

[This is the 2001 draft of an article that is now published as “Mapping the Repertoire of Electronic Contention,” in Andrew Opel and Donnalyn Pompper (eds.), *Representing Resistance: Media, Civil Disobedience and the Global Justice Movement*. NJ: Greenwood, 2003. Purchase the book at: www.greenwood.com/catalog/GM2385.aspx]

MAPPING THE REPERTOIRE OF ELECTRONIC CONTENTION

Sasha Costanza-Chock

Annenberg School for Communication, University of Pennsylvania

Fall 2001

ABSTRACT: There is a growing body of work on social movements that enthusiastically describes the importance of the internet to transnational mobilization. This paper develops a framework for more careful analysis of online activism by drawing from theories about social movement repertoires and outcomes. Various tactics of electronic contention are described and an attempt is made to distinguish between conventional, disruptive, and violent strategies. Two case studies of disruptive electronic contention, the Virtual Sit-In for a Living Wage @ Harvard and the Netstrike for Vieques, are briefly laid out in order to illustrate the usefulness of locating electronic actions within a tactic/outcome matrix. They are also used to show how changing political opportunity structures and differing levels of repression affect the diffusion of contentious electronic tactics between social movement organizations and other actors.

Introduction

This paper will attempt to define electronic civil disobedience (ECD) as a specific subset of collective action tactics that lies within what I will call, following Tilly (1983), the repertoire of electronic contention. While doing so I will attempt to avoid what I see as persistent pitfalls in conceptions of 'electronic activism:' on the one hand, the tendency on the part of some activists and scholars to romanticize electronic action, and on the other, the dismissal of contentious electronic tactics as ineffective, as distractions from 'real' mobilization, or as a troubling 'return of the mob' (see Badaracco and Useem 1997; Ayres 1999; National Infrastructure Protection Center 2001). Either extreme represents a failure to carefully engage with and differentiate the wide range of tools and techniques that make up the electronic action repertoire, or to consider what 'effective' might mean in this context.

To focus on the question of effectiveness, I will draw from the work of Suzanne Staggenborg, who differentiates between three broad types of movement outcomes: political and policy, mobilization, and cultural (Staggenborg 1995). In order to begin mapping the terrain of the repertoire of electronic action, I address the question: which electronic tools and tactics have been employed by social movement actors to achieve which kinds of outcomes?

I will also explore how it is that social movement organizations (SMOs) and other movement actors decide to employ, or not to employ, various tactics from the electronic repertoire. To do so, I will briefly analyze two instances of ECD: the Virtual Sit-In for a Living Wage @ Harvard University and the Netiroteo Pa' Vieques (Netstrike for Vieques). I will end with some tentative suggestions about how attention to political opportunity structures might illuminate the process of diffusion of the repertoire of electronic¹ contention.

I. The Repertoire

In describing the wide array of strategies, methods, tools and tactics employed by social movement actors, Sidney Tarrow has built on Tilly's (1983) concept of repertoires of contention

¹ I use the term 'electronic' here mostly to describe various kinds of internet-based contentious activity, although there are of course many electronic tools and tactics used by social movement actors that do not involve the internet at all (for example, pirate radio stations, cell phones and pagers, mobile sound systems, and so on). While it could be argued that a term such as 'computer-mediated' would be more appropriate, I will remain with the more inclusive 'electronic.'

to differentiate between three styles or modes of action: conventional, disruptive, and violent (Tarrow 1998: 104). Tarrow recognizes that these categories overlap, and that a given campaign or even single action may involve elements of more than one, but distinguishes between them for analytical purposes. I argue here that there are forms of electronic contention that can be located within each mode, keeping in mind that the 'soft' nature of the boundaries between categories does not suddenly solidify in the realm of the virtual. As with any action, specific styles of electronic contention may operate in several categories simultaneously, but a typology remains a useful tool.

Conventional Electronic Contention

The vast majority of electronic contention by SMOs involves the use of the internet to amplify and extend 'traditional' movement communications efforts. Conventional electronic contention has probably received the most attention from social movement scholars, and has also figured in recent discussions of transnational movements. For example, much has been said about the effective use of the internet by the Zapatista movement in Chiapas, Mexico to draw attention to indigenous land rights claims, gather support from international civil society, and focus the media eye on the conflict in a preemptive 'infostrike' that succeeded for the most part in deterring violent state repression. The Zapatistas were able to mobilize enough domestic and international support to raise the costs of violent action above levels acceptable to the Mexican government (Schulz 1998; Keck and Sikkink 1998; Kumar 2000). For Keck and Sikkink, this is an illustration of how the internet has increased the possibilities for transnational advocacy networks to operate through what they term 'information politics,' or the ability to quickly move information to the point of maximum effectiveness (Keck and Sikkink 1998). In a related vein, Jackie Smith describes how the transnational network that coalesced during the protests against the 1999 WTO ministerial in Seattle made extensive use of the internet both before and during the protests, to aid mobilization efforts and to provide reports from the street that countered mainstream media interpretations of the conflict (Smith 2001). Conventional electronic contention is by now so widespread that it makes little sense to go on listing individual examples here; instead I will provide a rough subgrouping of purposes for which SMOs and other movement actors employ the internet:

Representation – I am thinking here primarily of SMO websites. It would be impossible to catalog the hundreds of thousands of sites devoted to social movements, but these generally present organizations in terms of mission, projects, history, membership, and links to affiliated groups, and usually include contact information. One function of such sites is to establish a kind of ongoing presence for organizations and other movement actors. In contexts of extreme repression, websites may be the only way for organizations that operate entirely underground to have a persistent visible presence at all. For example, this was the case for the Revolutionary Association of the Women of Afghanistan, who have spoken of how their website (www.rawa.org) has served as kind of 'virtual base' from which they were able to represent themselves to the world as well as engage in all the other forms of conventional electronic contention described below (Tamina 2001).

