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DIGITIZATION: ITS VARIABILITY AS A VARIABLE IN THE RESHAPING OF CROSS-BORDER RELATIONS

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The rapid proliferation of digital networks and the growing digitization of a broad array of economic and political activities have contributed to the formation of new or the expansion of older cross-border flows operating partly outside the formal interstate system. These types of flows can be seen as having the potential for weakening sovereign state authority as it has come to be constituted historically, particularly over the last century. Insofar as sovereign state authority is the key building block of the interstate system, changes in the former conceivably will have an impact on the latter. Further, these types of transformations conceivably also enable non-state actors to enter international domains once exclusive to states. This is perhaps best illustrated by specific features of the strengthened world of international non-governmental organizations.

Both of these developments --the formation of significant cross-border flows outside the interstate system and the entry of non-state actors into what was once the exclusive domain of states-- have implications for theory and for politics. This chapter examines digitization as a variable in a select number of these two types of developments. The purpose is to understand how digitization has altered key features of cross-border relations such that there are consequences for states and for the place of the interstate system in the domain of cross-border relations.

International Relations theory is the discipline that has had cross-border relations and the state at its core. Current developments associated with various mixes of globalization and the new information and communications technologies point to the limits of IR theory and data. Its models and theories remain focused both on the logic of relations between states and on the scale of the state at a time when we see a proliferation of non-state actors, cross-border processes not centred on states, and associated changes in the scope, exclusivity and competence of state authority over its territory, all partly enabled by these new technologies. The exceptions to this state-centric focus in IR, particularly pioneering work on information (Deutsch 1953; 1957; and Jervis 1976; cf. Alker, this volume) and work on transnational relations (Nye and Keohane 1974), assume new relevance under current conditions. Yet also this work is insufficient to map today's multiplication of non-state actors and new conditions in transboundary cooperation and conflict, such as global business networks, NGOs, diasporas, global cities, transboundary public spheres, the new cosmopolitanism.¹

Nor are theorizations centred on technology as the key explanatory variable capable of capturing this multiplication of transformations in the world of cross-border relations. Generalizing

somewhat, those who reject the centrality of the state as the key variable in this domain, replace the state with the new information and communication technologies (Castells 1996). Beyond the question of cross-border relations that concerns us here, these technologies increasingly dominate explanations of contemporary change and development. As Judy Wajcman (2002) points out, many sociologists see technology as the impetus for the most fundamental social trends and transformations.ⁱⁱ To this I would add a tendency to understand or conceptualize these technologies in terms of technical properties and to construct the relation to the social world as one of applications and impacts.

The issue is not to deny the weight of technology, but rather to develop analytic categories that allow us to capture the complex imbrications of technology and society. To some extent the transformations in the world of cross-border relations are overdetermined in that they entail multiple causalities and contingencies. By focusing on digitization I do not mean to posit a single causality. Digitization is deeply imbricated with other dynamics; in some cases it is derivative— a mere instrumentality of these dynamics— and in other cases it is constitutive. Yet, even when partial, digitization is contributing to the re-scaling of a variety of processes with the resulting implications for territorial boundaries, national regulatory frames and, more generally, the place of interstate relations in the expanding world of cross-border relations.

The chapter develops these issues in two parts. A first part begins to develop the specific features of what we might call the digitization variable, particularly its limitations as an independent variable made evident by its complex imbrications with non-digital variables. The second part applies this elaboration through an examination of two types of private cross-border actors whose capabilities have been profoundly altered through digitization and in that regard would be two instances where the latter has been transformative. One of these instances is the sharp growth and cross-border integration of the capital market and the implications of both for the relation between this market and state authority. The second instance is the enabling of non-state actors to engage in transboundary political activities with greater ease, effectiveness and multiplier effects through the Internet. Each of these instances represents specific components of the broader world of cross-border relations, ones basically private which thereby contribute to both the ascendance of private international law as the key form of law in the international system and to forms of cross-border relations which can fall outside this inter-state frame.ⁱⁱⁱ

CONCEPTUAL ELEMENTS IN THE USE OF THE DIGITIZATION VARIABLE

Understanding the place of these new network technologies from a sociological perspective requires avoiding a purely technological interpretation and recognizing the embeddedness and the variable outcomes of these technologies for different economic, political, and social orders. They can indeed be constitutive of new social dynamics, but they can also be derivative or merely reproduce older conditions. Secondly, such an effort will, in turn, call for categories that capture what are now often conceived of as contradictory or mutually exclusive attributes. (For a full discussion see Sassen 2002). I will develop these two aspects by unpacking them into three distinct analytic issues for sociology particularly and for the social sciences generally: the embeddedness of the new technologies, the complex interactions between the digital and the material world, and the mediating cultures that organize the relation between these technologies and users. Applied to the world of cross-border relations, these analytic properties mark the limits of digitization as a variable and introduce context where one might have an exclusive technological interpretation. Factoring in

embeddedness is equivalent to introducing either an intermediary variable (i.e., path-dependence) which alters the relation between the technologies and their outcomes, or to having several independent variables simultaneously (i.e. multi-variate analysis).

