

Global Dislocations, Network Solutions

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Introduction

Globalization is essentially an attempt to foster universal commercial, social and political norms of behavior in a world where diversity—in all areas of interaction—has always ruled. Naturally, the great transformation called for by this vision of interconnectedness sparks tensions with existing institutions and practices. Yet there is nothing predetermined about the ways in which these tensions will be played out in the coming years; and by understanding the causes of potential difficulties and considering a range of remedies, it may be possible to find a peaceful, progressive way forward.

There have been two previous visions about how to impose homogeneity upon the heterogeneous—both of which arose within a few years of each other in the mid-19th century. The first was Britain's belief that a global order based upon free trade could be established. The second attempt was inspired by socialist ideals of Marx and Engels, who believed capitalism would eventually bring together the workers of the world in great enough numbers to overturn the old system and install in its place a classless global order.

Both visions eventually came undone. Uninhibited capitalism, though, did lead to the degree of interconnectedness that had been expected. Indeed, those who think the current era is unique should observe that economic interdependence was greater in the years before World War I than it is today (see Gilpin 2000, pp. 293-4). The communitarian ideal of the socialists also made initial progress, but went awry as its chief proponents destroyed liberty in the process of trying to create a forced version of equality.

Today a third attempt to create global order is under way. It sees in the efficiencies and interconnections fostered by the information revolution the chance to expand free markets and simultaneously to spread

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democracy. This movement is led by the United States and Britain, where factions of both the right and the left—whatever other differences they might have—agree upon this notion of a prosperous "democratic peace."² And, while both free peoples and free markets are indeed on the rise, so are discontent, displacement and resistance.

Will this latest effort to "homogenize the heterogeneous" prove successful? To answer this question, we will first consider the nature and extent of a whole range of "dislocations" driven by current globalizing initiatives. Then we will assess the prospects for existing state and non-state actors and institutions being able to remedy the situation. Finally, we will consider a network-oriented approach to mitigating some of the problems caused by globalization—an approach that might, in the end, allow for the rise of an interconnected world that still retains its enormous diversity.

Driving Forces Of Interconnectedness

"Interconnectedness is a multi-edged condition."

Two main processes can be found at the origin of globalization-related dislocations (GRD) that affect so many people: the opening of communities and territories, and homogenization. Both are directly due to increased interconnectedness.

- Economic powers (corporations and states) need more openness and are pushing for it. They benefit most from general openness because of their superior output and their capacity to control the key points of the communications infrastructure.
- Major political powers favor openness because it allows them to gain influence thanks to their superior output in cultural and symbolic flows.
- The transnational cosmopolitan elite with shared interests favors interconnectedness because it gives them an important position in the distributed "empire."
- Reduced costs of physical transportation and of access to information infrastructures contributes to an easier and increased interconnectedness.
- Migration, when it gets to a significant level, pushes for more interconnectedness (flows of persons, goods, money, ideas, cultural artifacts etc.)
- There are also several detrimental factors that may act to slow the process of globalization:

²See Brown et al. (1996) and Russett (1994) for thorough discussion of the debates about the concept of the "democratic peace." Kant first fielded this notion in his essay "Eternal Peace."

- a. Epidemics
- b. Massive global reaction against globalization
- c. Problems in the ICT sphere (viruses, spam, excessive control, information overload, etc.)
- d. Massive surges in transportation costs
- e. Generalized terrorist threats
- f. Huge technology-related accidents (gene, bio, ICT related)
- g. Fear of loss of human control over technology

The Condition Of Globality

Most of us feel the impact of globalization in our daily lives. It is a very concrete issue with tangible aspects. It affects the food we eat (e.g., sushi, espresso, white rice or genetically modified corn), the media we read, see or use (Hollywood and the internet everywhere, and the "embedded" reporters for the global mass public during the war on Iraq). It takes us to new places that we visit, and reaches us where we take refuge or go to work. It puts us at the mercy of events and evolutions that take place far away, outside of our reach and of our understanding: the local politics of New Hampshire for a South Korean, or Saudi Arabian Wahhabite rivalries for a New Yorker.

Globalization offers promises and threats, which both mean dislocations. Its very promises are always challenging, as is the uncertainty in which it is unfolding.

We are going through an epochal change: we are leaving the Age of Modernity—with its five centuries of the vagaries of nation-states—and entering a Global Age where power and influence shift restlessly.

Globality and globalization

We distinguish globality from globalization (Albrow, 1997).

- Globality indicates a condition and not a universal ideal. It implies a shift from time (like in "modern") to space (like in "globe") as the fundamental dimension (Bell, 1976, and Harvey, 1989). It marks the death of certitude that came with one's own unconnected territory. Because the places in which we live are open to an uncontrollable bigger whole, globality underlines fragmentation. We are moving into a schizophrenic geography of spaces of flows *and* spaces of places (Castells, 1996: 376 sqq).
- Globalization marks a transition out of modernity in which time allowed a gratifying discourse of 'progress', of destination. It indicates a set of processes without necessary outcomes (Held &

McGrew, 1999). Open spaces imply flows, relationships and therefore relativity. Open spaces imply the other. They imply diversity.

And still, interconnectedness in an unbalanced world allows the most powerful to push their products and values through the system where they play an homogenizing role.

Interconnectedness brings diversity but also fosters homogenization. Both are frightening.