Information distribution – This includes, but is not limited to, the distribution of information about movement goals, campaigns, actions, reports, and so on via website, email, listservs, bulletin boards, chat rooms, ftp, and other internet channels. Information may be designed for the general public or for specific receivers, for example press releases, academic reports, or radio programmes and video segments for rebroadcast. In some cases the same information may be repackaged differently for various intended audiences.

Research – Many SMOs use the internet as a resource for gathering specific information relevant to their cause, including information about opponents or targets, information produced by other movement actors, case studies of parallel situations, historical background, theory, economic data, environmental data, media analysis, and so on.

Artistic production – Visual art, music, video, poetry, net.art, and other forms of cultural production by artists active in, associated with, or supportive of social movements are often posted, distributed, or sold online. Some forms of art make use of the internet itself as a medium. This includes online 'agitprop;' for example, site parodies or replicas of target sites that subtly alter wording or images to express activist viewpoints and discredit the target have been launched against, most prominently, the WTO (see www.gatt.org).

Fundraising - This includes appeals to membership and donations as well as the online sale of 'SMO merchandise' - T-shirts, books, buttons, posters, and so on. This is problematized by certain kinds of companies that might be considered (or consider themselves) SMOs but have a main organizational function that is commercial, for example Fair Trade Coffee. Fundraising efforts are also aided by computer-assisted direct mailing campaigns and by member database management.

Lobbying - This includes electronic versions of certain kinds of collective action aimed directly at influencing the political process and legislative outcomes. Online petitions and email campaigns fall into this category. Targets may be elected officials and government bodies, multilateral institutions, transnational nongovernmental organizations (TNGOs) or other SMOs.

Tactical - This subset of conventional electronic tactics might seem to lie on the boundary between 'conventional' and 'disruptive.' I mean to refer to the use of the internet or other electronic communications to aid mobilization efforts, both before and during street or 'real world' collective actions. This includes calls to action distributed via email, listservs, websites, chat sessions, and virtual meetings, as well as coordination *during* street actions using these and other (pager, cell phone) communications technologies. I place these tactics within the sphere of conventional electronic action in order to better differentiate those electronic tactics that are *in and of themselves* disruptive.

Disruptive Electronic Contention

In the electronic sphere, tactics that fall into this category of contention are often referred to as hacktivism.² However, many disruptive electronic actions do not necessarily involve illegal entry (hacking) into target systems, and can be accomplished by either individuals with minimal programming skills or very large groups of people with no programming skills engaging in simple online activities, as in the case of email flooding. The range of disruptive techniques, both 'hacktivist' and otherwise, includes:

Email floods – Target systems can become incapacitated when forced to handle an extremely high volume of email, especially if emails contain large attachments (typically image files or very long texts). This can be done by an individual using software that automatically sends messages at high speed, or by groups of hundreds or thousands of people all sending messages simultaneously.

Form floods – Similar to email floods, but uses rapid repeated filling out of online feedback, membership, or purchasing forms to slow or crash the target system.

Fax bombs – Jamming of targeted fax machines by sending extremely high volume (for example, one word per page) faxes.

Viruses, Worms, and Trojan Horses – Software designed to take a wide variety of action, including data destruction, providing access to restricted files, allowing remote control of targeted servers, or simply displaying a message, can be introduced either to specific targeted systems or onto the public internet.

Data theft or destruction – Hacktivists can gain entry to corporate, government, multilateral institution, or other target servers and steal private or classified documents

²Hacktivism, Electronic Direct Action, Electronic Civil Disobedience, Electronic Disturbance, or Netstrikes, as well as Hacking, Netwar, Cyberwar, Infowar, and Info-terrorism. Struggles over the naming of disruptive electronic contention are part of broader struggles for control over framing the virtual terrain: the corporatization of the internet has limited what counts as the public sphere online, while at the same time a rhetoric has emerged that freedom of information should trump dissent – in this case, electronic disruption is not legitimate if it blocks access to information. Most recently, 'national security' has been given precedence over disruptive dissent of all kinds, electronic or otherwise.

useful to SMOs for drawing media attention or for other tactical purposes. They can also destroy or alter data.

Site alteration or redirection – This involves illegal entry to target sites and alteration of text or images, or rerouting that sends visitors automatically to a different site (often one that expresses an oppositional viewpoint to target policies or actions).

Denial of service – Various strategies, including some of those listed above, that result in blockage of public access to the target site are termed Denial of Service (DOS) attacks. When targets are companies that rely on online sales, such actions can have significant economic as well as symbolic impact.