Confining interpretation to a technological reading of the technical capabilities of digital technology, neutralizes or renders invisible the material conditions and practices, place-boundedness, and thick social environments within and through which these technologies operate.^{iv} Such readings also lead, perhaps ironically, to a continuing reliance on analytical categorisations 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 non-digital (whether represented in terms of the physical/material or the actual, all problematic though common conceptions) as simply and exclusively that, non-digital. These either/or categorizations filter out alternative conceptualizations, thereby precluding a more complex reading of the intersection and/or interaction of digitization with social, material and place-bound conditions.

Digital networks are embedded in both the technical features and standards of the hardware and software, and in actual societal structures and power dynamics (Latour 1991; Lovink and Riemens 2002; Mackenzie and Wajcman 1999).^v The most extreme of these formulations would posit that there is no purely digital economy and no completely virtual corporation or community. Power, contestation, inequality, hierarchy, inscribe electronic space and specific, vested interests shape the production of software.

The fact that electronic space is embedded and cannot be read as a purely technological condition, or merely in terms of its technical features, is illuminated by the nature of segmentations evident inside electronic space. One instance is captured in the differences between private and public-access digital networks. The Internet is a different type of space from the private networks of wholesale finance; and the firewalled corporate sites on the Web are different from the public-access portion of the Web. The financial markets, operating largely through private dedicated digital networks, are a good instance of private electronic space. The three properties of digital networks -- decentralized access, simultaneity and interconnectivity-- have produced strikingly different outcomes in the private digital space of global finance from the distributed outcomes of the public-access portion of the Internet. Although the power of these financial electronic networks rests on a kind of distributed power, i.e. millions of investors and their millions of decisions, it ends up as concentrated power. It shows us that the trajectory followed by what begins as the distributed power we associate with the public-access Internet, may assume many forms, and, in this case, one radically different from that of the Internet.

This difference points to the possibility that network power is not inherently distributive, as is often theorized. Intervening mechanisms which may have little to do with the technology per se 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. We cannot take the distributed power and hence the democratizing potential of digital networks as an inevitable feature of this technology, as is so often the case in utopian readings. In the second half of this chapter I examine an instance of each of these trajectories: the global capital market, where these technologies enable concentration, and networked non-governmental organizations and actors, where they enable distributed power.^{vi}

Recognizing the embeddedness of electronic space, in my research I have come to regard the Internet as a space produced and marked through the software that shapes its use and the particular aspects of the hardware mobilized by the software (1999). These features can also function as an indicator of transformations in the articulations between electronic space and larger institutional orders. There are significant implications attached to the fact that one of the leading Internet software design focuses in the last few years has been on firewalled intranets for firms, encrypted tunnels for firm-to-firm transactions, identity verification, trademarks protection, billing, and peer to peer transactions. The rapid growth of this type of software and its use in the Internet does not necessarily strengthen the public-ness of electronic space (e.g. Elkin-Koren 1996). This is especially significant if there is less production of software aimed at strengthening the openness and decentralization of the Internet as was the case in the earlier phases of its development.^{vii} Far from strengthening the Internet's democratic potential as many liberal and neo-liberal commentators maintain, this type of commercialization can threaten it. It also carries major implications for the impact of democratizing initiatives.

Looking at electronic space as embedded allows us to go beyond the common duality between utopian and dystopian understandings of the Internet and electronic space generally. For instance, even as it reproduces masculine cultures and hierarchies of power, electronic space also enables women to engage in new forms of contestation and in proactive endeavours in multiple different realms, from political to economic. Further, in the context of globalization these initiatives can go global and bypass national states and major national economic actors, thereby opening a whole new terrain for initiatives of historically disadvantaged peoples and groups. (E.g. Ronfeldt et al. 1998; Correll 1995; Mele 1999; Cleaver 1998).

Three analytic issues that capture various features of this embeddedness are the complex imbrications between digital and material conditions, the destabilizing of existing hierarchies of scale made possible by the new technologies, and the mediating cultures between these technologies and their users. The next three sections develop these issues very briefly.

