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Signs of a Generational Change in Social Movements—Activists' Use of Modern Information and Communication Technologies[1]

Abstract: In this study I explore the use (and the non-use) of ICTs in the broad survey on their use by modern social movements, providing data on the demographics of the movements and their activists worldwide, and on the use (and non-use) of the ICTs. Based on four online surveys (including international, local US and Polish), data on distribution of social movement organizations, age of organizations and activists, numbers of activists and supporters, and organization goals are presented. Analysis of the diffusion and use of specific new ICTs follows. The research questions revolve around the blurring boundaries between members and non-members (unofficial supporters and volunteers) and the specifics of the use of new media (by whom and for what) with particular focus on the importance of organizational and membership age. The findings with regards to the use of modern ICTs show the success (wide diffusion and estimates of empowerment) of email, static websites, phones and social networking, contrasted with the relatively poor performance of blogs, podcats and online petitions on the social movement scene.

Keywords: ICT, information and communication technology, new media, social movements.

Many new information and communication technologies (ICTs) have emerged with the spread of the Internet. Those technologies are widely used by social actors, however the full picture of how and for what purpose is just emerging.

A large body of work analyzing the use of ICTs exists, but studies use different metrics and different time frames, thus making it difficult to conduct reliable comparative analysis and draw conclusions about the big picture. Similarly, due to the lack of large-scale survey studies, we have precious little data on topics such as the age of movement members or the size of organizations, making it difficult to put what findings we have in comparative context. Due to those ambiguities, as Earl et al. (2010) note, even on the basic question of ICT impacts on many aspects of social life one can identify research supporting a number of contradictory positions.

The purpose of the following study is to explore and analyze the use of ICTs in social movements, with a focus on Internet-era media, providing data on the use (and non-use) of ICTs. The research questions revolve around the blurring boundaries between members and non-members and the specifics of the use of new media (by whom and for what), with particular focus on differences between age cohorts (both

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for the organizations and their members). In addition this paper also presents findings on the demographics of the movements and activists worldwide that should be of interest to most social movement scholars.

Theoretical Background

The importance of technology for the development of a society is a common observation, but we should avoid the trap of technological determinism; the relation between society and technology is hardly one-sided. Although neither their rise, nor the diffusion of ICTs has been a "sufficient" factor in enabling social change, those tools have often been a "necessary" factor for it (Goody and Watt, 1963). This relation is analyzed by Bijker (1995), who presented the sociotechnical change theory: "Society is not determined by technology, nor is technology determined by society. Both emerge as two sides of the sociotechnical coin during the construction process of artifacts, facts, and relevant social groups." In other words, technology is both a cause and an effect of many social changes.

From the field of social movement research, resource mobilization theory offers insights on how technology is used for acquisition of resources and mobilization of supporters (McCarthy and Zald 2001). Tilly (2009) defines social movements as a series of contentious performances, displays and campaigns by which ordinary people make collective claims on others. He also defines the movement's repertoire of contention: employment of numerous forms of political action, such as creation of special-purpose associations and coalitions, vigils, rallies, demonstrations, petition drives, and so on. All of those are significantly related to communication tools available to social movements.

Recent scholarship increasingly considers how social movement actions (the repertoire of contention) are evolving and adapting to the new ICTs (Tilly 2009, Earl and Kimport 2011, MacKinnon 2012). Internet-era tools are increasingly user friendly, and for certain tasks they eliminate or vastly reduce the need for physical co-presence among the activists. The easier the new media are to use, the harder they are to control for governments and other traditional gatekeepers in the flow of information. As the new ICTs make communication cheaper and more efficient, it becomes much easier for the new challengers to spread their message and take on the established order. Online tools also allow greater anonymity than public meeting places, encouraging participation (Konieczny 2014). Discussing the emergence of a new, digital repertoire of contention, Earl and Kimport (2011) stress that Internet tools empower individuals by giving a voice to those who previously had none.

This discussion of ICTs as tools of empowerment should however be seen in the context of the same tools being used for social control, particularly relevant following the revelations from the Snowden affair of 2013—especially those about how the state has been engaged in semi-legal surveillance of numerous SMOs. Governments and corporations have not given up on trying to adapt the very same ICTs as means for information control and there is no denying that they have powerful tools of surveil-

lance with which they can threaten our privacy and freedoms, as vividly described by MacKinnon (2012). Lessig's (2006) theory of the "pathetic dot" is worth considering: the authorities are constantly trying to influence our lives not only through law, but also through the hijacking of the technical infrastructure. Kirkpatrick (2008) pointedly asks whether the increasing reliance of SMOs on new ICTs may not be a double edged sword: if every communication activists make is monitored, how will this impact their ability to carry out social change?

The usage of new ICTs gives a new meaning to the term "wisdom of the crowds"— the crowd is certainly better organized if most of its members are given access to regularly updated information. Three theories support the proposition that new tools are tested by innovative social movements and then spread to others: Tarrow's (1998) cycle of contention theory, Rochon's (2000) cultural change theory and Aldrich and Ruef's (2006) theory of innovative organization.

