of use at work is not that of the technology as such but that of finance, one to be distinguished no matter how important those technologies have been for its growth and its character. This brings to the fore the extent to which digitized markets are embedded in complex institutional settings. In addition, while the raw power achieved by the capital markets through digitization also facilitated the institutionalizing of certain finance-dominated economic criteria in national policy, digitization per se could not have achieved this policy outcome.

This in turn shows us that the supranational electronic market space, which partly operates outside any government's exclusive jurisdiction, is only one of the spaces of global finance. The other type of space is one marked by the thick environments of actual financial centers, places where national laws continue to be operative, albeit often profoundly altered laws. The embeddedness of private economic electronic space entails the formation of massive concentrations of infrastructure, not only worldwide dispersal, and a complex interaction between digitization and conventional communications infrastructure-the latter far more subject to direct state authority. The notion of "global cities" captures this particular embeddedness of various forms of global hypermobile capital-including that of financial capital in actual financial centers.[3] In the case of private digital spaces such as those of global finance, this embeddedness carries significant implications for theory and politics, specifically, for the conditions through which governments and citizens can act on this new electronic world.

3 For instance, the growth of electronic trading and electronic network alliances among major financial centers is allowing us to see the particular way in which digitized markets are partly embedded in these vast concentrations of material resources and human talents represented by financial centers. (See Sassen 2001: chapters 4, 5 and 7.)

Perhaps the opposite kind of imbrication of law and territory from that of global finance is evident in a domain that has been equally transformed by digitization but under radically different conditions. The key digital medium is the Internet and the key actors are largely resource-poor organizations and individuals. This produces a specific kind of activism, one centered on multiple localities yet connected digitally at scales larger than the local, often reaching a global scale. As even small, resource-poor organizations and individuals can become participants in electronic networks, it signals the possibility of a sharp growth in cross-border politics by actors other than states. What is of interest here is that while these are poor and localized actors, in some ways they can partly by-pass territorial state jurisdictions. They do so under the opposite conditions of global electronic markets. From the perspective of state authority and territorial jurisdictions, the overall outcome might be described as a destabilizing of older formal hierarchies of scale and an emergence of not fully formalized new ones. Older hierarchies of scale dating from the period that saw the ascendance of the nation-state continue to operate; they are typically organized in terms of institutional size and territorial scope: from the international down to the national, the regional, the urban, and the local. But today's rescaling dynamics cut across institutional size and across the institutional encasements of territory produced by the formation of national states. At its most general these developments raise a number of questions about their impact on the regulatory capacities of states and about their potential for undermining state authority as it has come to be constituted over the last two centuries. But digitized domains, whether powerful electronic financial markets or resource- poor activist networks, do not necessarily escape all state authority. More analytically we might ask whether these developments signal new types of imbrications between authority and territory, and thereby novel triangulations among digitized domains, state authority and global governance institutions. It is against this larger framing that the more detailed examination of the two cases that are at the heart of this article should be read.

The focus now shifts to the character of this interaction between digital and non-digital conditions shaping global financial markets and electronic activist networks. It is one path into the question of the logics guiding users and what they might tell us about the relationship between digital networks and larger questions of power and democracy.

Imbrications of the digital and the non-digital

Hypermobility and "dematerialization"[4] are usually seen as mere functions, or capabilities, of the new technologies. This understanding ignores the fact that it takes multiple material conditions to achieve this outcome. Once we recognize that hypermobility (of a financial instrument, or the digitization of an actual piece of real estate through its incorporation into a digital financial instrument) had to be produced, we introduce nondigital variables in our analysis of the digital. Obversely, much of what happens in electronic space is deeply inflected by the cultures, the material practices, and the imaginaries that take place outside electronic space. Much of what we think of when it comes to cyberspace would lack any meaning or referents if we were to exclude the world outside cyberspace. The digital and the nondigital are not simply mutually exclusive conditions. The digital is embedded in the larger societal, cultural, subjective, economic, and imaginary structurations of lived experience and the systems within which we exist and operate. At the same time, through this embeddedness, the digital can act back on the social so that its specific capabilities can engender new concepts of the social and of the possible.

Producing capital mobility takes capital fixity: state-of-the-art environments, well-housed talent, and conventional infrastructure-from highways to airports and railways. These are all partly place-bound conditions, even when the nature of their place-boundedness differs from what it may have been a hundred years ago when place-boundedness was far more likely to be a form of immobility. But digitization also brings with it an amplification of capacities-often part of fixed capital, such as computer hardware-that enable the liquefying of what is not liquid, thereby producing or raising the mobility of what we have customarily thought of as not mobile or barely so. At its most extreme, this liquefying digitizes its object. Once digitized, it gains hypermobility-instantaneous circulation through digital networks with global span. It is important to emphasize that the hypermobility gained by an object through digitization is but one moment of a more complex condition. Representing such an object as hypermobile is, then, a partial representation since it includes only some of the components of that object, that is, those that can be digitized at a given time. Much of what is liquefied and circulates

4 Dematerialization is often used to capture what digitization does to physical objects such as a book. Strictly speaking it is incorrect as a designation for digitization, since the latter is merely a different type of materiality.

in digital networks and is marked by hypermobility is only one component of a larger entity that remains physical in some of its components.[5]

In turn, much place-boundedness is today increasingly-though not completely-inflected or inscribed by the hypermobility of some of its components, products, and outcomes. More than in the past, both capital fixity and mobility are located in a temporal frame where speed is ascendant and consequential. This type of capital fixity cannot be fully captured through a description confined to its material and locational features, that is, through a topographical description (Sassen 2001: chapters 2 and 5). The real estate industry illustrates some of these issues. Financial firms have invented instruments that liquefy real estate, thereby facilitating investment in real estate and its "circulation" in global markets. Even thought the physical remains part of what constitutes real estate, it has been transformed by the fact that it is represented by highly liquid instruments that can circulate in global markets. It may look the same, it may involve the same bricks and mortar, it may be new or old, but it is a transformed entity.

