

CHANGING THE WORLD ONE WEBPAGE AT A TIME: CONCEPTUALIZING AND EXPLAINING INTERNET ACTIVISM*

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Researchers studying Internet activism have disagreed over the extent to which Internet usage alters the processes driving collective action, and therefore also over the utility of existing social movement theory. We argue that some of this disagreement owes to scholars studying different kinds of Internet activism. Therefore, we introduce a typology of Internet activism, which shows that markedly different findings are associated with different types of Internet activism and that some types of Internet activism have been studied far more frequently than others. As a consequence, we ask an empirical question: is this skew in the selection of cases, and hence apparent trends in findings, a reflection of the empirical frequency of different types of Internet activism? Troublingly, using unique data from random samples of websites discussing 20 different issue areas commonly associated with social movements, we find a mismatch between trends in research cases studied and empirical frequency.

In the last decade, the use of the Internet for activism has exploded. Examples abound: when former President George W. Bush called for war against Iraq, when the World Trade Organization met in Seattle in 1999, and when fears of global warming mounted, people responded by taking to the street and to their computers. At the same time, scholarly interest in “Internet activism” has grown markedly (see, for example, contributions in McCaughey and Ayers 2003 and in van de Donk, Loader, Nixon, and Rucht 2004a; see Garrett 2006 for a review).¹ Social movement scholars have studied the migration of long-standing social movements and social movement organizations onto the web (Wray 1998; Martinez-Torres 2001; Lebert 2003; Garrido and Halavais 2003) and the emergence of entirely new social movements on the web (Peckham 1998; Carty 2002; Earl and Schussman 2003, 2004; Schussman and Earl 2004). Political sociologists and political scientists have studied Internet activism as a form of civic engagement (Norris 2002; see also contributions in Bennett 2008) while communication scholars (Flanagin, Stohl, and Bimber 2006) and some political scientists (Bimber, Flanagin, and Stohl 2005) have analyzed Internet activism as a type of politically oriented collective action.

This rising tide of research has raised a critical question for social movement research: do the fundamental driving processes of Internet activism differ from offline activism? If these processes are unchanged or only slightly altered, then the field will be able to quickly make sense of Internet activism using existing theories and explanations. But, if there are more fundamental differences between offline activism and Internet activism, translating findings based on offline protest into expectations about online protest will require greater care.

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Another way to frame this concern is to ask: does Internet usage have any lasting effect on activism, and if it does, does it simply accentuate activism or does it change activism in some more fundamental way? One can identify research supporting any of these three positions—no lasting impact (Diani 2000; Tilly 2004), simple accentuation (Myers 1994; Fisher 1998; Bennett 2004), or more fundamental change (Earl and Schussman 2003, 2004; Bimber et al. 2005)—although most research supports simple accentuation.

This article takes a step back to ask what could explain such divergent findings. To answer this question, we introduce a four-category typology to distinguish between broad types of activism found in the literature. We show that scholars from different research camps tend to be studying very different types of Internet activism. For instance, the large number of scholars finding simple accentuation effects tend to study uses of the web that support offline mobilizations, while the minority of scholars finding more fundamental changes have tended to study online mobilizations. This suggests that findings likely depend on the kind of Internet activism being studied; emerging “trends” in findings, in turn, depend on how often different types of Internet activism are studied.

This raises a second question: do trends in what is being frequently studied reflect underlying empirical patterns? Drawing on an analogy to work on newspaper selection bias, if there is selection bias in the kinds of Internet activism that are being studied, then what appear to be emerging general patterns may actually describe a smaller empirical set of cases. We examine this using data from quantitative content coding of 20 random samples of websites addressing 20 different causes (or one sample per cause). We find significant disparities, suggesting that caution about apparent patterns in findings is in order as is more research on empirically common but understudied forms of Internet activism.

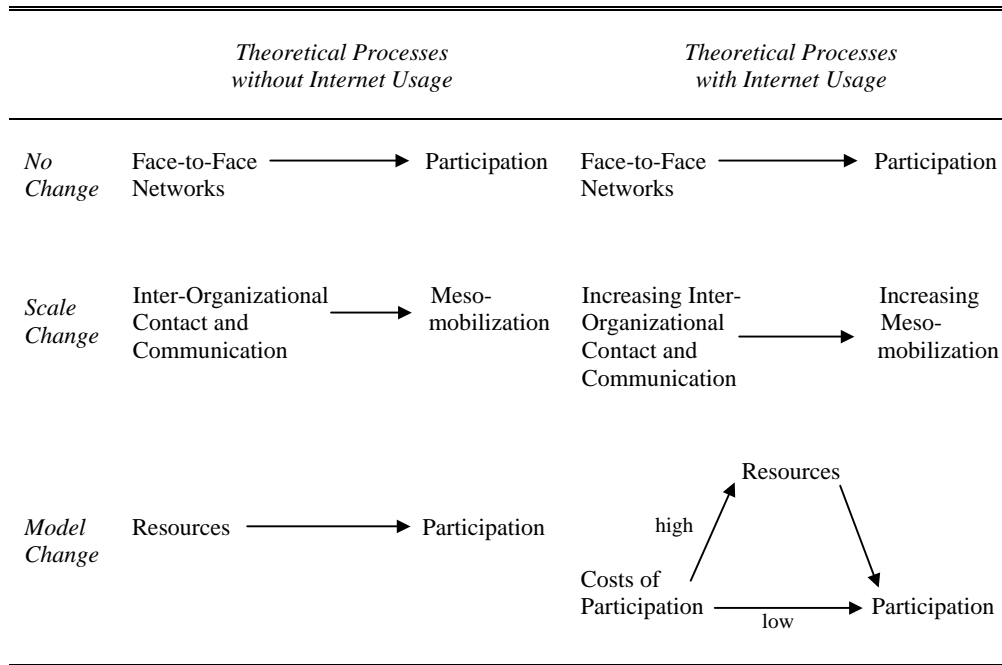
THE IMPACT OF INTERNET USAGE ON SOCIAL MOVEMENT PROCESSES

The three positions on Internet effects mentioned above differ substantially regarding the ability of existing offline-protest theories to adequately account for Internet activism.² First, some scholars argue that in the long run there will be no real lasting effect of Internet usage on social movement processes (Tarrow 1998; Diani 2000; Tilly 2004). This suggests that current theoretical approaches can be applied unproblematically. This research prizes long-term bonds of trust and commitment built through face-to-face interactions between activists. Personal ties are thought to be critical to mobilization (Tarrow 1998; Rucht 2004),³ as are the social networks those relationships build and maintain (Diani 2000).⁴ Others argue that the digital divide dulls the impact of the Internet on activism, or even risks further disenfranchising those without Internet access (Tilly 2004).

On the opposite side of the spectrum is another small group of scholars who argue that some uses of the Internet may actually change the dynamics of activism in important ways. Foot and Schneider (2002) refer to these as “model changes” because basic theoretical assumptions and/or robust social movement explanations don’t as readily explain the dynamics of some types of Internet activism. As such, this approach represents the largest challenge for social movement theory. It suggests that scholars need to actively evaluate and revise otherwise well understood social movement processes to explain Internet activism. Earl and Kimport (forthcoming) refer to the theoretical changes required by such online developments as theory 2.0.