Tarrow (1998) stresses that there are cyclical periods where a rapid diffusion of collective action and mobilization occurs as existing social movements create political opportunities for others to act. Those periods are characterized by innovation in the forms of contention; the creation or major change in collective action frames, discourses and frames of meaning; coexistence of organized and unorganized activists; and increased interaction between challengers and authorities. Rochon (2000) argues that social change begins with the incubation of new values within a relatively small, interacting, self-conscious critical community, and is followed by is a diffusion of these values to a wider public through the creation of social and political movements. Aldrich and Ruef (2006) in turn differentiate between reproducer and innovator organizations, the latter of which are able to adapt to the changes in environment (including technological changes), and have a higher survival rate, often replacing the organizations of the old, or forcing them to mimic the innovators. All of those theories stress the importance of time: change happens because new, innovative values are introduced, often spearheaded by the young generation of activists (Raynes-Goldie and Walker 2008).

With regards to organizational change, a major question in the social movement literature concerns the trend of movement professionalization—the replacement of part-time volunteers by salaried professionals (Smith 1997, van de Donk et al., 2004, Zald and McCarthy 2001, Earl et al. 2010 and Earl and Kimport 2011). Many movements are increasingly professionalized, moving away from informal, grassroots-based organization to centralized bureaucracies that are seen by some as more effective in changing the status quo (Gamson 1990). However, professionalization and formal organization can hamper some movements and lead to taming of protest (Skocpol 2004a, 2004b). Therefore there is a growing debate about the trend and future of professionalization. Smith (1997) hypothesized that movements will become more decentralized as new technologies facilitate a greater scope of participation and movement membership becomes increasingly grass-roots based. Van de Donk et al. (2004) similarly noted that the spread of new ICT use throughout the rank-and-file membership is challenging the top-down flow of information, which is crucial in professionalization.

As indicated by Tarrow's (1998) and Rochon's (2000) theories, demographics offer another piece of the puzzle. Raynes-Goldie and Walker (2008) note that there is a growing technical expertise among social movement activists, a type of expertise that is usually associated with younger Internet users. Lenhart and Madden (2007) note that already by the mid-2000s more than half of US teens (64%) were content creators: they blog, they edit wikis, they create websites, and they post videos and photos. We see the influence of the "Net Generation"– the baby boom echo—for whom the web is a life force that empowers their social networks. For most teenagers and many young adults, Facebook, Tumblr, flickr, Twitter and their ilk are a fixture of everyday life, and this trend will only strengthen as more of the Net Generation members come of age.

Collectively these theories suggest that we should be able to find conclusive data that the young, innovative organizations with a fresh, not fully professionalized membership base are using the new ICTs more prominently than older organizations. Below, I will present data discussing those trends, with additional details on how they hold across different types of social movements.

Methodology: Key Hypotheses and Data Collection

Hypotheses

With the new many-to-many communication tools, and the culture of collaboration, it seems very plausible that the borders between members and non-members (unofficial supporters and volunteers) of movement organizations are blurring, with non-members becoming involved in core activities that in the past did not allow participation of non-members. Therefore, to contribute to the discourse on the professionalization of movements, following the proposition of Smith (1997), **Hypothesis 1** is proposed: *we should observe significant numbers of non-members engaged in crucial organizational activities*.

In line with Raynes-Goldie and Walker's (2008) observations on the importance of young membership and its different patterns of ICTs use I propose **Hypothesis 2:** there are correlations between the use of the new media and the age of its members and supporters. There are negative correlations between the use of the new media and the age of a) the organization and b) its members and supporters (in other words: the younger the organization and its membership, the more extensively it engages with new ICTs).

Echoing the above theories and the importance of generational change (Mannheim 1952), Scardaville (2005), Earl and Kimport (2011) and MacKinnon (2012) suggested that not only the way that young activists are operating is changing, but so are the very goals of social movements. They note the emergence of movements protesting new issues, from trivial topics—like the cancellation of a TV show or a discontinuation of support for online multiplayer games—to ones described as new human rights (digital rights), such as net neutrality or privacy. Those movements

are primarily organized online, and usually concerned with issues that could simply not exist without a widespread Internet culture. I therefore offer a **Hypothesis 3**: the rise of the cybersphere, and more practically, the spread of the new ICTs associated with it, should result in the emergence of a new type of movement, concerned with Internet-related issues such as digital rights.

Variables

In addition to simple demographics, respondents were asked about their use and attitude towards different ICTS, to measure their diffusion and perceived usefulness. Usefulness has been operationalized as the number of respondents who agreed (on a Likert scale) that a given ICT is useful for a specified task, with those strongly agreeing having their responses weighted as 1, and those just agreeing, as 0.5. Uselessness has been operationalized accordingly, counting respondents who disagreed (or strongly disagreed) with such a claim.

Two variables for usefulness (average and ratio) allow distinguishing between technologies that are seen as "the most useful" (i.e., with a high number of respondents agreeing they are useful) and those that are "highly useful to some respondents and highly useless to others" (i.e., where more respondents see the tool as useful compared to those who see it as useless).

Survey Methodology

This study surveyed social movement organizations, concentrating on those that have been publicly using new ICTs. A recruitment script was sent several times (from February to November 2010) to publicly listed representatives or activists in the selected social movement organizations. Willing respondents were able to access an online survey which asked the participants about their experiences with both traditional communication methods (face to face communications, snail mail, faxes, etc.) and the new ICTs. To increase validity, the survey contained definitions and examples, and was refined with a preliminary pretest survey. Most of the survey data were collected from closed-end questions.

