

Collective Action in the Age of the Internet

Mass Communication and Online Mobilization

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This article examines how the Internet transforms collective action. Current practices on the web bear witness to thriving collective action ranging from persuasive to confrontational, individual to collective, undertakings. Even more influential than direct calls for action is the indirect mobilizing influence of the Internet's powers of mass communication, which is boosted by an antiauthoritarian ideology on the web. Theoretically, collective action through the otherwise socially isolating computer is possible because people rely on internalized group memberships and social identities to achieve social involvement. Empirical evidence from an online survey among environmental activists and nonactivists confirms that online action is considered an equivalent alternative to offline action by activists and nonactivists alike. However, the Internet may slightly alter the motives underlying collective action and thereby alter the nature of collective action and social movements. Perhaps more fundamental is the reverse influence that successful collective action will have on the nature and function of the Internet.

Keywords: collective action, Internet, social influence, anonymity, mass communication

Political activism has become increasingly manifest in the second half of the 1990s. It would appear that the trend for decreased activism that occurred throughout the 1980s and early 1990s—sometimes attributed to increasing individualism and liberalism—has been reversed abruptly. The protests during the World Trade Organization meeting in Seattle in November 1999 symbolize this revival, but an upward trend was already noticeable earlier and across a wider range of issues than that of globalization. It is possible that the Internet has played a pivotal role in initiating and steering the rise in activism. This article reflects on this development and has three aims. The first is to critically examine the role played by the Internet in present day activism. The second is to provide a theoretical analysis of how the Internet is likely to affect current practices and future possibilities of collective action. The third is to empirically compare what motivates activists and nonactivists to participate in offline actions and their online equivalents. Together, these aims address the more general purpose of this article: to investigate how the Internet is transforming collective action.

Persuasive and Confrontational Actions, Offline and Online Forms

In this article, the term *collective action* refers to actions undertaken by individuals or groups for a collective purpose, such as the advancement of a particular ideology or idea, or

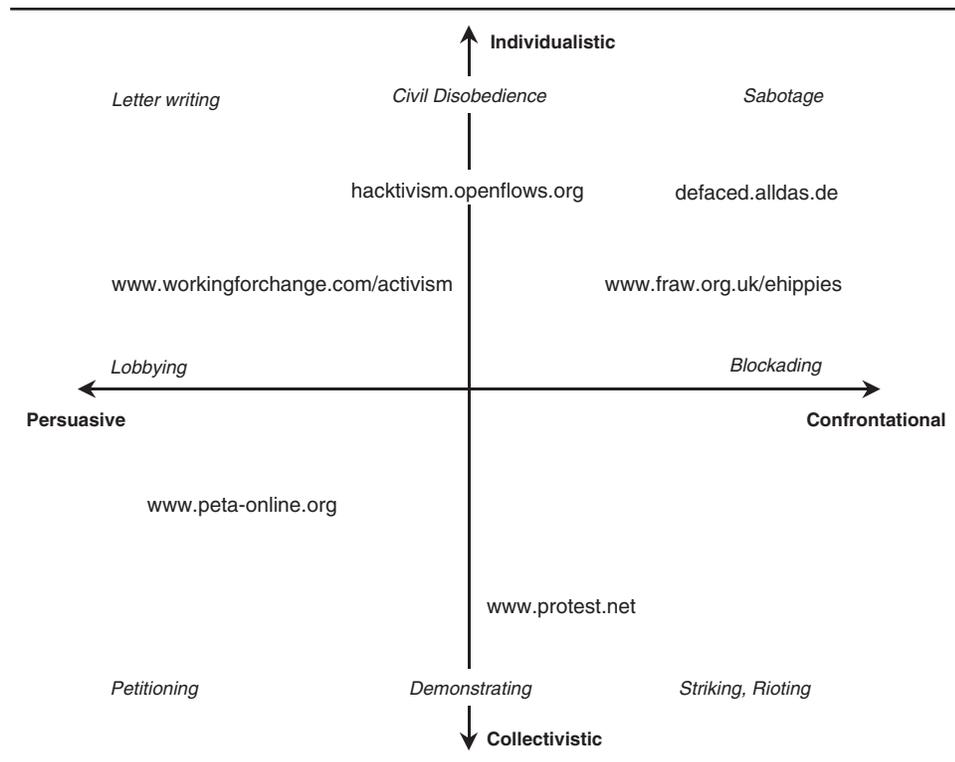


Figure 1: Examples of Offline Collective Actions and Dimensions Along Which They May Vary, Plus Examples of Comparable Forms of Action Online