To illustrate, several researchers have argued that the low cost of social action online has diminished the importance of resources in some social movement contexts (Benkler 2006; Bimber et al. 2005; Earl and Schussman 2003; Earl and Kimport forthcoming). This is clearly contrary to resource mobilization claims, which stress the importance of resources to movement emergence, expansion, and success (McCarthy and Zald 1973, 1977; Jenkins 1983). Similarly, Earl and Schussman (2003) show that when resources are relatively unimportant

Figure 1. Examples of Impacts of Internet Usage on Social Movement Processes



because of the extremely low cost of online organizing, social movement organizations (SMOs) also decline in importance, which is contrary to the large body of work demonstrating the importance of SMOs to organizing (Clemens and Minkoff 2004). Similarly, Bimber et al. (2005) argue that free riding, which is a collective action dilemma that greatly informed the development of resource mobilization, may actually represent a special case in which collective action is expensive. They argue that because online action can be so inexpensive, free riding is less likely and is, at a minimum, not a ubiquitous collective action dilemma today. Figure 1 diagrams these claims (and illustrative examples of other camps’ claims as well). The figure shows that instead of resources always affecting mobilization and participation (as resource mobilization has claimed), the relationship between resources and participation is attenuated when low-cost online activism is involved (that is, resource mobilization is only a helpful explanation when collective action is expensive).

Of course, not all model-change arguments focus on resource mobilization. For instance, Earl and Kimport (forthcoming) argue that robust offline relationships between collective identity and participation may be seriously attenuated for some types of Internet activism. Furthermore, not all model-change research focuses on lower cost forms of activism. For example, some argues for model changes in the social organization of groups advocating violence (for example, Kirby 2007 on uses of the Internet by terrorists, which involves high-cost, high-risk activities).

The largest group of scholars, however, takes a position between these poles. They argue that while there are differences between online and offline organizing, those differences tend to be in degree and do not require new theoretical explanations, or even substantial alteration to existing theories. Foot and Schneider (2002) have referred to such findings as scale-related effects because Internet usage is thought to simply accentuate or accelerate well-known processes driving activism and protest.⁷ This camp has also been labeled the “super-size” approach to Internet activism (Earl 2007b; Earl and Kimport forthcoming). In the American fast-food super-sized meal, the food was the same but in larger quantities. By analogy,

scholars from this approach argue that even though SMOs can reach much wider audiences more quickly and less expensively with the Internet, none of the fundamental theoretical processes driving activism is notably altered. Whatever label one chooses, the common claim is the same. Although the Internet may let groups disseminate information quickly (Myers 1994; Ayres 1999), reduce the cost of online communication (Peckham 1998; Fisher 1998), and/or enhance the ability of groups to create and represent broad online coalitions through links to other websites (Garrido and Halavais 2003), it doesn't change who activists are, what activists do, or how they do it in some more fundamental way.⁶ For instance, Bennett (2003, 2004) argues that the number of SMO and network connections has risen because of Internet usage, resulting in much larger, if ephemeral, mesomobilizations (the mobilization of groups) and coalitions. But the underlying dynamics driving these mesomobilizations are just accentuated versions of the dynamics that have long been thought to drive mesomobilization (Gerhards and Rucht 1992). When super-size scholars argue that some accentuation requires a change to existing theoretical principles, the changes are very small and certainly do not rise to the level of "model changes." For instance, Peckham (1998) argues that anti-Scientology organizing can be understood through a resource mobilization lens once scholars recognize that the Internet introduces new types of resources.⁷ This can be distinguished from the model-change research reviewed above, which claims that the fundamental premises of resource mobilization were called into question when action became very easy and/or very inexpensive. Unlike Peckham, model-change authors do not believe that broadening the definition of resources is satisfactory.⁸

UNDERSTANDING FINDINGS ON THE IMPACTS OF INTERNET USAGE

Stepping back from such divergent research findings to consider why the discrepancies exist, we argue that, instead of some researchers "getting it wrong," they are actually studying qualitatively different kinds of Internet activism. For instance, some of the research cited above examines offline rallies facilitated through the web while other research examines fully online e-movements. If findings vary by the kind of Internet activism under study, this could explain the discrepancies identified above.

A promising way forward, then, would be to organize findings using an typology of Internet activism. Ideally, a typology would describe broad differences in how to use the Internet in political contention rather than offer lists of examples of online engagement. But, no existing typology accomplishes this task. For instance, Vegh (2003) offers the broadest set of distinctions we could locate, but only distinguishes between Internet-enhanced and Internet-enabled activities. He defines Internet-enhanced activities as using the Internet as an additional communication channel while Internet-enabled activities could not occur without the Internet. This binary distinction doesn't sufficiently organize the literature. Vegh also distinguishes between the usage categories of awareness/advocacy, organization/mobilization, and action/reaction, but these categories describe how the Internet is used across a temporal process of engagement, not varying orientations to Internet usage. Other typologies are so specific that they move into lists of online tactics, including new tactics like culture jamming (Garrett 2008; Bennett 2003), without describing larger orientations to Internet usage.

Given insufficient alternatives, we introduce a four-category typology to describe the major types of activism examined in extant research: brochure-ware, online facilitation of offline activism, online participation, and online organizing. As briefly described in table 1, each category is an ideal type meant to identify a variety of actions, tools, and usages that have more in common with one another than with other categories. Accordingly, table 1 gives examples of both simple and complex versions of each category. We provide what we regard as minimalist definitions for each category so as to parse the widest possible array of activities and uses of the Internet for activism while highlighting that some implementations of these

Table 1. Four Broad Categories of Internet Activism

<i>Brochure-ware</i>	<i>Online Facilitation of Offline Activism</i>
<p>Information distribution through websites, listservs, etc. Distributed information can include logistical information, information on the cause, SMOs, ideology, or issue framing, among other possibilities.</p> <p>Simple implementations may be rarely updated websites with no time-sensitive cause information. Complex implementations may be frequently updated websites with large volumes of different kinds of information from multiple sources.</p>	<p>Providing information on, logistical support for, and/or recruitment for offline protest events such as offline marches, rallies, convergence centers, etc.</p> <p>Simple implementations only display information relevant to offline events in hopes of driving participation. Complex implementations may include logistics support such as roommate matching services so that protesters from out of town can find free lodging, or car-share services so that protesters can carpool to the metro area and/or specific protest locations.</p>
<i>Online Participation</i>	<i>Online Organizing</i>
<p>Providing actual avenues for participation while people are online, including relatively less confrontational actions such as online petitions and letter-writing and email campaigns, to moderately contentious forms of participation such as “website hauntings,” to very contentious forms of participation such as denial of service actions that operate like virtual sit-ins in closing down websites.</p> <p>Simple implementations involve less technically complicated forms of action like email campaigns. Complex implementations may include the writing of email scripts and website hacking.</p>	<p>Observed when entire campaigns and/or movements are organized online. Unlike movements organized offline or organized offline with some online components, this category involves fully online “e-movements.”</p> <p>Simple implementations involve single websites that coordinate an entire campaign while more complex instances involve many websites and often server-side software that automates some organizing functions.</p>

categories will be complex and/or clever and others will be technically simple or substantively ordinary. Below we discuss each category and research findings associated with it.