We have difficulty capturing this multivalence through our conventional categories: if it is physical, it is physical; and if it is hypermobile, it is that. In fact, the partial representation of real estate through liquid financial instruments produces a complex imbrication of the physical and the digitized moments of that which we continue to call real estate. And so does the partial endogeneity of physical infrastructure in electronic financial markets. I (2002) use the term imbrication to capture this simultaneous interdependence and specificity of each the digital and the nondigital. They work on each other but they do not produce hybridity in this process. Each maintains its distinct irreducible character.

Electronic Financial Networks

Electronic financial markets are an interesting case to focus on because they are perhaps the most extreme example of how the digital might reveal itself to be indeed free of any spatial and, more concretely, territorial conditionalities. The mix of speed, interconnectivity, and enhanced leverage evinced by these electronic markets produce an image of global finance as hypermobile and placeless. Indeed, it is not easy to demonstrate that these markets are embedded in anything social.

5 Much of my work on global cities (2001) has been an effort to conceptualize and document that the global digital economy requires massive concentrations of material conditions in order to be what it is. Finance is an important intermediary in this regard: it represents a capability for liquefying various forms of non-liquid wealth and for raising the mobility (i.e., hypermobility) of that which is already liquid.

The possibility of an almost purely technical domain autonomous from the social is further reinforced by the growing role played by academic financial economics in the invention of new derivatives, the most widely used instrument today. It has led to a growing notion that if anything these markets are embedded in academic financial economics. The latter has emerged since the 1980s as the shaper and legitimator, or the author and authorizer, of a new generation of derivatives (Callon 1998; MacKenzie 2002). Formal financial knowledge, epitomized by academic financial economics, is a key competitive resource in today's financial markets. Thus formal academic work in financial economics also represents the "fundamentals" of the market value of formal financial knowledge, that is, some of these instruments or models are more popular among investors than others.[6] Derivatives, in their many different modes, embody this knowledge and its market value.

But I have examined elsewhere (2006: chap 7) how these technical capabilities along with the growing complexity of instruments actually produce a need for cultures of interpretation in the operation of these markets, cultures best produced and enacted in financial centers - that is, very territorial, complex, and thick environments. Thus, and perhaps ironically, as the technical and academic features of derivatives trading markets and instruments become stronger, these cultures become more significant, in an interesting trade-off between technical capacities and cultural capacities. We can then use the need for these cultures of interpretation as an indicator of the limits of the academic embeddedness of derivatives and therewith recover the social architecture of derivatives trading markets. More specifically, it brings us back to the importance of financial centers-as distinct from financial "markets"-as key nested communities enabling the construction and functioning of such cultures of interpretation. The need for financial centers also, then, explains why the financial system needs a network of such centers. This need, in turn, carries implications for territorially bounded authority and signals the formation of a specific type of territoriality, one marked by electronic networks and territori-

6 Thus the model designed for Long Term Capital Management (LTCM) was considered to be not only a significant innovation but brilliant. It engendered many followers who adopted similar arbitrage strategies, despite the fact that LTCM did its best to conceal its strategies (MacKenzie 2003). In MacKenzie and Millo's (2003) discussion of the success of the theory of option pricing (Black-Scholes) in the Chicago Board Options Exchange, they argue that this model was empirically successful because of two factors. First, the markets gradually changed so that the assumptions of the model became increasingly realistic. The empirical world was shaped by changes such as alterations of Regulation T, the increasing acceptability of stock borrowing, and better communications, to name a few. Second, interlocking cultural and economic processes gradually reduced different barriers to the model's widespread use. As MacKenzie stresses, the performativity of this model was not automatic but "a contested, historically contingent outcome, ended by a historical event, the crash of 1987" (2003: 138).

al insertions. Global cities are a more general, less narrowly technical instance of this same dynamic.

Yet alongside such territorial insertions that give national states some traction in regulating even the most global of financial markets, the fact of the massive increases in the orders of magnitude has given finance a good measure of power over national governments. This increase is probably one of the most significant outcomes of digitization in finance. Several factors are at work; let me single out what I think are the most important ones. One is the digitizing of instruments, a key feature of the global financial markets today. The possibility of using computers has facilitated not only the development of these instruments, but also enabled their widespread use insofar as much of the complexity could be contained in the software. It enables users who might not fully grasp either the mathematics or the software design issues of financial instruments. Development of these instruments is further enhanced by the fact that their softwaring facilitates proprietary rights. It thereby makes innovations more viable. Through innovations finance has raised the level of liquidity as well as increased the possibilities of liquefying forms of wealth hitherto considered non-liquid. . The overall result has been a massive increase in the extent to which the financial industry has been able to securitize various forms of what were previously considered untradeable assets or were simply not considered as assets, e.g. many forms of debt. Mediated through these specifics of contemporary finance and financial markets, digitization can then be seen as having contributed to a vast increase in the numbers of transactions that in turn translates into increased volumes and values.