Virtual sit-ins – Technically a form of DOS, this tactic involves large numbers of people sending repeated simultaneous requests to target sites for webpages or other files, with the result that the target site becomes inaccessible to regular users. This can happen because the server is so overloaded that it is no longer able to process requests to view a page, or because server administrators are forced to remove a target site in order to keep the server from becoming overwhelmed. The case studies I will discuss later focus on this tactic in particular because, out of the range of tactics that could be termed disruptive electronic contention - and in fact out of the whole repertoire of electronic contention - it is only the virtual sit-in that explicitly requires the collective simultaneous participation of large numbers of people.³

Violent Electronic Contention

An increasing amount of government and corporate literature dealing with electronic contention is focused on what is perceived to be the rising threat of violent electronic action, or 'cyberterrorism' (see the 2001 National Infrastructure Protection Center report; Paul 2001; Denning 2001). Depending on the definition of violence, tactics that fall under this rubric might include certain kinds of property destruction such as server wipes or data corruption, but certainly include potential scenarios where hackers are able to cause human injury or death by gaining control over networked computer control systems - for example, air traffic control, electrical power grids, gas mains, and the like. I will return to the ramifications of increased government attention to 'cyberterrorism' in the wake of September 11th near the end of this paper, in the section on repression. For now, though, I will move on to the question of outcomes.

³ It is possible for an individual programmer to initiate an action that functions technically just like a virtual sit-in. A virtual sit-in could be simulated by a hacker who gained control over hundreds of remote computers and used them as 'slaves' to conduct the sit-in, then tried to claim that hundreds of people had participated in the action. This raises interesting questions about the potential meanings of embodiment during a virtual sit-in, and about the ways targets understand and respond to such actions.

II. Outcomes of Electronic Contention

Suzanne Staggenborg has synthesized the work of several theorists (Gamson, Gusfield, Mueller, and others) to propose three broad categories of movement outcomes: *political and policy outcomes*, *mobilization outcomes*, and *cultural outcomes*. The first refers to direct legislative or institutional impacts and includes social movement contributions to policy agenda setting, the passage or blockage of specific legislation, or the implementation of existing policies. The second refers to the mobilization of groups of people in collective action, while the last more broadly includes "changes in social norms, behaviors, and ways of thinking among a public that extends beyond movement constituents or beneficiaries" (Staggenborg 1995:341).⁴

Using these categories for reference, it becomes useful to ask which kinds of outcomes are likely to be affected by the various strategies of electronic contention. Are certain electronic tactics more effective at promoting certain kinds of outcomes? While exploring this question, it is important to keep in mind that electronic contention is not itself a movement, but rather a set of tactics that can be employed, ignored, or rejected by a variety of movement organizations and other actors, and that uses of specific tactics by organizations are always situated within specific political opportunity structures (Tarrow 1998; Melucci 2001). Having briefly described the various tactics of electronic contention, I tentatively put forth the following matrix of relationships between tactics and outcomes:

⁴ All three kinds of outcomes involve framing work. Issues often have to be framed one way in the institutional context in order to pass legislation, another way in the mobilization context in order to encourage collective action, and other ways in order to target public opinion or attract media attention.

Repertoire of Electronic Contention Tactic/Outcome Matrix

	Political Outcomes	Mobilization Outcomes	Cultural Outcomes
Conventional Tactics	<ul style="list-style-type: none"> -Electronic lobbying: -Online petitions -Non-flooding email and fax campaigns [cwa-union.org] 	<ul style="list-style-type: none"> -Tactical internet use: -Planning for conventional street mobilizations via web, email, listserv, BBS calls to action [www.protest.net] -Coordination during mobilizations 	<ul style="list-style-type: none"> -Information distribution -Alternative news [www.indymedia.org] -Alternative commentary [znet] -Alternative publishers [www.autonomeia.org] -Oppositional electronic art [www.rtmark.com] -Online fundraising -Online merchandising -Online research -Representation [www.rawa.org]
Disruptive Tactics	<p>Some proponents of electronic collective action have claimed direct policy outcomes. [www.eto.com 'toywar' campaign]</p>	<ul style="list-style-type: none"> -Email flood, Form flood, Fax bomb (collective action) -Virtual Sit-In [Electronic Disturbance Theater: www.thing.com/~rdom/ecd] 	<ul style="list-style-type: none"> -Site alteration -Site redirection -Data theft -Data destruction -Email flood, Form flood, Fax bomb (actions by individuals) -Viruses, Worms, and Trojan Horses -Denial of Service (action by individual) -Virtual Sit-In [Electronic Disturbance Theater: www.thing.com/~rdom/ecd]
Violent Tactics	<p>Cyberterrorism (physical harm to humans caused by disruption of power grids, water system, air traffic control, and so on).</p> <p>*While it seems that violent electronic tactics would likely result in outcomes in all three spheres, careful theorization of cyberterrorism is beyond the scope of this paper.</p>		

I have mapped here to some degree the sphere of electronic contention, which comprises a body of techniques ranging from clearly illegal and 'destructive' actions (property/data destruction, data theft, site defacement) to the more conventional (online petitions, email campaigns, information distribution and cultural work, fundraising), with many electronic tactics currently located somewhere on a shifting boundary in between (virtual sit-ins, email and fax bombing, form flooding). I have suggested that it is useful to think about what kinds of electronic tactics might be employed by SMOs seeking various kinds of outcomes, and have put forth the matrix

above as a tentative step in that direction. It is unfortunately beyond the scope of this paper to discuss all of these tactics in depth, and to draw examples from the field of how each has been deployed towards specific outcomes. Instead, I will attempt to illustrate the usefulness of such an approach by focusing on one narrow subset within the repertoire of electronic contention: electronic civil disobedience (ECD).