the political struggle with another group. According to this definition, collective action remains a very broad concept. Although it is beyond the scope of this article to cover all the different forms of collective action that have been distinguished during the years, it is useful to point out two dimensions along which collective action may vary. The first is the distinction between individual and collective forms of action. This dimension captures the distinction between actions that require the participation of many members of a group (labor disputes, demonstrations, and mass petitioning) versus actions that can be undertaken relatively solitary (sabotage, civil disobedience, and letter writing; see Figure 1). Also, these individual forms of collective action can be thought of as collective in nature when they are intended as a means of achieving a collective outcome.

Although many more distinctions have been proposed that are possible and useful, one other has been frequently made by many different scholars in one form or another. For example, actions can be more or less normative, referring to the acceptability of actions in society at large (Wright, Taylor, & Moghaddam, 1990). A similar distinction has been made between punishable and unpunishable actions (Reicher, Spears, & Postmes, 1995). In this article, however, we refer to actions that are more persuasive in nature versus confrontational actions. This refers to a similar underlying difference: On one hand, one may identify actions such as letter writing, lobbying, and petitioning, whose primary purpose is to persuade others that certain viewpoints are worth considering—strategies generally associated with solving intragroup disputes. On the other hand, actions may also engage and confront another party more directly, as in a demonstration, blockade, or sabotage—strategies more closely associated with intergroup disputes.

Forms of Online Action

Online equivalents have emerged during the 1990s for most forms of collective action that we are familiar with offline. Online forms of letter writing, lobbying, and petitioning are widely practiced now—exemplified by portals such as <http://www.peta-online.org/> and <http://www.workingforchange.com/activism/> (see Figure 1). Likewise, the Internet has emerged as a platform for sometimes highly effective forms of civil disobedience, sabotage, and—more recently—blockades. Web sites such as <http://hacktivism.openflows.org/> and <http://www.fraw.org.uk/hippies/> are platforms for activities such as defacements, virtual blockades, sit-ins, denial of service attacks, site hijacking, and other activities that mostly involve hindering traffic to and from targeted web sites. Web defacements in particular have become a common occurrence: As documented on <http://defaced.alldas.de>, no less than 1,775 web site defacements took place per month from December 2000 to 2001. Many of these actions are perpetrated individually and for individual purposes, but the number of defacements with a collective purpose should not be underestimated. For example, fierce virtual attacks took place in parallel with political events, such as the “defacement war” between Palestinian and Israeli hackers, the exchange of blows between Chinese and U.S. targets during the row when a U.S. spy plane collided with a Chinese fighter in Spring 2001, and attacks of Korean hackers on Japanese sites during disputes regarding Japanese history textbooks’ coverage of war crimes. Likewise, many attacks are motivated by a general concern for freedom of information access and exchange, and actions are often directed against the regulation and commercialization of the Internet. Finally, the Internet is used to support and organize offline actions: Web sites such as <http://www.protest.net> seek to mobilize their audience to attend meetings and demonstrations.

It appears that during the past decade the range of collective actions that we knew in the offline world has been complemented by online equivalents. Hence, the Internet has a potential to support collective actions, but it remains to be seen to what extent this potential is widely put into practice. However, before we continue, it is useful to first explore what the perceptions of the Internet as a vehicle for collective action are and contrast this with our experience of the practices that can be witnessed on the Internet.

Online Actions in the Public Eye

Media coverage of online activism has focused mostly (if not exclusively) on the Internet’s role in newsworthy incidents and flashpoints. Perhaps as a result, the confrontational-individualistic quarter of Figure 1 tends to be overrepresented in news reports. The media covered defacements and denial of service attacks very prominently when these practices first came into full bloom. For example, the attacks that brought the White House web server down in May 1999 made the headlines of all the major newspapers, and so did attacks on Yahoo in February 2000. Similarly, activities of hackers and site hijackers have consistently attracted media attention, eroding the public’s trust in e-commerce and the Internet more generally. Once more, it is important to point out that many of these attacks are politically motivated and essentially collective undertakings even when they are perpetrated individually. Sometimes this collective dimension is explicit, as in the defacement wars that parallel geopolitical struggles, but more often it is implicit, for example, when actions such as site hijackings are motivated by beliefs about the freedom of the Internet. The less confrontational actions—which actually appear to be more dominant forms of online collective action

in terms of number of participants (certainly) and number of actions (possibly)—tend to be less prominently covered.

