Notwithstanding a growing interest in online politics, the analysis of web sites’ qualities by social movement organizations (SMOs) has received little attention in social research. In creating their sites, SMOs often underline the capacity of new technologies to involve members and sympathizers in organizational processes and internal decision-making. However, web site design and management implies many choices among various goals, often in reciprocal tension: stressing organizational identity versus opening to the outside; increasing transparency versus reserving some sections to members; informing users versus mobilizing them; widening the debate to people with different opinions versus deepening the discussion in homogeneous groups. In this article, we focus on how the web sites of SMOs are fulfilling Internet potentialities, considering various aspects of their online presence. The empirical research was based on the analysis of 261 web sites of Global Justice Movement (GJM) organizations in six different European countries and at the transnational level. Diverse qualities of SMOs’ web sites can be explored empirically, focusing on a series of dimensions such as: information provision, identity building, transparency/accountability, mobilization, and intervention on the digital divide. In our analysis, we will use contextual characteristics (level of Internet access, GJM features) and organizational characteristics (structural features, territorial level of action, year of foundation) to explain the different qualities of the web sites.

**Keywords**  Global Justice Movement; social movements; qualities of web sites; political use of the Internet
also increased the potential for protest. Besides communicating, they allow the dissemination of information that is difficult to spread to the overall population. With these means, such information has been able to reach distant places that in the past were absolutely excluded from this type of communication.

(activist of the social centre Leoncavallo, Milan)

The quotation above briefly synthesizes how activists of social movements perceive the Internet’s contribution to collective action. For many years, the debate on the political effects of the Internet has been mainly focused on an abstract level, with scarce references to empirical data. Initial studies on the Internet and politics focused mainly on political parties and on strategies of electronic communication during electoral campaigns. The main results of these studies indicate low interactivity on the part of web sites of political parties (Cuhna et al. 2003; Gibson et al. 2003) and institutions (Coleman et al. 1999). According to these analyses, the Internet has not improved party communication with voters, activists, or citizens — especially (with few exceptions, e.g. Kies 2005) bilateral forms of communication. In particular, web sites have been used more as instruments of top—down propaganda than as tools for debates and exchanges of ideas. In this sense, the way in which the Internet is used by political parties and politicians alike does not seem to differ very much from their use of other media technologies, as potentialities are constrained not only (or not so much) by material resources but also by deep-rooted cultural habits (van Os et al. 2007; Zittel 2003, p. 3).

However, the choice of research object could have biased the results. As Bennett (2003a, p. 19) points out, ‘much of the attention to the Internet has been directed at the places where the least significant change is likely to occur: the realm of conventional politics’. In fact, he argues, established organizations are more likely to adapt new technologies to their existing missions and agendas than to be transformed by the Internet. In contrast, social movement organizations (SMOs) and, more in general, loose networks and unconventional forms of politics should be more open to experimentation and permeable to technological changes. Among these groups, social science research has indeed singled out more innovative and dynamic use of the Internet (for instance, on NGOs’ web sites in Eastern Europe, see Vedres et al. (2005); on the European Social Forum organizing process, see Kavada (2007a, b)).

The debate on the innovative potential of new technologies has recently been followed by a new interest in empirical research on the relationship between the Internet and social movements. This medium has been said to provide social movements with a cheap and fast means for communication beyond borders, fostering mobilization, and favouring more flexible and looser organizational structures (Bennett 2003b; Smith 1997). Even in the field of social movement studies, however, other authors have presented a more pessimistic view on the
democratic potential of the Internet based on the limited offering of interactive channels, but also on the low use of these applications when offered (Rucht 2004, p. 80). Indeed, if the Internet presents new opportunities to resource-poor actors, it also creates new challenges for their collective action as, apparently, not only conventional political actors but also unconventional ones have difficulty exploiting its full democratic potential (Mosca 2007). But with few remarkable exceptions, assessment of the qualities of web sites has been either impressionistic or based upon a few paradigmatic cases.

In our empirical research, we have addressed the general question of the qualities (understood here as characteristics that help to increase equal participation, inclusive communication and to reduce inequalities among users) of the use of new technologies by SMOs by focusing on the structural characteristics of an important instrument of Internet communication: the web site. Following our more general interest concerning the democratic conceptions of social movements (della Porta 2005a, 2005b) as well as processes of transnationalization of collective action (della Porta 2007), we assessed some general qualities of the web sites of 261 organizations belonging to the Global Justice Movement (GJM). We define the GJM as a loose network of individuals and organizations (with varying degrees of formality), engaged in collective action of various kinds, on the basis of the shared goal of advancing the cause of justice (economic, social, political, and environmental) among and between peoples across the globe (ibid.).