III. Electronic Civil Disobedience

ECD can be located on the matrix above as a set of disruptive electronic tactics that are effective primarily at achieving mobilization and cultural outcomes. While several other forms of contentious electronic action also involve mass participation, such as online petitions or email campaigns, these are not based on simultaneous or synchronous participation. In addition, these types of collective electronic action would be classified as conventional rather than disruptive. Other electronic tactics that *are* classified as disruptive do not require mass collective action, but typically can be implemented by an individual or a very small group.

However, ECD lies in a strange zone both conceptually and legally. At the moment, there is a kind of framing battle taking place around this tactic, with corporate and government actors pressing to cast ECD as a form of 'cyberterrorism' (see Denning 2001; NIPC 2001; Paul 2001) and with some SMOs, activists, intellectuals, and free speech advocates trying to locate ECD as a new form of legitimate protest activity (see Critical Art Ensemble 1994, 1996; Electronic Frontier Foundation 2001; Dominguez 2001). It is an interesting moment to examine the ways in which activists who are developing and using these techniques are linking or not linking with SMOs, and to look at how various kinds of SMOs perceive ECD and choose whether or not to use it. To paint a more detailed picture of these processes, I will now focus in on two instances of ECD. I chose the first example, the Virtual Sit-In for a Living Wage @ Harvard University, in order to highlight the ways in which ECD can be linked to actions in the 'real world' and to point out the internal debate around tactics that often takes place within and between social movement actors. I include the Netstrike for Vieques to illustrate the dynamics of cross-movement diffusion of the electronic repertoire.

Virtual Sit-In for a Living Wage @ Harvard University

Background

In the spring of 2001, approximately 30 students from the Harvard University Progressive Student Labor Movement (PSLM) occupied University administrative offices in an attempt to force the University to comply with a City of Cambridge living wage ordinance that tied minimum salaries to a cost of living formula. Several hundred employees on Harvard's janitorial staff were receiving below the living wage, and the administration was increasingly employing temp workers who not only received below living wage but also received no benefits. To top it all off, Harvard announced that it had just reached an unprecedented 18 billion dollar endowment. PSLM members who were not inside the occupied offices, together with other supportive students, built a tent city outside the occupied building that served as a home base from which rallies, music events, film screenings, and media visits were managed. In the third week of the action, as media attention seemed to reach a plateau and administration officials continued to refuse to negotiate with activists, a group called the Electronic Disturbance Theater offered to help the PSLM escalate their tactics by adding a 'Virtual Sit-In' to the building occupation.

Actors

The major groups involved were the PSLM, the Harvard administration, the Harvard student and professor supporters, student groups such as Students Against Sweatshops, various local and national media, various local and national unions including Communication Workers of America, nonprofits including Justice for Janitors, and the Electronic Disturbance Theater. Actors did include direct beneficiaries of the proposed policy changes (Harvard employees), but a majority were what McCarthy and Zald have termed conscience constituents (McCarthy and Zald 1977).

Action

After two meetings during which the Electronic Disturbance Theater explained and demonstrated the ECD technique to PSLM, both groups came to a consensus decision to use the tactic. Initially, opinions within the PSLM were mixed, with some students immediately excited about using the virtual sit-in as an escalation tool but others voicing either skepticism about the

usefulness of such an action or fear about the possible repercussions. Concern was articulated both in terms of whether there might be adverse affects on student and faculty computer systems that would alienate potential supporters of the Living Wage campaign, and in terms of a fear that the media might frame the electronic action in terms of 'hacking' or 'cyberterrorism,' undercutting the legitimacy of the PSLM. In response to these concerns, it was decided that the action should not be targeted at Harvard University servers directly, since that might interrupt student access and decrease support for the campaign. In addition, it was determined that the action would be announced as an Electronic Disturbance Theater operation in support of the Living Wage campaign, not as a PSLM action per se. Electronic Disturbance Theater agreed with this logic and built a virtual sit-in targeting the websites of 8 major corporations with board members who were also on the Harvard Board of Trustees, the body ultimately responsible for financial decisionmaking at the University. The virtual sit-in tool automatically sent repeated requests for nonexistent pages called 'living_wage@Harvard.now' to the targeted corporate servers for as long as participants kept their browsers open. The theory was that large numbers of participants would flood corporate target servers with requests, slowing access to their sites and filling server logs with 'living_wage@Harvard.now not found' messages. A press release about the action went out to local and national media on the day of the Virtual Sit-In.

Outcomes

The immediately observable outcome was in terms of mobilization. The Virtual Sit-In for a Living Wage attracted around 600 participants during the course of the 12-hour action. At around 5pm Communication Workers of America (CWA) national office in Washington DC called the Electronic Disturbance Theater to say that they had received an email about the action and had decided to participate. In terms of political outcomes, it is impossible to quantify the degree to which the action contributed to the Harvard administration's partial capitulation to the Progressive Student Labor Movement (PSLM), which took place one week later with the decision to create a review committee that would include administrators, professors, students, and employees. The Virtual Sit-In was not mentioned by any administration officials in any public communications, although it was clear that they were aware the action took place. A story about the action did go out on the AP wire, but there can be no doubt that any direct policy impact the Virtual Sit-In had was dwarfed by the physical sit-in, which received sustained

national press attention and had a long-term physical presence in the center of the campus. In addition, from the point of view of the PSLM it could be argued that the Virtual Sit-In had the negative effect of causing some degree of internal disagreement and apprehension, at least initially. This would align with a criticism of ECD as a distraction from 'real' action.