A very similar picture emerges for the role attributed to the Internet in support of offline collective action, such as demonstrations and rallies. Again, the emphasis is on the Internet's pivotal role in stimulating (violent) confrontations. This is illustrated by the coverage of demonstrations that accompanied meetings of the World Trade Organization (WTO), International Monetary Fund (IMF), and Group of Seven (G7) from 1999 to 2001. In most coverage, the Internet was prominently associated with the eruption of violence and the presence of mindless hooligans and thugs. As the British Broadcasting Corporation (BBC) online news service ominously observed after the violence during the "Carnival Against Capitalism" in June 1999 and immediately prior to the WTO meeting in Seattle in November 1999,

History might have been very different if Karl Marx had been able to send e-mails. The idea of organizing thousands of protesters across the globe would have been fanciful. But the ability to do it anonymously and beyond the reach of the conventional media has led to a new breed of protester. ("Online Activists," 1999)

We thus argue that news reports tend to focus on particular incidents, associating cyberspace with lawlessness, damage, and violence. In doing so they have contributed to a general perception that the Internet is both a forum and a tool for extremism and confrontational action. This perception tends to ignore that online activism is predominantly nonviolent and persuasive in nature (no different in this regard to offline action). More important, however, we argue that this focus on incidents and flashpoints has distracted us from the major shift that has been taking place in the background.

A Practice of Mass Communication and Mobilization

Although many forms of collective action are being undertaken on the Internet or supported by it, this form of direct action does not appear to involve many Internet users. A much greater group is influenced and mobilized by the alternative news that is being broadcast over the Internet. Existing movements and action groups have successfully used the Internet as a mass communication medium to reach greater, global audiences. In parallel, there has been a tremendous growth in the number of independent news providers who mass communicate their alternative views on current events. Examples are independent media and also various nongovernmental organizations (NGOs) and interest groups. There also appears to be a major increase in the number of consumers of this news. Illustrative of the increased reach of these organizations is the nine-fold increase in the number of visitors and hits witnessed by the Independent Media Center, <http://www.indymedia.org>, from November 2000 to 2001. In sum, the number of providers and consumers of independent news has risen sharply.

Possible reasons that the Internet has a captive audience for alternative political views are its anarchic roots and antiestablishment subculture (Jordan, 1999). Many of the more active web users—of which hackers are the more militant exponents—are invested in protecting their online freedom from the perceived threats of government regulation and corporatism (e.g., see <http://www.eff.org> and <http://slashdot.org>). This struggle is part of a strong intergroup dynamic—a pervasive sense of us (ordinary web users) versus them (the Microsofts and CIAs of the world, powerful business and government forces keen on cashing in and regulating the Internet). Whether realistic or not, this perception fuels a para-

noid climate in which certain rumor and gossip can gain credibility, and in which independent news and alternative views are valued.

The influence of the independent media has been proportional to their growth. Early examples of the powers that independent news providers could wield were provided by the Zapatista freedom fighters (<http://www.ezln.org/>) in Mexico—a movement that depended critically on the Internet to sustain it (Wray, 1999). More recently, news providers in Serbia (<http://www.b92.net/>) resorted to the Internet with great success when faced with censorship on traditional channels of mass communication. More relevant to the wave of antiglobalization protests have been the numerous web sites providing information about the World Bank, IMF, WTO, and a range of other organizations. It is here that the Internet has had its most visible influence in mobilizing large numbers of people for a series of high-profile offline protests and demonstrations.

In sum, the Internet is changing activism profoundly. To some degree, this transformation is due to the direct influence of the Internet on collective action: opening up new avenues for it or reinforcing existing forms. However, the more fundamental change appears to be that the Internet affords movements and activists the powers of mass communication. The Internet mobilizes people by spreading alternative views and news—and the parallel emergence of subcultures supporting collective action. Indeed, the confrontational actions that are so prominent in the public eye appear to be less important in their scope and effectiveness when compared with the pervasive influence that mass communications have exerted. This observation that the Internet effectively mobilizes people raises the theoretical questions, however, of how the Internet affects current practices and may shape future possibilities of collective action.

Social Psychological Perspectives on Online Action

When asking what theoretical processes underlie the observations about online collective action made above, we have to acknowledge that this is a very broad question that should ideally be approached from many different angles. However, within the context of the present article we shall restrict ourselves to examining some social psychological factors that may be of influence (for different approaches, see Castells, 1996; Jordan, 1999; Wray, 1999).