Matrix Changes

The impact of globalization can be attributed in great measure to the fact that four major shifts have taken place more or less at the same time. They affect politics, crime, markets, finance, production, migration, culture, and the environment, in short, most and possibly all of human activity:

- **The emergence of a new technology paradigm** indicates a shift from cheap inputs of energy to cheap inputs of information (Freeman, 1988:10). In more concrete terms, data and knowledge are feeding the new machine while oil and electricity remain relevant but are losing some of their edge. The effect of this shift is pervasive because information is an integral part of all human activity. It works according to a network logic and is based on flexibility.
- **The organization of production on a global scale** has been sought by big corporations, with increased intensity after the 1973 Oil crisis. Different from a world economy (Braudel, 1967, Wallerstein, 1974), the system is characterized by its capacity to "work as a unit in real time on a planetary scale" (Castells, 1996:92).

The impact on people can be explained by the unequal access to technology and by the difference between firms and people. Firms thrive at the global level. They become networked and take advantage of the best conditions (labor costs, security) wherever they find them. Workers are not really global except for the cosmopolitan elite. They prefer to work close to home or may move to a place where part of their network has already set foot.

The individual worker may adapt and jump into the global labor market. It will always be at the cost of disruptions and literal, physical dislocations.

- **The end of the general belief in metanarratives** is the very definition on which postmodernism is based (Lyotard, 1979). Many people confront a loss of faith in progress and certainties at the very same moment in which they feel threatened by the

technological and economic shifts. In many cases this proves to be too much to handle.

This point is not accepted by some analysts because, faced with change, uncertainty and complexity, many people turn to strong, reassuring and simplified answers or alternatives. A significant number adhere to regressive narratives and organizations that offer more rigidity and less individual liberties. In its own way, openness may be as frightening as freedom.

The nature of identity is changing from a unified concept to one that includes multiple dimensions. If time, space, the condition of work and of consumption, the narrative that used to unite us has changed, the self itself is challenged. The tension between the self and the network is seen by some (Castells) as a key element of the new era.

Our landmarks are displaced and our references are not any more what they used to be. Belonging remains important but being connected matters too. We like to belong to one world, so we learn to accept the pain that comes with being connected to multiple universes. For example, *mestizos* have a long experience and several narratives may be suggested from their long and painful experience of "relational identity" (Glissant) and "hopscotch identity" (Pisani).

At a still deeper level, human nature itself is coming increasingly into question because of scientific and technological discoveries—particularly in the field of biotechnology, which continues to intertwine man and machine in ways that blur the boundaries between them.

Globalization Summarized

The seriousness and thoroughness of globalization can be attributed to four major factors:

1. It is an epochal shift pushed by the evolving needs of the economy that involve all human spheres of action;
2. It happens at a time where the narratives that gave us meaning in the past appear not to work as efficiently;
3. It forces us to think in a different way and invent a new complex thinking (with a lot of room for uncertainty);
4. It deeply alters the modalities of our relationships with most everything: time, space, meaning, self and other.

We are going through what seems the most difficult moment of this process. It can be defined by the fact that the old has lost much of its efficiency and is fading, while the new appears thus far in only a fragmented and immature guise. We are already in a new epoch, and yet we are still waiting for a new narrative to help us make sense of all this.

Ill-Equipped Actors

Going through an epochal change and its multifaceted dislocations can only be painful, but the situation is made **even** worse by the fact that the main actors are either feeding the fire or unable to quench it.

Corporations

Corporations thrive on increased globalization. They may be seen as its main motor, but could be used to change some of its aspects. They are the entities which often close factories and fire workers in one area—in favor of other locations with lower labor costs—and who also want borders to be open to facilitate trade.

Nation-States

Nation-states work independently and put their interests first within the context of a world systemic structure that has been around for 350 years, since the Treaty of Westphalia in 1648—and which has never worked terribly well.

States have a local legitimacy but are generally ill equipped to solve interconnectedness problems.

In the face of the kind of globalization promoted by commercial firms, states try to intervene and be heard. They are the depository of traditional political legitimacy, but they are not well suited to addressing non-territorial issues of interconnectedness.

Nation-states are threatened by globalization, but they try to regulate and organize the interconnectedness in a way that can favor them, by putting their interests first. Two kinds of interests tend to be involved: those of their constituencies (the people they represent) and those of the state structure itself—i.e., the state qua state.

In the best case nation-states apply a modernist vision of what globality should be. They preach or work for a world government, a single market global culture etc. (Albrow). This drive may take the form of a mainly unilateral empire or hegemony, or may reflect a more multilateral council of nation-states.

International institutions

There are two kinds of recognized international institutions: international (government-based) organizations (IO) and NGOs. IOs have a global reach but lack a human face. They are not integrated and are inefficient. They are mainly accountable to nation-states.

In recent years, NGOs have come to be recognized and accepted on the international scene as "non-state actors". But NGO's as they exist today tend to be institutions with no real organized accountability. They gain their efficiency from their capacity to engage in dialogue with

governments and corporations, yet run the risk, as they succeed, of distancing themselves from the real world and needs of those for whose benefit they have come into being.

Transnational Informal Networks (TINs)

Strangely enough (or not), a significant part of the life of this open world comes from a kind of organization that is very seldomly recognized: the transnational informal networks whose most famous examples are the diasporas that we find the world over. Government relationships may be at an all time low, markets can be hectic, yet there are always groups of people that manage to exchange goods and information. They are informal in the sense that they may have no status or elected bodies. But they work. One could not understand migrations without them. They beat border guards and they bypass financial institutions. They are effective because they are networks.