Though a structured analysis, we have collected information on the web sites that we considered as apt for analysing the following characteristics:

- **general information provision**, including indicators aimed at estimating the dissemination of information and information usability;
- **identity building**, considering the publication of information on the organization’s history as well as the presence of spaces for multilateral interactivity (Rommele 2003) such as online debates;
- **transparency**, with a set of indicators on the publication of information on statutes, organizational structure, work agenda, physical existence and reachability, activities, economic situation, number of web site users as well as the presence of information useful for accessing members of the organization (what is referred to as bilateral interactivity, that is, the willingness of an organization to offer channels of direct communication with citizens (Rommele 2003, p. 10));
- **mobilization**, looking at the ways in which an organization uses the web site to mobilize its users to take part in forms of political participation both offline (demonstrations, protest events, etc.) and online (e-petitions and electronic disturbance actions such as netstrikes, mailbombings, and so on);
- **intervention on the digital divide**, looking at the availability of training and resources to socialize users to the Internet.
After a brief discussion of our research design and methodological choices, we will describe some characteristics of the SMOs’ web sites in the above dimensions. We shall conceptualize provision of information, identity building, transparency, mobilization, and reduction of users’ inequalities in accessing and using this medium (digital divide) as relevant qualities of web sites; suggest appropriate indicators; and assess the empirical performance of our population of web sites on those indicators. Next, we shall single out potential explanations for the varying attention given to various potential qualities of the web sites. After looking at the internal correlation among the different qualities we have singled out, we shall assess the influence of contextual and organizational characteristics on the main characteristics of the web sites.

Our empirical research: the main choices

Before moving to the results of our empirical analysis, some remarks on the research design and methodological choices are in order. In this article, we present the results of a cross-national quantitative analysis of the web sites of 261 organizations of the GJM in six European countries (Italy, France, Spain, Germany, Switzerland, and Great Britain) as well as at the transnational level. In each country and transnationally, we selected about 35 organizations that had been involved in the main initiatives of the GJM (among them the European Social Forums), insuring variance especially on the main issues addressed. Lists of organizations that had signed calls for action of social forums (at the national, European, and global levels) and other important movement events were used to single out the groups belonging to the ‘core’ of the GJM’s networks. A common sampling strategy was agreed upon in order to collect comparable data, covering SMOs representing different streams within the movement (environmentalist, pacifist, women’s rights, unions, gay, migrant and human rights’ activists, squatters, and so on), organizations that stemmed from the GJM (local social forums, Attac), as well as web sites of media close to the GJM (periodical magazines, radios, newspapers and networks of independent communication). 1

Ours is not a random sample and therefore cannot be considered as representative of the composition of the GJM in each country. Random sampling is, however, only one of the possible ways of selecting cases; it has some obvious advantages, but difficult preconditions of applicability. As stated by King et al. (1994, p. 125), ‘Random selection might not be feasible because the universe of cases is not clearly specified’ — as was indeed our case, since there is no ‘official’ list of web sites of GJM organizations. We were also aware of the risk of ‘missing important cases’ (ibid.). We were, however, careful not to sample on our dependent variables, following the criterion that ‘the best intentional design selects observations to ensure variation in the explanatory variable (and any control variables) without regard to the values of the dependent variables’ (ibid., p. 140).
Because of this sampling strategy, we cannot say that our national samples are representative of the (unknown) universe of web sites of GJM organizations in each country. Nonetheless, since our case selection respected the principle that ‘we must not search for those observations that fit (or do not fit) our *a priori* theory’ (ibid., p. 141; see also p. 142), we do feel confident that the selection choices did not bias the statistical correlations among the coded variables.

The analysis of web sites of GJM organizations was carried out using a structured codebook designed around a series of variables investigated by previous research on the online presence of political actors (i.e. Gibson & Ward 2000; Trechsel *et al.* 2003; Van Aelst & Walgrave 2002; Vedres *et al.* 2005).\(^2\) The codebook was tested several times by all coders. Two reliability tests were carried out on two different web sites each. After the second test, we intervened in particular upon variables that had not worked well (scores of intercoders’ reliability below 50 per cent). To make the coding process more reliable, we instructed the coders to follow some general rules, such as: (a) limiting some searches to specific parts (i.e. the homepage) or sections of the web site; (b) using the internal search engine (when present) or an equivalent Google search function that limits the search to a single web site; and (c) following the operational definitions provided in the glossary that was inserted at the beginning of the codebook.

The strength of our research design in this part of the Demos research project lies in the use of a systematic, large-\(N\) analysis of web sites of SMOs that vary in terms of country, geographic level, issues covered, organizational resources, models and types (the sample includes unions, leftist parties, and NGOs, as well as networks and grassroots groups). In this sense, beyond the specific contribution we develop in this article, our database can (and will) be used to assess the different emphasis along the aforementioned web sites’ qualities by different organizations. Additionally, in other parts of the Demos project, we have combined this information with interviews about Internet use by SMOs (della Porta & Mosca 2006a) and activists (Mosca & della Porta 2009). Some quotations from interviews with representatives of SMOs whose web sites are analysed in this article have been added at the beginning of each section as an illustration.\(^3\)

Of course, the research design also has obvious limits. Among others, (a) we focused mostly on groups that were already active offline and scarcely considered those active exclusively online; (b) we analysed only web sites, without considering other important online tools such as mailing lists, forums, chats, blogs, and so on; (c) we did not look at the actual use of the web sites, but focused on their (somewhat static) structural characteristics.