A). DIGITAL/MATERIAL IMBRICATIONS.

Among the conditions that are interpreted as setting new limitations on state authority are forms of capital hypermobility enabled by the new ICTs. This is most sharply illustrated by the ascendance of transnational corporations and the de-materialization brought about by the financializing of much economic activity. Both mobility and de-materialization are usually seen as mere functions of the new technologies. This understanding erases the fact that it takes multiple material conditions, including infrastructural and legal, to achieve this outcome. Once we recognize that the hypermobility of the instrument, or the de-materialization of the actual piece of real estate, had to be produced, we introduce non-digital variables in our analysis of the digital. One of the implications for resource-poor states or organizations in an international system with enormous diversity in resources is that simply having access to these technologies does not necessarily alter their position in that system.

Obversely, much of what happens in electronic space is deeply inflected by the cultures, the material practices, the legal systems, 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. Thus, much of the digital composition of financial markets is

inflected by the agendas that drive global finance which are not technological per se. Digital space and digitization are not exclusive conditions that stand outside the non-digital. Digital space is embedded in the larger societal, cultural, subjective, economic, imaginary structurations of lived experience and the systems within which we exist and operate.

For instance, producing capital mobility takes capital fixity: state of the art built-environments, well-housed talent, legal systems, and conventional infrastructure --from highways to airports and railways. These are all partly place-bound conditions. At the same time, the nature of their place-boundedness differs from what it may have been 100 years ago when place-boundedness was far more likely to be a form of immobility. Today it is a place-boundedness that is, in turn, inflected or inscribed by the hypermobility of some of its components, products, and outcomes. 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, i.e. through a topographical description. (Sassen 2001: chapters 2 and 5).

In this regard, then, digitization is multivalent. It brings with it an amplification of those capacities that make possible the liquefying of what is not liquid. Thereby digitization raises the mobility of what we have customarily thought of as not mobile, or barely mobile. At its most extreme, this liquefying dematerializes its object. Once dematerialized, it gains hypermobility-- instantaneous circulation through digital networks with global span. It is important --in my reading-- to underline that the hypermobility gained by an object through dematerialization 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, i.e. those that can be dematerialized. Much of what is liquefied and circulates in digital networks and is marked by hypermobility, remains physical in some of its components.^{viii} The real estate industry further illustrates some of these issues. Financial services firms have invented instruments that liquefy real estate, thereby facilitating investment and circulation of these instruments in global markets. Yet, part of what constitutes real estate remains very physical. At the same time, however, that which remains physical 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 multi-valence through our conventional categories: if it is physical, it is physical; and if it is liquid, it is liquid. In fact, the partial representation of real estate through liquid financial instruments produces a complex imbrication of the material and the dematerialized moments of that which we continue to call real estate. And so does the partial endogeneity of physical infrastructure in electronic financial markets.

B) THE DESTABILIZING OF OLDER HIERARCHIES OF SCALE.

The complex imbrications between the digital and the non-digital in the domain of globalizing economic conditions, brings with it a destabilizing of older formalized hierarchies of scale and often sharp re-scalings. The institutional framing of national territory as subject to exclusive sovereign authority has been partly, and in very specific ways, altered as a result of several by now familiar developments linked to globalization: the formal institutionalizing of a global capital market, the opening up of national economies to foreign investors which are provided with rights and guarantees that represent a change from earlier periods of the world economy, the instituting of

the WTO with the corresponding loss of some components of states' unilateral formal authority over territory, and other such measures depending in part on a country's place in the interstate system. These partial and specific changes have also enabled the ascendance of sub-national scales, such as the global city, and supranational scales such as global markets, in the international field. The overall outcome might be described as a destabilizing of older formal hierarchies of scale and an emergence of not yet quite 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, to the local. But today's re-scaling dynamics cut across institutional size and across the institutional encasements of territory produced by the formation of national states (Sassen 2000b; Taylor 2000; Ruggie 1993). This does not mean that the old hierarchies disappear, but rather that re-scalings emerge alongside the old ones which can often trump the latter.