Characterizing globalization-related dislocations

Key to understanding **globalization-related** dislocations is that even successful processes **often** create painful **problems**.

We suggest the need to distinguish between objective and subjective dislocations.

Objective dislocations create unfavorable material changes, some examples of which are:

- Closing of present job opportunities
- Applicability of non-national institutions decisions (UN, EU, right of intervention etc.)
- Migration (even when it ends in an improvement of material situation)

Subjective dislocations cause psychological rather than material problems, such as:

- Challenges to traditional Identity
- Challenges to traditional authority
- Perceived increasing inequality (it may be real too)
- Costs of adapting to change
- De-territorialization
- Re-territorialization

Sources of dislocations

Fragmentation - Interconnectedness implies fragmentation (plus the consciousness of fragmentation) and complexity. Both can be unsettling.

Homogenization - Homogenization is a two-way street:

- There is a dominant movement that pushes less powerful actors (in terms of output capacity and control of the architecture) to adopt to or buy the products (material or cultural) of the most powerful ones (the US, EU, major transnational corporations, etc.).
- But there is a contamination/infiltration movement through which interconnectedness allows lesser powers to influence the bigger ones. The influence of Latinos in the US is a good case in point. It is important to realize that this contributes to dislocations of some sorts within the most powerful nations, especially among the less powerful (poor US southern whites are a case in point).
- The homogenization that results from both movements is a hybrid that satisfies few people but is more of a challenge for those with less output and control capacity.

Opening - The opening of the spaces we live and work in has multiple and partially contradictory effects:

- Power structure - It affects the traditional local power structure (economic or political) and therefore is always the source of a conflict between those who hope to benefit from the change and those who fear they will lose because of it. Examples range from Iraq to South Africa, from Russia to Mexico.
- Cultural values – The access to different values (democracy for instance) always challenges the existing ones (tribal structure for instance). Even when people willingly accept new values as "better," this is not necessarily the most common situation. It is always difficult to change and adopt them in practice.
- Opening has a complex logic of its own - In the long run, it is difficult to ask others to open themselves up and yet not to open oneself (European and US tariffs are a good example). It is difficult to legitimate the opening to some categories (trade for instance) and not to others (people), as we can see in the case of NAFTA.

De-territorialization – Globalization leads to objective and subjective de-territorializations and re-territorializations that are always challenging.

- They can be geographical and official, like in the case of the European Union where the status of regions and nation-states is changing. Maquiladoras (with different names around the world) are another example.
- They can be geographical and unofficial, like border zones whose inhabitants belong to several places at the same time (the nation-

state they are in, the one on the other side of the border and the border zone itself).

- They can be less literal, like in the case of migrants who live and work in complex, trans-local spaces.
- They can even be totally subjective like Muslims looking at a Hollywood movie.
- De-territorialization often leads to a re-territorialization effort that might take the form of fundamentalism or of chosen networks as we will show later.

Interconnectedness in an unequal world - The complex relations between interconnectedness, homogenization, openness and the crisis of identity tend to become chaotic because of the unbalanced world we live in.

- As mentioned earlier, those with higher output capacity and stronger control on the infrastructure have a major global impact that creates dislocations that are globally felt.
- The trauma of the new masters – In most disenfranchised situations, openness put disenfranchised people in contact with new masters. It is easier to fight against the them (they have less allies in the place, less networks of their own) than with the old powers. And because of the dislocations mentioned earlier, opposition to them is a good mobilization device. This is perhaps the case in Iraq, where US presence causes a disparate set of actors to seek a common goal.
- The trauma of seeing the other's wealth – The communication of images coming from the wealthiest (because they have the major output), and the increased access to ICT make poor people aware of how the well-off live. This creates the desire to join them and therefore the dislocation of migration, and/or an increased resentment.
- The main characteristics of the dislocations created by globalization is that nobody escapes them. But it is essential to look at them in perspective (it's better to be an American corporate CEO than a poor Bangladeshi peasant). Nevertheless the fact that everybody is affected contributes to the perception that globalization is bad, or at least costly.

Types Of Global Dislocations

- **Power-related dislocations** are objects of control, products of homogenization. They generate:
 - Massive protests
 - Nationalistic reactions

- Social upheavals
- **Change-related dislocations** are adaptation to new influences, values, flows, new technologies and scientific discoveries. They generate:
 - Fundamentalism (Christian, Islamic and other)
 - Fear of loss of control over technology (Bill Joy, Wired, Apr. 2000).
 - Moral issues in front of tinkering with human nature (stem-cell research)
 - Fear of "normal" unintended consequences
 - Fear of catastrophic intended consequences (terrorists with nuclear capacity)
- **Openness-related dislocations** result in **de-territorialization** of spaces and values:
 - Economic dislocations: job loss, elimination of local production because of cheaper products coming from the outside
 - Symbolic production-related dislocations: disappearance of local culture
- **Network-related dislocations:**
 - The use of network forms of organizations by powerful state and non-state actors
 - military: the US Special Forces
 - corporations: the "global supply chain"
 - The very complex issue of the relationships between states and/or institutions with networks. They may fight some, accept some, coopt some or even create some.
 - The impact of powerful illicit networks and the "Five Wars" that have to be launched against them (drugs, arms trafficking, intellectual property, alien smuggling, money laundering: see Naim, Foreign Policy, 2003), in addition to the "war on terror"
- **Speed of change-related dislocations**
 - Many changes that could be well absorbed at a proper path cause anxiety because of the lack of sufficient time to adapt.
 - These dislocations (includes timing) can be found at all previously mentioned levels.