Second, the distinctive features of digital networks can maximize the implications of global market integration by producing the possibility of simultaneous interconnected flows and transactions, as well as decentralized access for investors and for exchanges in a growing number of countries. The key background factor here is that since the late 1980s, the trend has been for more and more countries to de- and re-regulate their economies according to a particular set of criteria that has ensured cross-border convergence and the global integration of their financial centers. This non-digital condition amplified the new capabilities introduced by the digitization of markets and instruments.

Third, because finance is particularly about transactions rather than simply flows of money, the technical properties of digital networks assume added meaning. Interconnectivity, simultaneity, decentralized access, and softwared instruments, all contribute to multiply the number of transactions, the length

of transaction chains (i.e. distance between instrument and underlying asset), and thereby the number of participants. The overall outcome is a complex architecture of transactions.[7]

These three features of today's global market for capital are inextricably related to the new technologies. The difference they have made can be seen in two consequences. One is the multiplication of specialized financial markets. It is not only a question of global markets for equities, bonds, futures, currencies, but also of the proliferation of enormously specialized global sub-markets for each of these. This proliferation is a function of increased complexity in the instruments, in turn made possible by digitization of both markets and instruments.

The second consequence is that the combination of these conditions has contributed to the distinctive position of the global capital market in relation to several other components of economic globalization. We can specify two major traits; one concerning orders of magnitude and the second the spatial organization of finance. In terms of the first, indicators are the actual monetary values involved and, though more difficult to measure, the growing weight of financial criteria in economic transactions, sometimes referred to as the financializing of the economy. Since 1980, the total stock of financial assets has increased three times faster than the aggregate GDP of the 23 highly developed countries that formed the OECD for much of this period; and the volume of trading in currencies, bonds and equities has increased about five times faster and now surpasses it by far. This aggregate GDP stood at about US$ 30 trillion in 2000 while the worldwide value of internationally traded derivatives reached over US$ 65 trillion in the late 1990s, a figure that rose to US$ 168 trillion in 2001 and US$ 262 trillion in 2004. To put this in perspective we can make a comparison with the value of other major high-growth components of the global economy, such as the value of cross-border trade (ca. US$ 11 trillion in 2004), and global foreign direct investment stock (US$ 8 trillion in 2004) (IMF 2005; BIS 2004). Foreign exchange transactions were ten times as large as world trade in 1983, but 70 times larger in each 1999 and 2003 (according to the triannual survey of the BIS), even though world trade also grew sharply over this period.

A second major set of issues about the transformative capacities of digitization has to do with the limits of technologically driven change, or, in other

7 Elsewhere (Sassen 2006: chps 5 and 7) I have developed this thesis of finance today as being increasingly transaction intensive. In my reading financial centers become even more important today because they contain the capabilities for managing this transactivity precisely at a time when the latter assumes whole new features given digitization.

words, with the point at which this global electronic market for capital runs into the walls of its embeddedness in non-digital conditions. There are two distinct aspects here. One is the extent to which the global market for capital even though global and digital is actually embedded in multiple environments, some indeed global in scale but others subnational, i.e. the actual financial centers within which the exchanges are located. A second issue is the extent to which it remains concentrated in a limited number of the most powerful financial centers notwithstanding its character as a global electronic market.

But empirically what stands out in the evidence about the global financial markets after a decade and a half of deregulation, worldwide integration, and major advances in electronic trading is the extent of locational concentration and the premium firms are willing to pay to be in major financial centers. Large shares of many financial markets are disproportionately concentrated in a few financial centers. This trend towards consolidation in a few centers also is evident within countries. Further, this pattern towards the consolidation of one leading financial center per country is a function of rapid growth in the sector, not of decay in the losing cities.

The sharp concentration in leading financial markets can be illustrated with a few facts.[8] London, New York, Tokyo (notwithstanding a national economic recession), Paris, Frankfurt and a few other cities regularly appear at the top and represent a large share of global transactions. This holds even after the September 11 attacks in NY that destroyed the World Trade Center (albeit that this Center was not largely a financial complex) and damaged over fifty surrounding buildings home to much financial activity. The level of damage was seen by many as a wake-up call about the vulnerabilities of sharp spatial centralization in a limited number of sites (For detailed data about these and other related trends see Sassen 2006). London, Tokyo, New York, Paris (now consolidated with Amsterdam and Brussels as EuroNext), Hong Kong and Frankfurt account for a major share of worldwide stock market capitalization. London, Frankfurt and New York account for an enormous world share in the export of financial services. London, New York and Tokyo account for 58% of the foreign exchange market, one of the few truly global markets; together with Singapore, Hong Kong, Zurich, Geneva, Frankfurt and Paris, they account for 85% in this, the most global of markets. These high levels of con-

8 Among the main sources of data for the figures cited in this section are the International Bank for Settlements (Basle); IMF national accounts data; specialized trade publications such as Wall Street Journal's WorldScope, Morgan Stanley Capital International; *The Banker;* data listings in the *Financial Times and in The Economist;* and, especially for a focus on cities, the data produced by Technimetrics, Inc. (now part of Thomson Financial, 1999). Additional names of standard, continuously updated sources are listed and presented in Sassen (2001; 2006).

centration do not preclude considerable activity in a large number of other markets, even though the latter may account for a small global share.