Brochure-ware: Information as Power

In general, websites are labeled “brochure-ware” when they are fairly static (that is, when the majority of their content does not change regularly and when the site uses basic html programming), and when they only provide information to visitors without facilitating online interaction (often with the notable exception of facilitating donations). We adopt this term to describe a type of Internet activism that sees the Internet not as an interactive medium but rather as a broadcast channel for information distribution (much as movement publications offer another broadcast channel). Websites are viewed as information hubs about causes, SMOs, and social movements. They are often cheaper to produce and maintain than printed documents. Moreover, the Internet allows access to a much larger potential readership than would be accessible otherwise. Perhaps most importantly, there are no marginal costs for each additional website visitor (beyond small, if present, bandwidth charges), so that reaching a large and international audience is possible at virtually the same cost as reaching a small and local audience.

Brochure-ware is one of the most studied types of Internet activism. Examples include Almeida and Lichbach's (2003) discussion of cause-oriented websites that examines websites' reporting on prior protest events.⁹ Hasian's (2001) study of the opposition to the Human Genome Diversity Project explores the way activists reproduce printed materials (such as pamphlets and essays) online with more ease, less expense, and broader reach than can be accomplished with traditional print media. Similarly, research on framing and websites implicitly views websites as primarily about information provision (Pudrovska and Ferree 2004).

This way of using the Internet is not unique to activism. For instance, Foot and Schneider (2006) find that a major goal of political campaign websites is to inform visitors about the positions of the candidate, endorsements, and other information viewed as persuasive to voters. Table 2 maps trends in findings on the impact of brochure-ware style activism in terms of the three schools of thought we outlined above. Researchers have tended to find either no impact (Figure 1, row 1) or scale-related impacts (Figure 1, row 2) when studying brochure-ware. For instance, Le Grignou and Patou (2004) find no real impact of the Internet; online materials and relationships simply mirrored offline materials and connections.

Table 2. Impacts of Internet Usage on Theoretical Dynamics by Type of Internet Activism

	<i>Brochure-ware</i>	<i>Online Facilitation of Offline Activism</i>	<i>Online Participation</i>	<i>Online Organizing</i>
<i>No Lasting Impact on Theoretical Models</i>	Le Grignou & Patou (2004) Pudrovska & Ferree (2004)	Tarrow (1998) Diani (2000) Tilly (2004)	–	–
<i>Scale-related Impacts on Theoretical Models</i>	Fisher (1998) Danitz & Strobel (1999) Fandy (1999) Hasian (2001) Wong (2001) Carty (2002) Rosenkrands (2004) Rucht (2004)	Myers (1994) Ayres (1999) Eagleton-Pierce (2001) Martinez-Torres (2001) Carty (2002) Norris (2002) Garrido & Halavais (2003) Kidd (2003) Rosenkrands (2004) van de Donk et al. (2004b) Fisher et al. (2005) Van Aelst & Walgrave (2002)	Peckham (1998) Gurak (1999) Wray (1999) Lebert (2003) Cardoso & S Pereira-Neto (2004)	Lee (1997) Leizerov (2000) Klein (2001) Carty (2002) Bennett (2004)
<i>Model-related Impacts on Theoretical Models</i>	--	–	Bennett and Fielding (1999) Eagleton-Pierce (2001) Cloward & Piven (2001) Brunsting and Postmes (2002) Gurak & Logie (2003) Earl (2006) Earl and Schussman (2007)	Bennett and Fielding (1999) Earl & Schussman (2003, 2004) Schussman & Earl (2004) Bimber et al. (2005) Earl (2007a, 2007b)

Note: This table is meant to be illustrative of trends by citing key works, but does not provide an exhaustive list of studies for each cell due to space constraints.

In terms of scale-related changes, Wong (2001) and Fandy (1999) study the severe marginalization of activism and activist news in Asia and Saudi Arabia respectively, where the Internet has proven useful in communicating otherwise censored news and in contributing to the globalization of support for their causes. Rucht (2004) finds that mainstream media often misrepresent or negatively represent activists and protest actions; the Internet offers an opportunity for some SMOs to develop alternative and less mediated reporting. In these cases, Internet usage has broadened the size and reach of SMOs at little marginal cost.

Research reporting on model changes for brochure-ware was not found (although such impacts are hypothetically possible). Even studies that find substantively important impacts of information provision—including what one might think of as socially revolutionary impacts, such as brochure-ware sites that challenge censorship in highly authoritarian states (for example, see Norris 2002 regarding online material on the Falun Gong)—do not find that the dynamics of activism are altered in such settings.

Facilitating Offline Activism Using the Web

The most frequently studied type of Internet activism is the online facilitation of offline activism (see table 1 and column 2 of table 2).¹⁰ Here, websites are still primarily information distribution channels, but those broadcast channels are used to convey information about and facilitate participation in offline protest events. Importantly, the Internet is not seen as an independent medium or arena of activism; it is simply a space for organizing and coordinating offline protest. For instance, when United for Peace and Justice (UFPJ) held a large march and rally in Washington, DC, in 2007 to oppose the Iraq War, they used their website to advertise the event, provide downloadable signs and banners so that participants could print protest signs with common messages and themes to bring to the protest event, and post updates about weather and logistics as the event approached (Earl 2007b; Earl and Kimport forthcoming). Some websites even include interactive elements to support offline events.¹¹ For example, the same UFPJ mobilization used rideshare message boards to coordinate transportation, and other websites have used message boards to coordinate housing.

A large amount of research has examined this type of Internet activism. For example, Van Aelst and Walgrave (2002) argue that the Internet was used to facilitate protest in 1999 against the World Trade Organization in Seattle. Similarly, Fisher, Stanley, Berman, and Neff (2005) studied online efforts to encourage participation in protest rallies.

When extant research on this type of activism is mapped across the three schools of thought on Internet effects, scale-related changes predominate. Illustratively, a number of re-searchers have examined the use of the Internet by the Zapatistas. Virtually all of this research finds that the Internet helped the Zapatistas spread their message internationally and gain broader support, but did so without changing the fundamental dynamics of their very physical struggle (Wray 1999; Martinez-Torres 2001; Garrido and Halavais 2003). Other scholars also show how the Internet can be used to establish global support for offline activism (for instance, Kidd's 2003 study of Indymedia and Carty's 2002 study of anti-Nike organizing). This global support would not have been possible without the quick and cheap connectivity that the Internet provides, and yet none of these authors argues that new theoretical explanations are required to understand these developments.

The second most common finding for this type of activism is that there are no real or last-ing changes brought on by Internet usage (Tarrow 1998; Diani 2000; Rucht 2004). For example, Tarrow (1998) implicitly focuses on offline protest actions and questions the effectiveness of the Internet to support offline action and larger social movements. We were unable to locate studies arguing for model changes when examining the online facilitation of offline activism.