Impact Of Emerging Technologies On Interconnectedness

The impact of emerging technologies on global dislocations does not depend mainly on the technologies per se, or even on their convergence. Instead, the problem needs to be approached from the point of view that emerging technologies "gaps" might have a significant impact on globalization-related dislocations (GRDs). Examples of these gaps arise in such areas as:

- The ownership model and the costs it implies for a globalized world: open-source vs proprietary information, where the former is growing explosively, while the ability to protect intellectual property is becoming problematic.
- Related but distinct from the first gap, there is the issue of architecture. It can be seen very clearly in ICT with the limited servers structure vs P2P architecture. Here again the gap opens up in favor of openness and connectedness.
- Finally there is the issue of unequal access to technology, what in the ICT case is generally referred to as the "digital divide" and should be extended to the other technologies we want to consider as the "emerging technologies gap (or divide)".

Emergent Technologies--Opportunities And Challenges

Following our analysis of globalization-related dislocations we will first consider known technology trends to the extent to which they contribute to control, homogenization, and interconnectedness.

Communication and transportation technologies

The spread of communication technologies and their increased reach and impact may be the most important single factor that contributes to interconnectedness. The key elements in the near future are:

- Transportation grows ever cheaper and makes physical movements easier. The advent of small secure planes might contribute to a more distributed air transportation infrastructure.
- Widespread cheap wireless facilities that allow circumvention of installation costs and connect more people in an accelerated process.
- Non-traditional energy sources that allow access from remote places: fuel cells, solar energy and new battery technologies are cases in point.
- Outsourcing technologies (e.g. videoconferencing, object faxing, grid computing etc.) could allow a different organization of production and reduce physical dislocations (migration).

- Moore's law will continue to bring computing power to more people and increase interconnectedness.
- Metcalfe's law will reflect the power of networks growing in proportion to the square of the number of nodes connected together.
- Reed's law that relates social networks and computer networks shows that when the networks include ways for individual to form groups its value grows exponentially. This is essential to the development of powerful civil society networks and smart mobs.
- At a more distance time horizon, the possibility to implant computing capacity in the human brain will have an impact on interconnectedness. This is particularly true of implanted translation devices.

Other technologies that might have an impact on interconnectedness

- **Technologies of homogenization** - They are usually referred to as "mass media". The issue here is a matter of output, concentration of ownership and control of the architecture. At this point, the mastery of social effects (and their cost) is giving Hollywood a new edge.
- **Technologies of control** - Control technologies may increase the dislocation linked to globalization and homogenization.
 - Tiny, embedded, wireless sensors in objects and/or people might be used as social control devices.
 - A better understanding of networks plus ubiquitous computing and wireless capabilities will trigger small worlds/fast communications networks strategies linking, for example local agencies and intelligence functions. It could be used to try to use civil society networks for security or intelligence tasks.
 - Control may be resisted at all levels, in particular if the control comes or is perceived as coming from afar. The European reactions against Echelon and other forms of intrusive monitoring of communications are a good example of the sensibility to this kind of problems. TIAS or any system coming from this kind of effort (the program goes on under another name) might trigger similar reactions.
- **Robotics** - The development of robotics will have an impact on jobs that are a key element of GRDs.
- **Nanotechnology and biotechnology** – Advances in nanoscale technologies maybe the clearest example of the real challenges emerging technologies face when considered from the GRD perspective. Their promises are huge in terms of "improving

human health and physical capabilities", "enhancing group and societal outcomes", or "unifying science and education" as reported in the NSF document on Converging Technologies for Improving Human Performance. The question is how they will be used. This will be addressed in the following section.

Control Through The Emerging Technologies Gap

"The Human Report 2001, published by the United Nations Development Program, introduced a new index, the technology achievement index (TAI). There are other measures for national technological progress in the literature. Other sections of this report elaborate on the Networked Readiness Index. The Global Competitiveness Report 2001-2002 has created indexes to measure technology development. Regardless of which index or measure is used, one fact stands out: there are large differences in the scores achieved by the richer, more developed nations and those of the poorer, developing nations. The gaps exist along virtually all dimensions used to construct the various indexes."

*The Global Information Technology Report 2001-2002 –
Readiness for the Networked World – World Economic
Forum*

There is a difference between control through technology, or more precisely, through access to technology, and technologies of control mentioned earlier.

We refer in this case to models of ownership and architecture issues.

More important than the emerging technologies are the issues of the ownership model. The architecture of and access to IT resources and fluency of users of such technology will have a considerable impact on globalization related dislocations.

Information overload and data mining

Paradoxically, information overload might be more of a problem for the less connected, because they don't have access to the tools that allow to make sense out of the available data and information.

The importance of data mining and the amount of money invested by DARPA and US intelligence agencies in this field (e.g. InQtel) **may** increase the capacity of the powerful to make sense out of huge amount of data in which all the others will be lost. It might prove, in certain circumstances, a decisive advantage.

Learning

Significant advances are foreseen in cognitive science that may impact the way we learn.

If the use of these discoveries is limited to the powerful it will increase the technologies gap. A balanced distribution, on the contrary might contribute to reducing it.