In an attempt to survey a broad range of movements, four sampling frames were used to generate samples of activists to be surveyed: 1) local (Pittsburgh, USA) movements listed at the Thomas Merton Center webpage, 2) global SMOs based on the "Yearbook of International Organizations 2009/2010," 3) SMOs from Poland from the "bazy.ngo.pl" website and 4) organizations using innovative ICTs. Due to the relatively small size of the population available in those four frames, I decided to survey it in its entirety.

The Pittsburgh Survey

This first of the four surveys targeted activists from SMOs in the Pittsburgh metropolitan area, USA, aiming to provide a snapshot of ICT use in a geographically-defined region of a USA, which is a developed-country commonly studied by social movement

scholars. This sample was generated from a list of local organizations maintained by the Thomas Merton Center, a Pittsburgh-based organizing center for many of the city's left-leaning and liberal SMOs. After analysis of the list, 125 organizations were found eligible to be included in the study.

The International Survey

Since the first survey had a significantly limited geographical scope, the second survey was designed to target international SMOs. The 2009–2010 edition of International Yearbook of Organizations was employed in this survey. It is seen as a reliable source for research on international organizations (Smith 1997). However, in my analysis of possible inefficiencies in the Yearbook's information gathering methodology I identified three potential biases: 1) the Yearbook seems biased towards long-established organizations; 2) the Yearbook seems biased towards the developed countries (and within them, towards English-speaking countries); 3) the Yearbook is unlikely to include organizations that do not want to be associated with the UN.

Screening the Yearbook for organizations that fit the SMO definition and eliminating inactive organizations resulted in 2619 entities.

The Polish Survey

The third survey was designed to expand the dataset by gathering information on ICTs use from a non-English speaking country. A comprehensive Polish language list of Polish non-governmental organizations is maintained by the ngo.pl organization (http://portal.ngo.pl/). Discarding organizations not fitting the social movement criteria (for-profit, governmental) or inactive, a total of 1,569 entities were included in the analysis.

The Innovative Survey

The fourth and last survey was based on a theoretical sampling approach, designed to locate SMOs using innovative ICTs. Innovative SMOs were operationalized as those groups using an ICT introduced in the last ten years and announcing that fact on the main page of their website. While such movement organizations are a minority in the general population of social movements, they should be representative of the most successful early adopters of the new ICTs.

They were identified through an online query (using the Google search engine), with the combination of the keywords "social movement" and "activism" in one pool and one of the following keywords: "innovative," "online," "web 2.0" in the other, with the first 400 hits of each search reviewed. This sampling method identified 142 entities.

Challenges and Limitations

There is a question regarding how comparable the results from the four surveys are. Chesters and Welsh (2010) note that research on larger social movement populations

ends up being highly selective, as being comprehensive is impossible in the fluid world of such organizations; a similar point is made by van de Donk et al. (2004). It is true that obtaining such a picture is inherently difficult (as proven by the fact that no one has succeeded in capturing it so far). At the same time, large surveys have been known to provide substantial if imperfect glimpses into very large and complex populations.

This research was designed from the very beginning with the assumption (shared by other comparative studies of international social movements such as Smith 1997, 2001) that we can compare social movement organizations on a transnational level. By targeting both regional and international movements, the results were designed to be applicable to a broad spectrum of social movements and to provide information on the use of new technologies in a range of campaigns, from local grassroots efforts around the world to international networks. To assure that the data would be comparable, the same survey was used in all cases, and the unit of observation (social movement activists) stayed constant.

The sampling schemes were designed to produce enough data to allow a qualified generalization on trends present in the universe of SMOs. One specific bias is navoidable due to the research design: only organizations with an online presence were contacted. This means that while this study provides data on how organizations with at least the basic access to the Internet use the new ICTs, it will not (nor was it intended to) provide information on the usage of such tools (or rather, lack of it, and the reasons behind this) by organizations with no presence online.

Since thousands of entities were contacted, reliability demands should be satisfied as well. For comparison, published results in social movement literature report response rates in the range of <5% to over 90%; and the average reported response rate in recent years for online surveys is 30% (Wessner 2009).

The author finds it necessary to make three final notes. First, please note that due to publication size limitations, the focus of the article is on the analysis of new media. Data on older media was collected, and is provided in some tables and graphs for interested readers; it is however *purposefully* not analyzed in here, as it falls outside the primary scope of this article.

Second, both the Pittsburgh and Poland samples were convenience samples. Pittsburgh was chosen due to the existence of the movement list available at the Thomas Merton Center (the majority of other US urban areas do not have such a list). Poland was chosen due to the existence of the "bazy.ngo.pl" database and the author's familiarity with the Polish language.

Third, with the exception of the respondents from the United States and Poland, no other countries provided a sufficient number of responses to make a cross-national comparison between specific nations viable. Further, outside of noted exceptions, few significant findings were observed for the use of new media when controlled for a particular survey. Therefore the following analysis of the new media use is *purposefully* not focused on comparing countries, nor the surveys.