These transformations in the components of the international system as historically constituted can be captured in a variety of instances. For example, much of what we might still experience as the "local" (an office building or a house or an institution right there in our neighbourhood or downtown) actually is an entity I would rather think of as a microenvironment with global span insofar as it is deeply internetworked. Such a microenvironment is in many senses a localized entity, but it is also part of global digital networks which give it immediate far-flung span and do so as part of daily routines rather than exceptional conditions. To continue to think of this as simply local is not very useful. More importantly, the juxtaposition between the condition of being a sited entity and having global span, captures the imbrication of the digital and the non-digital and illustrates the inadequacy of a purely technological reading of the technical properties of digitization (in that it would lead us to posit the neutralization of the place-boundedness of that which precisely makes possible the condition of being a localized entity with global span).

A second example is the bundle of conditions and dynamics that marks the model of the global city. Just to single out one key dynamic: the more globalized and digitized the operations of firms and markets the more their central management and coordination functions (and the requisite material structures) become strategic. It is precisely because of digitization that simultaneous worldwide dispersal of operations (whether factories, offices, or service outlets) and system integration can be achieved. And it is precisely this combination, that raises the importance of central functions and the places where they can be produced. One of the key features of global cities is that they are strategic sites for the combination of resources necessary for the production of these complex central functions for the management of the global operations of firms and markets. The cross-border network of global cities emerges as one of the key components in the architecture of actual "international relations," even though being sub-national entities they are not formal components of the interstate system. With globalization (i.e. deregulation and privatisation), however, this network of cities assumes a variety of functions that once may have run through national state and interstate institutions.

C) MEDIATING PRACTICES.

There are multiple ways of examining the interactions between the new digital technologies and their users. There is a strong tendency in the literature to conceptualize the matter of use --to be distinguished from access-- as an unmediated event, as unproblematized activity. In contrast, a long-

standing concern with what I have called "analytic borderlands" has led me to try to detect the mediations in the act of using the technologies. Use is constructed or constituted in terms of specific cultures and practices through and within which users articulate the experience/utility of electronic space. Thus my concern here is not with the purely technical features of digital networks and what these might mean for users, nor is it simply with its impact on users. The concern is, rather, with this in-between zone that constructs the articulations of cyberspace and users.

This conceptualization clearly rests on the earlier proposition that electronic space is embedded and not a purely technological event. Thus electronic space is inflected by the values, cultures, power systems, and institutional orders within which it is embedded. For instance, if we were to explore these issues in terms of gendering, or specifically the condition of the female subject, we would then posit that insofar as these various realms are marked by gendering, this embeddedness of electronic space is also gendered at least in some of its components, and, further, that so is electronic space itself.^{ix} This is so even though there is enormous variability in this gendering by place, age, class, race, nationality, issue-orientation; at the same time, there are likely to be various situations, sites, individuals not marked by gendering, or marked by hybrid or queered genderings. Garcia's examination (this volume) of the specificity of rural networks goes in this direction as well, even though the author does not use this vocabulary.

One way of conceptualizing these conditions is to posit that the articulations between digital technologies and individuals--whether as social, political, or economic actors and organizations are constituted in terms of mediating cultures. It is not simply a question of access and understanding how to use the hardware and the software.

The following two sections examine specific empirical instantiations of the major conceptual issues discussed in this first half of the chapter.

THE STATE AND THE GLOBAL CAPITAL MARKET

The imbrications of digital and non-digital elements in shaping outcomes is well-illustrated by the case of the global capital market. The three properties of electronic networks--decentralization, simultaneity and interconnectivity have produced sharp increases in the orders of magnitude of the global capital market. In a narrow technical sense we can interpret this as an outcome similar to the sharp increase in the number of transactions individuals can have in a given amount of time using the Internet compared with what might be the case with other technologies. However, given that digital networks dedicated to financial activities are embedded in a specific social field--the financial sector-- the result of these technical features is increased concentration rather than increased distribution as is the case in the Internet. At the same time, the limits of the weight of the context--in this case, the financial sector-- are set by the transformative impact of digitization on the sector itself. Digitization here functions as an independent variable, but it does so alongside other independent variables.^x

One of the key outcomes of digitization on finance has been the jump in orders of magnitude. There are basically three ways in which digitization has contributed to this outcome. One is the use of sophisticated software, a key feature of the global financial markets today and a condition which in turn has made possible an enormous amount of innovation. It has raised the

level of liquidity as well as increased the possibilities of liquefying forms of wealth hitherto considered non-liquid.^{xi} This can require enormously complex instruments; the possibility of using computers facilitated not only the development of these instruments, but also enabled the widespread use of these instruments insofar as much of the complexity could be contained in the software.