Consistent with my proposed tactic-outcomes matrix, the most effective outcome here was not in terms of policy but rather mobilization, especially the participation by Communications Workers of America. This also led to cultural outcomes: for example, a positive report on the virtual action was sent out the next day by the CWA national office to 750,000 telecom workers. This in turn increased the already massive flood of emails and phone calls expressing solidarity from around the country, helping to strengthen the resolve of students inside and to build 'moral pressure' on the Harvard administration. In addition, CWA became interested in the possibility of incorporating virtual sit-in tactics into their own action repertoire. This was another kind of cultural outcome: diffusion of tactics. To illustrate this last point, I will provide a very brief description of a second ECD action, the Netstrike for Vieques.

Netstrike for Vieques

About three months after the Virtual Sit-In for a Living Wage, in May 2001, CWA collaborated with Electronic Disturbance Theater and the Committee for the Rescue and Development of Vieques (Comite Pro Rescate y Desarrollo de Vieques, or CPRDV) to help launch a 'netstrike' in support of civil disobedients who were attempting to force a halt to US Navy military exercises on Puerto Rico's 'baby sister' island. While about 30 activists broke onto the Navy's target range and forced delays in scheduled bombing practice, over 1,300 participants from around the world used a web-based tool developed by the Electronic Disturbance Theater to flood www.navy.com with protest messages. The Netstrike for Vieques used the Navy's own online enlistment form, filling required 'name,' 'address,' and other fields with requests that the Navy cease bombing and honor demands by Viequenses and many other prominent Puerto Ricans (including the Mayor of Vieques, the Mayor of San Juan, and the Governor of Puerto Rico) for a public referendum to decide the fate of the US military presence. Several hours into the action, at around 4pm, CWA sent out a call to action to its 750,000 members. Nearly a thousand people joined the action during the next hour. At 5pm, Electronic Disturbance Theater received a phone call from the administrator of www.navy.com, who demanded that the action be brought to a

halt. According to the administrator, the Netstrike had "completely flooded our enlistment database with thousands of messages, and now our site is starting to crash (Dominguez 2001)." The administrator warned EDT that unless the action ended, participants would risk federal prosecution under the Computer Fraud and Abuse Act, potentially facing large fines and up to 5 years imprisonment. After consulting with CWA and CPRDV, Electronic Disturbance Theater called an end to the action and declared it a victory. An article about the action went out on the AP wire. Electronic Disturbance Theater culled organization names from hundreds of emails sent by supporters in over 20 countries and created a list of participants that was published on the Netstrike site and forwarded to the listservs of both CWA and CPRDV. It is worth noting here that several days later, the Navy announced plans to begin phasing out its operations in Vieques over a 3 year period.⁵

How do these two ECD actions compare in terms of outcomes? The Netstrike for Vieques had greater effects in the category of mobilization than the Virtual Sit-In for a Living Wage, with more than twice as many people participating in the action. In addition, the actual disruptive effects of the Netstrike were confirmed by Navy web administrators, while the actual disruptive effects of the Living Wage action on the 8 targeted corporate servers were negligible. In terms of cultural outcomes, the Living Wage action resulted in some degree of press coverage (AP wire) and distribution of an action report by CWA, and also served to pique CWA interest in adopting the tactic for its own campaigns. The Netstrike for Vieques resulted in a greater amount of coverage, with an AP article, two radio interviews, postings to a dozen indymedia.org sites in both Spanish and English, postings to other alternative web news sites, an article in the indymedia weekly broadsheet that went out to over a hundred alternative print publications around the world, and several email reports that went out to CWA's 750,000 members and to CPRDV's listserv (Dominguez 2001). Direct policy outcomes could not be claimed by either action, although it could be argued that each added some small degree of pressure on the target to respond to policy demands made by activists. In both cases, it is interesting that the targets did in fact yield policy concessions within days of the action, although no one would claim that these electronic disturbances played more than a very small peripheral role in much larger ongoing campaigns.

⁵ Rescinded as of December 15th, 2001.

Another interesting difference was the degree to which internal debates took place about whether to use the tactic, with some PSLM members raising serious doubts but with CPRDV embracing the action more enthusiastically. Although it is difficult to disentangle the various factors that might influence the diffusion of ECD, or of the repertoire of electronic contention more generally, it might be useful to turn here to a discussion of political opportunity structures.

IV. Political Opportunity Structure and Electronic Contention

Access, access, access

Estimates of the percent of the world's population with internet access range from 4% to about 8%, and this group is highly concentrated in the postindustrial global North, with further concentration along lines of income, gender, ethnicity, and rural/urban residence (Hafkin 2001). These figures should remain visible in the background of any discussion about electronic activism. Who has access to the necessary tools? Who can afford to use them? Who can benefit from which tactics in the repertoire of electronic contention?

At the same time, we should be wary of dismissing the potential of the electronic repertoire of contention on the grounds that access to the necessary tools is limited to a small global elite.⁶ It is certainly the case that even extremely marginalized groups with little to no internet access have been successful in some ways in using the Internet to gain attention, the Zapatistas being the 'classic' example. In addition, it is useful to consider internet use not only by SMOs articulating their own concerns before a global audience, but also by global elites or 'conscience constituents' using the internet to mobilize support for allied groups that lack access.⁷ It is also important to problematize simplistic boundaries between conscience constituents and beneficiaries by recognizing that 'elite' movements representing groups from the global South, or disenfranchised groups within wealthy nations, may contain members of beneficiary groups – including diasporic Southerners. Yet while even many resource-poor SMOs have linked with

⁶ Also see <http://www.unesco.org/webworld/com/strength/strength01.shtml> for a review of participatory media projects for development, including many innovative internet projects in poor rural areas in Southern countries.