This trend towards consolidation in a few centers, even as the network of integrated financial centers expands globally, also is evident within countries. In the U.S. for instance, New York concentrates the leading investment banks with only one other major international financial center in this enormous country, Chicago. Sydney and Toronto have equally gained power in continental sized countries and have taken over functions and market share from what were once the major commercial centers, respectively Melbourne and Montreal. So have Sao Paulo and Bombay, which have gained share and functions from respectively Rio de Janeiro in Brazil and New Delhi and Calcutta in India. These are all enormous countries and one might have thought that they could sustain multiple major financial centers; and even though many of the secondary centers may be thriving, the point is that the leading centers have gained national share. This pattern is evident in many countries, including the leading economies of the world.[9] Consolidation of one leading financial center in each country is an integral part of the growth dynamics in the sector rather than the result of losses in the losing cities. There is both consolidation in fewer major centers across and within countries *and* a sharp growth in the numbers of centers that become part of the global network as countries deregulate their economies and the global economy expands accordingly. Bombay, for instance became incorporated in the global financial network in the early 1990s after India (partly) deregulated its financial system. This mode of incorporation into the global network is often at the cost of losing functions that these cities may have had when they were largely national centers. Today the leading, typically foreign, financial, accounting and legal services firms enter their markets to handle the many of the new cross-border operations. Incorporation in the global market typically happens without a gain in their global share of the particular segments of the market they are in even as capitalization may increase, often sharply, and even though they add to the total volume in the global market.

In brief, rapid growth in the network of financial centers, in overall volumes, and in electronic networks, has not significantly altered the trends towards sharp concentration in a limited number of financial centers. In brief, the private digital space of global finance intersects in at least two specific and

9 In France, Paris today concentrates larger shares of most financial sectors than it did 10 years ago and once important stock markets like Lyon have become "provincial," even though Lyon is today the hub of a thriving economic region. Milan privatized its exchange in September 1997 and electronically merged Italy's 10 regional markets. Frankfurt now concentrates a larger share of the financial market in Germany than it did in the early 1980s, and so does Zurich, which once had Basel and Geneva as significant competitors.

often contradictory ways with the world of state authority and law. One is through the introduction of new types of norms, reflective of the operational logic of the global capital market, into national state policy. The second one is through the partial embeddedness of even the most digitized financial markets in actual financial centers, which partly returns global finance to the world of national governments, but in terms of their denationalized components. Global digitized finance makes legible some of the complex and novel imbrications between law and territory and the fact that it is not simply an overriding of national state authority even in the case of this most powerful of actors. It consists, rather, of both the use of that authority for the implementation of regulations and laws that respond to the interests of global finance, and the renewed weight of that authority through the ongoing need for financial centers.

These conditions raise a number of questions concerning the impact of this concentration of capital in global markets that allow for high degrees of circulation in and out of countries. The global capital market now has the power to "discipline" national governments, that is to say, to subject at least some monetary and fiscal policies to financial criteria which before may have been subject to broader economic or social criteria. This growing power of the global capital market raises a number of questions. How does it affect national economies and government policies more generally? Does it alter the functioning of democratic governments? Does this kind of concentration of capital reshape accountability? Does it affect national sovereignty? Do these changes reposition states and the interstate system in the broader world of cross-border relations? These are some of the questions raised by the particular ways in which digitization interacts with other variables to produce the distinctive features of the global capital market. While the scholarly literature has not directly raised or addressed these questions, we can find more general responses, ranging from those who find that in the end the national state still exercises the ultimate authority in regulating finance (e.g., Helleiner 1999; Pauly 2002) to those who see in the larger global economy an emergent power gaining at least partial ascendance over national states (Panitch 1996; Gill 1996). In my analysis (2006: chap 5) the vastly expanded global capital market that takes off in the 1980s has the power and necessary organizational articulations with national economies to make its requirements weigh in national economic policymaking, and to do so dressed as desirable for the national economic interest.[10] The *operational logic* of

10 I try to capture this normative transformation in the notion of privatizing certain capacities for making norms that in the recent history of states under the rule of law were in the public domain (1996: chap 2). I am not concerned here with cases such as the Catholic Church, which has long had what could be described as private norm-making capacities but is of course a private institution or meant to be. Now what are actually elements of a private logic emerge as public norms even though they represent particular rather than public interests. This is not a new occurrence in itself for national states under the rule of law; what is perhaps different is the extent to which the interests involved are global.

the capital market provides some of the norms for national economic policymaking going far beyond the financial sector as such. In this sense, the global capital market functions as an informal political "actor."

A Politics of Places on Cross-Border Circuits

Through the Internet *localized* initiatives can become part of cross-border networks and move from being subject to specific national/local laws to a global scale where these laws almost cease to be operative; what rules is the collective presence of whatever national or local norms are in play. One question this raises is what kind of a "territory" is constituted through such a network of multiple localities in matters of law.