The challenge will move from an "access gap" to a "fluency gap." However, networking may "plug" both types of gap, by breaking down barriers to access, and by diffusing advanced educational and operational techniques.

In sum, globalization has brought with it myriad levels and types of dislocations. Almost all of them are disruptive, some of them pose the prospect of global-level disaster. And, where the existing nation-state system seems only likely to exacerbate these many problems, there may be some hope to be found in the rise of networks.

Network Solutions

In the 1920s and 1930s, networks were defined principally in terms of telephony—i.e., a network was any way a system was wired. In the 1940s and 1950s, cultural anthropologists added the notion of the social network—described in terms of anybody with whom one talked. Then in the 1960s and 1970s, business scholars and practitioners became much more specific, identifying the three fundamental topologies upon which networks may be built: the chain, the hub-and-spokes design, and the area of all-channel interconnection. In the 1980s and 1990s, all of these notions of networking came to life with the rise of the Internet and the Worldwide Web, and soon began to have overarching effects upon the commercial sector, as well as upon society in general. We want to explore whether the various "dislocations" that we identified in the previous section might be mitigated by network-based solutions.

But first it is important to note that contending networks seem already engaged in a globalization-related struggle. On one side, developed countries and the social and commercial non-state actors aligned with them have created what Hardt and Negri (2000) see as a truly networked global empire with "no territorial center of power," relying instead on what they call "modulating networks of command" (pp. xii-xiii). This imperial network enjoys media and financial control, as well as unsurpassed coercive military and economic power.

This is the empire of Murdoch-type media moguls, of the U.S. military and the tributary states that fall in line with it, and of the multi-national commercial firms that drive the global economy to suit their preferences. All of these aspects of the imperial network are inter-related. For example, 25 years ago, President Carter elucidated a doctrine that called for the use of force to ensure flows of Persian Gulf oil to the US. Then,

a decade later, the first President Bush unleashed both military and media forces to re-establish this control—once it had been disturbed by the invasion of Kuwait—and to persuade the world of the justice of the cause.

To oppose this new empire, Hardt and Negri borrow from Marx the notion that increased interconnection will itself bring together large enough masses to offset and ultimately roll back the empire. Danaher and Mark (2003) concur with them, offering some evidence that civil society is already reining in the emerging global empire, principally through divestiture, selective purchasing and other, mostly economic, means.

In addition to the social networks struggling against any sort of globalized system, terrorists and other militants have also been building networks, the best-known of which is of course *al Qaeda*. But basically all violent resistance groups that are showing any signs of vibrancy are networked—ever more in terms of all-channel connectivity, a step beyond *al Qaeda*'s initial reliance on hub-and-spokes organizational designs (on this point, see Arquilla and Ronfeldt, 2001, 2003).

As we survey a global landscape increasingly bedeviled by network-style conflicts (that is, "netwars"), we accept the ability of those who hold most power—states and large commercial firms—to network quite skillfully. Unfortunately, the kind of networking in which they engage only seems to exacerbate the "dislocations" described in the preceding sections. The same is true for terrorist and much other militant networking which, from the Battle of Seattle to the Bali bombing and beyond, only harden the resolve of the powerful and alienate the affections of the weak in whose name they fight. It is clear that the network is a tool, like any other, and may be used for good or ill.

Our hope and our goal is to see networking used in far more positive ways, ways that reduce the dislocations wrought by globalization. Ways that empower without threat. Ways that inform and transform. And finally ways that are both easy to teach and to emulate.

Hardt and Negri have it at least partly right. The vast expansion of interconnectivity is wiring together the people of the world—not just governments or manufacturing, trading and other types of firms, but the masses themselves. Along with the spread of democratic processes, which usually acts to guarantee free speech and other basic human rights, this new connectivity implies the rise of a highly networked global civil society that could never have been possible in any other period of history. This is the realization of Teilhard's (1955, 1959) vision of a "noosphere," or realm of the mind. It will also enable the shift from military-oriented *realpolitik* to an ethics-based *noopolitik* (see Arquilla and Ronfeldt 1999).³

³ The Greek root for these terms is "noos" (the mind).

In practical terms, then, the goal must be to keep expanding the noosphere, increasingly linking peoples together at every opportunity. Once this is done, the practice of noopolitik is going to commence naturally. An example of this was seen in the months leading up to the U.S.-led invasion of Iraq, during which worldwide civil society raised a chorus of voices in opposition—almost preventing, but surely greatly delaying the attack. And the statist triumph over the anti-war activists was Pyrrhic, as any new effort to take the "war on terror" to yet another country will almost surely founder at this point against the resistance of civil society actors determined to keep the peace.

But if a nascent global civil society is to have a truly transformational impact on world politics, it must not ignore the possibility that nation-states can be useful network members as well. Indeed, the state remains an efficient organizing principle, focus of loyalty, and repository of power—of all types. Therefore, the most important "pressure points" that networks face are in their relations with nations. If they learn to form "deep coalitions" (term from Toffler and Toffler 1997, pp. xix-xx) with states—and if nations are open-minded about reaching out to networks—then there will be a remarkable "quickenning" in the pace of network development.

Sadly, some of the clearest cases of nation-network cooperation come from the realms of terror and crime. For example, Iran's longstanding support for Hezbollah has proven spectacularly successful, with the terror network actually driving the Israelis out of southern Lebanon.

