

Chapter Fourteen

The Cultural Politics of Free Software and Technology within the Social Forum Process

Jeffrey S. Juris, Giuseppe Caruso, Stéphane Couture, and Lorenzo Mosca

This chapter examines the dynamic, contested relation between the social forum process, new digital technologies, and the movement for free/libre and open source software (FLOSS).¹ Rather than a movement in the traditional sense, the latter is more of a heterogeneous grouping of overlapping networks of geeks and programmers brought together by the practice of “arguing about and discussing the structure and meaning of Free Software: what it consists of, what it is for, and whether or not it is a movement (Kelty 2008: 98).” Since the first World Social Forum (WSF) was held in Porto Alegre in January 2001 to discuss and develop alternatives to neoliberal globalization, the global social forum process has emerged as a parallel process of debate about political alternatives, contemporary politics, and the forum itself. In this sense, the global forum process shares many of the characteristics of FLOSS as a recursive public, defined as, “a public that is vitally concerned with the material and practical maintenance and modification of the technical, legal, practical, and conceptual means of its own existence as a public; it is a collective independent of other forms of constituted power and is capable of speaking to existing forms of power through the production of actually existing alternatives (Kelty 2008: 3).” The forum has been more focused on organizational structure, yet the basic element of recursivity is there: a widespread preoccupation with and inclination toward endless discussion and debate around its own organizational, ideational, and technological conditions of possibility.

However, like all political processes, the forum, as a networked space of transnational encounter between different movements, ideologies, and visions, is internally divided; many do not view the forum as a public at all. Instead, they would like the forum to become a unified actor capable of making collective decisions and taking concrete actions- the “space” vs. “actor” debate (Juris 2005a, 2008; see also Caruso, Conway, and Juris this volume). Since its inception the WSF has been conceived as an open space for civil society organizations and movements to share ideas and resources, debate alternatives, and coordinate around specific campaigns, but the WSF Charter specifically states that no one can speak in the name of the forum or its participants (cf. Sen 2004; Whitaker 2007).² However, an increasingly vocal sector would like the forum to express common positions and coordinate actions (cf. Bello 2007). Nonetheless, the fact that this debate has been so central to the forum and that thousands of articles, essays, declarations, email posts, and other documents have been written about it, many voicing concern about the organizational, ideological, and material sustainability of the process, attests to the operation of the forum as a recursive public.

Technology is a central dimension of the forum’s material, technical, and organizational conditions of possibility, yet it has received less public attention. New technologies and FLOSS, in particular, are often viewed as organizational metaphors by forum actors: “a model based on free cooperation, collaborative and collective construction and open access (Fuster 2008: 3).” This can be explained, at least in part, by the networking logic inscribed in the organizational architectures of the forums (Juris 2005b, 2008, this volume). Such a networking logic, based on horizontal coordination among flexible, autonomous nodes, resonates strongly with the more “politicized” factions of the Free Software (FS) Movement.

FS Movement activists have been most directly involved in the forums in the context of computer and software infrastructure development. Their involvement might seem paradoxical given the politically agnostic stance of many FLOSS enthusiasts (cf. Coleman 2004). However, the FLOSS community is broad and politically contradictory, including right-wing libertarian, radical anti-capitalist, and even corporate actors. The FS Movement itself is extremely diverse. As Christopher Kelty (2008) suggests, “It includes both heartfelt allegiance in the name of social justice as well as political agnosticism stripped of all ideology (114).” The critical point here is that a relatively small subset of politically minded computer techs and programmers, many of whom identify with the FS Movement, see a convergence between their commitment to FLOSS and the principles of the social forum with respect to openness, the free and open sharing of information, horizontal collaboration, and opposition to corporate monopolies. Likewise, many forum organizers, particularly those who are committed to the ideal of open space, see their political values reflected in the collaborative process and vision they associate with FLOSS. These connections should come as no surprise given the growing confluence between network norms, forms, and technologies within the wider global justice movement (Juris 2008).

However, the specific socio-technical assemblage linking FLOSS with the social forums should not be taken for granted. Indeed, there is no *a priori* affinity between FLOSS, the FS Movement, and the social forum process, although there has been a mutual projection of values between more politically motivated FS Movement activists and those forum organizers who espouse an open space ideal. These self-dubbed “horizontals” within the forum process, who view politics as open, participatory, processual, and collaborative, have challenged what they view as the centralized, closed, and top-down politics practiced by the so-called “verticals” (De

Angelis 2005; Juris 2005a, 2008). FLOSS also generates significant resistance among forum organizers, often due to perceived inequities between grassroots activists and technical "experts" (cf. Neusma 2007; Fischer 2000). In what follows, we specifically argue that given the recursive nature of the forums, such conflicts surrounding technology and software reflect disagreements over the structure, process, and meaning of the forum itself.

This chapter explores the cultural politics of technology within the social forums through a collaborative transnational ethnographic analysis of the political goals and struggles over FLOSS and wider technological infrastructures within the social forum process. By cultural politics of technology we mean "a methodological vision of a way to explore the relationship between culture, politics, and technology that emphasizes the cultural work that has to be performed in the conception, development, and implementation of new technologies (Sørensen 2004: 189)." We suggest that conflicts over specific uses and configurations of computers, software, and technologies are *cultural*- they reflect distinct cultural visions and understandings of what software and technology *mean*. On the one hand, we follow trends in science and technology studies that see technical artifacts as always already inscribed with particular tastes, values, and predilections to certain programs of action (Sørensen 2004; cf. Akrich 1992; Latour 1992; Star 1999). Indeed, as Leach (2009) argues, moral imaginations shape and are shaped by particular ways of making technology, including FLOSS. On the other hand, we also pursue a more anthropological tack in approaching the politics of technology as deeply embroiled in contests over meaning, interpretation, and communication (Sørensen 2004: 186; Hess 1995). As we shall see, similar debates over FLOSS and technology have surfaced within forums situated in different political and cultural contexts, including conflicts over efficiency, openness, and

expertise. In this sense, we further contend that decisions about software and technology are *political*, not merely *technical*.

Each of us has been deeply engaged in the social forum process as a scholar and activist. This means not only that we have had first-hand experiences working within forum organizing spaces, we have also developed a greater depth of understanding of internal forum dynamics than would have been possible otherwise. In turn, we hope our analysis will be of interest not only to academics but also to forum organizers as a way to help them grasp the politics of free software and technology, and appreciate the struggles and exclusions often associated with their use. At the same time, our engaged perspective should be tempered by a critical reflexivity regarding the contradictions entailed by our dual positionality, a point we return to in the conclusion.