Addressing the latter two issues would require a new set of surveys specifically targeting numerous national populations, a task that I would hope will be eventually realized by future research.

Findings

Movements Demnographics: Reach, Age, Size

The response ratio for this study was 9.1% (412 out of 4522 respondents have completed the survey). With regards to *the geographical reach of their organization* (Table 1) the majority of the Pittsburgh SMOs are focused on local or regional issues. This provides support for claims that most social movements and their activities are local in scope (McAdam et al. 2005).

For the International Survey, the findings on the *geographical reach* indicate that while the Yearbook focuses on the international organizations, only about three quarters of the organizations listed in it see themselves as such. This suggests a level of discrepancy between how the organizations perceive themselves and how they are perceived by the Yearbook.

In the Polish Survey, the findings *on the geographical reach* indicate that most Polish SMOs see themselves as national, although taken together, the regional and local organizations do outweigh the national ones (51% to 38%). This lends further support to the claim that the majority of social movements are local in scope.

The findings on *geographical reach* from the Innovative Survey indicate that over three-quarters (76.7%) of the surveyed organizations see themselves as international, with most of the rest seeing themselves (20%) as regional. This raises an intriguing notion that innovative use of ICTs may boost an organization's visibility on the Internet.

Table 1

Global Reach of the Surveyed Organizations

Survey	Reach			
	local	regional	national	international
Pittsburgh	**50.0%**	36.7%	6.7%	6.7%
International	3.2%	7.0%	15.8%	**74.1%**
Polish	23.8%	27.3%	**37.8%**	11.2%
Innovative	3.3%	0.0%	20.0%	**76.7%**
Totals	14.8%	16.7%	24.2%	**44.4%**

Dominant category for each survey in bold. N = 30 (Pittsburgh), 158 (Int.), 143 (Polish) and 23 (Innovative).

The findings on the *geographical distribution* (Table 2) were not applicable to the Pittsburgh and Polish surveys, due to their geographically limited scope. With regard to the International Survey they indicate that the majority of the surveyed organizations (84.5%) come from the developed[2] countries. This does not imply that SMOs are more common there than elsewhere. Smith (1997) noted that international SMOs are based disproportionately in the developed world. Others, however, like Ball (2000) found that developed countries hold no monopoly on all social movement

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[2] Developed in this contexts means a core country in the world-system theory.

activity, only on the international movement activity. My findings corroborate this claim, as a considerably higher proportion (88%) of organizations with headquarters in the developed world is focused on the international arena, as compared to only a third (36%) of those with headquarters in the developing world.

The majority of the Innovative Survey respondents (86.6%) indicated that their organizations hail from the developed countries, like the respondents of the International Survey (84.5%). There are several plausible explanations here. First, note the significant correlation between the organization's geographical reach and country of origin, with international organizations being much more likely to be headquartered in the West. Second, this survey had a self-selecting bias due to the use of the English language, which increased the response chances by a) organizations from the English-speaking countries and b) international organizations, which would likely be using the English language on their website. The latter factor also serves to explain the uneven distribution of respondent organizations, with three quarters from the English-speaking developed countries and only two-fifths from the non-English speaking developed countries. Keeping those factors in mind with regards to any generalizations, I nonetheless feel confident in stating that the data support a claim that the majority of *social movement organizations that use new ICTs innovatively and are ranked most highly in the English-language query in the Google search engine* will be centered in the English-speaking developed countries.

Table 2

Location of Headquarters for the Surveyed Organization. N = 175 (Int.) and 30 (Innov.)

Region	International Survey	Innovative Survey
English speaking developed countries[a]	66.6%	42.6%
Non-English speaking developed countries[b]	20.0%	41.9%
Eastern Europe	7.0%	0.0%
Middle East	0.0%	0.0%
Central and Latin America and Caribbean	3.8%	0.0%
Asia	9.7%	8.6%
Africa	7.0%	8.6%

[a] Those included: Australia, Canada, Ireland, New Zealand, United Kingdom and United States.

[b] Those included: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Hong Kong, Iceland, Italy, Luxemburg, Netherlands, Norway, Spain, Sweden and Switzerland.

The findings on the *age of surveyed organizations* (Table 3) from the Pittsburgh Survey indicate that the majority (70%) of the surveyed organizations are over 20 years old. Similarly, the findings from the International Survey indicate that none of them were younger than 2 years, and most of the surveyed organizations were over 20 years old. The data further suggest that about 3% of SMOs, primarily the younger ones, fail every year. This is consistent with previous findings on the "liability of newness" (Smith 1997).

In the Polish Survey the picture is quite different: the organizations are more equally distributed across the periods surveyed. Only about 12% of movements are over 20 years old, whereas about half are about 5–20 years old. This can be explained

by the history of Poland: before 1990, the legal operation of social movement orga-
nizations and similar NGOs in Poland was restricted by the communist authorities.
Despite the tremendous success of the Solidarity movement, much activism occurred
underground, and without any formal structures (Perdue 1995). It was only in the
aftermath of the Autumn of Nations that barriers to registering and operating such
organizations were removed. Referring to that period Ekiert and Kubik (1997) wrote
"Poland of the early 1990s would rank among the most contentious nations in the
world." This marks an important difference between the Polish and the West move-
ment scenes, and also indicates that such countries may have valuable opportunities
for researchers who want to study (relatively) young movement scenes.