⁷ Of course, this also raises questions about the boundaries of collective identity. If 'everyone is a Zapatista,' how does the 'Zapatista bandwagon' disperse, distort, and empty the movement of meaning, and how does it strengthen the movement? On the one hand, stretching boundary lines to be as inclusive as possible can increase the number of movement members and ultimately, collapse binary distinctions on which the exclusion of marginalized groups rests. On the other hand, overbroad inclusivity can potentially mask the continued existence of unequal relations of power behind a facade of 'sameness.' See Gamson (1995) for a brilliant discussion of this problem.

other movement actors to engage in 'information politics' facilitated by the internet, most such activity has been through forms of conventional electronic contention. What can attention to political opportunity structures tell us about the likelihood of or need for social movements to adopt disruptive electronic strategies such as ECD?

Opportunities (Why ECD, Why Now?)

Some theorists of ECD (Wray forthcoming; Critical Art Ensemble 1994, 1996; Dominguez 2001) have claimed that the tactic steps into a political opportunity structure that reflects the increasing power of transnational capital. The argument is that, while transnational corporations (TNCs) have long been powerful actors, some of which command more resources than whole nation-states, they increasingly act through multilateral bodies such as the WTO to overturn national legislation - for example, environmental standards - with the justification under neoliberal economics that all barriers to trade interfere with the optimum functioning of the market. The national laws limiting certain kinds of trade that are overturned by multilateral institutions were often won in the first place by social movements through years of hard-fought struggle. One political failure that forces the involvement of nonstate actors under these conditions is that TNCs are not accountable to any kind of democratic process. Their accountability is only to investors and to the market. There is in this case no existing political structure that allows input from below into corporate policy.

Add to that the decoupling of TNCs from physical or national location, in the sense that TNCs increasingly are able (indeed, forced) to relocate production, assembly, and information services to the area of cheapest labor/highest profit, and we see that SMOs and other movement actors cannot remain locally bound if they are attempting to change corporate policy (Klein 2000). Of course, social movements have never been *only* local, and in fact most of the first movements that fit a useful definition of the term were always transnational – including the movement for the abolition of slavery, the women's suffrage movement, and many others (Melucci 1996; Keck and Sikkink 1998; Florini 2000). However, while movements as well as corporations may have always been transnational, the global mobility of both – in terms of capital, labor, and information flow – has risen steadily since WWII and exploded since the end of the Cold War.

Most recently, the virtualization of capital has meant the simultaneous decoupling of capital flow from material goods and services, and the relocation and in some cases evaporation of physical sites of capital. By this last I mean, for example, the 'flow-through' model of inventory management that allows the elimination of warehouses through the instant transmission of inventory data from point-of-sale to point of production. The point-of-sale itself – the storefront – has also become increasingly virtualized, for internet-only stores and other businesses to the point of disappearance. In this case, the virtualization of capital not only provides positive openings for the application of ECD tactics by SMOs but arguably makes it *necessary* to strike in the virtual sphere, since the virtual storefront or headquarters may be the only publicly accessible target. In fact, actions targeted at physical sites of production may have decreasing effects on policy outcomes, since a strike that shuts down one plant seems more and more likely to be met by the targeted company's relocation of that plant or even the outsourcing of all production. In this context – no physical storefront, no warehouse, no company factory – ECD provides the ability to strike in the virtual sphere and increases the ability to strike multiple targets at the same time, as was the case in the Virtual Sit-In for a Living Wage @ Harvard. ECD is also a relatively low-cost form of mobilization for resource-scarce SMOs, since collective actions with global participation can be organized by a few activists with internet access. The net has proven to be an effective medium for coordinating actions on a global scale, whether the aim is conventional, disruptive, or even violent activity in either the virtual or 'real' sphere. This has been the case in many of the examples already mentioned here, as well as in the coordination of Carnival Against Capital and the battle for Seattle (see Scott & Street 2000). The promise of ECD is, then, to take the virtualized site of corporate capital as the pressure point towards which action can be oriented.⁸

Repression

The emergence of ECD has of course not gone unnoticed by targets. A growing body of corporate and government publications, conferences, grants, and laws are aimed at criminalizing and heavily penalizing all disruptive electronic contention including ECD. Crucial to this process has been the framing of electronic contention as 'cyberterrorism,' which delegitimizes

⁸ This does not mean I advocate the position that 'the streets, as a site of struggle, are dead.' (See Critical Art Ensemble, 1996). Rather, I would argue for a *linked* or hybrid physical/virtual movement theory and practice, where electronic action remains grounded in embodied actions and the virtual embedded in the real, as in both cases of ECD described above.

these tactics and consolidates state and corporate control over the flow of information and virtual capital.

Institutional/situational repression

Koopmans (1997) distinguishes between *institutional repression*, or codified repression by the state in the form of legislation and prosecution of movement actors, and *situational repression*, or violent police or military action. ECD would appear at first glance to lend itself more to the former than to the latter. From the perspective of SMOs, this is a drawback if Koopmans is correct in suggesting that situational repression generally functions to amplify movement activity while institutional repression is generally effective at dampening mobilization efforts by sapping the resources of movement actors or organizations over the long run (Koopmans 1997).