Current uses of digital media in this new type of cross-border political activism broadly suggest two types of digital activism by place-centered activist groups focused on local issues that connect with other such groups around the world. Much of the evidence shows that the types of places are mostly, though not exclusively, cities.[11] Activists can develop networks for circulating not only information (about environmental, housing, political, and other matters) but also for executing political work and deploying strategies of engagement. The first type consists of new kinds of cross-border political work centered on the fact that specific types of local issues recur in localities across the world. By being part of such a global network, place-based activists concerned almost exclusively with local issues have gained something vis-à-vis their local or national governments, or other entities they are aiming at engaging or addressing for claim making. What they have gained is not money or power per se, but perhaps something akin to political clout that has been an enabling condition for their struggle. This represents one of the key forms of critical politics that the Internet can make possible: a politics of the local with a difference-these are localities connected with each other across a region, a country, or the world. This type of case also makes evident that the fact a network is global does not mean that it all has to happen at the global level; however, the network's globality can function as a political support and resource for the localities that constitute that network.[12]

11 It is not clear that if these organizations were located in rural areas that this would make a difference generally speaking. However, a more fine-grained analysis suggests that it does. For an analysis of the distinctiveness of digital (and other) networks centered in rural communities, see Garcia (2002).

12 I see parallel features in the cases where use of the Internet has allowed diasporas to be globally interconnected rather than confined to a one-to-one relationship with the country or region of origin (See, e.g., *Global Civil Society Yearbook*, 2002).

The second type of digital network-centered politics is one that does most of its work in the digital network and then may or may not converge on an actual terrain for activism. The extent to which the work and the political effort are centered on the transactions in the digital network will vary. Organizing against the Multilateral Agreement on Investment was largely a digital event. But when these digital political actions hit the ground, they can do so very effectively especially in the concentrated places that cities are. This is well illustrated by what is considered to be one of the first of such global events, the 1989 Seattle anti-WTO demonstrations, the first in a continuing series of demonstrations organized by the anti- and alter-globalization networks in cities hosting meetings of the major members and institutions of the supranational system. This is a different type of digital activism from hacktivism (Denning 1999) because it is partly embedded in nondigital environments that shape, give meaning, and to some extent constitute the event. It would also have to be distinguished from cyberwar (Der Derian 2001).

These forms of activism contribute in multiple microlevel ways to an incipient unbundling of the exclusive authority, including symbolic authority, over territory and people we have long associated with the national state. This unbundling of national state authority may well happen even when the individuals involved are not necessarily problematizing the question of nationality or national identity. This can be a de facto unbundling of formal authority, one not predicated on a knowing rejection of the national. Among the more strategic instantiations of this unbundling is, again, the global city. The growing intensity of transactions among these cities is creating a strategic cross-border geography that partly bypasses national states (e.g., Taylor, Walker, and Beaverstock 2002) and increasingly includes a broad range of types of actors, not only global corporate ones. The new network technologies further strengthen these transactions, whether they are electronic transfers of specialized services among firms or Internet-based communications among the members of globally dispersed diasporas and interest groups.

The new network technologies have amplified these possibilities and have, to some extent, given activists the essential vehicle necessary for the outcome. But, again, technology by itself could not have produced the outcome. The possibility for cities and global digital networks to emerge as nodes in these types of transboundary politics is the result of a complex mix of institutional developments. Perhaps crucial among these are globalization, both as infrastructure and as imaginary, and the international human rights regime. These have contributed to create formal and informal operational openings for non-

state actors to enter international arenas that were once the exclusive domain of national states. Various, minor developments signal that the state is no longer the exclusive subject for international law or the only actor in international relations. Other actors-from NGOs and first-nation peoples to immigrants and refugees who become subjects of adjudication in human rights decisions-are increasingly emerging as subjects of international law and actors in international relations. Nonstate actors can gain visibility as individuals and as collectivities, and come out of the invisibility of aggregate membership in a nation-state exclusively represented by the sovereign.

These practices are contributing to a specific type of global politics, one that runs through localities and is not predicated on the existence of global institutions. The engagement can be with global institutions, such as the IMF or WTO, or with local institutions, such as a particular government or local police force charged with human rights abuses. Theoretically these types of global politics illuminate the distinction between a global network and the actual transactions that constitute it: the global character of a network does not necessarily imply that its transactions are equally global. It shows the local to be multiscalar in a parallel to the preceding section, which showed the global to be multiscalar-that is, partly embedded in a network of localities, specifically, financial centers.

Computer-centered technologies have made all the difference here; in this case the particular form of these technologies is mostly the Internet.[13] The Internet matters not only because of low-cost connectivity and the possibility of effective use (via e-mail) even with low bandwidth availability but also because of some of its key features. Simultaneous decentralized access can help local actors have a sense of participation in struggles that are not necessarily global but are, rather, globally distributed in that they recur across localities. In so doing these technologies can also help in the formation of cross-border public spheres for these types of actors and can do so without the necessity of running through global institutions[14] and through forms of recognition that do not depend on much direct interaction and joint action on the ground. Among the implications of these options are the possibility of forming global networks that bypass central authority and that those who may never be able to travel can nonetheless be part of global struggles and global publics. Distributed immobilities can actually come to constitute a global public.