This chapter is based on nearly a decade of participant observation in the social forum process. Specific events examined here include: the 2004 WSF in Mumbai; European Social Forums (ESF) in Florence (2002), Paris (2003), London (2004), and Athens (2006); and the U.S. Social Forum (USSF) in Atlanta in summer 2007. Given the racial, gender, and class dynamics of the processes we address it is important to locate ourselves in this paper: one of us is a white, middle-class, U.S. male (Juris), another of us is a white, middle-class, French-speaking male from Quebec, Canada (Couture), and the other two of us are white, middle-class Italian males (Caruso and Mosca). We did not set out to write a collaborative paper, but by bringing together our fieldwork experiences *post-facto* we have ended up with something akin to a collaborative, multi-sited ethnography, albeit informed by cultural-political specificities in particular locales. Specifically, we trace the transnational flow of struggles related to software and technology within the forums, across space and over time. However, rather than physically moving across

geographic sites we remain rooted in place, taking advantage of our multiple locations to trace cross-border flows and conflicts. Together with other recent experiments in this vein (e.g. Kelty 2009; Matsutake Worlds Research Group 2009; Smith, Juris, et al. 2008), this kind of collaborative, transnational participant observation provides a model for studying complex, emerging forms of life in a global, digitally networked world.

Ideologies and Practices at the Intersection of FLOSS and the Social Forum Process

FLOSS has been the subject of increasing interest in recent years. Many activists and progressive intellectuals, in particular, have seen FLOSS and its development model as a critique of and an alternative to top-down, monopolistic practices. However, it is important to recognize that the social world of FLOSS is not homogeneous, and to attend to the diverse “articulations, interpretations, and performances of the development of FLOSS (Lin 2004; cf. Kelty 2008).” This is even more so as scholars begin to examine FLOSS projects outside Europe and the U.S. (Couture 2007; Hakken2007; Zúñiga 2006; Takhteyev 2009). Although this chapter is primarily concerned with the relation between a specific sector of the FLOSS world and the social forum process, it is important to provide a broader discussion of the former. In this section, we briefly outline distinct ideological positions with respect to FLOSS in order to situate the forum-related activism surrounding software and technology explored in this chapter. Our primary contribution to the FLOSS literature is to explore the often contested, sometimes contradictory intersections between FLOSS and wider social forum activism.

The notion of "free software" is usually credited to the Free Software Foundation (FSF) and its founder Richard Stallman, who developed a model of licensing that would guarantee full access to software "source code"- the set of instructions that make software work. In contrast to proprietary software, free software licensing means that everyone has the right to read, use, modify, and redistribute software and its source code. "Freedom" for the FSF is primarily an ethical impulse to preserve the freedom of expression, modification, and distribution rather than an issue of technical efficiency or superiority. Over the last ten years, free software advocates have coalesced around the idea that the freedom of software is akin to the freedom of speech. Consequently, as Gabriella Coleman (2009) suggests, free software has been framed as the "right to make and alter technology through argument (422)." Apprehending code as speech means seeing software as an ongoing cultural process rather than a tool or commodity; it means being more concerned with process than product, an idea that resonates with many forum activists.

The term "open source software" is often used interchangeably with or to replace the idea of "free software," both of which designate similar software technologies, people, and practices. However, these terms are associated with a key philosophical difference. The term "open source" was introduced by more business-oriented programmers, such as Eric Raymond, and certain corporations, including Netscape, to avoid the morally charged discourse of freedom. "Open source" emphasized the pragmatic quality of the "openness" of the source code, which could be exploited for commercial and technological advantage. This "semantic coup d'etat," to borrow a phrase from Kelty (2008: 99), was aided by the writing of Eric Raymond (1999), who outlined a "bazaar" style of developing FLOSS software, in this case Linux, which he saw as technically equal, if not superior to the "cathedral" style of traditional software development.³ The rise of

“open source” has been widely seen as a break with the FS Movement. Although many activists view free software as a challenge to corporate monopolies, the term open source was developed to denote a more corporate friendly approach to a similar process of software development.⁴

At the same time, for many social justice activists, even those who identify with the FS Movement, the process denoted by the term “open source” (if not the business-oriented impulse behind the term) offers a way to characterize a mode of decentralized, horizontal collaboration that reflects their political ideals with respect to grassroots participation and direct democracy. However, other FLOSS enthusiasts have sounded a critical note:

"Open Source" is fast becoming an omnibus framework and near-universal toolkit to tackle very diverse social issues. There is little wrong in itself with this... but for the fact that it tends to obscure... a wide gap in approach and attitude between activists and hackers that is just too critical to be easily papered away... unlike activists, hackers are focused on the pursuit of knowledge and the exercise of curiosity for its own sake.

(Riemens 2005: 330)

Indeed, many FLOSS advocates express an agnostic stance toward political association of any kind (Coleman 2004; Kelty 2000; Couture 2007). There may also be organizational and cultural differences between FLOSS and social activist communities (e.g. Luke et al. 2004), and even tensions related to social justice goals, such as the inclusion of women (Nafus et al. 2004; Leach 2009).

We should thus be careful *not* to assume an *a priori* cultural-political affinity between FLOSS advocacy and social forum activism per se. That having been said, many free software activists *have* been deeply involved in expressly political activism related to patents, monopolies, and corporate globalization, often redefining freedom in more egalitarian terms and aligning with actors committed to developing new modes of politics that are more grassroots, bottom-up, and collaborative. Along these lines, Dominique Cardon and Fabien Granjon (2003) have identified a “politicized fraction” of the FS Movement that participates in the social forums and brings to bear an “expressivist critique,” promoting collaborative, directly democratic process and means over ends. This can be contrasted to an “anti-hegemonic critique” associated with Marxist and other traditional sectors within the forums. Many forum actors refer to these contrasting logics as a divide between “horizontal” and “vertical.” As we shall see, the politicized fraction of the FS Movement tends to align with the former, viewing the forum as a vehicle for opening up new spaces of collaborative practice where everyone can (in theory) participate in the horizontal production of knowledge. In what follows, we examine the tensions and struggles associated with this particular vision of technology and software within the forum process.