Table 3

Age of the Surveyed Organizations

Survey	Age (years)						
	less than 1	1 to 2	2 to 3	3 to 5	5 to 10	10 to 20	over 20
Pittsburgh	3.3%	13.3%	0.0%	0.0%	3.3%	10.0%	**70.0%**
International	0.0%	0.0%	1.3%	3.8%	12.6%	34.6%	**47.8%**
Polish	4.8%	8.3%	9.7%	17.9%	**28.3%**	19.3%	11.7%
Innovative	6.5%	3.2%	6.5%	19.4%	**48.4%**	12.9%	3.2%
Totals	2.7%	4.5%	4.8%	10.1%	20.5%	24.7%	**32.7%**

Dominant category for each survey in bold. N = 30 (Pitt.), 159 (Int.), 145 (Pol.), 31 (Innov.).

With regards to the Innovative Survey, close to half of the surveyed organizations
are 5–10 years old, with less than 20% being under 3 or over 20 years old, and
only about 3% being over 20 years old. This suggests that it is not only the age of
organization members that may lead to more use of new media (as suggested in
Hypothesis 2), but that the age of an organization itself is a relevant factor, perhaps
due to its less formalized structure and being more open to innovations—something
that would be well worth further research.

Membership, Professionalization and Volunteering

With regards to members' age, the data support the conclusion that members of social
movement organizations are between 30 and 50 years old, with the "under 30" and
"over 50" age groups being balanced. There are however notable exceptions, with
a skew towards the "under 30" group in the countries with a relatively recent history
of SMO activity (such as Poland), or in the fields dominated by younger organizations
and newer goals (digital rights and free culture).

Due to a lack of a global census of SMOs, it is hard to compare the numbers on
membership to previous research. The few existing studies of specific social movement
issues and more common studies of individual organizations show that the numbers
vary significantly depending on a movement's industry, country and age. Lofland
(1996), attempting a rare estimate of the big picture, wrote that "taking all SMOs as
a set and extrapolating from the limited data […] I venture the guess that the vast

majority of SMOs in at least the industrialized democracies have well less than fifty members, with many having twenty-five members or less. Only a small percentage has membership of more than ten thousand, although [a small number] have been much larger. [...]." The actual numbers are masked by several factors. Professionalization has been traditionally operationalized as the [growing] number of paid staff. The number of paid staff, however, is rarely the same as the membership. Even when focusing on professionalization, using the number of paid staff as a measure is an imperfect solution. Reported numbers can include individuals who hardly contribute to the professionalization (accountants and janitors, for example), and at the same time they ignore those pursuing long term careers in the movements. The latter groups include such individuals as those just beginning their career in the organization (interns), those who work for the organization on a part-time or contractual basis, or those individuals (volunteers) who pursue a career in the social movement either knowing that the organization cannot afford to hire them at the moment or refuse to take a pay check from the organization on principle. Lofland (1996) also notes that in times of major mobilization the numbers of movement membership are often reported to be in the range of hundreds of thousands or even millions. Such large movements achieve much higher visibility and hence are the focus of a numerous studies, particularly in quantitative research. Not denying the need for such studies, it is worth keeping in mind that, as visible as such movements are, they are nonetheless just exceptions to the rule that most SMOs are small.

Further, varying definitions of membership make comparisons between studies problematic. Even or especially when higher numbers up to millions are brought to bear, those numbers, as noted by Lofland (1996), often represent a failure to distinguish between individual social movement organizations, the social movement industries comprised of thousands of SMOs, and the wider social movement community. Those numbers combine a small number of paid staff not only with unpaid interns, contractors and volunteers, but with a vastly larger number of individuals who respond to solicitation requests and whose activity is limited to donating money or signing a petition.

To deal with those problems, survey respondents in this study were asked not about the number of paid staff, but about involvement of their membership, as well as about the formality of their ties with the organization. With regards to the size of the organization, the respondents were asked to give estimates for members in two categories: active and inactive. Members were defined as people who have joined and/or registered at the organization; active members were defined as those who participate in organizational activities; inactive members as those who do not participate beyond minimal-involvement tasks such as signing online petitions or giving donations. Further, the respondents were asked to estimate the number of active non-members (supporters, volunteers)—individuals who are not formally part of the organizations and who receive no pay, but who are nonetheless active in various activities of the organization, up to and including recruitment of other supporters and members.

The findings on the *membership size* for the entire dataset indicate that for every active member there are two individuals, regarded as members, who dedicate very

little time to organizational activities. Also, for every active member (or every two inactive members), there are three active non-members; close to three-fourths of those are active and help out with organization activities, and about one-quarter is engaged in core activities, such as recruitment. The large number of supporters shows the significant scope of the social movement community, and movements' reliance on the labor of supporters and volunteers (active non-members), supporting the hypothesis about the growing importance of non-members (**Hypothesis 1**).