With regard to other illicit activities, there seem to be a variety of crime networks operating in conjunction with tacit—and sometimes more open—state support. Most of the criminal network-nation connections that exist today seem to emanate from the traffic in drugs and light weapons (see Williams 1994).

But this is a phenomenon that is hardly new. Indeed, state-level links to crime have been around at least since the days of the Barbary Pirates of North Africa about two centuries ago. Profits from their activities had to be shared with the Sublime Porte in Turkey. Their depredations were overlooked by the Royal Navy during the Napoleonic Wars, as piratical attacks on shipping had the benefit of driving cargo shippers to find haven under the British flag (Whipple 1991).

In the civil society realm it is very hard to find similar examples of nation-network cooperation, as there is less apparent "profit" in such linkages. States can only see their sovereignty being undermined, and networks have to worry about being "captured" by a particular state interest or agenda. This tension between nation and network is thus the key pressure point with which actors of both types have to grapple. For the present it seems clear that nations will continue to "stiff arm" networks, and networks will remain wary of nations, seeking instead to find their way ahead independently.

Given these concerns, it may prove that the most influential networks will learn to transect many states—lessening their control—many inter-governmental organizations, many social networks, and many non-state civil and uncivil organizations/sectors/individuals. Indeed, individuals may find that they are sometimes living many lives at once as they fulfill their many different network roles).

This concept of "transection" is fairly neatly captured by the concept of "global public policy" networks; but the fluid reality of such self-organizing networks, whose members may exit as easily as they join, is that they may have difficulty actualizing their power potential.

Nevertheless, there are thousands of these multi-dimensional, polyglot and interwoven networks competing and cooperating as they create the emerging web of global civil society. Global insurgent networks are part of this—to be sure the best-known part today, given the direct threats they pose to the nation-state system. But insurgency is only a small part of the overall network phenomenon. The more constructive work being done to overcome the crises of identity arising from globalization's dislocations is being undertaken—with increasing success—by civil, rather than "uncivil," networks.

Corporate Social Responsibility Networks

The heterogeneity of these civil networks is impressive. Some, like NGOs, and advocacy networks are fairly known and studied, but new forms of network enterprises (Castells) are much less well understood. Some of them are even the cause of major globalization-related disruptions that this essay addresses (just as there are many uncivil networks, and states); but others participate meaningfully in those polyglot networks that are forming the fabric of an emerging global civil society.

As one among many possible examples, we could mention the work done in the field of education and information technology by Schlumberger. This global oil servicing company currently has a connectivity program (SEED: <http://www.seed.slb.com/>) in over 30 countries. Moreover, in cooperation with "The Future of Learning" program of the MediaLab at MIT, it has recently launched a training program that aims at changing the way we learn through helping people with the use of computers, and the internet.

It is our view that the network form of organization allows civil society organizations (CSO) to better monitor corporations in their distributed activities all over the world. Networked corporations, on the other hand, are in a better position to understand global problems even when they sometimes cause them. This converging evolution leads some to adopt the path of more corporate social responsibility. If we add to the mix, as the real world does, the greater recognition of the role of non-state actors by states themselves, international organizations and transnational corporations, we can see the emergence of a kind of global public policy

(Reinicke) and what some have begun to call global civil society (Keane).

Global Public Policy Networks

There is growing cooperation between public institutions (governments and international organizations), private corporations, and civil society organizations. This can be attributed to the increased influence of civil society, but could also be linked to the fact that its networked form of organization allows them to better understand problems that lie beyond traditional intellectual constructs and bureaucratic borders (Reinicke).

The importance of these "trisectional networks" is now fully acknowledged by the United Nations. And a report (*Critical Choices*, Reinicke, and Deng, editors) published on the subject in the year 2000 attributes their impact to their capacity to link together institutions and individuals from different countries and from diverse sectors of activity. They have proven to have a priceless capacity to bring together opposing groups to discuss common problems that no one of them can resolve by itself, and to gather the necessary resources to tackle them.

Their networked nature and rather smart and inventive use of information technologies allow them to be quite effective in placing new issues on the global agenda, facilitating the negotiating of global standards, gathering and disseminating knowledge, and even shoring up failing markets. More important still, they work as bridges to bring more people and institutions to participate in addressing some of the main problems of our times. The World Commission on Dams, for example, organized regional hearings and case studies on dam construction in the process of setting standards for large-dam construction in a way "that may well be replicated in other public-policy domains." (Reinicke et al., p. 63)

GPPN are a very good example of global networks' capacity to respond to unusual problems or to face two or three issues in different places at the same time. Being much more versatile than bureaucracies, these "issue-based alliances" (Reinicke et al.) can contribute significantly to raising global awareness of transnational problems and marshalling the resources necessary to address them.

Still, one might argue that if trisectional GPPN have proven to be a new kind of effective international actor, they also tend to be --by their very nature-- a new kind of institution that is often too formal and structured to really transmit the pulse of our changing world. Reinicke and the authors of the report published in the framework of the UN Vision Project on Public Policy Networks invite GPPN actors to maintain the "structure" in the "structured informality" that characterizes networks. By so doing they contribute to strengthening their natural evolution in which after taking advantage of their initial fluidity these GPPN tend to get institutionalized, but in the process lose some of the agility that made them so useful.