Free and Open Software in Mumbai

The 2004 WSF in Mumbai was the first time the forums ran entirely on FLOSS. Indian organizers viewed FLOSS as a way to support the struggle against marginalization and uneven distribution of information and knowledge. However, inconsistencies between the organizational structure of the forum and the ethical requirements of FLOSS arose due to distinct perceptions of

the technical and political implications of software. These tensions led to conflicts between older, largely male organizers who valued the presumed efficiency of hierarchical organization and younger FS Movement activists and other forum organizers who advocated participatory processes, reflecting a tension between ethics and efficiency. Whereas the choice to use FLOSS had been informed by ethical-political considerations, the ensuing conflicts raised doubts about these previous software and technology-related decisions.

At the peak of the workload in the Mumbai WSF office, 37 computers ran a free and open GNU/Linux-based operating system administered by three young volunteers from the Free Software Foundation in India. For most of the FSF volunteers, FLOSS reflected the world the WSF was meant to prefigure: a society without hierarchies where work would be collective and decisions taken by all those affected; where social borders would be permeable and continuously crossed, generating creative hybridization; and where tensions between work and leisure, efficiency and creativity, values and practices, responsibility and recognition, would be resolved.

However, the 2004 WSF fell short of its ambition, due in part to a lack of attention to the political, ethical, and cultural dimensions of FLOSS. GNU/Linux was new to most of the workers in the office, but the FSF volunteers did not offer any trainings and gave only one presentation regarding the political and ethical goals of free software. Their interactions with the staff were mostly restricted to troubleshooting, which created a dynamic of dependence between users and experts. This caused problems related to coordination in system design and implementation, a lack of appreciation on the part of FSF volunteers for the everyday experience of software use in the daily routines of the office, and a tendency among most office workers to view software as a technological issue. When one of us arrived in Mumbai in early October, the

WSF office was already a site of conflict. The core issue, characterized by FSF activists as a “misunderstanding” with respect to the relevance of free software, was a clash of political interests, ethical principles, and political-cultural values.

Specifically, these conflicts involved tensions between the older, largely male members of the WSF leadership- comprised of the Indian Working Committee (IWC, decision-makers), Indian Organizing Committee (IOC, implementers), and the office coordinators (members of and appointed by the IOC)- and the younger, mostly female office staff and younger male FSF activists. For many IWC and IOC members, software was of marginal interest. Some viewed FLOSS as a way to claim self-reliance from mega-corporations but they still saw it in technical terms. For FSF activists, software provided a way to connect with others working on similar issues at the WSF. For the office coordinators the logistical success of the WSF was more important than such political considerations. Many office volunteers and staff failed to understand why so much energy was dedicated to learning new software and constantly tweaking an unstable system.

Compounding matters was the decision to entrust the development of the official WSF website to a company with no prior FLOSS experience. Although the use of an outside contractor had produced poor quality service and significant tension during the 2003 Asian Social Forum in Hyderabad, political pressure and practical reassurances on the part of allegedly independent consultants led to a similar arrangement this time around. The resulting technological snafus sparked fierce conflict and accusations of corruption, ineptitude, and bullying. There were also debates over transparency and openness because information was often inaccessible due to the website being down for maintenance.

Ultimately, pressure by the IOC and the desire to deliver an efficient "product" generated attitudes and behaviors that many organizers and FSF volunteers considered inconsistent with the values of the WSF. According to some participants, the IOC should have deemphasized FLOSS and hired professionals to deal with business-oriented website managers to solve critical issues. A consultant who was hired to evaluate website errors went so far as to denounce the WSF office for corruption, incompetence, unaccountability, hierarchy, and exclusion: the very practices the WSF was supposed to be fighting against. Political and technical errors further led to worsening social relations as well as an atmosphere of suspicion. A few days later, one of the coordinators of the WSF resigned, protesting against the lack of internal democracy.

Criticisms were raised during meetings of the IOC and other organizing bodies when the issue of software came up, but specific steps to ameliorate the situation were rarely taken due to a fear of exacerbating what seemed to be an intractable conflict. No one wanted to risk a political crisis over the kind of software used. However, the IT consultant's accusations led to worsening relations among working group delegates, office coordinators, staff, and volunteers. Moreover, allegations regarding the conditions of stress and uncertainty among the office staff were never discussed. On December 13, 2003 office staff members and FSF volunteers had an explosive lunch-time conversation. The FSF techies were criticized for wielding excessive power given their monopoly over the knowledge and skills required to fix computer and software-related problems. Office workers claimed that when asked about specific repairs techies would offer cursory explanations using obscure technical language. In this sense, expertise and "knowledge hierarchies" were viewed as generating dependency and exclusion (cf. Neiusma 2007). As a staff member explained with respect to the Linux-based operating system:

Everyone in the office seemed to be having the same problems... the technical help gave technical explanations we were unable to understand... Their attitude always gave the vibe that the problem was too small to bother them and that we were a dumb lot to solve it ourselves. The natural reaction was that the staff shifted from being polite and understanding to rude and bullying with the technical help.⁵

For their part, FSF volunteers felt alienated and disillusioned by the behavior of the office staff. On December 26 the conflict came to a head. As one of the system managers said: “The FSF was attacked from all sides because of the problems we had with the computers, servers, and website. Finance eventually asked us to revert to Windows.” Indeed, this sentiment reflected the highly contentious nature of technological decision-making within the WSF process. However, WSF organizers maintained their commitment to FLOSS, ultimately succeeding in developing a widely praised GNU/Linux system. Nonetheless, the struggles reported here reflected profound tensions between the political culture of the Mumbai office and the expressed values of the WSF.

Such tensions are at the heart of a series of ongoing debates within the forum process regarding the discourse and practice of open space. They reflect a clash between distinct ways of viewing politics: the “old” of the traditional, hierarchical, and authoritarian Left (political parties, unions, NGOs), and the “new” associated with the FLOSS movement, small anarchist groups, open space advocates, and diverse "horizontalist" formations (De Angelis 2004). According to this framework, closed, centralized information systems (including closed, proprietary software) are associated with hierarchical structures, while open, accessible informational environments

are seen to favor horizontal networks, peer to peer collaboration, and grassroots participation - the expressed values of the WSF (even if contradicted practice). In this sense, conflicts over software and technology reflect broader debates regarding the values and practices of the social forum itself, constituting the forum as a transnational recursive public. However, it is important to remember that anti-authoritarian, directly democratic politics have, at least, centuries-deep roots and are by no means a unique product of the contemporary moment. What is interesting is the way that many contemporary proponents of such politics adopt the language of and find their political visions and preferred organizational forms reinforced by new technological artifacts and paradigms. In addition, as we argue throughout, dynamics of conflict and power are at work in all social and political processes and formations, whether "verticalist" or "horizontalist," although they may play out differently in each case.