Table 4

Size. Activity of Non-members (Supporters). All Surveys. N = 144

	Respondents (%)				
	Pittsburgh	International	Polish	Innovative	All
Average active membership	905	5799	128	1985	1563
Average inactive membership	1719	17896	169	10184	3437
Size of the supporter network	2867	3838	434	41621	4800
Supporters participate in organization activities	66.6%	65.5%	79.6%	73.3%	71.6%
Supporters recruit others	42.4%	19.5%	25.0%	46.6%	25.7%

Findings for the specific surveys, while supporting the above estimate, suggest some intriguing differences between populations. For example, Polish movements seem to be much smaller, whereas international and innovative ones are much larger than the average. Some of the data presented in Table 5 can be quickly explained—for example, the large numbers of the supporter network for the innovative movements are likely a result of how easy it is to become involved in online activism. Other observable patterns, particularly with regards to international movements where, unlike in movements with a smaller geographical scope, the supporter networks tend to be on average smaller than the active membership, would benefit from further research.

Organization's Goals

The findings on the goals of the organizations are shown in Table 5 and Graphs 1–4. Results from the Pittsburgh survey offer us a glimpse at the social movement sector found in an average urban area in the United States. They indicate that the most popular industries (goals of "top concern") are community and social services, education, environment, health and human rights, with religion, intellectual property and Internet issues being the least popular (the "minority concern" goals).

Findings from the International Survey indicate that the most popular movement industries (goals of "top concern") are human rights, education, community and social services, gender and women's rights issues and the environment. Religion, intellectual property and Internet issues are the least popular (the "minority concern" goals).

As indicated before, there are few studies which attempt to paint a broad picture of the social movement sector. However, useful findings were presented

Table 5

Top Four Issues of Concern (Goals). N = 31 (Pitt.), 54 (Int.), 142 (Pol.), 30 (Innov.)

Survey	Most important issues			
	1st	2nd	3rd	4th
Pittsburgh	education	community and social services	human rights	health
International	human rights	education	community and social services	gender and women's rights
Polish	education	community and social services	environment	human rights
Innovative	Internet	human rights	politics	intellectual property and free culture

Graph 1

Number of Movements Claiming a Given Goal as a Primary. Pittsburgh Survey

Movement goals (Pittsburgh Survey)
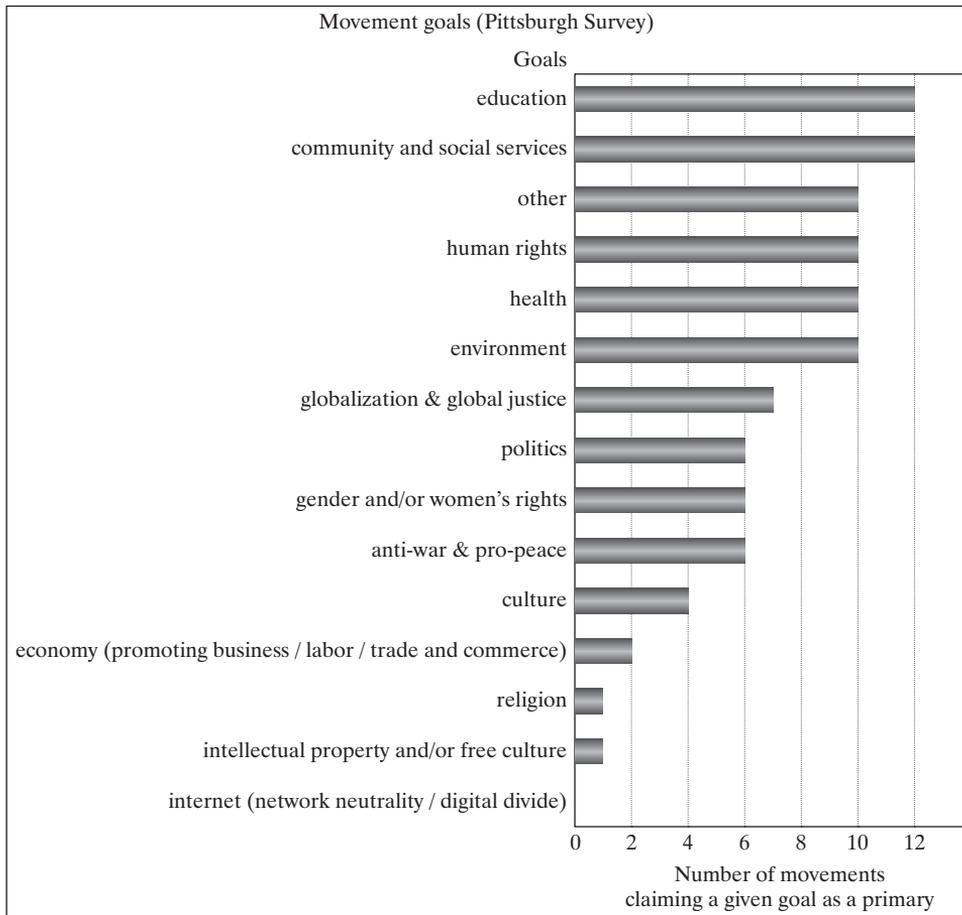
Graph 2

Number of Movements Claiming a Given Goal as a Primary. International Survey

Movement goals (International Survey)

Goals

Goal	
human rights	
education	
community and social services	
other	
gender / women's rights	
health	
environment	
globalization / global justice	
anti-war / peace	
politics	
economy (promoting business / labor / trade and commerce)	
culture	
religion	
Internet (network neutrality / digital divide)	
intellectual property and/or free culture	

0   10   20   30   40   50

Number of movements
claiming a given goal as a primary

by Smith (1997, 2005) who distinguished between the following issues: human rights (27%),[3] environment (14%), women rights (10%), peace (9%), world-order/multi-issue (9%), development (5%) and self-determination/ethics (5%). She also listed other issues which scored under 3%: animal rights, international law, consumers' rights, consumer protection, population issues and violent revolutions.