**Web sites’ qualities**

If technology offers various opportunities and constraints, the actual implementation of a technical instrument defines the extent to which the potential is
exploited and the limits overcome. Although we assumed that SMOs are indeed interested (even more than other actors) in the Internet as an instrument that might reduce the cost of communication and make it more inclusive, we also considered the actual implementation of these possibilities as a matter for empirical investigation. Additionally, we assumed that the attention to the different ‘qualities’ of a web site design can vary. In what follows, we will analyse different strategic choices in the construction of web sites, presenting web sites’ performances on the main analytical dimensions we have already singled out.

**Web sites and the provision of information**

As for the web site, it has a specific function: it allows us to keep a memory of what we have done and store the documents we have produced as an archive or database. It would be much more difficult to find these materials and disseminate them without the web site (activist of the local social forum in Venice).

As in the quote above, the activists that we have interviewed often underline the importance of web sites as a means for constructing a memory of the activity of the organization, and for disseminating information. A web site can fulfil an important function in that it organizes a set of meanings, selects a part of reality, and proposes an interpretation of it. SMOs belonging to the GJM stress, more than most social movements in the past, the importance of building a specialized knowledge (della Porta et al. 2006). Helped by the Internet, epistemic communities, and advocacy networks (Keck & Sikkink 1998) spread information on global issues, highlighting the negative consequences of economic globalization and possible alternatives to neoliberalism as well as various struggles in different parts of the world (on the paradigmatic case of the Zapatistas, see Olesen (2005)). These groups supported the creation of the GJM, providing alternative knowledge on specific issues, access, and visibility on the web and linking organizations acting in different parts of the globe.

In our analysis, most of the analysed web sites present a significant amount of information. They frequently offer political education via articles, papers and dossiers (90 per cent of the cases), even providing bibliographical references (40 per cent). More than half of the web sites (53 per cent) publish conference and seminar materials that allow interested users to deepen their knowledge on specific topics; a news section is present in almost four-fifths (78 per cent) of our web sites. In order to put our data in a wider comparative perspective, we can recall that the web sites of Eastern-European NGOs offered a news section in a much lower 48 per cent of the cases and information about conferences in only 16 per cent (Vedres et al. 2005, p. 154).

An important aspect that affects the quality of information is also the usability of a web site — that is, the possibility for users to find information easily. The presence of search engines and web site maps should help the user to rapidly find what he/she is searching for. It seems that SMOs perceive this necessity:
almost 60 per cent provide a search engine and almost 30 per cent have a site map. Only about one-fourth of the web sites, however, offer translations of basic information on the group, and about one-fifth translate the section identifying them. This seems a comparatively low proportion, if we consider the highly transnational nature of the movement’s frames and action (additionally, about one-third of Eastern-European NGOs translate at least part of their web sites; see Vedres et al. (2005, p. 154)). Although one could argue that borderless communication develops more through mailing lists than on web sites, it seems that, in a globalizing world, national civil society organizations still find it difficult to speak to each other across borders: language differences still represent problematic barriers for transnational communication. 4

Building identities through the Internet

Our mailing list is a permanent assembly. . . . in fact, it is our virtual assembly, where the discussion goes on and on, focusing on different issues – both on concrete things to do and organize and on the analysis of the political situation.

(activist of the squat ‘Cantiere Sociale’, Milan)

Web sites serve as opportunities for self-presentation to the general public, while specific tools like forums and mailing lists favour ongoing communication and discussion among activists. 5 The web sites are in fact considered by activists as ‘electronic business cards’ that reflect and represent the identity and past history of the organization. Social movement scholars have underlined the Internet’s capacity to generate new identities. While Diani (2001) claims that the Internet’s contribution to the collective identities of social movements is mainly in reinforcing existing ones, Freschi (2002) studied how virtual communities can develop an identifying function, creating social networks with internal solidarity and common beliefs, acting online and offline. In fact, ‘real communities can and do take root in Internet-based space’ (Gurak & Logie 2003, p. 43).

One type of information generally published on the web sites of GJM organizations does concern the identity and the history of the group itself. The Internet represents an important opportunity for SMOs to overcome the gate-keeping role of the traditional media and present themselves to the general public without external manipulation. Overall, around two-thirds of the web sites we analysed provide an archive of press releases (also an important source of information for journalists of traditional media) and an archive of annual reports or a chronology of the history of the organization. Additionally, about two-fifths of the surveyed organizations have online archives of old leaflets (informing about the history of the organization: its actions, its campaigns, its mobilizations, etc.) as well as documents on past assemblies that are considered fundamental steps in their collective history.
If information on the history of a group is particularly interesting for people new to an organization, information on the current life of the organization is of primary importance both for neophytes and for older activists. It is interesting to note that more than 50 per cent of the analysed web sites have a newsletter that in the large majority of cases is accessible by all users, while less than 25 per cent publish online the internal work agenda of the group. The organizations that are more interested in enhancing internal communication with their members can provide a members-only section on their web sites: this is the case in one-quarter of the analysed web sites.