Technological Conflicts within the ESF Process

Contrasting understandings of the links between culture, organizational structures, and technology have also characterized the European Social Forum (ESF) process. Beyond FLOSS, this has been most clearly evident in the ESF media centers (MC), key sites where information regarding the forum is produced and disseminated.⁶ At the same time, choices related to the organization of the MCs, their location, and their degree of openness paralleled similar debates related to FLOSS, which many FS Movement activists view as “prefiguring” the egalitarian organizational arrangements that should inform the social forums. In other words, the perceived horizontal, open, and accessible nature of the FLOSS development process (despite the practical

hierarchies of knowledge and expertise that define FLOSS development), is seen as a model for the forum's material, technological, and organizational infrastructure.

As with FLOSS, the organization of forum MCs has been a perpetual source of conflict. For example, the MC during the 2002 ESF in Florence was the scene of an intense struggle between two groups: one affiliated with Indymedia and grassroots radio projects, which assumed responsibility for the technical aspects of the MC including computer connectivity, the other associated with ESF organizers, which was in charge of circulating information and managing the website. Once again a conflict arose between techies and other forum organizers regarding the cultural understanding of technology, this time with respect to the openness of the MC. Grassroots media activists argued for completely open access, while the official ESF organizers wanted to restrict access to accredited personnel. The decision was finally made to distinguish between movement media and mainstream media, leading to distinct areas inside of the MC. However, resources were limited and non-media activists were ultimately denied access to the space. Grassroots media activists strongly opposed this decision, which highlighted the contradiction between the idea of the forum as an open space and the restrictive logic of a closed MC, widely understood as paralleling the restrictive nature of proprietary software.

According to one middle aged, white, male activist, this conflict escalated when a number of computers were stolen, compromising the ability of the MC to function. Despite the forum's open space ideal, the stolen laptops persuaded organizers to further restrict MC access at subsequent European social forums. For example, an official accreditation and pass were required to enter the MC during the 2003 Paris ESF. This prompted Zalea TV to issue a public statement against what they argued was "reproducing, in [the ESF] organizational practice, the

more perverse, castrating model of the surveillance society (Zalea TV 2003)." Moreover, as we saw with the WSF Mumbai office, the organization of the Paris MC was partially outsourced. Grassroots activists saw the reduced accessibility of the MC as mirroring other technological choices, including the decision not to use FLOSS. In response, they organized an alternative Independent Media Center with a few FLOSS-based desktops inside an autonomous space called the Métallos Médialab (PGA 2007) where the politics of the FS Movement was discussed.

The management of the MC at the 2004 London ESF was even more contentious, as "alternative" media were denied access altogether. In the words of one activist: "Press passes for the ESF were to be available to 'proper' journalists with National Press Cards (Jones 2004)." As a result, grassroots media activists again established an alternative Independent Media Center with 70 FLOSS-based computers in the Camden Centre. After the contentious London forum, a different style of management was finally adopted at the 2006 ESF in Athens, where the MC was open to everyone. Consistent with this decision, the Hellenic Linux User Group repaired old PCs for the forum and configured them with FLOSS.⁷ Wireless access was also provided in the main ESF space, making Internet connection available to every laptop in the forum. Organizers thus ultimately recognized that the forum's open space ideal should be reflected in the openness of its technology, media, and software.

The London ESF was characterized, even more than prior forums, by conflicts between distinct organizational cultures related to alternative understandings of technology. The self-dubbed "horizontals" called for democratizing the organizing process, emphasizing diversity, open participation, and consensus decision-making. They accused the so-called "verticals" of hierarchical, exclusive practices, and betraying the principles of the WSF charter (Juris 2005b;

Smith et al. 2007). This conflict was also visible in the choices surrounding the forum website, again reflecting a conflict over centralization, access, and expertise. Initially, the horizontals wanted to participate in developing the official ESF website, but the verticals outsourced website administration to a private software company at a cost of 40,000 pounds.

As Dave Jones (2004) argues, while the e-commerce functionality of the website was considered crucial, “the requirements for the other website functionalities were never opened up for public discussion, all public interactivity was rejected and too few people were trusted to participate and administer the site.” For this reason the horizontals created an alternative website based on wiki technologies. Following the London ESF, greater importance was given to the European dimension of the process and organizers agreed that a permanent ESF website would be developed under the control of the open European Preparatory Assembly. ESF event websites, which managed registration and logistic information, would continue to be administered by national organizing committees (EPA 2005).

The experience of the European social forums suggests that wider conflicts surrounding technology mirror debates over software, particularly with respect to the perceived collaborative nature of FLOSS development. As we have seen, radical tech activists associated with the "horizontals" view software and technology as a platform for prefiguring “another world” and implementing the idea of an open space. This view has been challenged by many “verticals,” who favor efficiency and central political control in contrast to the more ethical dimensions of free software and collaborative organization. These conflicts ultimately underscore the political nature of software and technology, suggesting that technological choices should not be restricted to the domain of "experts," but should rather be subject to wider political negotiation.

Organizing Software and Technology within the USSF

The U.S. Social Forum in 2007 was lauded by participants and observers for its diversity and "efficiency." New digital technologies played an important role, not only in terms of internal coordination, outreach, and registration, but also as a facilitator of interactive communication. The Information and Communication Technology (ICT) Team, a geographically distributed network of volunteers spearheaded by a group of radical techies in New York City,⁸ decided early on to run FLOSS on the roughly 70 public access computers at the USSF and to build the website using Drupal.⁹ At the same time, ICTs were also key sites of conflict, reflecting differing views of the role of technology within social struggles.

During a series of technology workshops at the USSF and through subsequent interviews, ICT team members articulated a clear vision of the political nature of technology decisions. For example, with respect to FLOSS, Ricardo, a middle-aged Latino ICT team member who gave a presentation during one of the sessions, explained, "It seemed like anything that did not use... [FLOSS] would go against the whole idea of all us coming together and sharing the information in the same space."¹⁰ Robbie, a young white male ICT team member, added, "By actively using a tool you are making that tool better... when you give that contribution to a proprietary tool you are helping to build a community around that tool... I would like to see that community built around free tools... that is a key piece of the struggle." FLOSS was also viewed as reflecting the broader goals of the forum, as Ricardo later recounted, "We felt the selection that the social forum makes for its software should mirror the politics of the social forum, which are about the

development of a large network and community where there is genuine shared commitment, a sense of equality, respect, and collaboration, and that is what free and open source software is.”