The problem here for practitioners of disruptive electronic contention is twofold: first, it seems far more likely that ECD participants will be repressed with institutional means (arrest and prosecution) than with situational means (violent police action). Second, in the case of violent police action against electronic protestors – certainly conceivable in the wake of police forced entry to indymedia warehouses in Seattle, 1999 and Genoa, 2001, where many were beaten and walls were described as 'blood-spattered' (Morris and Carroll, 2001) – such action occurs in domestic space, not public space. It then becomes more difficult, although not impossible, for ECD actors to take advantage of the potentially movement-amplifying effects of violent police action. Images and reports of such repression must be recorded and disseminated by the activists under attack. This was done effectively by members of the Seattle indymedia center in 2001, who used a live webcam feed to document FBI agents entering their space to seize computer equipment (see www.indymedia.org).

Repression Post-9.11

Within the USA, the political opportunity structure for disruptive (or even conventional) electronic contention has been limited severely by the national climate in the wake of the September 11th attacks. Protest action of all kinds has been muted, first by an environment of shock and mourning, next by the rising tide of nationalism multiplied by the mass media organs, and then by the passage of legislation curtailing civil liberties in the name of the 'War on

Terrorism.' In terms of limiting the electronic action repertoire, the passage of the Patriot Act further marginalizes proponents of ECD tactics by greatly increasing the potential for legal action against organizers or participants. The Patriot Act includes clauses that could mean life imprisonment for individuals who engage in disruptive electronic actions against government or corporate websites (Electronic Frontier Foundation 2001). It is worth noting that perhaps equally as powerful as the legislation is the mass mediated reframing that shifts any talk of 'hacktivism' or 'electronic civil disobedience' into a discussion about 'cyberterrorism.' This last might most productively be thought about in terms of a 'terrorism master frame,' already central to some right-wing and military discourse prior to September 11th, passing into dominance. In any case, the current legislative and media frameworks will obviously have major effects on the willingness of SMOs to incorporate ECD or other disruptive electronic strategies into their repertoire of tactics. The changed political opportunity structure would not seem to favor a high rate of diffusion of disruptive electronic tactics.

Diffusion

We can see what this means more clearly by looking at the Communications Workers of America (CWA), described above as a participant in both the Virtual Sit-In for a Living Wage @ Harvard and the Netstrike for Vieques. When CWA first heard about and participated in the Living Wage action, they were already using multiple conventional electronic tactics. They had a website for representation and news distribution, including calls for support of telecom worker actions around the world. In addition, they had a listserv called 'e-activist' which they used to distribute especially urgent calls for action. After participating in the Virtual Sit-In, CWA began to take an even more active role in disruptive electronic tactics by helping the Electronic Disturbance Theater publicize the Netstrike for Vieques before, during, and after the action via their e-activist listserv. Several hundred CWA members joined the Netstrike as a result. Afterwards, CWA national office members asked the Electronic Disturbance Theater to help them develop a similar Netstrike to be used in a campaign against Verizon, where CWA was being illegally blocked in their efforts to organize Puerto Rican telecom workers.

Electronic Disturbance Theater worked with CWA to develop a Netstrike against Verizon, and the stage was nearly set when the events of September 11th caused CWA to back off from the action and from the entire campaign. In this case, the diffusion of ECD, and the

expansion of CWA's electronic repertoire to include tactics of disturbance, was stopped cold by a drastically changed political opportunity structure. Mobilization of any kind was deemed inappropriate, since dissent could so easily be framed by Verizon and by the mass media as a lack of patriotism. Later, passage of the Patriot Act pushed CWA even further away from a willingness to use the Netstrike tactic due to new potential legal ramifications. CWA's problems with Verizon remain, however, and recently CWA has begun to reorganize their campaign. Part of this renegotiation of strategy involves discussion of which electronic tactics will be used at what moment, and includes a debate over whether to push ahead with the Netstrike despite the potentially high cost of institutional repression under the Patriot Act. Some CWA organizers see an electronic disruption that violates the new legislation as a potential leverage point for even greater media coverage of their campaign.

Diffusion of tactics to countermovements

Roland Bleiker (2000) and Sidney Tarrow (1994) have talked about the dissemination of dissent tactics among movement organizations and between movements, and Jeffrey Ayres (1999) described the 'cyber-diffusion of contention,' or the use of the internet to spread information about specific campaigns and tactics between SMOs within allied social movements. We should also expect the diffusion of tactics to countermovements. On the heels of the appropriation of sit-ins and direct action tactics by Operation Rescue during the 1990s, and in light of Meyer and Staggenborg's (1996) observation that movements and countermovements are forced to shift arenas and tactics in an ongoing dialectic process, we would certainly expect to see any and all elements of the repertoire of electronic contention eventually replicated by countermovement SMOs.

CONCLUSION

Hopefully I have been successful at sketching the terrain of the electronic repertoire of contention. I have provided case studies in an attempt to show how empirical research on electronic contention might benefit by locating actions within a tactic/outcome matrix, and I have explored how changing political opportunity structures and differing levels of repression affect the diffusion of contentious electronic tactics. I will end with a call for future work on the use of the internet by social movements to take account of the differences between conventional,

disruptive, and violent electronic contention, and to specify the relationships between tactics, outcomes, political opportunity structure, and diffusion. Finally, while I have tried to address questions of what the repertoire of electronic contention looks like, what outcomes it might generate, how it spreads, and how it is constrained, I encourage exploration of related questions that have emerged at the margins: how does electronic contention get framed, and how might various kinds of electronic contention be useful for doing framing work? What is the role of emotions and of the body in electronic collective action? To what degree do issues of access, embodiment, and the criticism that 'virtual activism might undermine real activism' encourage us to develop a combined theory and practice of linked, hybrid, or 'cyborg' physical/electronic collective action? These and other questions about the repertoire of electronic contention become increasingly important as the internet expands, capital becomes virtualized, and social movements struggle for points of leverage from which to engage transnational corporations, nation-states, and multilateral bodies.