Participation in Online Protest Actions

Internet activism can also mean online participation in online protest actions (see table 1 and column 3 of table 2), such as online petitions, boycotts, email campaigns, online letter-writing campaigns, virtual sit-ins, and virtual rallies and demonstrations. In this type of Internet activism, websites allow visitors to actually participate in an action while online. For instance, a large number of major SMOs have “action centers” on their websites where visitors can sign petitions or send emails. In terms of specific organizers, MoveOn is well known for online petitions and email campaigns. Where research is concerned, Earl (2006) and Earl and Kimport (2008, 2009, forthcoming) have studied online petitions, boycotts, and email and letter-writing campaigns, while Gurak (1997; Gurak and Logie 2003) has examined online petitions.

Model changes (figure 1, row 3) have been found more often with this type of Internet activism than with other types. For instance, Brunsting and Postmes (2002) argue that online protesters are less likely to be tied to group solidarity and are more motivated by perceived efficacy when compared to offline activists. Cloward and Piven (2001) and Eagleton-Pierce (2001) study “hacktivism,” which is a disruptive online tactic. They argue that the dynamics of online disruption are likely to differ, both in their organization and in their role in contentious campaigns, from offline forms. Bennett and Fielding (1999) discuss how the deployment of online “flash campaigns” by SMOs such as MoveOn has led to the emergence of “five-minute activists”—individuals who may not otherwise engage in political action but, thanks to the speed and convenience of the Internet, participate in online protest actions. They argue the composition of those engaging in activism is shifting as a result of five-minute activism.

However, there is also research reporting on scale-related changes. As discussed above, Peckham (1998) argues that by expanding the definition of resources, standard resource mobilization explanations can be productively used to explain the growth and limits of online anti-Scientology activism. Similarly, Lebert’s (2003) analysis of Amnesty International discusses the scale changes involved in quick and efficient mass emails and online faxes.

Organizing Online Protest Actions

The Internet can also be used to organize entire protest campaigns or social movements (see table 1 and column 4 of table 2). In this type of Internet activism, all aspects of organizing take place virtually, without face-to-face coordination by event or movement leaders. Websites, blogs, or listservs—not community centers, churches, or the streets—tend to be the organizing hubs of protest campaigns and/or movements. For instance, Earl and Schussman (2003, 2004; Schussman and Earl 2004; Earl 2007a) studied the strategic voting movement and showed that the emergence and maintenance of that movement occurred entirely online. Similarly, work by Gurak and Logie (2003) shows how cause-oriented campaigns that are entirely orchestrated online can emerge quickly in reaction to grievances.

This type of activism is the least studied of the four kinds of Internet activism. However, when it has been studied, research has found notable evidence for model changes. Earl and Schussman (2003), for example, find that the strategic voting movement behaved differently than existing literature would lead one to expect in a variety of areas, including its response to repression (Earl and Schussman 2004), the importance of resources and SMOs within the movement, and the prevalence of nonactivist biographies among its leaders (Schussman and Earl 2004). According to this work, the low costs of organizing entirely online drew in radically different kinds of organizers, including people with no experience with activism. This was in marked contrast to the extensive experience typical of offline organizers. In turn, these organizers often had different priorities and concerns than traditional social movement organizers. As such, they often acted in ways that would not be predicted by existing social movement theory (such as foregoing financial support from prospective donors).

Bimber et al.'s (2005) reservations about the contemporary relevance of the free-rider dilemma, discussed earlier, also relate to the low-cost nature of online organizing. Their concern is quite sweeping: in arguing that the free-rider dilemma is less likely to be found online than offline, Bimber et al. are suggesting that very basic social movement concerns that animate resource mobilization theory may be fundamentally restructured when organizing occurs online. The free-rider dilemma and resource mobilization may apply where actions and organizing are costly, but when activism is inexpensive, the free-rider dilemma and resource mobilization may provide less theoretical leverage, as shown in figure 1.

Research that finds only scale-related changes for online organizing also exists, and in fair amounts. For instance, Carty (2002) shows how counterhegemonic movements can use the Internet to organize effectively but without notable changes to organizing processes. Similarly, Bennett (2004) argues for the continuing importance of organizations in online environments.

Linking Typology Categories to Findings

When findings are parsed by the type of Internet activism, major patterns in existing research are evident: when researchers study uses of the Internet for actual online organizing or online participation, they are more likely to find model-related changes. Conversely, when researchers examine uses of the Internet as a broadcast information channel and/or as a way to facilitate offline activism, scale-related changes tend to predominate. Findings of null effects of Internet usage are most likely for brochure-ware and the online facilitation of offline activism. More technically, looking across table 2, research findings tend to cluster along the main diagonal of the table such that finding little or no impact or only scale-related changes is more likely where brochure-ware or the online facilitation of offline activism is studied but less likely when one studies online participation and/or online organization.

UPPING THE ANTE: UNNOTICED CASE SELECTION BIAS

The vast majority of research on Internet activism examines brochure-ware or the online facilitation of offline activism and makes generalizations about the impact of Internet usage on activism and protest on that basis. This means that most of what we think we generally know about Internet activism is based on only two of the four types of Internet activism. This is not problematic for the emerging field if brochure-ware and the online facilitation of offline activism are empirically very common and online organizing and/or participation are relatively rare. But, if this is not empirically true, then apparent generalizations may actually be special cases. Put another way, does research supporting scale changes predominate because the types of activism associated with scale-related changes empirically predominate? Or, are these findings more common because selectivity in case studies has created a mismatch between the kinds of Internet activism most often studied and the kinds of Internet activism that empirically predominate online? The stakes for this emerging area could not be higher: scholars risk being unable to effectively describe the dynamics involved in the bulk of Internet activism occurring online today.

DATA AND METHODS

We conceptualize content on online activism as a universe that can be sampled from, with random samples creating reasonably representative views of the overall sector. The data collection method in this study breaks important new ground by generating twenty random samples of *reachable populations* of websites addressing twenty different causes (or one sample per cause; for a list of causes see table 3). Each sample was quantitatively content coded to produce population-level estimates of characteristics of Internet activism in each of

the twenty claims areas. We define reachable sites as those one could locate without being given the URL. The twenty issue areas analyzed in this project were selected to represent causes traditionally studied in the social movement literature (such as abortion), causes where mobilization has oscillated widely over time (such as immigration) or is emerging (such as globalization), and causes specifically tied to the Internet (such as the open source software movement). Because we sample anything that can be found through a URL and that is made available through search engines—including standard websites but also public listserv archives and public social software and media pages such as flickr sites, YouTube videos, and digg lists—we capture a broad array of online content.

When all twenty samples are concatenated, the combined dataset contains data on 1,236 sites, which are as representative of the overall Internet activism sector as each individual sample is of a specific issue area.¹² Because protest actions (such as online petitions or information on offline rallies and demonstrations) connected to sites were also coded in a separate dataset, we additionally have separately analyzable data on 3,838 protest actions from these twenty causes.