Moreover, beyond FLOSS, the USSF communication system and tools were designed to encourage grassroots participation and horizontal collaboration. The USSF blog represented a clear example, a decentralized mode of bottom-up reporting, as Ricardo explained, “blogging is a form of grassroots journalism... you try to get people to write their own stories... If you go onto the site you get a real live portrait of the experiences everyone had at the social forum.” The blog reflected a vision of the forum as an open space for sharing ideas and experiences. As Ricardo continued, “The forum is the collectivized and refined experience of masses of people, that’s what the forum is about, and so, that we would blog it that way, that we would take an historical record of it that way is appropriate.”

The Media Justice Center, another important site of conflict, was also meant to encourage participatory collaboration. As Robbie explained during one of the technology sessions, “We set up six rooms for people doing media, using open source tools ... everything for networking... so anyone... could connect their camera... upload [images] to a shared server, and then publish it to the [USSF] media site, which anyone could then use... And it was a beautiful thing to watch!” Similarly, tech volunteers also viewed the on-line registration system not only as efficient, but also as a way to get participants involved in running the forum. As Ricardo told one of us, “If you were already registered you’d walk up to a registrar and they’d take your registration off the computer. You have already registered on-line, so that’s empowerment. If you hadn’t registered, we sent you to a bank of fifteen computers where you could register yourself.”

However, there was also a great deal of conflict surrounding technology within the USSF process, particularly early on in the development of the website. Some members of the National Planning Committee (NPC) were less than enthusiastic about the initial proposals. They were not necessarily opposed to the goals of the ICT team, but they had little sense of the potential of new technologies. ICT team members thus had to raise awareness among other USSF organizers of the capabilities offered by new ICTs and the political nature of technical decisions, particularly with respect to FLOSS. As Robbie confided during a technology workshop, “None of this was a foregone conclusion, these were political discussions, political struggles in some cases, and sometimes very intense, to make sure that FLOSS was the standard for the social forum.”

Tech volunteers also waged struggles to get NPC members to recognize them as fellow *organizers*, as Robbie later pointed out in an interview, “It took a while for other organizers to recognize we actually *were* organizers. There’s a general sense in our culture that information and communications technology work is... a consultant-client relationship... ‘I tell you, ‘I want x,y, and z, and you go do it.’” Indeed, some forum organizers were frustrated at the ICT team’s slow pace at the beginning, but rather than emphasize efficiency, tech workers spent a lot of time addressing the political as opposed to the technical aspects of the decisions they were making. As Robbie continued, “We weren’t super efficient initially, because I think we all felt it was important that, you know, this is the US social forum, it’s about another world is possible, let’s not replicate the consultant-client relationship, let’s not replicate the status quo tool set... let’s really think about how we can bring new people in, let’s figure out how we can use tools we are comfortable with, that we feel we have a political affinity for.”

Although most NPC members came to respect the political work of the ICT team, tensions were never very far from the surface. One particularly contentious exchange occurred on the blog, as a logistics working group member [age and racial background not indicated in the blog post] expressed exasperation at the way he felt he was being treated by tech team members while trying to get basic answers for what he thought was a mundane issue. However, his post reflected a more serious critique of the relation between users and experts, as he wrote:

I read all of these discussions of open source code being so much more politically egalitarian than the proprietary stuff, but what good does that do when only a handful of people can deal with the open source, and the rest of us are at their mercy? So we replace our reliance on the already wealthy (who have the resources we want) with the not yet wealthy (who have the resources we want)... On the whole, it feels to me that the tech team acts as autocratically as any other bureaucratic organization.¹¹

This unleashed series of responses by ICT team members recognizing his frustration and agreeing on the need for a better relationship between techs and non-techs, but asking for further clarification of the specific issues involved. These never came out on the public exchange, but the logistics working group member did finally reply in a more conciliatory tone, explaining that “While the structure of tech requests may seem natural to you who deal with them every day to many of us it’s like trying to learn CAD software with no instruction manual.” He then clarified, “I respect the political importance of open source code. The only thing I have a problem with is the assumption that because something is non-corporate or non-proprietary, it evades serious

power differentials. At this point, tech... holds more control over the happening of the USSF than any other single entity.” Indeed, just as wider debates regarding free speech have little to say about social and political exclusion, so too the emphasis on freedom within FLOSS circles often have difficulty addressing issues of access and equality.

This gets to the heart of a key contradiction related to new ICTs, including FLOSS: despite their egalitarian goals and ability to facilitate decentralized, interactive communication, they often reproduce "knowledge hierarchies" (Nieusma 2007), including the divide between those who possess certain kinds of technical expertise and those who do not. Even more fundamentally, marginalized communities that lack access to basic computing resources may be excluded from technologically driven processes entirely. This is a particular concern for a forum dedicated to overcoming social, economic, class, and racial inequalities (see Juris this volume). The 2007 USSF was widely praised for its efficiency and also for its racial and class diversity. Organizers had made a deliberate effort to ensure the USSF was led by the grassroots. It should thus come as no surprise that issues related to technology, inequality, and access also arose during the USSF.

For example, during one technology workshop, a young African American man said that he did not know how to access FLOSS technologies, and then noted how few people of color there were in the room. Ironically, the African American woman facilitator of the session later wrote that out of 35 participants, 7 or 8 were people of color, which was “the most diverse crowd I’ve ever talked with or been in for an open source conversation.”¹² This suggests that people of color, and as she also pointed out, women, are significantly underrepresented in the FLOSS movement, pointing to a tension between discourses of “freedom” and “openness.”¹³ Indeed,

there is often a slippage between the language of “free” and “open source,” pointing to a liberal blind spot within the discourse and practice of both communities.

One of the most explosive moments of the USSF came during the Peoples Movement Assembly on the last day of the forum when a group of Native Americans protested the silencing of an indigenous leader from Ecuador. Just after their protest concluded, a young woman of color from Poor Magazine denounced the lack of accessibility of the Media Justice Center. Someone from Poor Magazine had made this critique the day before on the blog, “We are running the Ida B. Wells Media Justice Center in a hallway. Everyone has to travel a hallway to get to a room, but when your room is the hallway, it sends a clear message, there is no room for you.”¹⁴ These anecdotes suggest that unequal access, power, and hierarchy are as endemic to technology as any social field. Indeed, part of the challenge facing both social forum and FLOSS communities is to make such resources widely available across gender, race, and class divides.