From a social-psychological perspective, the observation that the Internet profoundly influences activism poses an interesting paradox: How can a medium that isolates the individual inspire the collective? Early social psychological theorizing has argued that computer-mediated communication (CMC) reduces social cues and thereby undermines the social and normative influences on individuals or groups—the Internet would therefore be a more individualistic environment. On one hand, this leads to more deregulated and extreme behavior (Hiltz & Turoff, 1978; Jessup, Connolly, & Tansik, 1990; Kiesler, Siegel, & McGuire, 1984). On the other hand, it can help to undermine status and power differentials found in face-to-face groups, leading to equalization (Dubrovsky, Kiesler, & Sethna, 1991; Kiesler & Sproull, 1992). These views are challenged, however, by the practices of online collective action discussed above. The simple assumption that computer mediation severs social ties is inconsistent with our observation that the Internet strengthens existing social movements, stimulates the formation of new ones, and mobilizes sizable numbers of people for collective action and not just for individual hooliganism.

The paradox may be resolved by taking into account that social behavior does not just stem from the immediate proximity of other individuals: We internalize many aspects of our social world and incorporate these into the social identities that we may take on even when we are isolated from others. Social identity refers to the part of our self-definition that derives

from a particular group membership. We are members of numerous social groups (gender, race, organizations, teams, etc.), and therefore we assume various social identities, depending on the social context we find ourselves in (a process that is largely out of our control). The social identity encompasses various supra-individual properties of the groups, such as its norms, self-stereotype, and stereotypes of other groups. Although a full explanation of social identity theory and its sister theory, self-categorization, is beyond the scope of this article (see Tajfel & Turner, 1986; Turner, 1987), there is one important point that makes these theories highly relevant to the study of social influence in online contexts: A social identity can be salient irrespective of the presence or proximity of other group members, and thereby individuals' behavior and cognitions can be highly social despite the fact that they are isolated from the direct influence of others in their group.

In fact, it has been argued by the Social Identity model of Deindividuation Effects (SIDE) that the Internet can sometimes present ideal circumstances to express social identity when individuality is pushed to the background (Lea & Spears, 1991; Postmes, Spears, & Lea, 1998; Spears & Lea, 1992). This may happen because of strategic and cognitive factors that influence the expression of social identity (Reicher et al., 1995). Strategically, the Internet influences the ability to express behavior and (social) identities by reducing the accountability of users. This is particularly relevant in intergroup contexts in which a power relation is present between groups. In this case, the Internet may enable members of less powerful groups to express views that might otherwise be punished or sanctioned by more powerful parties. Thus, particular groups on the Internet may benefit from the strategic liberty offered by the medium in undertaking (punishable) collective action against a powerful outgroup—an idea that resonates with the antiauthoritarian online actions against big businesses, governments, and international organizations.

The cognitive effects relate to the salience of a particular identity (personal identity or a group identity), and more precisely refer to issues of self-definition. The relative anonymity and isolation that characterize many web activities do not always individualize but can also function to enhance group salience by reducing attention to individual differences within the group (i.e., depersonalization). This means that online groups can have a very strong sense of common identity or common purpose, and that the norms in online groups may be as potent as those found in other contexts. Thus, in the right circumstances and conditions, strategic and cognitive processes may transform the Internet from a potentially individualistic environment to a platform for highly involving social events.

These ideas have been corroborated by research showing that anonymity per se does not foster antinormative behavior, that anonymity and isolation in electronic groups do not preclude social attraction and involvement, that the web can promote identity formation and help build communities, and that strong social influence can be exerted in anonymous online groups (for a recent review, see Spears, Postmes, & Lea, in press). All these findings suggest that the Internet may be very suited to support particular groups and movements and stimulate the formation of new groups and new identities. Given the right circumstances, the Internet may even accentuate social identity and the influence exerted by it. If the web increases the salience of the social dimension and provides the strategic conditions that empower the expression of social identity, it will mobilize people and stimulate collective action.

In sum, according to this social-psychological perspective, the Internet does not make collective action impossible because individuals are isolated and separated from each other. To the contrary: In many ways, the Internet offers people a chance to organize and unite in much more sophisticated and powerful ways than ever before (as is underlined by the effec-

tiveness of mass communication to mobilizing people) and may also accentuate the common identity in an otherwise heterogeneous group.