These data are unique in two ways. First, this study is the first to create a generalizable and population-level view of multiple types of Internet activism, which in turn uniquely

Table 3. Results from Google Searches for Twenty Cause Areas

<i>Movement</i>	<i>Number of search strings</i>	<i>Number of URLs identified in searches</i>	<i>Number of unique URLs identified</i>	<i>Number of URLs in 1% random sample</i>
Abortion	14	13,931	11,377	114
Civil Liberties	9	8,991	7,476	75
Civil Rights	10	9,972	8,664	87
Education	7	6,988	6,717	67
Environment	6	5,788	4,887	49
Globalization	9	8,990	6,610	66
Healthcare	7	6,832	6,277	63
Homelessness	5	4,967	4,782	48
Human Rights	7	6,710	5,292	53
Immigration	7	6,991	6,580	66
Intellectual Property	7	6,988	6,446	64
Labor	10	9,923	7,527	75
LGBT*	8	7,997	6,877	69
Nuclear Power	11	10,760	8,885	89
Open Source	10	9,992	8,669	87
Peace	8	7,957	6,975	70
Poverty	8	7,987	6,307	63
Privacy	9	8,980	8,213	82
Right Wing	13	12,827	10,726	107
Women's	10	9,982	7,710	77
<i>Total</i>	<i>175</i>	<i>159,622</i>	<i>146,997</i>	<i>1,471[†]</i>

* Lesbian, gay, bisexual, transgender

[†] Only 1,236 sites appear in the final dataset due to sites that had been closed down or otherwise had invalid URLs, and hence were missing data.

allows us to answer the question of what the population of Internet activism looks like. Existing research on Internet activism is dominated by case studies, which leaves scholars lacking both insight into whether findings are generalizable as well as the scope conditions necessary for any such generalization. Instead of reducing the value of existing case study research, our data add value to them by empirically contextualizing their rich findings. Second, these data can offer a cross-movement perspective on online phenomena by embracing twenty different cause areas. With twenty issue areas, our data can speak to common trends and differences across movements and more fully represent the population of Internet activism. We should note that the data we capture is limited to Web-based activism. We do not capture forms of computer-mediated communication not archived or housed on the public Web, such as cell phone activism. Additionally, as is the nature of random sampling methodology, our methods are limited in their ability to gather data on very rare protest tactics (such as denial of service attacks).

Overview of Data Collection Methods

Researchers interested in populations or probabilistic samples of online content have been hampered by the technological architecture of the Internet for a variety of reasons. Using procedures paralleling Earl's (2006) work studying random samples of larger populations of online tactical forms, this project uses concatenations of multiple Google searches to approximate reachable populations of websites discussing each of the twenty issue areas. We randomly sampled from those populations (generating twenty independent samples, one per cause), archived the online content for content coding, and quantitatively content coded one percent samples of each cause (coding the sampled website, any protest actions on the site itself, and any protest actions on another site that were directly linked to from the sampled site).¹³

Data Collection Processes: Identifying, Sampling, and Archiving Sites

We generated search terms for each issue area from two sources: (1) keywords used in academic literatures and the media (such as "free speech" for the civil liberties claims area); and (2) high frequency words on organizational websites we identified as exemplary of the issue area (for example, Focus on the Family's website for the right wing movement). These terms were then paired with an action word (for instance, "protest" or "stop") and pre-tested for the quality of search returns in Google. The maximum number of effective search terms within each cause was used, ranging from five to fourteen (see table 3).

We selected Google as the basis for generating each population for two primary reasons. First, Google is the most comprehensive, searchable database of URLs (Jarboe 2003; Sullivan 2007) and represents the best approximation of a population list of websites. Second, Google searches mimic the two ways users generally find web content: through search engines—Google being the most extensive—or by following links from a known site. Although Google may not represent an exhaustive catalog of webpages, this methodology produces the best approximation of a population of *reachable* websites.

Using the pretested search terms, a computer script initiated contact with Google, submitted our search term queries automatically, and saved the returned results from Google into a local database. Results from the multiple search terms for each issue area were appended to one another, creating twenty independent, reachable populations, one for each cause (see table 3 search string and raw URL counts).¹⁴

The Google searches for data presented in this article were run in September 2006. The resulting populations were randomly sampled (see table 3). Sampled websites were archived for later quantitative content coding. Hundreds of thousands of individual webpages were saved and catalogued in those archives.

Data Collection Processes: Content Coding of Websites and Protest Actions

All websites in each of the twenty random samples were content coded. Inter-coder reliability tests were regularly conducted, yielding reliability rates of approximately 93 percent for site-related data and 92 percent for protest action-related data. Although more variables were coded overall, we report on the coding of four site-related and three protest action-related variables relevant here.

First, each site was coded for whether or not it contained contentious political advocacy, defined as explicit claims making and/or the opportunity to engage in some form of protest action. Second, when websites contained protest actions, we also coded data on the types of actions. Our definition of protest actions is purposefully broad, allowing us to capture simple and complex implementations. Third, each site was coded for its positions on *any* of 382 different issues it discussed. The site's position on each claim was also classified as supportive, oppositional, or other.¹⁵ Fourth, any news, educational, or informational material provided on any of the 382 issues was coded.

The project also quantitatively content coded any protest actions associated with the site. First, protest actions were coded according to whether they were labeled as archived or past actions. Second, protest actions that were not archived were coded for whether they took place offline (such as a rally in front of city hall)—which serves as a proxy for Internet activism as the online facilitation of offline activism—or online (for instance, an online petition), which serves as a proxy for Internet activism as online participation in and/or organization of protest actions.¹⁶ Offline actions were operationalized as actions requiring the co-presence of participants and not requiring an Internet connection to participate. Online actions encompassed protest opportunities that required an Internet connection for at least a portion of participation and did not require that the participant be co-present with others to participate. Third, coders assessed whether the protest action had been completed more than a year before the project's archiving date, ended within one year of the archiving date, was ongoing, was upcoming, or completion could not be determined. These data allow us to distinguish between completed actions that might be best described as brochure-ware (information about past successes) versus other forms of Internet activism.

Data Analysis

Of the 1,236 sites in the random samples, we excluded some sites from our analyses. First, we excluded sites judged not to be actively involved in activism and/or advocacy, including news sites (such as the *New York Times*) and governmental sites, such as a city's council on homelessness. Such sites offered issue-related content but did not include calls to action. While relevant to understanding the information field of Internet activism across these twenty issues, sites that were not activist sites are not helpful in the present analysis and are excluded.