Second, the features of digital networks can maximize the implications of global market integration by producing the possibility of simultaneous interconnected flows and transactions. Since the late 1980s, a growing number of financial centres have become globally integrated as countries deregulated their economies. This non-digital condition raised the impact of the digitization of markets and instruments. Third, because finance is particularly about transactions rather than simply flows of money, the particular technical properties of digital networks assume added meaning. Elsewhere I have examined organizational complexity as a key variable allowing firms to maximize the utility/benefits they can derive from using digital technology (Sassen 2001: 115-116). In the case of financial markets we could make a parallel argument.

The combination of these conditions has contributed to the distinctive position of the global capital market regarding other components of economic globalization. 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 financialization 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 US\$30 trillion at the end of the 1990s while the worldwide value of internationally traded derivatives reached over US\$65 trillion. To put this in perspective it is helpful to compare it to the value of other major components of the global economy, such as the value of cross-border trade (ca. US\$ 8 trillion in 2000), and global foreign direct investment stock (US\$ 6 trillion in 2000). Foreign exchange transactions were ten times as large as world trade in 1983, but 70 times larger in 1999, even though world trade has itself grown sharply over this period.^{xii}

In brief, the deregulation of domestic financial markets, the global integration of a growing number of financial centres, computers and telecommunications, have all contributed to an explosive growth in financial markets.^{xiii} The high degree of interconnectivity in combination with instantaneous transmission signals the potential for exponential growth.^{xiv} The increase in volumes per se may be secondary in many regards. But when these volumes can be deployed, for instance, to overwhelm national central banks, as happened in the 1994 Mexico and the 1997 Thai crises, then the fact itself of the volume becomes a significant variable. Further, when globally integrated electronic markets can enable investors to rapidly withdraw well over US\$100 billion from a few countries in South East Asia in the 1997-8 crisis, and the foreign currency markets had the orders of magnitude to alter exchange rates radically for some of these currencies, then the fact of digitization emerges as a significant variable that goes beyond its technical features.

These conditions raise a number of questions concerning the impact of this concentration of capital in markets that allow for high degrees of circulation in and out of countries. Does the global capital market now have the power to "discipline" national governments, that is to say, to subject at least some monetary and fiscal policies to financial criteria where before this was not quite the case?

How does this affect national economies and government policies more generally? Does it alter the functioning of democratic governments? Does this kind of concentration of capital reshape the accountability relation that has operated through electoral politics between governments and their people? Does it affect national sovereignty? And, finally, 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 today. The responses in the scholarly literature vary, ranging from those who find that in the end the national state still exercises the ultimate authority in these matters (e.g. Helleiner 1999) to those who see an emergent power gaining at least partial ascendancy over national states (Panitch 1996).

If the formation of a global capital market represents a concentration of power that is capable of influencing national government economic policy, and by extension other policies, one of the key issues concerns norms. In my reading today the global financial markets are not only capable of deploying raw power but also have produced a logic that becomes integrated into national public policy and sets the criteria for "proper" economic policy.^{xv} The operational logic of the capital market contains criteria for what leading financial interests today consider sound financial policy, and these have been constructed as norms for important aspects of national economic policy making going far beyond the financial sector as such. This a dynamic that has become evident in a growing number of countries as these became integrated into the global financial markets. For many of these countries, these norms have been imposed from the outside. As has been said often, some states are more sovereign than others in these matters.^{xvi} Some of the more familiar elements that have become norms of "sound economic policy" are the new importance attached to the autonomy of central banks, anti-inflation policies, exchange rate parity and the variety of items usually referred to as "IMF conditionality."^{xvii}

Digitization of financial markets and instruments played a crucial role in raising the orders of magnitude, the extent of cross-border integration and hence the raw power of the global capital market. Yet this process was shaped by interests and logics that typically had little to do with digitization per se, even though the latter was crucial. This makes clear the extent of embeddedness of these digitalized markets in complex institutional settings. Secondly, 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.

AN EMERGENT POLITICS OF PLACES ON GLOBAL NETWORKS

The Internet has enabled a new type of cross-border politics that can bypass interstate politics. As even small, resource poor organizations and individuals can become participants it signals the possibility of a sharp growth in cross-border politics by actors other than states.^{xviii} The particular feature that interests me here is that through the Internet localized initiatives can become part of cross-border networks. This produces a specific kind of activism, one centred in multiple localities yet connected digitally at scales larger than the local, reaching a global scale in many instances.

Current uses of digital media in this new type of cross-border political activism, suggest very broadly two types of digital activism: one that consists of actual place-centred activist groups who

connect with other such groups around the world. At this time much of the available evidence shows that the types of places are mostly, though not exclusively cities.^{xx} 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.