Our previous research on the use of SMOs’ web sites during the mobilization against the G8 in Genoa in 2001 (della Porta & Mosca 2005a) indicates that the Internet provides opportunities for reflexivity. Online forums and mailing lists promote debates on specific choices (such as forms of actions, alliances, slogans, etc.) before a protest takes place and, later, a collective reflection on a demonstration’s success and failure among ‘distant’ activists.

This takes us to another characteristic, also relevant for the formation of a collective identity through online debates. The presence of specific applications like forums, mailing lists or chat lines on a web site indicates the organization’s commitment to multilateral interactivity through the creation of open spaces for discussion among diverse people. Applications for multilateral interactivity are variously spread on the analysed web sites. About one-third of the web sites provide an asynchronous space for discussion (forum and/or mailing list). This is not a comparatively low proportion – similar indicators show that about one-fifth of the Eastern-European NGOs provide instruments for participation via bulletin boards, chat rooms and the like (see Vedres et al. 2005, p. 154). However, it also indicates that a majority of our groups do not consider web sites as instruments for open debate.

Additionally, the newest forms of information management like open publishing (all users can publish news, calls, proposals, etc. without a filter) are used in only 10 per cent of the cases; the same percentage of web sites offers the possibility to respond to the organization’s specific request for comments, or for surveys and questionnaires to collect users’ opinions on various topics.

**Transparency and accountability on the web**

There are also huge challenges as you are bombed with silly things; and it can happen that somebody decides to run a web site and to simulate the presence of a group or a collective behind it, while in reality it is just one person behind an Internet address. . . . so it is important to adopt some filters but this does not apply only to the Internet; in fact, with other means of communication you also have to select information and use filters.

(activist of the online information portal ‘Social Press’, Milan)

One of the main critiques concerning the Internet refers to the risks of opaque and ambivalent communication, as highlighted by one of our interviewees.
However, the high information storage capacity of the web sites also provides opportunities for improving transparency and accountability. A large majority of our sampled SMOs use web sites to improve transparency about their internal life. As many as 80 per cent offer information on the physical existence and reachability of the organization (a similar percentage was noted for Eastern-European NGOs; see Vedres et al. 2005, p. 154), which in 70 per cent of the cases are directly published on the homepage or just one click away. Even more (85 per cent) publish online the statute (or an equivalent document) of their organizations, and almost two-thirds contain information on the organizational structure of the group. Less frequent is information on the web site itself: in only one-fourth of the web sites do we find information about the last updating, and only 16 per cent give some kind of indication on users’ access to the web site (although those statistics are often unclear and very imprecise, lacking also a temporal reference). Probably also because of often low budgets, only 25 per cent of the web sites provide information on organizations’ finances.

The presence of contact information for people actively involved in the organizations, both with leading roles and with other identified roles, indicates the willingness of the organization to open up to public scrutiny by creating direct channels of communication with web site users. In this sense, the presence of contact information represents a step beyond unidirectional instruments of communication (like a newsletter). Almost 90 per cent of the web sites provide a general email address for the organization, 30 per cent of them on their homepages. A similar percentage (85 and 87 per cent, respectively) was found in the case of Eastern-European NGOs (Vedres et al. 2005, p. 154) and in the analysis of European parliaments online (Trechsel et al. 2003, p. 23). However, the provision of email addresses of other people involved in the organization is not widespread on the analysed web sites: the email address for the webmaster is provided in only 40 per cent; for other people/departments within the organization in 31 per cent; and for the person responsible for international relations in 14 per cent. Among the groups that identify the presence of a leader, less than half give information on the person that performs this role, and about a quarter provide leader contact information to the general users.

The responsiveness of the general information service and of the webmaster is also indicated by the responses to an email we sent (using the email addresses published on the web site) to request information about the site’s management. Overall, the response rate varied from 31 per cent for the request sent to the general email address, to 45 per cent for the one sent to the webmaster.

### Mobilization through the web

The Internet has a pivotal and strategic role for us; it is part of our strategy of communication and pressure. . . . We are employing it in a very interesting way to organize online pressure campaigns on national deputies and also
on representatives at the local level. We have used mail-bombing on political representatives and it has given interesting results.

(spokesperson of the ecopacifist network rete Lilliput, Rome)

As the quotation above shows, activists are sensitive to the potential of the Internet to organize pressure campaigns and to directly perform acts of dissent, both online and offline. Research on unconventional political participation has stressed that the ability of citizens to exert democratic pressure on their representatives through active mobilization is particularly problematic at the transnational level. The organization of transnational protest has, in fact, very high transaction costs—which partially explains why, although competences increase at the international level, protest remains mainly national, if not local. However, the Internet has substantially reduced the cost of communicating with large numbers of individuals spread all around the globe. There is rising evidence that ‘protests are increasingly conceived, planned, implemented, and evaluated with the help of the Internet’ (O’Brien 1999). In the last few years, the Internet has allowed for the organization of large, transnational demonstrations, occurring with a frequency and a numerical consistency previously unknown.