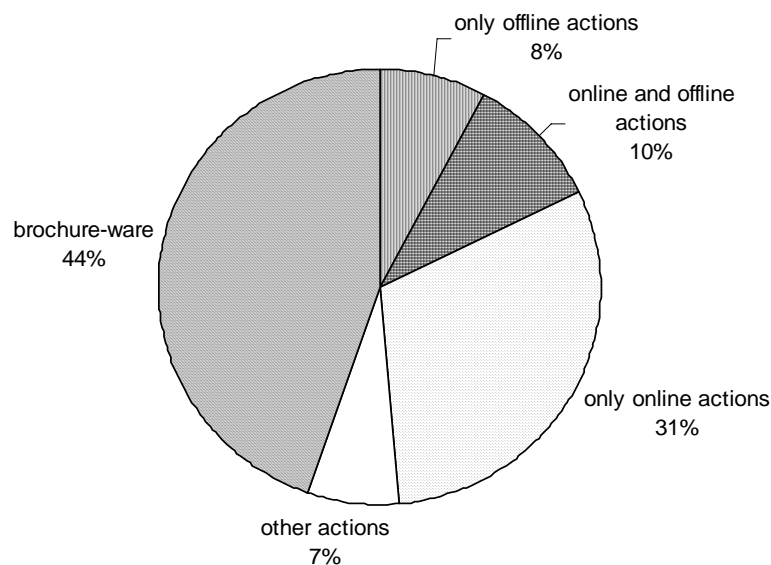
Second, we have restricted the analyses of site-level data to cases that contain claims or news, educational, or informational material on topics directly related to the cause in which sites were sampled. For example, while a site captured in the immigration sample may discuss additional issues, for the site-related analyses below, it must contain some discussion of immigration in order to be retained in our analyses. Our findings do not change substantially in subsequent, unreported, analyses. Nonetheless, we use this precaution as a check on the match between the claims area and the websites themselves to give us the most accurate vision of Internet activism related to each issue area. Descriptive statistics such as relative frequencies were computed using Stata 9 SE. In figures that list the causes separately, the data are analyzed by issue area.

FINDINGS ON RESEARCH VERSUS EMPIRICAL FREQUENCY

If the distribution of research on Internet activism proportionately reflected of the kinds of Internet activism engaged in online, then online facilitation of offline activism would predominate, followed by brochure-ware, then online participation, and finally online organization. However, as figure 2 shows, the literature's predilection for sites that facilitated offline activism does not represent the empirical reality of cause-oriented websites; only 8 percent of the sites across all twenty causes contained only offline actions. Similarly, the relative dearth of research on online-only activity is at odds with empirical trends: 31 percent of the sites host or link to only online actions, and an additional 10 percent are associated with both online and offline actions (see figure 2). It is clear from these findings that protest actions that are entirely organized and/or completed online are common and, in light of our mapping of extant research, significantly understudied. This is particularly important because relatively over-studied forms are more associated with limited or scale-related impacts of Internet usage on social movement processes. In contrast, relatively under-studied forms have been more associated with model-related impacts. Taken together, this suggests that the emerging picture of the impact of Internet usage on the dynamics of social movement processes may be skewed.

However, figure 2 provides some support for the literature's vision of Internet activism as largely brochure-ware. Sites that only contained claims and information about an issue area, without the opportunity to engage in action, represented the largest category of cause-oriented sites at 44 percent. This represents a plurality of cases, not a majority. Thus, while this type of site is currently common, it is not singularly dominant. Given the dynamic nature of the web, it is an open question whether the frequency of brochure-ware Internet activism will remain as high. Brochure-ware does not leverage many of the unique characteristics of the Internet and, as advanced web design becomes more pervasive and of higher quality (making the construction of more complex sites relatively easy) we expect the percentage of brochure-ware sites to decrease.¹⁷ Future research using longitudinal data should address this possibility.

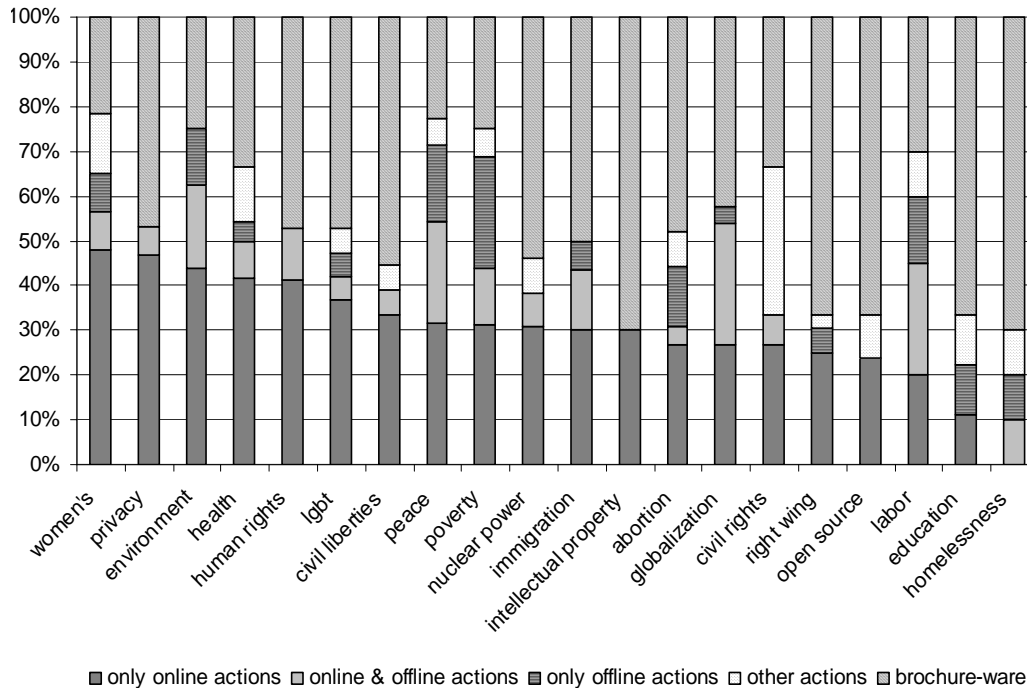
Figure 2. Breakdown of Actions for Sites with Protest Content



Note: Some websites appeared in more than one issue area sample and are thus represented more than once in the above breakout. Tests that omitted cross-issue sampling duplications did not substantively change the ranking and so we report on the full set.

Figure 3 shows how the aggregate pattern described by figure 2 breaks down by cause, revealing that whether at an aggregate level or when examining specific movements, the disproportionate focus on the online facilitation of offline activism doesn't map onto empirical trends, nor does the relative paucity of research on online participation and/or organization. Indeed, in seven of the causes under study—privacy, human rights, civil liberties,

Figure 3. Type of Internet Activism on Websites (ordered by percent “only online” actions)



nuclear power, intellectual property, civil rights, and open source—no sites exclusively contained offline actions. And while sites in five of these issue areas combined online and offline actions between six and twelve percent of the time, intellectual property and open source never did; in two of the twenty causes, no sites were associated with offline actions.