There are many examples of such a new type of cross-border political work. For instance SPARC, started by and centred on women, began as an effort to organize slum-dwellers in Bombay to get housing. Now it has a network of such groups throughout Asia, and some cities in Latin America and Africa. By being part of such a global network, the place-based activists have gained something vis a vis the local governments they need to engage: it is not money or power per se, but perhaps something akin to political clout which has been an enabling condition. 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. Because the network is global does not mean that it all has to happen at the global level.^{xx}

The second type of digital network centred 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 as was the case of Seattle with the anti WTO demonstrations, the first in a continuing series of demonstrations organized by the anti-globalization network in cities hosting meetings of the major members and institutions of the supranational system. The extent to which the work and the political effort is centred 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. In this regard this is a different type of digital activism from hacktivism (e.g. Denning 1998) in that it is partly embedded in non-digital environments which shape, give meaning, and to some extent constitute the event. It would also have to be distinguished from cyberwar (Der Derrian 2002).

These forms of activism contribute in multiple micro-level ways to an incipient unbundling of the exclusive authority, including symbolic authority, over territory and people we have long associated with the national state. Among the more strategic instantiations of this unbundling is probably the global city, which operates as a partly denationalized platform for global capital and, at the same time is emerging as a key site concentrating an enormous mix of people from all over the world. The growing intensity of transactions among these cities is creating a strategic cross-border geography which partly bypasses national states (e.g. Taylor et al. 2002). 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 large city of today, especially the global city, is also one of the sites where the formation of new claims by non-formal (or as yet not formalized) political actors materializes, assumes concrete forms, and can lead to cross-border transactions. The partial loss of power at the national level produces the possibility for new forms of power and politics at the sub-national level. The national as container of social process and power is cracked (e.g. Taylor 2000). This cracked casing opens up possibilities for a political geography that links sub-national spaces and allows non-formal political actors to engage in cross-border activities. The space of the city is a far more concrete space for politics than that of the nation. It becomes a place where non-formal political actors can be part of the political scene in a way that is much more difficult at the national level.^{xxi} Nationally politics

needs to run through existing formal systems: whether the electoral political system or the judiciary (taking state agencies to court), and when it comes to the international scale, it needs to run through the inter-state system. Non-formal political actors are rendered invisible in the space of national politics and largely lack access to the interstate system. The combination of the strengthened geographies of transactions that connect major cities across the globe and access to the new network technologies has made it possible for a growing variety of organizations to join efforts with other such organizations around the world. This is perhaps most evident today with a variety of somewhat small or minor environmental, human rights, first-nation people, and (typically nationality-based) immigrant organizations. They are often located in only one city of a country, and are not necessarily national organizations in the sense of operating nationwide. Yet in today's context these organizations can connect and interact with global networks of organizations with similar aims. The aims themselves may be a series of parallel local struggles, as is often the case with many humanrights organizations or the SPARC effort alluded to above, or they may concern a global scale, such as efforts to protect the ozone layer.

We can think of this mix of conditions and resources as facilitating a place-specific politics with global span. It is a type of political work deeply embedded in people's actions and activities but made possible partly by the existence of global digital linkages. Further, it is a form of political and institution-building work centered in cities and networks of cities and in non-formal political actors. We see here the potential transformation of a whole range of "local" conditions or institutional domains (such as the household, the community, the neighborhood, the local school and health care entities) where, for instance, women "confined" to domestic roles, for instance, remain the key actors. From being lived or experienced as non-political, or domestic, these places are transformed into "microenvironments with global span."

What I mean by this construct is that technical connectivity will create a variety of links with other similar local entities in other neighborhoods in the same city, in other cities, in neighborhoods and cities in other countries. A partly deterritorialized community of practice can emerge that creates multiple lateral, horizontal communications, collaborations, solidarities, and supports, that arise out of their specific localized struggles or concerns. People can experience themselves as part of global non-state networks in their daily localized political work. They enact some features of "global civil society" in the microspaces of daily life rather than on some putative global stage.

The new network technologies have amplified these possibilities and have in good part given them the essential vehicle necessary for the outcome. But 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 and the international human rights regime. These have contributed to create formal and informal operational openings for non-state actors to enter international arenas which were once the exclusive domain of national states. Various, often as yet very 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. That is to say, these non-state 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.