This is not to say that the nature of collective action may not be transformed by the uses of the Internet. The Internet is likely to transform collective action in two ways. The first is that movements may be transformed by the influx of new members and sympathizers who would not normally be part of the movement. The Internet removes restrictions for peripheral group members and outsiders to participate more fully. Thus, where movements may benefit from the greater reach and lower thresholds for participation, they may simultaneously suffer from the decreased control over participants and their motives. The second is that collective action on or through the web may be motivated differently than offline actions. As described above, the Internet may allow social behavior to occur because individuals can revert to their social identity—the social group is internalized individually. This means, however, that people are thrown back on their understanding of the group, and the possible courses of action and their consequences. They can no longer rely on others' views or direct influence in deciding what, for example, the best course of action is. Thereby, the web is likely to accentuate the importance of cognitive calculations about social movement participation.

Exploring Online Collective Action Empirically

Although rather a lot of empirical research has examined identity issues in online groups, studies of online activism are scarce. Therefore, we thought it would be interesting to compare what motivates activists and nonactivists to participate in offline actions and their online equivalents and put some of the views expressed above to the test. We therefore conducted a large online survey of environmental activists and nonactivists. Although this research has not been fully completed, we would like to explore findings from an initial wave of data collection to examine some of our ideas. In line with the theoretical considerations and observations outlined earlier, we expected to find that online actions would be regarded quite positively among activists and nonactivists alike, when compared with offline action. Moreover, we expected that intentions for online collective action participation would be predicted more strongly by cognitive calculations compared with offline actions.

METHOD

In May 2001, respondents were contacted via e-mail, asking them to participate in an online study. Most respondents were contacts of a major Dutch environmental organization and a few others (in a control condition) were not directly involved with this organization. Four groups of respondents were targeted and the response rate was 20% ($n = 554$ respondents). The first was a group of hardcore activists ($n = 61$) who subscribed to a mailing list providing them with information about demonstrations, blockades, and sabotage actions at Schiphol airport. The second group was an environmental pressure group ($n = 95$) consisting of subscribers to a mailing list that provided information about letter writing, petitioning, and lobbying activities for which participants and activists were sought. A third group consisted of sympathizers ($n = 295$), people who were not part of any organization undertaking regular environmental action but who subscribed to a list providing information about environmental issues, as well as distributing incidental calls for action. Finally, there was a control group ($n = 103$) that consisted of others who were not liaised with the environmental organization.

These participants returned a questionnaire about participation in various forms of online and offline collective action in the past, future action intentions, and well-known predictors of collective action.¹ We asked participants to indicate how many times in the past year they

had undertaken persuasive collective action (signing petitions and writing letters) and how many times they had participated in confrontational collective action (demonstrations and blockades, and unlawful and harmful actions such as sabotage, respectively). These questions were asked both for conventional demonstrations (offline actions) and for their online equivalents. Also—and this was the principal dependent measure—we asked participants to indicate on a 7-point scale how likely it was that they would take part in such actions in the next 12 months.

In addition to these dependent measures, we included known predictors of collective action (Kelly & Breinlinger, 1995; Klandermans, 1997). In this article we shall concentrate on the main predictors only. These were derived from Klandermans's Expectancy Value model (Klandermans, 1997): We measured expected efficacy of each action we described above and the expected participation of others, as well as the participation necessity (the goal motives). In addition, the subjective norm was measured as the value attached to actions by friends and family, which was multiplied by its subjective value (the social motive). To this we added participants' attitude toward various environmental issues as a further predictor of action intentions. Finally, we examined movement identification as the principal predictor of collective action identified by approaches derived from social identity theory (Kelly & Breinlinger, 1995; Simon et al., 1998).

RESULTS

The levels of collective action reported were unsurprising for the most part. Participants from activist groups participated more than sympathizers did, and sympathizers participated more than control group participants, $F(3, 548) = 16.36, p < .001$. Overall, persuasive action was more frequent than confrontational action, $F(1, 548) = 161.72, p < .001$, and offline action was more frequent than online action, $F(1, 548) = 29.34, p < .001$. The pattern for action intentions was much the same. Activists intended to participate more than sympathizers (somewhat) and nonactivists (very much), $F(3, 558) = 33.38, p < .001$. Also, persuasive action was more popular than confrontational action, $F(3, 558) = 1,650.66, p < .001$. More surprising, and different from self-reported past behavior, offline and online actions were equally popular, $F(1, 550) = 0.29, ns$. A similar pattern could be observed for the perceived effectiveness of actions: Once again, the persuasive online actions were thought to be equally effective as their offline counterpart, $F(1, 548) = 0.00, ns$, although for confrontational actions, online actions were perceived as less effective, $F(1, 544) = 38.22, p < .001$. Thus, it would appear that across a range of indicators, participants seemed to have substantial confidence in online actions and seemed very willing to undertake it, especially if it was a persuasive action.