The literature's lack of emphasis on online participation is supported in only one cause—homelessness—which had no sites that exclusively contained online actions. The majority of homelessness sites fell into the brochure-ware category. Data from this cause, nonetheless, refute the dominance of work on the online facilitation of offline activism, as only ten percent of the homelessness sites hosted or linked to only offline actions.¹⁸

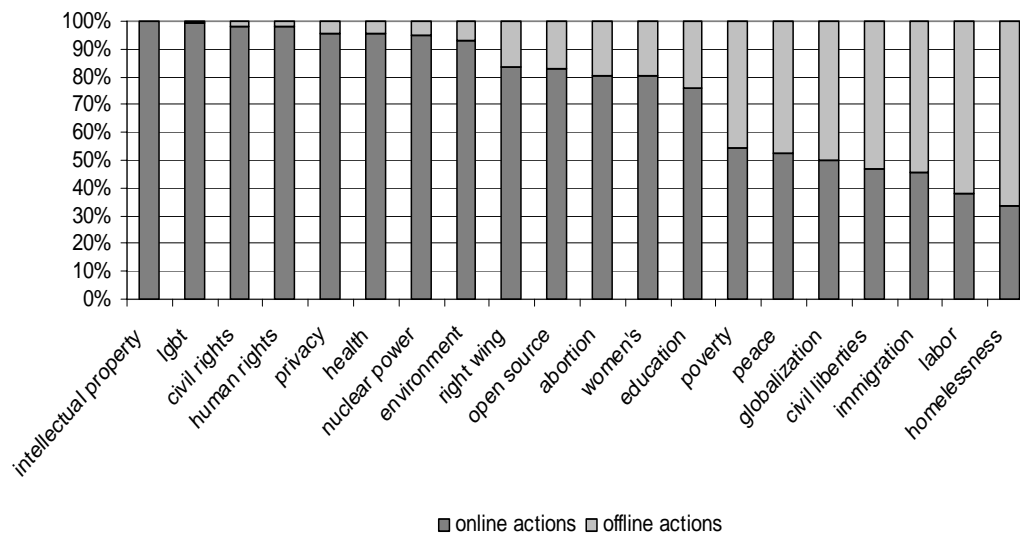
Our data also allow us to understand how accurately specific, well-studied movements have been characterized by case studies thus far. For instance, researchers have frequently studied globalization and labor movement websites that employ brochure-ware as Internet activism or the online facilitation of offline activism as Internet activism. But, as figure 3 shows, only fifteen percent of sites on the labor movement and just four percent of sites on globalization supported exclusively offline actions. Together, these findings suggest that when examining the kinds of “Internet activism” actually taking place online, the existing literature hasn't matched trends in empirical prevalence. In failing to do so, the literature risks mischaracterizing the relationship between Internet usage and changing dynamics of social movement processes.

We check these findings by examining whether these trends hold when analyzing data on protest actions instead of larger sites. Sites, after all, can host few or many actions. For ex-

ample, the site DefectiveByDesign.org hosted a single protest action while Indybay.org invited readers to attend seven vigils, six rallies, and four marches. As the example shows, it is possible that the small percentage of websites that strictly facilitate offline activism support a large volume of actions, dwarfing the quantity of online protest actions.

Figure 4, though, shows that our findings hold for protest actions too. While there are differences between movements in the prevalence of online versus offline actions, overall, online actions are far more prevalent than the literature suggests they would be. The lesbian, gay, bisexual, transgender (LGBT) movement, for instance, almost exclusively used online protest actions. Despite roughly five percent of the websites having only offline actions (see figure 3), less than one percent of the LGBT actions took place offline (see figure 4), lending support for the further depth of analysis at the protest action level. The peace movement, on the other hand, advocated participation in a number of offline actions. Offline actions constituted 47 percent of the protest actions on peace movement websites (see figure 4), although less than 20 percent of the websites had exclusively offline actions (see figure 3).

Figure 4. Type of Protest Actions by Issue Area (ordered by percent online)



Two movements frequently studied in the literature on Internet activism, labor and globalization, both boast high percentages of offline protest actions: 62 percent and 50 percent respectively. While at the website level, the distribution of the literature seems to inappropriately focus on the online facilitation of offline activism (see figure 3), the balance between research and empirical trends is somewhat closer for these two movements when examining protest actions as the unit of analysis. Still, these are two exceptions to otherwise clear trends.

Giving the benefit of the doubt to research on the online facilitation of offline activism, our analysis thus far has presumed that websites are facilitating, rather than reporting on or boasting about, the actions associated with their sites. That is, the above analyses make the assumption that protest actions are being discussed on websites before they happen, encouraging site visitor involvement and facilitating the event. By looking at data on action completion, however, we can distinguish between actually facilitating action versus reporting on previous actions, which would serve more of a brochure-ware function.

Table 4 shows significant percentages of offline actions that were completed over a year before archiving (12 percent) or within the year prior to archiving (36 percent). Since these sites advertise prior action instead of facilitating current or future participation, these completed “actions” might be better classified as brochure-ware. The findings reviewed earlier

Table 4. Protest Action Completion Rates by Action Type

<i>Type of Action</i>	<i>Completed over a year prior (%)</i>	<i>Completed within a year (%)</i>	<i>Ongoing (%)</i>	<i>Upcoming (%)</i>	<i>Unclear/ Cannot be determined (%)</i>	<i>Total (N)</i>
Online	20	5	67	1	8	2,954
Offline	12	36	17	32	3	535
<i>Total (N)</i>	<i>652</i>	<i>332</i>	<i>2,390</i>	<i>200</i>	<i>241</i>	<i>3,815</i>

are therefore likely to understate the number of brochure-ware sites and overstate the amount of online facilitation of offline activism.¹⁹ To the extent that this is true, our findings that the online facilitation of offline activism is relatively overstudied and that generalizations based on this kind of work have been taken farther than empirical trends might warrant, are strengthened. However, the high numbers of ongoing online protest actions (67 percent of all online actions) suggest that our findings do not substantially overestimate the relative prevalence of online organizing and participation.

CONCLUSION

At present, the literature on Internet activism lacks a rubric for clearly differentiating between various uses of the Internet as a tool for social and political change. This lack of nuance has allowed the proverbial comparison of apples to oranges, both enabling and concealing a real imbalance in the types of cases examined. The literature is presently dominated by research on two specific forms of Internet activism—brochure-ware and the online facilitation of offline activity. This research has tended to conclude that the Internet has had either a limited or a scale-related impact on the dynamics of social movement processes. However, we have shown that online participation and online organization are empirically relatively common types of Internet activism that are significantly understudied. Since scholarship on these more interactive and dynamic forms of online contention have often found scale-related (Klein 2001; Carty 2002; Cardoso and Pereira Neto 2004) or model-related impacts (Earl and Schussman 2003, 2004; Schussman and Earl 2004; Bimber et al. 2005), this oversight is a serious problem for the literature. As a first step, future research should attempt to redress the imbalance between the empirically described population of Internet activism and the set of cases studied thus far in the literature.

Perhaps scholarship on online participation and online organizing has been less common than empirically warranted because critics have assumed it is ineffective. But, there is ample anecdotal support for the effectiveness of online organizing (see Earl and Kimport forthcoming). We recommend that future research empirically examine outcomes of online actions, although we acknowledge it has been notoriously difficult to conclusively demonstrate the effectiveness of even offline efforts (see Earl 2000; Giugni 2004).

Whatever the cause of the relative dearth of research on online participation and organizing, we expect additional research on these types of Internet activism would point to important revisions of existing social movement theories, particularly in the realms of protest organizing and protest participation. On the organizing side, scholarship has already found biographical differences between online and offline organizers (Schussman and Earl 2004) and, further, that some organizers of online protest are unmoored from social movement organizations and even social movements (Earl and Kimport forthcoming). Future research should further analyze the processes of online organizing and organizer recruitment. New research has also suggested that these new organizers sometimes choose to organize around

very different causes than social movement scholars have studied before (Earl and Kimport 2009). Whether this continues to be the case is an important topic for future research.