This raises one of the most significant issues about networks. They certainly are a tool for participation and can be used by hierarchies as well, to increase their flexibility and their reach. On the other hand, informal networks are a powerful way to bring people together in a loose, and therefore acceptable (to all) manner, in order to achieve a goal on which they agree, even if just temporarily. It is our view that informality is a key element in what allows networks to bridge the "participatory gap" mentioned in the UN report.

Some examples (from Reinicke et al.):

General GPPN sites:

- Global Policy Forum: <http://www.globalpolicy.org/>
- Global Public Policy Institute: <http://www.globalpublicpolicy.net/>

Placing new issues on the global agenda:

- International Campaign to Ban Land Mines: <http://www.icbl.org/>

Negotiating of global standards:

- The World Commission on Dams: <http://www.dams.org/>
- International Labor Rights fund: <http://www.laborrights.org/>

Gathering and disseminating knowledge:

- The Consultative Group on International Agricultural Research: <http://www.cgiar.org/>
- The Roll Back Malaria Initiative: <http://rbm.who.int>

Shoring up failing markets:

- The Urban Management Programme: <http://magnet.undp.org/Docs/urban/Default.htm>
- Consultative Group to Assist the Poor: <http://www.cgap.org/>

Implementing ideas and decisions:

- The Global Environment Facility: <http://www.gefweb.org>

Global Civil Society

Most of the real work being done to overcome the crisis of identity arising from globalization's discontents/dislocations is not the result of insurgency or in response to insurgency, but the constructive/reconstructive work being done by all the other networks helping to form global civil society. One of the key issues is to determine under which conditions GCS could play a greater positive role in the solution of global problems.

The existence and expansion of the networking phenomenon seems indisputable, but it raises a number of issues that one needs to acknowledge:

- **Definition** - There is a problem of definition and of history. John Keane, one of the most noted scholars of global civil society, emphasizes the fact that it has "blurred edges." He defines GCS with the following characteristics: non-governmental, connecting individuals and groups that are "interrelated and functionally interdependent," respect for others and admiration of the peaceful, pluralistic, and heterogeneous to the point of harboring strong conflict potential; and finally it is global which means that all the interactions are stretched across vast distances and many borders. GCS can be visualized as a social construct that spans the world, not unlike a dynamic biosphere of nested systems within nested systems as described in certain versions of complexity theory. This is a fascinating intellectual and theoretical challenge. But the problem remains that the term global civil society might be seen as describing both everything and nothing.
- **Heterogeneity** – If such a thing as GCS exists or if it proves to be a useful concept (even with the problems that its definition raises), one cannot ignore the fact that it is inherently heterogeneous, and this can be seen in the way its elements are constituted. They come not only from civic initiatives in reaction to market forces, and private as well as public institutions, but are often created by government and corporations. GCS is made of bridges between people and networks, and can be seen as a dynamic set of bridges with existing institutions (private or public) and markets.
- **Span** - The extent (and history) of GCS is a subject of discussion. For some (e.g., the London School of Economics) one of its characteristic features is its high concentration in Western Europe (particularly in Scandinavia, the Benelux countries, and the UK). Yet the assumption of a European or western special case or vanguard role in the revival of the term civil society would be incorrect. Civil society is a global term. What's more it appeared in many different cultures (India, the Muslim world and Latin America at least) without any obvious European connection.
- **Autonomy** - One of the key challenges of GCS is that it does not receive orders; it cannot be directed, and not even produced "like pizzas and fast foods, or like automobiles or microchips, or assembly lines. It takes time to grow," (Keane). On one hand, he argues that it works as a "society of societies" with rules and norms of conduct. On the other it is very much an evolving, open-ended process whose importance will depend on its ability to become more democratic, better integrated into governance institutions, and invested with universal values. The reality of autonomy and the challenges it poses to traditional political thinking is key when addressing global problem solving strategies—in as much as it means that participation

of GCS cannot be taken for granted. One will certainly find supporters and adversaries too, on any given issue. Their participation in one direction or another is never guaranteed, and neither ones are definitive. Last sentence here makes no sense to me. Clarify.

In brief, global civil society, with all the problem it raises, and all its "blurriness," can certainly be seen as a space in which interconnected people, networks and more or less formal institutions work at solving problems, some of them global. GCS networks can play a very active, and at times decisive role, but those people and institutions that want to work with them should know that it would be illusory and counterproductive (if ever possible) to rely on using them in a controlled manner. People or institutions with a clear project will always be able to find one or several given networks that may play a role that fits their plans, and some types might have more potential than others, but no single characterization can be a guide to strategy and action.

It is insufficient just to think in terms of the type of network with which to work. What also needs to be considered is the type of interactivity that will work in a given situation. This will always be the principal challenge for those searching to establish such networked relationships, and there will never be hard and fast rules.

Dealing with constructive civil society networks

Identifying which of the "constructive" civil society networks and agendas are most security-constructing relative to constraining violent states on the one hand, and overcoming the generative conditions for dislocations, upheavals, and regressive/reactionary responses on the other is an important next step.

Parallel to any effort centered on identifying the nature of the other, we argue for an approach centered on the nature of the relationship. Instead of a subject-centered approach to politics, what is needed is a "politics of relation" (Glissant, Wilson Harris). The challenge here being that it implies necessary changes on the part of the interested institutions.

This is not the place to develop such a theory, but it seems obvious that such an approach implies developing a better understanding of autonomy and establishing which characteristics of civil society networks tend to produce a richer cooperation for a set of given goals. Besides subscribing to positive objectives they have to show a coherent practice. This raises the key question of accountability (transparency and trust according to the principles in the Global Knowledge Partnership).