There are some methodological differences between the surveys presented here and Smith's. In my surveys respondents were allowed multiple answers, but in Smith's research only one answer was allowed. In addition, our categories are not identical. Nonetheless the dominance of human rights in both findings seems significant, allowing for a proposition to be put forward: that on the international scene, human rights

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[3] Figures in parenthesis are cited by Smith (1997), and represent data from 1993.

Graph 3

Number of Movements Claiming a Given Goal as a Primary. Polish Survey
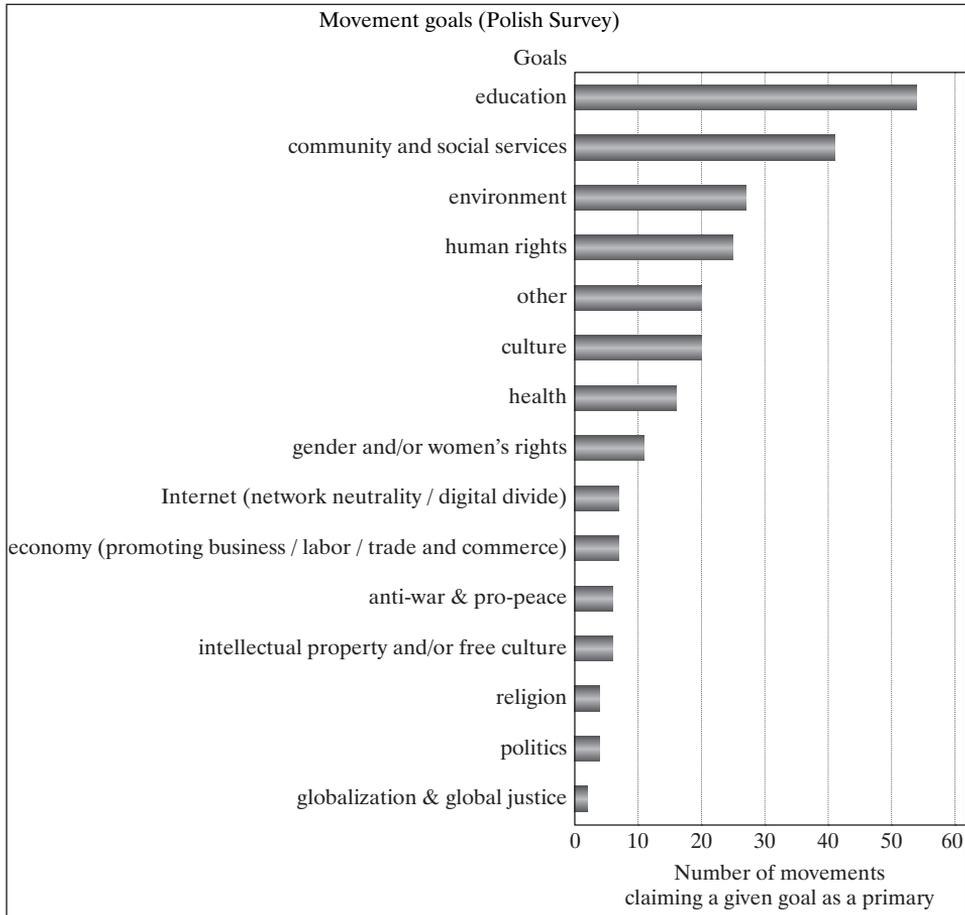
are the most popular cause. In addition to confirming Smith's findings on the high relevance of environment, women's rights and peace issues, the results of my study also suggest that education, community and social services form major areas of the international social movement activity.

It is intriguing that both Smith's and my findings came from surveys of organizations that attached little importance to labor issues. However, I do not feel confident in using my data to justify a finding on the low importance of this goal, as it could be a result of sampling frames (focused on social movements and international NGOs) missing the labor / trade union population. Alternatively, labor issues could be subsumed by the global justice and globalization movements. As such, I feel that the question of the relative importance of the labor goals deserves further research before conclusion about its relative unimportance or decline is drawn.

Graph 4

Number of Movements Claiming a Given Goal as a Primary. Innovative Survey

Movement goals (Innovative Survey)

Goals

Goal	Number
Internet (network neutrality / digital divide)	14
human rights	12
politics	10
intellectual property and/or free culture	10
culture	10
other	7
globalization & global justice	7
gender and/or women's rights	7
education	7
community and social services	7
health	5
environment	5
economy (promoting business / labor / trade and commerce)	4
anti-war & pro-peace	4
religion	1

Number of movements
claiming a given goal as a primary

With regards to the Polish movement scene, its goals stand apart from those seen in the Pittsburgh and International surveys. While two issues (education and community with social services) hold the top position in all three surveys (being of core importance to between 30–50% of the movements), there is a sharp decline (from 30–40% to under 20%) in the next group of core goals for the Polish organizations, whereas such a decline is much smoother in the International and Pittsburgh surveys (compare Graph 3 to Graphs 1 and 2).