Conclusion

Software and technology-related decisions are not merely technical matters, they are also deeply *political*. This is particularly so in the case of the social forums, which are committed not only to building a more just, egalitarian, and democratic world, but also, for many participants, to an innovative idea of politics associated with the idea of open space. Many forum organizers and participants view their commitment to an open, processual, and collaborative politics as reflected in the ideals and social relations perceived to be associated with FLOSS. Foremost among these are the distributed, decentralized, and networked nature of the FLOSS production process and

the novel conception of property as the right to distribute, not to exclude, represented by FLOSS (cf. Weber 2004). It is in this latter sense that many forum organizers see a resonance between FLOSS and their own commitment to challenging the power of corporate monopolies. At the same time, a small yet active group of FS Movement activists see the forum as a political corollary to their emphasis on openness and networked collaboration, and have promoted open, interactive processes with respect to media and technology within the forums more generally.

We are not suggesting that all FLOSS enthusiasts make this connection or that there is an *a priori* affinity between FLOSS and the social forums. Nor are we arguing that all participants view the forum as an open space. Both FLOSS and the social forums as networked spaces of transnational encounter are fiercely contested. Indeed, the fact that so much discussion and debate has revolved around meaning, structure, and process, as well as technical, organizational, ideational, and other conditions of possibility, is precisely why we view FLOSS and the forums as recursive publics. What we *are* arguing is that an important, if often overlooked dimension of this recursivity in the case of the forums has been the recurring debates and struggles regarding technological and software-related infrastructures. Many radical forum techies are deeply committed to FLOSS and the facilitation of open, collaborative, and interactive processes with respect to technology, viewing this goal as a reflection of the wider objectives of the forum. However, software and technology have also generated a great deal of conflict within particular forum processes with respect to power, hierarchies of knowledge and expertise, as well as racial, class, and gender inequalities. These tensions are intricately tied to meaning, interpretation, and identity, and, as such, are constitutive of a heated cultural politics of technology. Indeed,

technology is a critical terrain of struggle, as conflicts over media centers, websites, computers, and software mirror contests over the nature of the forum itself.

Moreover, our research revealed striking similarities with respect to issues and conflicts surrounding software and technology within forum processes situated within vastly different social, cultural, and political contexts. Beyond simple comparison, it was precisely the transnational, collaborative, and cross-temporal nature of our ethnographic research that allowed us to trace the transnational flows of objects and struggles within the forums. In this sense, discourses and struggles surrounding FLOSS within the USSF process recalled similar debates inside the Mumbai organizing process, while conflicts between techies and non-techies regarding hierarchies of knowledge and expertise were apparent in both cases. Similarly, struggles over interactivity and accessibility with respect to media centers and websites characterized both the U.S. and European forums. At the same time, specific forum processes confronted particular issues unique to their local settings. Concerns about openness and horizontality were thus more prevalent in the European context while barriers of race, class, caste, religion, ethnicity and gender were more central in the U.S. and India, reflecting predominant concerns among forum organizers in each region given varying socio-political contexts, social movement histories, and the particularities of each forum process. Despite these place-based specificities, the issues addressed were remarkably similar across locales, pointing to the way global problematics are re-embedded within specific local political-cultural contexts.

At the same time, social movements are not simply an object of ethnographic analysis. Each of us, to some extent, also identifies as an activist and organizer. Our long-term political engagements meant certain experiences were available to us that would simply not have been

otherwise. As well, our activist commitments greatly contributed to our practical understanding, not only of the connections between free software, technology, and the social forums, but also with respect to key practices, conflicts, and tensions involving the links among domains. Directly engaging in the forums has also led to a self-critical reshaping of our research practices and dispositions. In this sense, our political engagement has informed our decision to search for new forms of collaborative writing and research that reflect the distributed, transnationally networked conditions of our political and intellectual production (see also Casas-Cortés, this volume).

Ultimately, we hope our analysis will not only contribute to academic debates regarding social movements, cultural politics, and technology, but that it can also inform activist strategy (including our own). A particular challenge for forum organizers over the coming years will be to ensure that a wider set of individuals and groups can participate in technological decisions, thus avoiding a situation where a small number of expert technicians can exert disproportionate influence and control over the process. This will require a further democratization of the basic knowledge, skills, and technology required not only to use, but also to appreciate the political dimensions that are always already constitutive of technology and software. In sum, we hope our ethnographic analysis, constructed with the methodological and theoretical tools at our disposal, can contribute to an ongoing process of reflection and debate that is *already* occurring among forum organizers and other activists regarding the relationship between technology, organization, and the forums. Indeed, each of us participates in these discussions within various forum organizing bodies and working groups, and we plan to circulate this chapter among our collaborators and interlocutors.

At the same time, it is also important to recognize the limitations of our attempt to bridge the academic/activist divide. As organizers, we know about and participate in many other spaces of activist knowledge production and distribution. Many of these other spaces- digital forums, listservs, blogs, zines, etc.- are more accessible to activists and are open and collaborative. What do we hope to achieve then by including this essay in a copyrighted volume intended for a more academic audience? This is a vexing question, but we do not see it as a simple either/or choice. Most of us will continue to write and publish in more open, available, and largely online activist sources, yet the tone and quality of the writing is not the same. There is often little space for ethnographic, theoretically informed, and critical modes of writing in these spaces. Academic outlets remain critical for the kind of reflective and nuanced analyses we hope to produce, and they allow us to also reach a broader non-activist audience. The point is to generate analyses that can speak to multiple audiences, sometimes in more activist spaces, other times in university and other academic presses, and to push the boundaries of whatever venue we choose. In this sense, we hope that academic presses will consider publishing in open formats and will market to non-university-based audiences, and that it will be seen as economically advantageous to do so. In the meantime, we are left with the hopes, frustrations, and contradictions of our attempts to bring together ethnography and transnational activism within our organizing and academic pursuits.¹⁵

¹ As further discussed below there is an important divide in the FLOSS world between those who are associated with and/or inspired by Richard Stallman's "Free Software Movement," and who thus primarily emphasize an ethical-political commitment to "freedom," and their more corporate friendly counterparts who stress the open nature of the FLOSS development process. The former tend to refer to "free" or "free/libre" software, while the latter tend to use the language of "open source." At the same time, there is often a slippage between one discourse and the other, even on the part of individual actors. Unless specifically referring to the Free Software (FS) Movement, here we use the more inclusive FLOSS acronym to encompass both discourses and to underscore the ethical *and* developmental aspects of FLOSS.