Further along the line, this approach implies that there are very few inherently bad or good civil society organizations. However, it might be possible to work with most through an open-minded approach based on the following principles: 1) It is possible to establish a set of parameters that should work as indicators, and not as rules of behavior; 2) The agenda of those entities matter less than the way they operate; and 3)

Dealing with CSO is always a "two-way street" in the sense in which it implies respect for autonomy and challenges the way hierarchies deal with networked organizations.

GCS constitutes a fast growing "third sector" accountable to itself and independent from governments on the one hand, and corporations/the market, on the other. One of the main challenges for established institutions is that while it is unruly from the perspective of status-quo, many of its networks are on the forefront of responding to multiplying global dislocations.

Examples

Oxfam: <http://www.oxfam.org.uk/>

Oneworld: <http://www.oneworld.net>

Opendemocracy: <http://www.opendemocracy.net>

Union of International Associations: <http://www.uia.org>

Friends of the Earth: <http://www.foei.org/>

Climate Action Network: <http://www.climatenetwork.org/>

If civil society networks contribute significantly to confronting many of today's world problems, one can never forget that global uncivil networks constitute serious threats to peace and security, and contribute to real and perceived GRDs. It is our view that translocal civic networks may play a key role in the construction of new kinds of secure and peaceful communities. One of the main obstacles lies in the too common view of security issues that only addresses them in terms of sovereignty. This is another story.

The Power of Narrative

Whatever the merits of and prospects for successful network "transection" of states, there also do appear to be ways to proceed that do not rely on the kindness or tolerance of state sponsors. The global anti-war movement, for example, and many other important social networks have arisen not from some central design or leadership, but rather in a self-organizing fashion, very much like that described by Johnson's (2001) concept of "emergence." Beyond issues of war and peace, mobilization of civil society to confront matters of economic equity, health and environmental safety, and virtually all other issues that have transnational characteristics will emerge in this way as long as the noosphere is nurtured.

To grow this "realm of the mind" will require more than just wiring everyone together, though. It will also demand compelling "content" to go with the new conduits of information. And this content will provide the burgeoning global network with the narrative dimension that it needs

to grow strong. That is, there must be a "story" that undergirds the formation of a global civil society, that persuades masses to join up and participate, even to take risks on its behalf.

In the end, it is the power of the story developed that will be the ultimate measure of civil networks' abilities to cope with the many levels and types of dislocations wrought by globalization. Since the start of the terror war, it has become apparent that al Qaeda has an exceptionally powerful story to tell the members of its network. Osama bin Laden has been able to portray himself and his adherents as sacred warriors devoted to eliminating the shadow cast upon the Muslim world by American power. His narrative empowers a terror network. If they are to flourish, civil networks will have to craft equally compelling narratives about themselves and their purposes.

Man is the story-telling animal, as much today as countless millennia ago when story circles were limited to within earshot of campfires. And if this huge narrative power source has first been tapped in the cause of terror, it only reinforces a point that civil society networks must be galvanized by their own story. Their tale will not be of a "clash of civilizations," but rather of a fight for the future based on universally accepted human rights, and by their vision of a world suffused with striving for both liberty and equality.

If the rise of a networked civil society is sparked by such a narrative, then in our view the many dislocations caused by other globalizing processes will be sharply curtailed, perhaps even eliminated. The network solutions we seek are thus less about creating more conduits for communication and far more about crafting the content that will energize and even transform the 21st century world.

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Appendix A

10 Must-Read Books about the "Network Age"

Beyond those works directly cited in this paper, here are some accessibly written books that significantly advance understanding of the network phenomenon and its potential impact upon the world:

- Barabási, Albert-László, *Linked: The New Science of Networks*, New York: Perseus Publishing, 2002.**
- Brown, John Seely, *The Social Life of Information*, Boston: Harvard Business School Press, 2000.**
- Buchanan, Mark, *Nexus: Small Worlds and the Groundbreaking Science of Networks*, New York: Norton, 2002.**
- Capra, Fritjof, *The Hidden Connections*, New York: Doubleday, 2002.**
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- Nohria, Nitin, and R.G. Eccles, eds., *Networks and Organizations: Structure, Form, and Action*, Boston: Harvard Business School Press, 1992.**
- Oram, Andy, ed., *Peer-to-Peer: Harnessing the Power of Disruptive Technologies*, Sebastapol, CA: O'Reilly & Associates, 2001**
- Rheingold, Howard, *Smart Mobs: The Next Social Revolution*, New York: Perseus Publishing, 2002.**
- Weinberger, David, *Small Pieces Loosely Joined: A Unified Theory of the Web*, New York: Perseus Publishing, 2002.**

Appendix B

Ten Networks That Matter

Direct Action Network. Network of activist networks.

Earth Liberation Front. Practitioners of eco-terrorism.
Electronic Frontier Foundation. ACLU of the Internet.
Global Exchange. Activist, human rights, fair trade.
Green Party. Political network, nodes in 90 nations.
Greenpeace. Environmental and anti-nuclear network.
Hamas. Conducts intifada for Palestinian statehood.
al Qaeda. Terror network. At war with U.S. & allies.
Triads. Premier crime networks of China, East Asia.
Yakuza. Japanese criminal hierarchy/network hybrid.