When looking at the interactions between group membership and the forum for action (online or offline), a consistent pattern emerged that sheds an interesting light on the role of peripheral group members. The interaction was reliable for past actions, $F(1, 548) = 6.71, p < .001$, as well as for action intentions, $F(1, 550) = 4.44, p < .001$. Examining the patterns revealed that the interaction was concerned by a difference between the nonactivists and the other groups: Among nonactivists there was a tendency for online action to be more popular than the offline equivalent. This could reflect that peripheral group members are more likely to join in as online actions become more widely available.

Turning to examining the predictors of action intentions, we conducted a series of regression analyses with collective action intentions as dependent variables. Predictors were self-reported past actions and the range of actions described above. Figure 2 describes the results for persuasive collective action. In the top panel, one may see that most traditional predictors

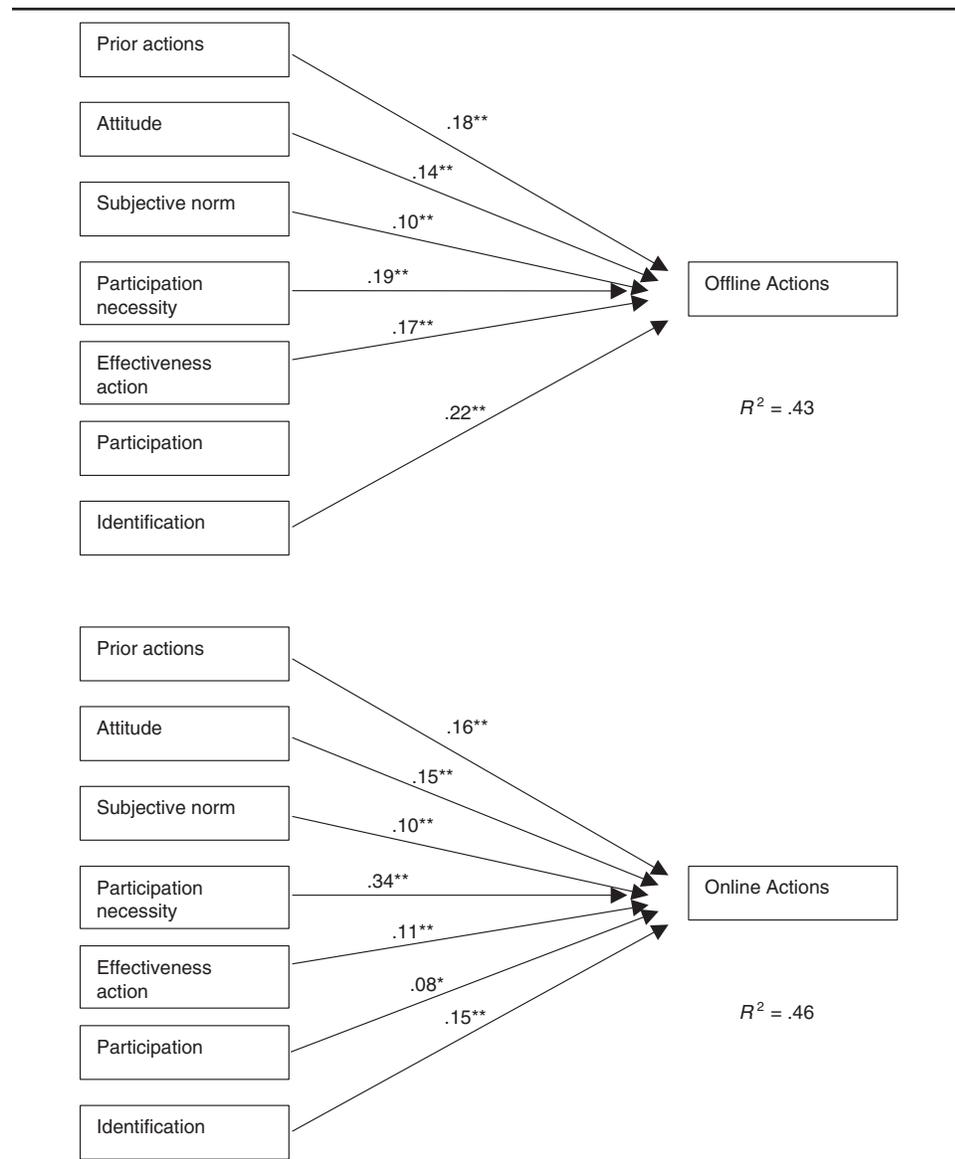


Figure 2: Multiple Regressions of Predictors of Persuasive Collective Action Offline (top) and Online (bottom)