² According to the World Social Forum Charter of Principles, "The World Social Forum is an open meeting place for reflective thinking, democratic debate of ideas, formulation of proposals, free exchange of experiences and interlinking for effective action, by groups and movements of civil society that are opposed to neoliberalism..." (<http://www.forumsocialmundial.org.br>, accessed January 18, 2010).

³ Interestingly, in Raymond's essay, the "cathedral" style of software development is not only associated with proprietary software, but also meant as a criticism of the cathedral development style within emacs core, led, perhaps ironically, by Richard Stallman.

⁴ As Walter Scacchi (2007) points out, there are also slight pragmatic difference between "free" and "open source" software development processes primarily revolving around the licenses used. Free software generally uses a GNU General Public License (GPL). Open source projects may use GPL, but they may also use a license that provides for the integration of non-free software.

⁵ Unless otherwise indicated, all quotations are from personal interviews.

⁶ Not to be confused with the Independent Media Centers (IMC) that often coexist with the "official" ESF Media Centers.

⁷ <http://www.hellug.gr>

⁸ The main organizations heading up the USSF ICT team included the New York City-based May First People Link, Openflows, and the Interactivist Network.

⁹ Although techs working on the European and global forum processes are now using the Plone content management system, and offered to provide their code, members of the USSF ICT team opted to go with Drupal because they had more experience working with that format.

¹⁰ All names used in this section are pseudonyms.

¹¹ “Techno-democracy feels something like autocracy,” <http://www.ussf2007.org/en/node/5063>.

¹² “Gender, race, and open source,” <http://www.zenofnptech.org/2007/06>. Details regarding this workshop were also gleaned from Peter J. Smith’s personal field notes.

¹³ For more on the lack of gender, race, and class diversity within the FLOSS movement, see Lin (2006) and Lovink (2003: 194-223).

¹⁴ “POOR magazine: reflections on my journey to Atlanta,” <http://www.ussf2007.org/en/node/17477>.

¹⁵ As we put the finishing touches on this chapter the social forum process has continued to evolve, particularly in the realm of technology. In terms of regional forums, two editions of the ESF have taken place over the past two years in Sweden (Malmoe, September 17 to 21, 2008) and Turkey (Istanbul, July 1 to 4, 2010), while the second U.S. Social Forum was held in Detroit, Michigan from June 22 to 26, 2010. With respect to the ESF, a collaborative platform called OpenESF was created at the end of November 2007 to provide an ongoing networking space, in order to facilitate sustainability through the use of new technologies. However, activity on the platform declined soon after the Malmoe forum (Saeed and Rode 2010) and the OpenESF site was finally shut down in 2010. Meanwhile, similar problems to those we address here related to the cultural politics of technology resurfaced once again within the management of the official ESF website and the translation system during the latest editions of the ESF (Saeed et al. 2010).

Concerning the second USSF, unlike at the 2007 Atlanta forum, the NPC was more aware of technological issues this time, including the political significance of free software and the fact that

technologists are also political organizers. This has to do, in part, with the fact that key members of the tech team were also members of the NPC this time around, but it also reflects a process of institutional learning. The main technology-related tension that came out in Detroit had to do with the use of Facebook. Members of the outreach committee wanted to post a Facebook logo and link on the USSF website. Many tech team members felt it was important to avoid promoting a corporate website and to use movement tools instead. In response, outreach team members argued that it was important to reach people where they are. Tech team members acknowledged the point but still felt it was important to channel people from Facebook to the USSF page, not the other way around. Ultimately, outreach members took responsibility for the website, and the decision was made to use Facebook but not to post the logo on the USSF site. The registration process also ran into a technical glitch in Detroit as organizers were trying to collect more usable information this time and the system got overwhelmed. After having to shift to a manual process on the first day, however, the tech team successfully fixed the bug on the first evening, and everything went more smoothly after that.

Technology related trends in the USSF have also resonated with the global WSF process, as activists are currently organizing for the next world event in Dakar, Senegal set to take place in February 2011. While the debate over Facebook has reappeared and has been dealt with in a similar way as in the USSF (due not only to similar reasoning but also to the participation of USSF activists in the Communication Commission of the WSF International Council) a related debate has revolved around the use of Skype technology for video conferencing. In this context, the latest concept paper released by the Communication Commission of the Dakar Organizing Committee, which addresses the technology to be used to allow those who cannot be physically present in Dakar to participate virtually- the “Dakar Extended” process- explains: “Debates via Skype or a similar ‘free’ technology [will be used].” This open and pragmatic approach has both given voice to the concerns of those who are uncertain about relying only on free technology, while at the same time leaves space for the development of alternative “free” technologies. In general, the technological realm is becoming

increasingly discussed and politicized within the forums, as demonstrated by initiatives such as the first World Forum on Science and Democracy at the 2009 WSF in Belem (<http://fm-sciences.org/?lang=en>, accessed August 18, 2010), and the first World Techie Congress at the 2010 USSF in Detroit (<http://techie-congress.net/fr/node/1> and <http://www.apc.org/en/news/progressive-techies-declare-their-rights-and-respo>, accessed August 18, 2010).

References

- Bello, Walden. 2007. "The forum at the crossroads," <http://www.fpif.org/fpiftxt/4196> (accessed January 24, 2010).
- Cardon, Dominique and Fabien Granjon. 2003. "Les mobilisations informationnelles dans le mouvement altermondialiste." In *Colloque international: Les mobilisations altermondialistes* (Paris, 2007), <http://www.afsp.msh-paris.fr/activite/groupe/germm/collgermm03txt/germm03cardon.pdf> (accessed January 20, 2010).
- Coleman, Gabriella. 2009. "Code is Speech." *Cultural Anthropology* 24(3): 420-454.
- . 2004. "The political agnosticism of free software and the politics of contrast." *Anthropology Quarterly* 77: 507-519.
- Couture, Stéphane. 2007. *Logiciel libre, activité technique et engagement politique*. M.A. Thesis. Université du Québec à Montréal.
- De Angelis, Massimo. 2005. "PR like PRocess! Strategy from the bottom up." *Ephemera* 5(2): 193-204.
- . 2004. "Opposing Fetishism by Reclaiming our Powers." *International Social Science Journal*, 182, pp. 591-604.