One of the most radical forms assumed today by the transformations in the linkages that connect people to territory is the loosening of identities from what have been traditional sources of identity, such as the nation or the village. This unmooring in the process of identity formation is, at this time, a condition probably affecting only a minority of people, including the types of groups that concern me here. For these groups it has the capability of engendering new notions of community of membership and of entitlement. The mix of focused activism and local/global networks creates conditions for the emergence of at least partly transnational identities.^{xxii} From the perspective of my concerns in this chapter, we might think of the enablement of transnational identities as a condition that can facilitate cross-border relations that at least partly bypass the world of inter-state relations.

The space constituted by the worldwide grid of global cities, marked by sharp imbrications of digital and non-digital conditions, is perhaps one of the most strategic spaces for the formation of transnational identities and communities. It is increasingly characterized by density and diversity of transactions and by institutional thickness. It is a space with new economic and political potentialities that is both place-centered in that it is embedded in particular and strategic cities; and it is transterritorial because it connects sites that are not geographically proximate yet intensely connected to each other. It is not only the transmigration of capital that takes place in this cross-border geography, but also that of people, both rich, i.e. the new transnational professional workforce, and poor, i.e. most migrant workers; and it is a space for the transmigration of cultural forms, for the reterritorialization of "local" subcultures. There is a good possibility of transnational identities emerging as a consequence of the thickness itself of this cross-border space even in the absence of political aspirations in that direction. While these types of developments do not necessarily neutralize attachments to a country or national cause, they do shift this attachment to include translocal communities of practice and/or membership, whether they are the new transnational professionals of global finance or they types of activist organizations described here.

There is a larger dynamic at work here. Economic globalization and the new ICTs have contributed to produce a spatiality for the urban which pivots on de-territorialized cross-border networks and territorial locations with massive concentrations of resources. This is not a completely new feature. Over the centuries cities have been at the intersection of processes with supra-urban and even intercontinental scalings. What is different today is the intensity, complexity and global span of these networks, and the extent to which significant portions of economies are now dematerialized and digitalized and hence can travel at great speeds through these networks. Also new is the growing use of digital networks by a broad range of often resource-poor organizations to pursue a variety of cross-border initiatives. All of this has raised the number of cities that are part of cross-border networks operating at often vast geographic scales. Under these conditions, much of what we experience and represent as the local turns out to be a microenvironment with global span.

CONCLUSION (Incomplete; sum up implications for cross-border politics, basically already in each of the sections)

The two cases focused on reveal two parallel developments and a third radically divergent outcome.

First, 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. Perhaps the most specific feature in both cases is the possibility of expanded decentralization and simultaneous integration. The fact that local political initiatives can become part of a global network parallels the network of financial centres, even though the former rely on public access networks and the second on private dedicated networks. Among the technical properties that produce the specific utility in both cases is the possibility of being global without losing the focus on specific local conditions/resources.

Second, once established, this condition of expanded decentralization and simultaneous integration enabled by global digital networks produces threshold effects. The specific focus in the first case was the formation of a global capital market to be distinguished from earlier forms of international financial markets. In the second case, the threshold effect is only vaguely signalled by the empirical conditions. Insofar as the new network technologies strengthen and create new types of cross-border activities among non-state actors, they enable the constitution of a distinct and only partly digital condition increasingly referred to as global civil society. I would at this point rather refer to it as a networked nongovernmental cross-border politics, but that is a lot of words.

Third, the significant difference is the value, objectives and conditionings each of these two cases is subject to. Once we introduce these issues, we can see a tendency towards cumulative causation in each leading to a growing differentiation in outcomes. The possibility for the impact of digitization actually results from a combination of digital and non-digital variables. It is not clear that the technology by itself could have produced the outcome. The non-digital variables differ sharply between these two cases, even as digitization is crucial in producing the outcomes focused on here.

REFERENCES CITED

ⁱ A promising line of analysis today is the emerging scholarship on legalization and the new world order (Goldstein et al. 2000).

ⁱⁱ For critical examinations that reveal particular shortcomings of technology-driven explanations see, e.g. Loader 1998; Nettime 1997; Hargittai 1998; and more generally Latour 1991; Munker and Roesler 1997; Mackenzie 1999; Mackenzie and Wajcman 1999.

ⁱⁱⁱ There is a critical legal scholarship that posits that international law is de facto becoming private law, replacing international public law, always a weaker regime, and one that is losing ground fast in the last two decades (Kennedy 1998).

^{iv} 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.

^v Although using a different vocabulary, we can see Latour (1991) making a radical statement in this direction. Lovink and Riemens (2002) give us a detailed account of the multiple non-digital conditions (including neighborhood sub-cultures) that had to come together in order to create the enormously successful city-wide digital internet network called Digital City Amsterdam, the first of its kind.