13 While the Internet is a crucial medium in these political practices, it is important to emphasize that beginning in the 1990s, particularly since the mid-1990s we have entered a new phase in the history of digital networks in which powerful corporate actors and high-performance networks are strengthening the role of private digital space and altering the structure of public-access digital space (Sassen 2002). 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. Yet civil society-in all its various incarnations-is also an increasingly energetic presence in cyberspace (For a variety of angles, see, e.g., Rimmer and Morris-Suzuki 1999; Poster 1997; Frederick 1993; Miller and Slater 2000). The greater the diversity of cultures and groups the better for this larger political and civic potential of the Internet, and the more effective the resistance to the risk that the corporate world might set the standards. (For cases of information and communication technologies [ICT] use by different types of groups, see, e.g., APCWNSP 2000; Allison 2002; WomenAction 2000; Yang 2003; Camacho 2001; Esterhuysen 2000).

All of this is not historically new. Yet there are two specific matters that signal the need for empirical and theoretical work on their ICT enabled form. One is that much of the conceptualization of the local in the social sciences has assumed physical or geographic proximity and thereby a sharply defined territorial boundedness, with the associated implication of closure. The other, partly a consequence of the first, is a strong tendency to conceive of the local as part of a hierarchy of nested scales amounting to an institutionalized hierarchy, especially once there are national states. To a very large extent these conceptualizations hold for most of the instantiations of the local today, more specifically, for most of the practices and formations, such as those examined in this article, likely to constitute the local in most of the world. But there are also conditions that help destabilize these practices and formations and hence invite a reconceptualization of the local that can accommodate a set of instances that diverge from dominant patterns. Key among these current conditions are globalization and/or globality as constitutive not only of cross-border institutional spaces but also of powerful imaginaries enabling aspirations to transboundary political practice even when the actors involved are basically localized.

Computer-centered interactive technologies have played an important role, precisely in the context of globalization, including global imaginaries. These technologies facilitate multiscalar transactions and simultaneous interconnectivity among those largely confined to a locality. They can be used to further develop old strategies (e.g., Tsaliki 2002; Lannon 2002) and to develop new ways of organizing, notably electronic activism (Denning 1999; P. Smith 2001; Yang 2003). Internet media are the main type of ICT used. E-mail is perhaps the most widely used, partly because organizations in the global south often have little bandwidth and slow connections, making the Web a far less usable and effective option. To achieve the forms of globality that concern me in this article, it is important that there be a recognition of these constraints among major transnational organizations dealing with the global south: for

14 For instance, in centuries past organized religions had extensive, often global networks of missionaries and clerics. But these partly depended on the existence of a central authority.

instance, this means making text-only databases, with no visuals or HTML, no spreadsheets, and none of the other facilities that demand considerable bandwidth and fast connections (Pace and Panganiban 2002: 113).[15]

As has been widely recognized, new ICTs do not simply replace existing media techniques. The evidence is far from systematic and the object of study is continuously undergoing change. But we can basically identify two patterns. On the one hand it might mean no genuine need for these particular technologies given the nature of the organizing or it might come down to underutilization (For studies of particular organizations, see, e.g., Tsaliki 2002; Lannon 2002).[16] For instance, a survey of local and grassroots human rights NGOs in several regions of the world found that the Internet makes information exchange easier and is helpful in developing other kinds of collaboration but that it did not help launch joint projects (Lannon 2002: 33). On the other hand, there is evidence of highly creative ways of using the new ICTs along with older media recognizing the needs of particular communities. A good example is using the Internet to send audio files that can then be broadcast over loudspeakers to groups who lack access to the Internet or are illiterate. The M. S. Swaminathan Research Foundation in southern India has supported this type of strategy by setting up Village Knowledge Centers catering to populations that although mostly illiterate, know exactly what types of information they need or want, for example, farmers and fishermen. When we consider mixed uses, it becomes clear that the Internet can often fulfill highly creative functions by being used with other technologies, whether old or new. Thus Amnesty International's International Secretariat has set up an infrastructure to collect electronic news feeds via satellite, which it then processes and redistributes to its staff workstations (Lebert 2003).

But there is also evidence that use of these technologies has led to the formation of new types of organizations and activism. For instance, Yang (2003)

15 There are several organizations that have taken on the work of adjusting to these constraints or providing adequate software and other facilities to disadvantaged NGOs. For instance, Bellanet (2002), a nonprofit set up in 1995, helps such NGOs gain access to online information and with information dissemination to the south. To that end it has set up Web-to-email servers that can deliver Web pages by e-mail to users confined to low bandwidth. It has developed multiple service lines. For example, Bellanet's Open Development service line seeks to enable collaboration among NGOs through the use of open source software, open content, and open standards; so it customized the Open Source PhP-Nuke software to set up an online collaborative space for the Medicinal Plants Network. Bellanet has adopted Open Content for all forms of contents on its Web site, freely available to the public, and supports the development of an open standard for project information (International Development Markup Language [IDML]). The value of such open standards is that they enable information sharing.