The web sites of our sampled SMOs perform mobilization functions to very different degrees. Most widespread is the use of the Internet for offline protest. More than 60 per cent of the organizations publish their action calendar online, a significant proportion when compared with 42 per cent in the case of Eastern-European NGOs (Vedres et al. 2005, p. 154). About one-third also puts online the action calendar of other organizations belonging to the GJM; the same proportion provides concrete information (through handbooks or links to useful resources) on offline forms of action. The organization of physical meetings for offline forms of action is covered by almost one-fifth of the analysed web sites (between 16 and 22 per cent organize workshops and help desks to socialize people to offline forms of action); information on offline forms of action is present in about one-third (36 per cent). As many as two-thirds of our web sites advertise the participation of their organization in a protest campaign.

The Internet also provides instruments for online protest, such as e-petitions, netstrikes, and mailbombings. Many hackers—with their attention to the Internet and online protest—belong to the GJM, struggling against copyright and for the right to privacy (Jordan 2002). Computer-mediated communication allows the mounting of transnational campaigns against multinational corporations (among others, De Beers, Microsoft, Monsanto, and Nike), especially via e-petitions, which have also been used to denounce specific human rights violations and to pressure national governments against the death penalty. Thanks to the Internet, these campaigns have become more long-lasting, less centrally controlled, more difficult to turn on and off, and more flexible in terms of networks and goals (Bennett 2003b). A more (virtually) radical form of online protest is
the netstrike, in which a large number of people connect simultaneously to the same domain at a prearranged time, ‘jamming’ a site considered a symbolic target and making it impossible for other users to reach it. For instance, a netstrike was promoted against the WTO web site during the protests in Seattle, ideally linking offline and online environments (Jordan 2002). Similar to the netstrike, mail-bombing consists of sending emails to a web site or a server until it overloads and gets jammed.

In our web sites, however, online forms of action are promoted less often than offline tactics: almost 30 per cent of the analysed web sites use the online petition; almost 18 per cent propose to their users a form of online mobilization like the e-postcard; and 15 per cent publish concrete information about online forms of actions on the web site. The percentage is even lower if we consider the presence of calls to netstrikes and/or mailbombings; other forms of online mobilizations are much more widespread, although still limited to a minority of web sites.

Intervening on the digital divide

I think that there is always a problem with technology . . . the web site we had before was much more complex than the present one and it forced people to have some knowledge of html language. But this is something that selects [who can participate], and so you become a filter and a funnel and all depends on you. This was a strong limitation with which we had to cope. To create the new web site, we used French free software that is completely open ( . . . ) The advantage is that this new system is very easy and it can be used by everybody.

(activist of the online portal Social Press, Milan)

Although the Internet is perceived by social movement activists as an opportunity for informing, building identities, making communication more transparent and mobilizing, the limits of Internet communication are recognized. The extent to which the Internet allows for mobilizing different groups of the population, especially the least ‘technologically educated’, is an open question, often discussed in the literature on the Internet and protest. The Internet is in fact the specific source of a new form of inequality, the ‘digital divide’ — that is, the differential access to digital technology by particular social groups and countries (Norris 2001). Our own data from a survey of activists participating in the first European Social Forum in Florence confirm to a certain degree the existence of a digital divide within social movements, although they also point at the role movement organizations play in socializing their members to the Internet (della Porta & Mosca 2005a).

The organizations we selected for our analysis, however, do not seem very concerned with this issue. In fact, less than 10 per cent provide laboratories, help
desks and other electronic applications to socialize their users to the Internet. Only 5 per cent of these groups offer free email to their users, and just 8 per cent host web pages or web sites. The presence of a text-only version of the web site, allowing people with slow connections or old hardware to access its contents, is present in only about 5 per cent of the web sites. Only very seldom did we find reference to the accessibility issue on the homepage of an analysed web site. The issue of the digital divide, then, is addressed mainly by a limited number of SMOs specifically engaged with this problem, while others clearly do not consider it a priority.

Contextual characteristics, organizational features, and web sites’ qualities: some explanations

How can we explain the varying emphasis of the different web sites on the diverse dimensions of communication? Technological explanations have frequently been used to account for the effects of technological innovation (for example, a comparison between television and the Internet often refers to the technological opportunities and constraints offered by the two media). Similarly, technological skills have been cited in explaining the qualities of web sites, where significant improvement in the web sites of political organizations results from contracting out their design and management to professional webmasters. Recent research has, however, singled out the presence of various models that adapt technology to organizational style and strategy (Vedres et al. 2005), as well as to contextual dimension. Criticizing the technological interpretation of the Internet as able to favour – thanks to its inherent networked logic – the decentralization of power and empowerment of citizens, most scholars nowadays agree in underlining the role of the agency in shaping the online environment (Oates & Gibson 2006, p. 3). Relations between technology and its users are therefore considered as bi-directional: technology impacts upon social relations, while social relations shape the use of the Internet as a technology. Assuming that offline characteristics matter in explaining the online presence of SMOs, in our explanatory model we focus in particular on the role of offline characteristics in shaping the online environment (web sites), taking into account contextual dimensions as well as organizational factors (see Figure 1).