^{vi} Beyond these issues of intentionality and use, lies the question of infrastructure and access (e.g., NTIA 1998; Petrazzini and Kibati 1999; Shade 1998; Thomas 1995). Electronic space is going to be far more present 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 (Jensen 1998; Harvey and Macnab 2000; Hoffman and Novak 1998). However, what needs emphasizing here is that there are very cheap ways of delivering access to the Internet, far cheaper than the standard telephone system, and hence that once such access is secured, the opportunities for low income households and communities, especially in the global south, can increase enormously (e.g., ITU 1999; Nadeau et al. 1998; Mele 1999).

vii Here the developments in open source software are of interest as a partial countervailing dynamic. (See Weber, this volume).

viii Much of my work on global cities (2001) has been an effort to conceptualize and document the fact 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 liquifying various forms of non-liquid wealth and for raising the mobility (i.e. hypermobility) of that which is already liquid. But to do so, it needs significant concentrations of material resources.

ix Much of what has been described for "cyberspace" in the specialized and general literature is explicitly or implicitly far more likely to be about particular groups of men because these have thus far dominated usage and produced many of the cybercultures (e.g. Holloway et al. 1999). Thus we also need more information about men who do not fit those particular groups.

x This suggests that multivariate analysis and path-dependence analysis would be fruitful ways of using the digitization variable.

xi For instance, after the Mexico crisis and before the first signs of the Asian crisis, the leading financial services firms negotiated a large number of very innovative deals that contributed to further expand the volumes in the financial markets and to incorporate new sources of profit, thereby ensuring liquidity even in a situation of at least partial crisis. Typically these deals involved novel concepts of how to sell debt and of what is a saleable debt.

xii The foreign exchange market was the first one to globalize, in the mid 1970s. Today it is the biggest and in many ways the only truly global market. It has gone from a daily turnover rate of about US\$15 billion in the 1970s, to US\$60 billion in the early 1980s, and an estimated US\$1.3 trillion in 1999. In contrast, the total foreign currency reserves of the rich industrial countries amounted to about 1 trillion.

xiii For extensive evidence on the issues discussed in this section refer to Sassen 2001: chapters 3, 4 and 7. See also for a different perspective on some of the issues concerning global finance Garrett 1998; Eichengreen and Fishlow 1996.

xiv According to some estimates, we have reached only the mid-point of a 50 year process in terms of the full integration of these markets. Given the growth dynamics made possible by digitization, this signals that financial markets could expand even further in relation to the size of other components such as direct investment and trade.

xv I try to capture this normative transformation in the notion of a privatising of certain capacities for making norms which in the recent history of states under the rule of law were in the public domain. (I am not concerned here with cases such as, e.g., the Catholic Church which has long had what could be described as private norm-making capacities, but is of course a private institution, or is meant to be that). 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. (For a fuller discussion see Sassen 2000

^{xvi} A particular feature that matters for my current research on denationalization is the fact that many states, more precisely, specific agencies and departments within states, have participated in the formation and implementation of these conditions and rules.

^{xvii} Since the Southeast Asian financial crisis there has been a revision of some of the specifics of these standards. For instance, exchange rate parity is now posited in less strict terms. The crisis in Argentina that broke in December 2001 has further raised questions about aspects of IMF conditionality. But neither crisis has eliminated the latter.

^{xviii} A growing number of studies document various aspects and cases.

^{xix} 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. E.g., for an analysis of the distinctiveness of digital (and other) networks centered in rural communities see Garcia, this volume. In this section I develop an argument that posits the distinctiveness of large urban environments for these organizations, derived particularly from my concern to capture the imbrications of digital networks with non-digital conditions.

^{xx} I see parallel features in Axel's examination of how 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.

^{xxi} Beyond the cross-border dimensions that concern us here, the space of the city accommodates a broad range of political activities -- squatting, demonstrations against police brutality, fighting for the rights of immigrants and the homeless, the politics of culture and identity, gay and lesbian and queer politics. Much of this becomes visible on the street. Much of urban politics is concrete, enacted by people rather than dependent on massive media technologies. In this sense, street level politics make possible the formation of new types of political subjects that do not have to go through the formal political system.

^{xxii} A growing number of scholars concerned with identity and solidarity posit the rise of transnational identities (Torres 1998; Cohen 1996; Franck 1997; Bosniack 2000) and translocal loyalties (Appadurai 1996: 165). This literature provides us with a broader conceptual landscape within which we can place the more specific types of organizations and practices that concern me here.