- EPA. 2005. *Istanbul report from the logistics European working group*, www.fse-esf.org/spip.php?article111 (accessed August 31, 2007).
- Fischer, Frank. 2000. *Citizens, experts, and the environment*. Durham, NC: Duke University Press.
- Fuster Morell, Mayo. 2008. *Social forums and technology*. Paper prepared for the "Networked Politics and Technology" Seminar, University of California, Berkeley (December 6 -7, 2008).
- Hakken, David. 2007. "A Critique of Popular Political Economies of Knowledge in Cyberspace, An Alternative Political Economy of Cyberspace Knowledge, and A Demonstration of the Applicability of the Alternative to Study of Free/Libre and Open Source Software in the Malay World." *New Proposals* 1(1): 40-80.
- Hess, David. 1995. *Science & technology in a multicultural world*. New York: Columbia University Press.
- Jones, Dave. 2004. "ESF Media and Communications Strategies." *Euromovements newsletter*, 4 <http://www.euromovements.info/newsletter/dave-jones.htm> (accessed August 31, 2007).
- Juris, Jeffrey S. 2005a. "The new digital media and activist networking within anti-corporate globalization movements." *The Annals of the American Academy of Political and Social Sciences*, 597: 189-208.
- . 2005b. "Social Forums and their Margins." *Ephemera* 5(2): 253-72.
- . 2008. *Networking Futures*. Durham, NC: Duke University Press.
- Kelty, Christopher. 2008. *Two bits*. Durham, NC: Duke University Press.
- . "Collaboration, Coordination, and Composition." In *Fieldwork is not what it used to be*, edited by James D. Faubion and George E. Marcus, 184-206. Ithaca: Cornell University Press.

- Leach, James. 2009. "Freedom imagined." *Ethnos* 74(1): 51-71.
- Lin, Yuwei. 2004. "The future of sociology of FLOSS," *First Monday*, Special Issue #2: Open Source (October), http://firstmonday.org/issues/special10_10/lin/index.html (accessed January 24, 2010).
- .2006. "A techno-feminist perspective on the free/libre open source software development." In E. M. Trauth, ed., *Encyclopedia of gender and information technology*. Hershey, PA: Idea Group Inc.
- Luke, R., A. Clement, R. Terada, D. Bortolussi, C. Booth, D. Brooks and D. Christ. 2004. "The promise and perils of participatory design approach to developing and open source community learning network," in *PDC 2004: Proceedings of the Eighth Biennial Participatory Design Conference Volume I*, 11-19. New York: CPSR and ACM.
- Lovink, Geert. 2003. *My first recession*. Rotterdam: V2_/NAi Publishers.
- Matsutake Worlds Research Group. 2009. "Strong collaboration as a method for multi-sited ethnography." In *Multi-sited ethnography*, edited by Mark-Anthony Falzon, 197-214. Burlington, VT: Ashgate.
- Nafus, Dawn, James Leach, and Bernhard Krieger. 2006. "Gender." In *free/libre and open source software*. UNU-Merit, Maastrich, http://flosspols.org/deliverables/FLOSSPOLS-D16-Gender_Integrated_Report_of_Findings.pdf (accessed May 10, 2010).
- Nieusma, Dean. 2007. Challenging knowledge hierarchies. *Sustainability: Science, Practice, & Policy* 3(1): 32-44, archived at: <http://ejournal.nbii.org>.
- PGA. 2007. *Media lab at ESF in Paris*, www.nadir.org/nadir/initiativ/agp/free/wsf/paris2003/medialab.htm (accessed August 31, 2007).
- Raymond, Eric. 1999. *The cathedral and the bazaar*, 1st ed. Sebastopol, Calif.: O'Reilly.
- Riemens, Patrice. 2005. "Some thoughts on the idea of 'hacker culture.'" In *Anarchitexts*, Joanne

Richardson, ed. New York: Autonomedia.

Saeed, Saqid and Markus Rohde. 2010. "Computer enabled social movements? Usage of a collaborative web platform within the European social forum." In *Proceedings of the 9th International Conference on Designing Cooperative Systems*, edited by M. Lewkowicz, P. Hassanaly, M. Rohde and M. Wulf, 245-264. May, 18-21, 2010, Aix-en-Provence.

Saeed, Saqid, Volkmar Pipek, Markus Rohde and Wolf Volker. 2010. "Managing nomadic knowledge ". In *Proceedings of the 28th international conference on Human factors in computing systems*, 537-546. April, 10-15, 2010, Atlanta, Georgia, USA.

Scacchi, Walter. 2007. "Free/open source software Ddevelopment." In *Advances in Computers*, Volume 69, edited by Marvin Zelkowitz, 243-295. Amsterdam: Elsevier.

Sen, Jai. 2004. *The long march to another world*, www.choike.org/PDFs/introduc.pdf (accessed July 15, 2007).

Smith, Jackie, Karides, Marina, Becker, Marc, Brunelle, Dorval, Chase-Dunn, Christopher, della Porta, Donatella, Icaza, Rosalba, Juris, Jeffrey, Mosca, Lorenzo, Reese, Ellen, Smith, Peter Jay and Ronaldo Vázquez. 2007. *Global democracy and the world social forums*. Boulder (CO): Paradigm Publishers.

Smith, Jackie, Jeffrey S. Juris, and the Social Forum Research Collective. 2008. "We are the ones we have been waiting for." *Mobilization* 13(4): 373-394.

Star, Susan Leigh. 1999. "The ethnography of infrastructure." *American Behavioral Scientist* 43:377-391.

Takhteyev, Yuri. 2009. "Networks of practice as actor-networks." *Information, Communication and Society* 12(4): 566-583.

Weber, Steven. 2004. *The Success of open source*. Berkeley: University of California Press.

Whitaker, Francisco (Chico). 2007. "Crossroads do not always close roads,"

http://www.wsflibrary.org/index.php/Crossroads_do_not_always_close_road (accessed January 24, 2010)

Zalea TV 2003, *Communiqué de Zalea TV sur le média center de Forum Social Européen*, <http://archives.lists.indymedia.org/italy-list/2003-November/017424.html> (accessed August 31, 2007).

Zúñiga Lena. 2006. *Voces libres de los campos digitales*. San José (Costa Rica).