Research should also develop units of analysis other than the SMO, since recent scholarship has found protest organizers unaffiliated with SMOs. Much as scholars who define protest as only targeting the state can miss substantial organizing that targets nonstate actors (Van Dyke, Soule, and Taylor 2004; Earl and Kimport 2008), studies that begin from the premise that (only) SMOs produce protest risk missing whole swaths of protest organized outside of formal organizations. In this article, we have begun from twenty issue areas, rather than SMOs. Other work on Internet activism has begun from social movement tactics (Earl 2006; Earl and Kimport 2008, 2009, forthcoming). Movement scholars might even think about the utility of starting from a study of protesting action, broadly defined, rather than specific social movements and/or causes. Such an approach would avoid some of the implicit biases in the literature about who can produce protest (SMOs) and what constitutes protest (traditional state-directed claims) and offer a fuller picture of protest writ large.

In terms of participation, Internet usage has been shown to potentially decrease the relevance of the free-rider dilemma (Bimber et al. 2005) and reframe the importance of resource mobilization. As scholars continue to study online participation, we anticipate real questions about the creation and maintenance—and even necessity—of collective identity. Future research should examine the question of whether collective identity can emerge when an action takes only five minutes and carries little risk. If not, scholars will need to better specify when and how collective identity matters to protest.

Of course, we don't expect this new research to negate theories developed based on careful study of offline protest. Instead, we hope this work will serve as a useful complement to existing theories, allowing for greater nuance and specification of theoretical processes. For instance, in many of the model-changing explanations reviewed above, it was not argued that resources never matter but that the predictions of resource mobilization theory would be most relevant when organizing or participating in action was difficult, expensive, or risky. Rather than diminishing the importance of costs to the study of social movements, this alternative suggests that costs may actually be an important variable distinguishing offline and online protest.

Beyond calling for the literature to better reflect empirical trends and to more accurately compare cases and findings, our results also suggest important questions for future research. For instance, because our study provides a snapshot of the current distribution of the varied types of activism we have identified, a longitudinal study of Internet activism could reveal important trends in the evolution of online contention. Given technical changes in web design software and the incorporation of these design tools into many websites, it is possible that brochure-ware versions of Internet activism may become less common over time. Similarly, one might expect that online organization and online participation may increase over time as more Web designers and activists become familiar with designing websites for these ends.

In closing, the dynamics and social forces that shape activism have long fascinated social movement and collective action scholars. As the Internet becomes an evermore pervasive feature of modern life, questions about the impact of Internet usage on the dynamics of social movement processes become more important and more controversial. This study demonstrates that research on Internet activism requires a renewed focus on the potentially different dynamics and social forces that shape activism online. Charting this growing field, identifying trends within it, and comparing those trends to empirical mappings of Internet activism is vital for appreciating just what empirical and theoretical impact Internet usage is having and will have on activism. This article has taken initial but critical steps toward reaching those goals.

NOTES

¹ We use “activism” to mean anything one does to forward collective, cause-oriented advocacy, including organizer and participant action. “Internet activism,” therefore, refers to anything a user can do online to forward collective efforts for social change. We use “protest” interchangeably with protest actions—protest is an on- or offline opportunity to engage in structured, political, collective action (see Klandermans 2004 on supply-side dynamics). Although science and technology scholars distinguish between the Internet and the web, as we do elsewhere (Earl and Kimport forthcoming), here we conform to the prevailing linguistic convention in social movement studies and do not distinguish between the Internet and the web.

² These group designations are our own, based on a thorough reading of the literature; consolidated research “camps” with scholars self-identifying into positions do not exist.

³ Tarrow argues that thick ties are necessary for activism and that only face-to-face interactions can build and maintain such thick ties, leading to our classification here as “no lasting impact.” His arguments on online diffusion are more difficult to classify (see Tarrow 1998: 241).

⁴ Scholarship taking this position often fails to discuss research showing that people can create and maintain personally meaningful and rich relationships online (see Rheingold 1993 as an early work in this area; see also Boase and Wellman 2006; Wellman and Gulia 1999).

⁵ It is important to clarify that our use of the term “scale,” which we borrow from Foot and Schneider (2002), differs from McAdam, Tarrow, and Tilly’s (2001) “scale shift.”

⁶ Scale, or super-size, changes can have very notable practical consequences, as many have observed of Internet usage during the World Trade Organization protests in Seattle, for instance. We nonetheless label them scale changes because the underlying processes are not altered.

⁷ Negative movement dynamics can also be accentuated online (Galusky 2003; Tilly 2004).

⁸ Model-change research does not deny the existence of some scale-related changes, but argues that Internet usage has also ushered in changes to social movement processes.

⁹ Some work used to illustrate our typology does not appear in table 2 because it doesn’t take a clear position on how Internet usage impacts fundamental theoretical dynamics.

¹⁰ A range of as yet empirically untested assumptions has been provided for a focus on this kind of Internet activism, including the belief that offline activism “matters” more to movement outcomes than other types of Internet activism. For example, van de Donk, Loader, Nixon, and Rucht (2004b: 18) argue that while “the Internet may facilitate the traditional forms of protest, such as rallies, demonstrations, and collection of signatures . . . it will hardly replace these forms.” However, research has yet to empirically compare the effectiveness of different types of Internet activism.

¹¹ Garrett and Edwards (2007) study the use of computer encrypted and decrypted phone calls rather than the web, revealing the importance of also studying other forms of computer-mediated communication. But, these other technologies are beyond the scope of this paper.

¹² Although fewer sites are analyzed due to exclusion criteria as discussed below.

¹³ Because we randomly sample from concatenated search results, our sample is not affected by the popularity of pages or sites. A site ranked as Google’s first return has the same probability of selection as a site ranked as 50 or 450.

¹⁴ Google limited the saved results to the first 1,000 from each query, but pre-tests showed that results after that were rarely of interest because matches to search terms were so weak.

¹⁵ The “other” category included sites that presented information on both sides of an issue but did not endorse a position and sites where the position could not be determined.

¹⁶ Since we do not have data on the production practices that resulted in the Web content that we analyze, we can only infer online organization, not directly measure it.

¹⁷ Given the low costs of retaining existing web content, we expect that many existing brochure-ware sites will simply remain as they are, rather than actually disappear. However, with advances in Web design, we suspect fewer new websites will be designed as brochure-ware.

¹⁸ While these data do a good job of describing the variation among the causes in their use of different types of actions, it is beyond the scope of this paper to explain that variation.

¹⁹ Table 4 excludes one outlier website and its associated protest actions, which had been found in two samples. Actions associated with this single site comprised 37 percent of all observed offline protest actions. The site was anomalous in that many of those actions were recurring events, such as recurring vigils. Thus, analyses including protest actions associated with this site inflated the percentage of ongoing offline actions substantially. Sensitivity analyses justified the removal of the case. If we had not excluded this case from any of the samples, the percentage of ongoing offline actions would increase to 47 percent.

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