16 In a study of the Web sites of international and national environmental NGOs in Finland, Britain, the Netherlands, Spain, and Greece, Tsaliki (2002: 102) concludes that the Internet is mainly useful for intra- and interorganizational collaboration and networking, mostly complementing existing media techniques for issue promotion and raising awareness.

found that what were originally exclusively online discussions among groups and individuals in China concerned with the environment evolved into active NGOs. One result of this process of formation is that membership can almost automatically and from the start be national, distributed among different parts of the country. The diverse online hacktivisms examined by Denning (1999) are made up of mostly new types of activisms. To mention what is perhaps one of the most widely known cases of how the Internet made a strategic difference, the Zapatista movement became two organizational efforts, one a local rebellion in the mountains of Chiapas in Mexico, the other a transnational electronic civil society movement. The latter saw the participation of multiple NGOs concerned with peace, trade, human rights, and other social justice struggles. It functioned through both the Internet and conventional media (Cleaver 1998; Arquilla and Ronfeldt 2001), putting pressure on the Mexican government. It shaped a new concept for civil organizing: multiple rhizomatically connected autonomous groups (Cleaver 1998).

What is far less known is that the local rebellion of the Zapatistas operated basically without e-mail infrastructure (Cleaver 1998). Comandante Marcos was not on e-mail, let alone able to join collaborative workspaces on the Web. Messages had to be hand-carried, crossing military lines to bring them to others for uploading to the Internet; further, the solidarity networks themselves did not all have e-mail, and local communities sympathetic to the struggle often had problems with access (Mills 2002: 83). Yet Internet-based media did contribute enormously, in good part because of preexisting social networks, fact that is important also in other contexts, including business (see Garcia 2002). Among the electronic networks involved, LaNeta played a crucial role in globalizing the struggle. LaNeta is a civil society network established with support of a San Francisco-based NGO, the Institute for Global Communication (IGC). In 1993 LaNeta became a member of the Association for Progressive Communications (APC) and began to function as a key connection between civil society organizations in and outside Mexico. In this regard, it is interesting to note that a local movement in a remote part of the country made LaNeta into a transnational information hub.

All of this facilitates a new type of cross-border politics, deeply local yet intensely connected digitally. Adams (1996), among others, shows us how telecommunications create new linkages across space that emphasize the importance of networks of relations and partly bypass older hierarchies of scale. Activists can develop networks for circulating place-based information (about local environmental, housing, political conditions) that can become part

of political work and strategies addressing a global condition-the environment, growing poverty and unemployment worldwide, lack of accountability among multinationals, and so forth. The issue here is not so much the possibility of such political practices-they have long existed with other mediums and with other velocities. The issue is rather one of orders of magnitude, scope and simultaneity: the technologies, the institutions, and the imaginaries that mark the current global digital context inscribe local political practice with new meanings and new potentialities.[17] The dynamics are also at work in the constituting of global public spheres that may have little to do with specific political projects (Sack 2005); and they do not always work (Cederman and Kraus 2005).

An important feature of this type of multiscalar politics of the local is that it is not confined to moving through a set of nested scales from the local to the national to the international but can directly access other such local actors in the same country or across borders. One Internet-based technology that reflects this possibility of escaping nested hierarchies of scale is the online workspace, often used for Internet-based collaboration (Bach and Stark 2005). Such a space can constitute a community of practice (Sharp 1997) or knowledge network (Creech and Willard 2001). An example of an online workspace is the Sustainable Development Communications Network, also described as a knowledge space (Kuntze, Rottmann, and Symons 2002), set up by a group of civil society organizations in 1998; it is a virtual, open, and collaborative organization engaged in joint communications activities to inform broader audiences about sustainable development and build members' capacities to use ICT effectively. It has a trilingual Sustainable Development Gateway to integrate and showcase members' communication efforts. It contains links to thousands of member-contributed documents, a job bank, and mailing lists on sustainable development. It is one of several NGOs whose aim is to promote civil society collaboration through ICTs; others are the Association for Progressive Communications (APC), One World International, and Bellanet.

At the same time, the possibility of exiting or avoiding hierarchies of scale does not preclude the fact that powerful actors can use the existence of differ-

17 Elsewhere (Sassen 2002) I have posited that we can conceptualize these "alternative" networks as countergeographies of globalization because they are deeply implicated with some of the major dynamics and capabilities constitutive of, especially, economic globalization yet are not part of the formal apparatus or of the objectives of this apparatus, such as the formation of *global* markets. The existence of a global economic system and its associated institutional supports for cross-border flows of money, information, and people have enabled the intensifying of transnational and translocal networks and the development of communication technologies that can escape conventional surveillance practices (For one of the best critical and knowledgeable accounts, see WIO 2002; Nettime 1997). These countergeographies are dynamic and changing in their locational features. And they include a very broad range of activities, including a proliferation of criminal activities.

ent jurisdictional scales to their advantage (Morrill 1999) and the fact that local resistance is constrained by how the state deploys scaling through jurisdictional, administrative, and regulatory orders (Judd 1998). On the contrary, it might well be that the conditions analyzed by Morrill and Judd, among others, force the issue, so to speak. Why work through the power relations shaped into state-centered hierarchies of scale? Why not jump ship if this is an option? This combination of conditions and choices is well illustrated by research showing how the power of the national government can subvert the legal claims of first-nation people (Howitt 1998; Silvern 1999), which has in turn led the latter increasingly to seek direct representation in international forums, bypassing the national state (Sassen 1996: chapter 3).[18] In this sense, then, my effort here is to recover a particular type of multiscalar context, one characterized by direct local-global transactions or by a multiplication of local transactions as part of global networks. Neither type is marked by nested scalings.