To address the influence of context, first, we looked at the level of Internet access in the selected countries. We assumed that a larger diffusion of the Internet could explain a greater investment in this medium by SMOs. Where the Internet is used less, SMOs will more likely limit their online presence to advertisements, without investing very much in other aspects of their web sites.

Moreover, we have classified the web sites based on the characteristics of the GJM in the respective countries. We noticed in other parts of our research (della Porta 2007) that the density and format of GJM organizational networks
tended to vary in the selected countries, generating two different constellations of social movements that corresponded, with some caveats, to Northern and Southern Europe (ibid.). The two social movement constellations are characterized by different types of networks (more integrated in the French, Italian, and Spanish cases; more polarized in Germany and Switzerland and, to a lesser extent, in the UK); different organizational structures (more horizontal in the first constellation, more vertical in the second); and a different orientation towards unconventional collective action (more protest-oriented in the first, more lobbying-oriented in the second).

Concerning the organizational characteristics, attitudes towards the Internet could vary on the basis of the age of the group, as ‘newer, resource-poor organizations that tend to reject conventional politics may be defined in important ways by their Internet presence’ (Bennett 2003b), while established organizations seem to have a conservative approach (Smith 1997; Tarrow 2003, p 31). The level of resources available to an organization might facilitate a more effective use of the Internet – as some findings on political parties (Ward 2001) and NGOs (Warkentin 2001) seem to suggest. In fact, while it is quite easy and inexpensive to create a web site and to let it float in cyberspace, a well-organized, frequently updated and interactive web site demands significant investment of resources. We then expect web sites of big (and resourceful) organizations to perform better on the analysed dimensions than in the case of smaller grassroots groups (Pickerill 2003).

We also expect other organizational features such as horizontality, formalization, and the territorial level of the group to affect web sites’ qualities in different ways. In order to control for the effect of the relevant organizational characteristics, we have looked at some indicators on which we collected information during our research. The date of foundation of the organization is an obvious indicator of the organizational age, and the budget, an indicator of resources. We also used the absence of leadership roles or equivalent roles in charge of coordinating the activities of the organization (present in almost 70 per cent of the groups) as an indicator of horizontality; the presence of
membership fees as an indicator of formalization; the definition of the group as local (almost one-fifth of the cases) as an indicator of the territorial scope of the action.

For the dependent variables, we built five additive indexes (standardized in order to vary from 0 to 1) by adding up the binary indicators used for each of the mentioned qualities of web sites, and looked at the reciprocal association among them (see Table 1). First, the fact that not all the indexes are correlated with each other seems to confirm that organizations tend to focus on some of the relevant functions, choosing among various techniques rather than being driven by technology (Vedres et al. 2005). Additionally, we found that provision of information is particularly related to mobilization and identity building. The web sites that score high on these three dimensions belong to less hierarchical organizations, are more dynamic and interactive. For reasons we shall see below, transparency is not correlated with other dimensions of Internet presence. Web sites that score high on transparency, but not on other dimensions, are likely to belong to more hierarchical organizations, and be more static, and less interactive. Third, online and offline mobilization is highly correlated with intervention on the digital divide. Organizations with high scores on both dimensions emerge as more concerned with empowering citizens, by encouraging an active role (mobilizing in the streets and in the Net) and socializing them to the use of new technologies.

Correlation coefficients between the mentioned additive indexes and contextual characteristics show that in the group of countries more oriented towards protest and where Internet access is still limited, the Internet is more likely

### TABLE 1 Indexes of web sites’ qualities (non-parametrical correlations, Kendall’s Tau-B).

<table>
<thead>
<tr>
<th>indexes</th>
<th>information provision</th>
<th>identity building</th>
<th>transparency</th>
<th>mobilization</th>
<th>digital divide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information provision</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identity building</td>
<td>0.295**</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transparency</td>
<td>0.187**</td>
<td>0.147*</td>
<td>–</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobilization</td>
<td>0.317**</td>
<td>0.382**</td>
<td>n.s.</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>Intervention on digital divide</td>
<td>0.182**</td>
<td>0.123*</td>
<td>n.s.</td>
<td>0.281**</td>
<td>–</td>
</tr>
</tbody>
</table>

Source: Demos data quoted in the WP2 integrated report (della Porta and Mosca 2005b).

Note: $N = 261$.

*Significant at 0.05 level (two-tailed).

**Significant at 0.01 level (two-tailed).

n.s. = not significant.
**TABLE 2** Explanatory variables for web sites' qualities (Kendall's Tau-B).