* $p < .05$. ** $p < .01$.

of collective action successfully explained a substantial part of the variance in offline action intentions, $R^2 = .43$, $F(7, 537) = 58.61$, $p < .001$. The strongest predictors were identification with the environmental movement, perceived effectiveness of the action, and reported past actions (with β s of .22, .19, and .18, respectively). Other predictors were perceived necessity of own participation, the attitude toward environmental issues, and the subjective norm ($\beta = .17$, .14, and .10, respectively). These results are very comparable to other studies investigating predictors of collective action (e.g., Simon et al., 1998), although the range of predictors in this study was slightly broader.

More interesting and novel are the findings for online actions, depicted in the bottom half of Figure 2. The same analysis is displayed, but now for intentions to act collectively online. The same predictors explained a very substantial part of the variance, $R^2 = .47$, $F(7, 539) = 67.81$, $p < .001$. Results are similar to those of offline actions, but one thing stands out: The fact that the influence of the perceived effectiveness is much stronger than for offline actions ($\beta = .34$), whereas the influence of group identification has gone down ($\beta = .15$). It would appear, then, that for offline actions the influence of affective affiliation with the group is less pronounced, whereas the more cognitive calculus of cost and benefit emphasized in Klandermans's expectancy value model seem to pull most of the weight. Very similar results were obtained for confrontational actions (see Brunsting & Postmes, 2002). In sum, it would appear as if cognitive factors had a greater influence on intentions for online collective action compared with conventional offline actions.

DISCUSSION

Although these are initial findings, they strongly suggest that the Internet is a viable platform for collective action among activists and nonactivists alike. It is surprising to see the number of actions that people already engage in online, and perhaps even more surprising is the degree to which they believe these actions are effective and to observe the enthusiasm for people to engage in future actions. Confrontational actions were considerably less popular than persuasive actions—both offline and online. Especially confrontational online action was seen as ineffective, confirming the impression formed in the first part of this article that the Internet may be more home to persuasive, nonconfrontational actions than is sometimes suggested by the high profile of confrontational practices.

Results also suggested that peripheral members might be more easily persuaded to participate in actions online. The question is of course how this may transform social movements and the nature of collective action, and moreover whether this could change the motives underlying collective action. There certainly would appear to be some indication that online action is more driven by cognitive considerations about the effectiveness of action.

General Discussion

This article opened with the observation that collective action seems to be on the rise in Western societies, and it was suggested that this might be due in part to social changes induced by the Internet. The article examined this possibility and addressed the question whether the Internet transforms collective action: by observing current practices on the web, exploring the theoretical feasibility of online collective action, and empirically investigating these issues. The first part of the article critically examined the role played by the Internet in present day activism, and concluded that the Internet can be said to have assumed a significant role in many forms of collective action, ranging from persuasive to confrontational and from individual undertakings to collective ones. In many different areas, collective action appears to thrive. However, the success of calls for action is perhaps exceeded by the mobilizing power of mass communication and the wide availability of "independent" news. Coupled with an antiauthoritarian ideology, this mass communication succeeds in activating and mobilizing many who were hitherto less politically active.

In one sense, it is somewhat paradoxical that the Internet should be a vehicle for collective action if one considers that people generally access the Internet in the privacy of their home or workplace and through an otherwise socially isolating device—the computer. A plausible explanation why people are able to overcome these individuating barriers to social aggrega-

tion is by accentuating the social dimension of their online activities and relying on their internalized group memberships and social identities to achieve social involvement. The final part of the article provided some empirical backbone to these suggestions and showed that the availability of online action is indeed a serious alternative for activists and nonactivists alike. However, results also suggested that the Internet might unwittingly slightly alter the motives underlying collective action and thereby alter the nature of collective action and social movements. This change may be accentuated by the possible influx of peripheral group members and traditional nonactivists due to the lower thresholds of participation in online actions.