The types of political practice discussed here are not the cosmopolitan route to the global. They are global through the knowing multiplication of local practices. These are types of sociability and struggle deeply embedded in people's actions and activities. These practices are also institution-building work with global scope that can come from localities and networks of localities with limited resources and from informal social actors. We see here the potential transformation of actors "confined" to domestic roles into actors in global networks without having to leave their work and roles in their communities. From being experienced as purely domestic and local, these "domestic" settings are transformed into microenvironments articulated with global circuits. They do not have to become cosmopolitan in this process; they may well remain domestic and particularistic in their orientation and remain engaged with their households and local community struggles, and yet they are participating in emergent global politics. A community of practice can emerge that creates multiple lateral, horizontal communications, collaborations, solidarities, and supports. I interpret these as microinstances of partial and incipient denationalization.

Conclusion

The two cases focused on above reveal two parallel developments associated with particular technical properties of the new ICTs that have become cru-

18 Though with other objectives in mind, a similar mix of conditions can also partly explain the growth of transnational economic and political support networks among immigrants (e.g., M. Smith 1994; R. Smith 1997; Cordero-Guzmán, Smith, and Grosfoguel 2001).

cial for both financial markets and electronic activism. And they reveal a third, radically divergent outcome, one I interpret as signaling the weight of the specific social logics of the type of users in each case.

First, perhaps the most significant feature in both cases is the possibility of expanded decentralization and simultaneous integration. That local political initiatives can become part of a global network parallels the articulation of the capital market with a network of financial centers. That the former relies on public access networks and the second on private dedicated networks does not alter this technical outcome. Among the technical properties that produce the specific utility in each case is the possibility of being global without losing the focus on specific local conditions and resources. As with the global capital market, there is little doubt that digital networks have had a sharp impact on resource-poor organizations and groups engaged in cross-border work.

Second, once established, expanded decentralization and simultaneous integration enabled by global digital networks produce threshold effects. Today's global electronic capital market can be distinguished from earlier forms of international financial markets due to some of the technical properties of the new ICTs, notably the orders of magnitude that can be achieved through decentralized simultaneous access and interconnectivity and through the softwaring of increasingly complex instruments. In the second case, the threshold effect is the possibility of constituting transboundary publics and imaginaries rather than being confined to communication or information searches. Insofar as the new network technologies strengthen and create new types of cross-border activities among nonstate actors, they enable the constitution of a distinct and only partly digital condition variously referred to as global civil society, global publics, and commons.

Third, the significant difference lies in the substantive rationalities, values, objectives, and conditionings that each type of actor is subject to. Once we introduce these issues, we can see a tendency toward cumulative causation in each case leading to a growing differentiation in outcomes. The constitutive capabilities of the new ICTs lie in a combination of digital and nondigital variables. It is not clear that the technology alone could have produced the outcome. The nondigital variables differ sharply between these two cases, even as digitization is crucial to constituting the specificity of each case. The divergence is evident in the fact that the same technical properties produced greater concentration of power in the case of the capital market and greater distribution of power in the second case.

These two cases illuminate specific aspects of the capacities of digital technologies to override existing relations of law to territory, notably the possibility even for resource-poor actors partly to exit national encasements and emerge as global political actors. But these cases also illuminate the specific conditionalities under which this takes place and thereby signal the formation of spatio-temporal orders that need to be distinguished from those of the national construed as distinct from the global; in a word, these are orders that can cut across the duality global/national.

These two cases also suggest that the difficulty analysts and commentators have had specifying and understanding the relation between digitization and multiple social conditions can be seen as resulting from two analytic flaws. One of these (especially evident in the United States) confines interpretation to a technological reading of the technical capabilities of digital technology. This is crucial for the engineering side, but it is problematic for a sociological understanding. Such a reading inevitably neutralizes or renders invisible the material conditions and practices, place-boundedness, and thick social environments within and through which these technologies operate.[19] The second flaw is the continuing reliance on analytical categorizations that were developed under other spatial and historical conditions, that is, conditions preceding the current digital era. Thus the tendency is to conceive of the digital as simply and exclusively digital and the nondigital (whether represented in terms of the physical/material or the actual, all problematic though common conceptions) as simply and exclusively nondigital. These either/or categorizations filter out alternative conceptualizations, thereby precluding a more complex reading of the interactions between the digital and the nondigital, notably place-bound conditions.

Understanding the place of these new technologies from a social perspective requires, then, avoiding a purely technological interpretation and recognizing the embeddedness and the variable outcomes of these technologies for different social orders. They can indeed be constitutive of new social dynamics, but they can also be derivative or merely reproduce older conditions. In addition, this perspective calls for categories that capture what are now often conceived of as contradictory or mutually exclusive attributes. The challenge is to develop analytic categories that allow us to capture the imbrications of the digital and the nondigital moment in the often complex processes wherein these new technologies get deployed. The issues introduced in the first section

19 Another consequence of this type of reading is to assume that a new technology will ipso facto replace all older technologies that are less efficient or slower at executing the tasks the new technology is best at. We know that historically this is not the case.

of this article point to the enormous capabilities of these technologies but also to their limitations. They will not necessarily allow users to escape state authority nor will they necessarily ensure their democratic rights. They will not inevitably globalize users and eliminate their articulation with particular localities, but they will make globality a resource for these users. The outcomes are not unidirectional and seamless, as the most common representation would have it. They are mixed, contradictory, and lumpy.

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