<table>
<thead>
<tr>
<th>Indexes of online democracy</th>
<th>Environmental characteristics</th>
<th>Organizational characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Internet access</td>
<td>Horizontalit (lack of roles)</td>
</tr>
<tr>
<td>Information provision</td>
<td>0.154**</td>
<td>−0.242**</td>
</tr>
<tr>
<td>Identity building</td>
<td>n.s.</td>
<td>−0.125*</td>
</tr>
<tr>
<td>Transparency</td>
<td>−0.188**</td>
<td>0.409*</td>
</tr>
<tr>
<td>Offline mobilization</td>
<td>0.105*</td>
<td>n.s.</td>
</tr>
<tr>
<td>Online mobilization</td>
<td>n.s.</td>
<td>−0.160**</td>
</tr>
<tr>
<td>Intervention on digital divide</td>
<td>n.s.</td>
<td>n.s.</td>
</tr>
<tr>
<td>Total (N)</td>
<td>231</td>
<td>261</td>
</tr>
</tbody>
</table>

Source: Demos data quoted in the WP2 integrated report (della Porta and Mosca 2005b).

*Significant at 0.05 level (two-tailed).

**Significant at 0.01 level (two-tailed).

n.s. = not significant.
to be used as instrument for offline mobilization. In the same countries, it is also more often used for identity building and information provision. The countries more oriented towards conventional forms of action and where Internet access is higher are more likely to use the Internet especially as an instrument for transparency or accountability.

The organizational characteristics we considered are particularly helpful in explaining transparency, information provision, and online mobilization. The degree of formalization and the territorial level of organizations are both correlated with the index of transparency, as informal and local groups pay less attention to formal structures. More centralized organizations seem to invest more in information provision: the presence of a division of roles is in fact associated with more attention paid to the production and diffusion of information on the Internet. Availability of material resources and age of the organization help in explaining the degree of transparency: unsurprisingly, older and wealthier groups are likely to be more transparent online. Mobilizing online is, in contrast, a characteristic typical of less formal organizations that seem to make use of the more innovative aspects of this medium, exploiting it as a tool to strengthen their mobilization capacities. Organizational characteristics, however, do not help in explaining the use of the Internet to intervene on the digital divide or to disseminate information concerning offline mobilizations.

**Between virtual and real: some conclusions**

The analysis of the web sites of organizations belonging to the GJM confirms that the Internet plays an important role for these social movements. However, we observed that SMOs pay varying degrees of attention to the various potentialities of web sites. Overall, web sites are used mostly for spreading information, mobilizing offline and increasing transparency about some organizational features. The use of the Internet for mobilizing online and socializing users to new technologies is particularly limited. This is quite a surprising result, as we expected SMOs to be more concerned with using their web sites to reduce inequalities among users and engaging them in online mobilizations. Interestingly, in between purely informative functions and functions directed at empowering people, we find that the Internet is used to develop and strengthen collective identities through memory building. With only one-third of the web sites having mailing lists or forums, interactivity emerges as lower than expected, although not in absolute terms in comparison with similar groups (such as NGOs).

Contextual and organizational characteristics help to explain, at least in part, the strategic choices made by SMOs. We found that, in an adaptation to national cultures, SMOs tend to privilege transparency and provision of information in the Northern countries, identity building and mobilization in the Southern ones. Our research confirms the role played by actors in defining the specific
objectives to be reached through the use of new technologies. As Pickerill (2003, p. 23) noted in research on online environmental activism: ‘deterministic assumptions are challenged by an awareness that technology is not a discrete artifact which operates externally to impact upon social relations’. In fact, different SMOs tend to exploit different technological opportunities, producing web sites endowed with different qualities. Different contexts encourage an emphasis on different characteristics, and web sites’ qualities apparently reflect organizational models. In particular, SMOs oriented towards more formal and hierarchical organizations seem to show a more traditional (and instrumental) use of the Net, while less formalized groups tend to use more interactive tools (and identity building) available online, as well as various forms of computer-mediated protest.

Overall, our data seem to show a trend of path dependency in web sites’ characteristics: less resourceful, informal, and newer SMOs tend to develop a more innovative use of the Internet, while more resourceful, formal, and older groups would tend to use it as a more conventional medium of communication. However, this observation needs to be supported by further research and empirical evidence. In fact, while we found that small radical organizations tend to be those more likely to be innovative with the Internet, there are also some smaller groups that are not making use of the interactive opportunities of the web; we also found some formal organizations (often better resourced than the others) not limiting themselves to using the Internet as a traditional information provider. The social characteristics of the organizational membership as well as the groups’ conceptions of democracy are likely to affect the use of the new technology. The important question of how web site potentials are implemented in their actual use still remains open.