Taken together, these observations suggest that the Internet is indeed transforming collective action. The Internet would appear to exert a mobilizing influence, certainly on those who are ideologically sympathetic to the causes that are widely represented online, such as globalization and freedom of speech. Far from being a social wasteland, the Internet is a forum for communication, social debate, communities of thought, and thriving movements. In this sense, the most fundamental change may not be the way in which the Internet changes activism, but the reverse influence by which possibilities for meaningful collective action are likely to transform the Internet and its use.

NOTE

1. We cannot cover all methodological aspects of the study in detail here (see Brunsting & Postmes, 2002). Conventional scales were reported for all measured constructs. Authors can be contacted for additional details.

REFERENCES

- Brunsting, S., & Postmes, T. (2002). *Social movement participation in the digital age: Predicting offline and online collective action*. Manuscript submitted for publication.
- Castells, M. (1996). *The information age: Economy society and culture: The network society*. Oxford, UK: Blackwell.
- Dubrovsky, V. J., Kiesler, S., & Sethna, B. N. (1991). The equalization phenomenon: Status effects in computer-mediated and face-to-face decision-making groups. *Human Computer Interaction*, 6, 119-146.
- Hiltz, S. R., & Turoff, M. (1978). *The network nation*. Cambridge, MA: MIT Press.
- Jessup, L. M., Connolly, T., & Tansik, D. A. (1990). Toward a theory of automated group work: The deindividuating effects of anonymity. *Small Group Research*, 21, 333-348.
- Jordan, T. (1999). *Cyberpower: The culture and politics of cyberspace and the Internet*. London: Routledge.
- Kelly, C., & Breinlinger, S. (1995). Identity and injustice: Exploring women's participation in collective action. *Journal of Community and Applied Social Psychology*, 5, 41-57.
- Kiesler, S., Siegel, J., & McGuire, T. W. (1984). Social psychological aspects of computer-mediated communication. *American Psychologist*, 39, 1123-1134.
- Kiesler, S., & Sproull, L. (1992). Group decision making and communication technology. *Organizational Behavior and Human Decision Processes*, 52, 96-123.
- Klandermans, B. (1997). *The social psychology of protest*. Oxford, UK: Blackwell.
- Lea, M., & Spears, R. (1991). Computer-mediated communication, de-individuation and group decision-making. *International Journal of Man Machine Studies*, 34, 283-301.
- Online activists plan global protest. (1999, November 26). *BBC News Online*. Retrieved December 12, 2001, from http://news.bbc.co.uk/1/hi/english/uk/newsid_537000/537587.stm
- Postmes, T., Spears, R., & Lea, M. (1998). Breaching or building social boundaries? SIDE-effects of computer-mediated communication. *Communication Research*, 25, 689-715.
- Reicher, S. D., Spears, R., & Postmes, T. (1995). A social identity model of deindividuation phenomena. In W. Stroebe & M. Hewstone (Eds.), *European Review of Social Psychology* (Vol. 6, pp. 161-198). Chichester, UK: Wiley.
- Simon, B., et al. (1998). Collective identification and social movement participation. *Journal of Personality and Social Psychology*, 74, 646-658.

- Spears, R., & Lea, M. (1992). Social influence and the influence of the "social" in computer-mediated communication. In M. Lea (Ed.), *Contexts of computer-mediated communication* (pp. 30-65). Hemel Hempstead, UK: Harvester Wheatsheaf.
- Spears, R., Postmes, T., & Lea, M. (in press). The power of influence and the influence of power in virtual groups: A SIDE look at CMC and the Internet. *Journal of Social Issues*.
- Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behavior. In S. Worchel & W. G. Austin (Eds.), *The psychology of intergroup relations* (2nd ed., pp. 7-24). Chicago: Nelson-Hall.
- Turner, J. C. (1987). A self-categorization theory. In J. C. Turner, M. A. Hogg, P. J. Oakes, S. D. Reicher, & M. S. Wetherell (Eds.), *Rediscovering the social group* (pp. 42-67). Oxford, UK: Basil Blackwell.
- Wray, S. (1999). On electronic civil disobedience. *Peace Review*, *11*, 107-112.
- Wright, S. C., Taylor, D. M., & Moghaddam, F. M. (1990). Responding to membership in a disadvantaged group: From acceptance to collective protest. *Journal of Personality and Social Psychology*, *58*, 994-1003.

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