REFERENCES

- Ayres, Jeffrey M: "From the Streets to the Internet: the Cyber-Diffusion of Contention." *Annals of the American Academy of Political and Social Science*, November 1999: 132-143
- Badaracco, Joseph L. and Jerry Useem: "The Internet, Intel and the Vigilante Stakeholder." *Business Ethics*, v6 (1) 1997: 18-29
- Bleiker, Roland: *Popular Dissent, Human Agency and Global Politics*. Cambridge: Cambridge University Press, 2000.
- Critical Art Ensemble: *The Electronic Disturbance*. New York: Autonomedia/SemioText(e), 1994.
- Critical Art Ensemble: *Electronic Civil Disobedience*. New York: Autonomedia/SemioText(e), 1996.
- Denning, Dorothy: "Activism, Hacktivism, and Cyberterrorism: The Internet as a Tool for Influencing Foreign Policy." The Terrorism Research Center, February 2001.
<http://www.terrorism.com/documents/denning-infoterrorism.html>
- Dominguez, Ricardo, for the Electronic Disturbance Theater: Interview by the author on December 4th, 2001.
- Electronic Frontier Foundation: "EFF Analysis of USA-Patriot Act Surveillance Legislation." www.eff.org, 2001.
http://www.eff.org/Privacy/Surveillance/Terrorism_militias/20011031_eff_usa_patriot_analysis.html
- Florini, Ann M. (ed.): *The Third Force: the rise of transnational civil society*. Tokyo/Washington: Japan Center for International Exchange/Carnegie Endowment for International Peace, 2000.
- Gamson, Joshua: "Must Identity Movements Self-Destruct? A Queer Dilemma." *Social Problems*, v42 1995.
- Hafkin, Nancy and Nancy Taggart: "Gender, Information Technology, and Developing Countries: An Analytic Study." USAID Office of Women in Development, June 2001.
- Keck, Margaret E., and Kathryn Sikkink: *Activists Beyond Borders: Advocacy Networks in International Politics*. Ithaca, NY: Cornell University Press, 1998.
- Klein, Naomi: *No Logo*. New York: Picador USA, 2000.
- Koopmanns, Ruud: "Dynamics of Repression and Mobilization: The German Extreme Right in the 1990s." *Mobilization*, v2 (2) 1997: 149-165.
- Kumar, Chetan: "Transnational Networks and Campaigns for Democracy," in *The Third Force: the rise of transnational civil society*, ed. Ann M. Florini. Tokyo/Washington: Japan Center for International Exchange/Carnegie Endowment for International Peace, 2000.
- Lewis, Jeff: "Manufacturing Dissent: New Democracy and the Era of Computer Communication." *International Journal of Cultural Studies*, v3 (1) 2000: 103-122.
- McCarthy, John D. and Mayer Zald: "Resource Mobilization and Social Movements: A Partial Theory." *American Journal of Sociology*, v82 1977: 1212-1241.
- Melucci, Alberto: *Changing Codes: Collective Action in the Information Age*. Cambridge: Cambridge University Press, 1996.
- Meyer, David, and Suzanne Staggenborg: "Movements, Countermovements, and the Structure of Political

- Opportunity." *American Journal of Sociology*, v101 1996: 1628-60.
- Morris, Steven and Rory Carroll: "British Protesters Claim Genoa Police Took Brutal Revenge for Summit Riots." *Guardian of London*, Friday, July 27, 2001.
- National Infrastructure Protection Center: "Cyber Protests: The Threat to the US Information Infrastructure." www.nipc.gov, October 2001
<http://www.nipc.gov/publications/nipcpub/cyberprotests.pdf>
- Paul, Larisa: "When Cyber Hacktivism Meets Cyberterrorism," Sans Institute, 19 February 2001.
<http://www.sans.org/infosecFAQ/hackers/terrorism.htm>
- Schulz, Markus S: "Collective Action Across Borders: Opportunity Structures, Network Capacities, and Communicative Praxis in the Age of Advanced Globalization." *Sociological Perspectives*, v41 (3) 1998: 587-616.
- Scott, Alan and Street, John: "From Media Politics to E-Protest: The use of popular culture and new media in parties and social movements." *Information, Communication & Society*, 3:2 2000: 215-240.
- Smith, Jackie: "Globalizing Resistance: The Battle of Seattle and the Future of Social Movements." *Mobilization*, v6 (1) 2001: 1-19.
- Staggenborg, Suzanne: "Can Feminist Organizations be Effective?" in *Feminist Organizations*. ed. Myra Marx Ferree and Patricia Yancey Martin. Philadelphia: Temple University Press, 1995, 339-355.
- Tamina: "RAWA: Empowering Afghan Women." Lecture/Presentation at University of Pennsylvania, November 28, 2001.
- Tarrow, Sidney: *Power in Movement: Social Movements, Collective Action, and Politics*. Cambridge: Cambridge University Press, 1994.
- Wray, Stefan: "On Electronic Civil Disobedience." *Peace Review*, forthcoming.
<http://www.nyu.edu/projects/wray/oecd.html>