Acknowledgements

This article has been written thanks to the collaboration of Angel Calle, Helene Combes, Nina Eggert, Clare Saunders, Simon Teune, Mundo Yang and Duccio Zola, who participated in the collection of the data on the web sites of SMOs. It reports some results from the Work Package 2 of the Demos project (Democracy in Europe and the Mobilization of Society; http://demos.eui.eu). The full data analysis has been published in the integrated report (della Porta & Mosca 2005b). The project is financed by the European Commission, 6th FP Priority 7, Citizens and Governance in a Knowledge Based Society and (for the Swiss case) the Federal Office for Education and Science, Switzerland. The project is coordinated by Donatella della Porta (European University Institute). Partners are Christopher A. Rootes (University of Kent at Canterbury, UK); Dieter Rucht (Wissenschaftszentrum Berlin für Sozialforschung, Germany); Mario Pianta (Università di Urbino, Italy); Isabelle Sommier (Centre de recherches
politiques de la Sorbonne, Université Panthéon-Sorbonne, France); Manuel Jiménez (Instituto de Estudios Sociales de Andalucía, Centro Superior de Investigaciones Científicas, Spain); and Marco Giugni (Laboratoire de recherches sociales et politiques appliquées, Université de Genève, Switzerland).

A previous version of this paper was presented at the symposium ‘Changing politics through digital networks: The role of ICTs in the formation of new social and political actors and actions’, University of Florence, Italy, 5–6 October 2007. We are grateful to the participants of the conference as well as to three anonymous referees of Information, Communication & Society for useful comments.

Although the authors share responsibility for the whole article, Donatella della Porta wrote the sections ‘Our empirical research: the main choices’, ‘Web sites and the provision of information’, ‘Building identities through the Internet’, ‘Transparency and accountability on the web’, and ‘Between virtual and real: some conclusions’, while Lorenzo Mosca wrote ‘The Internet and social movements: an introduction’, ‘Mobilization through the web’, ‘Intervening on the digital divide’, and ‘Contextual characteristics, organizational features and web sites’ qualities: some explanations’. We wish to thank Sarah Tarrow for careful copy-editing.

Notes

1 However, because of space constraints, we will not present the differences among different types of organization in what follows.

2 The codebook can be downloaded at: http://demos.iue.it/PDFfiles/Instruments/wp2codebook_final.pdf

3 Interviews were undertaken in the first semester of 2006 for Work Package 4 of the Demos project focusing on Practices of Democracy in the GJM. The total number of interviews conducted was 210. They were distributed as follows: 28 in France, 26 in Germany, 37 in Italy, 35 in Spain, 28 in Switzerland, 29 in the United Kingdom, and 27 at the transnational level (for more details and a more systematic analysis, see della Porta & Mosca 2006a).

4 This result is consistent with other research focusing on the Europeanization of the public sphere on the Internet (Koopmans & Zimmermann 2003).

5 It must, however, be noted that these interactive tools are sometimes incorporated directly within web sites and sometimes not. First, in our research we could only assess the presence of such tools within SMOs’ web sites; we cannot exclude the possibility that the same organizations may place interactive platforms elsewhere in cyberspace without publicizing them on their web sites. Second, the mere existence of certain utilities
such as forums and mailing-lists does not tell us anything about their actual use.

6 When an email address was available, we emailed the information service and the webmasters a message with questions. We asked the information service how many people managed the web site, the average number of information requests they received in a month, the average number of messages they responded to and the time frame of the answers. We asked the webmaster for the number of volunteers and/or paid staff employed to maintain the web site, the average traffic demand, the number of subscribers to newsletters and/or mailing lists/forums, the frequency of updating, and the type of software used to produce the web site.

7 This rate was calculated considering only the web sites that published the email address of the webmaster and of the person responsible for the information.

8 We created a variable that assigned values varying between 0 (=0 per cent) and 1 (=100 per cent), depending on the percentage of people accessing the Internet (source: http://www.internetworldstats.com/stats4.htm) in the country the organization belonged to. We excluded from the analysis the 30 cases sampled at the transnational level.

9 We used a dummy variable giving value 0 to Germany, United Kingdom, and Switzerland and value 1 to France, Italy, and Spain. Also in this case, we excluded the 30 cases sampled for the transnational level. These explorative analyses are taken from della Porta and Mosca (2006b).

10 We report significance of correlation coefficients as it is still a prevalent praxis in statistical analysis, although we are aware that their usefulness for non-random samples is debated.

References


Available at: http://edc.unige.ch/edcadmin/images/STOA.pdf (6 November 2007).


---


**Lorenzo Mosca** is assistant professor at the University of Roma Tre. His research interests focus on political participation, political communication, ICTs and e-democracy, and social policies. Among his recent publications are: (with J. Juris and G. Caruso) ‘Freeing software and opening space (in *Sociology Beyond Borders*, 2008, 3); (with J. Smith et al.) *Global Democracy and the World Social Forums*, Paradigm Publishers, 2007; (with D. Calenda) ‘The political use of the internet: some insights from two surveys of Italian students’ (in *Information, Communication & Society*, 2007, 1). Address: Università Roma Tre, Dipartimento di Comunicazione e Spettacolo, Via Ostiense, 139, 00154 Roma, Italy. [email: lmosca@uniroma3.it]