This allows us to identify three clusters of activity with regards to the Polish social movement organizations:
- the "top concern" cluster, composed of the education, community and social services goals;
- the "average concern" cluster, composed of the environmental, human rights, culture and health goals;

- the "minority concern" cluster, composed of the gender and woman's rights, Internet, economy, anti-war, intellectual property, religion, politics, and globalization goals.

Similar surveys in other countries should provide comparative data for an international analysis. As the above results show, while we can identify some common patterns, we can also spot notable exceptions; for example the low interest Polish movements tend to show on the issues of globalization is certainly intriguing and warrants further investigation.

With regards to the Innovative Survey, one of its most distinctive features can be seen in the importance of the Internet goal, which rises to the first place, followed by human rights, politics, intellectual property and culture, which can be seen as constituting goals of "top concern." All but the human rights goal were relatively uncommon compared to the core goals in the other surveys.

I would like to caution against overgeneralizations based on these results (in particular, because the data from other surveys is inconclusive with regards to the relation between those goals and the use of new ICTs). That said, the survey of the social movement organizations that use new ICTs innovatively suggests that they have a significantly different set of core goals than an average social movement organization.

Based on the analysis of movement goals, we can estimate that 3–8% of international movements are concerned with issues that were not on social movement agendas before the advent of the Internet, or simply did not exist (like the digital divide and network neutrality). Those issues seem to be of more concern to younger, national or international movements, those using innovative new ICTs. This yields support to **Hypothesis 3**.

Diffusion, Empowerment and Use of ICTs

Table 6 and Graphs 5–10 illustrate the results of my analysis of the perceived diffusion, empowerment and use of ICTs by the respondents in my surveys. The respondents agree that all ICTs are highly empowering; not a single ICT is seen as not empowering. The vast majority of the respondents were also in strong agreement that the Internet is important (over 90% agree that it is important; over 70%, strongly). Those comments need to be taken with a grain of salt, as respondents tend to overestimate the importance of ICTs (Carey and Elton 2010).

Looking at *ICT diffusion* (Table 6), the most widely diffused tool is email, followed closely by websites, landline phones, and mobile phones, all of them used by over 80% of the surveyed organizations. Setting aside email and websites, newer ICTs are used more sparingly, by less than 50% of the organizations, with the noteworthy exception of mass emails (listervs, discussion groups and such) used by over 60% of the respondents, and social networks (websites like Facebook) used by over half of the respondents. Social networks already surpass such traditional methods as newspapers and magazines, demonstrations and rallies, radio and television. They are surprisingly widely diffused (52%), considering their relatively young age (Facebook was founded

Table 6

Ranking of ICTs by (1) diffusion, (2) usefulness to Uselessness ratio, (3) usefulness, (4) uselessness and (5) empowermens (All Surveys). N = 168

	1. Diff. (%)	Diff. (rank)	2. U-ratio	U-ratio (rank)	3. Useful.	Useful. (rank)	4. Usel.	Usel. (rank)	5. Emp.	Emp. (rank)
Blogs	26.8%	20	1.05	13	12.6%	18	12.0%	9	11.1%	18
Camer.	50.0%	12	1.67	10	21.6%	11	13.0%	8	20.7%	12
Demonstration.	40.5%	15	1.04	15	17.4%	12	16.7%	5	21.1%	11
Email	100.0%	1	44.66	1	62.4%	1	1.4%	25	63.2%	1
Face to face	0.0%	N/A	22.15	2	50.3%	3	2.3%	24	0.0%	N/A
Faxes	66.1%	7	0.54	23	14.7%	16	27.4%	1	17.2%	14
Instant mess.	32.7%	16	0.98	16	11.0%	21	11.3%	11	12.8%	16
Internet forums	29.8%	18	1.05	14	12.0%	20	11.5%	10	10.7%	19
Mail	79.2%	5	2.75	8	28.6%	8	10.4%	16	34.5%	5
Mass emails	60.7%	9	3.00	7	30.1%	7	10.0%	19	29.3%	7
Micro blogging	23.2%	21	0.81	19	9.0%	22	11.1%	12	8.3%	21
Newspapers	57.1%	10	1.44	11	22.0%	10	15.3%	6	26.5%	9
Online pet.	30.4%	17	0.98	17	13.8%	17	14.2%	7	12.2%	17
Phones (l.)	86.3%	2	3.69	4	39.3%	4	10.7%	14	42.4%	4
Phones (m-text)	67.9%	6	0.66	21	15.9%	13	24.1%	2	29.0%	8
Phones (m–v.)	82.1%	4	3.36	6	34.6%	5	10.3%	18	48.3%	3
Podcast	17.3%	23	0.50	24	5.4%	24	10.7%	13	4.8%	23
Radio	45.2%	13	0.79	20	14.9%	15	18.9%	3	17.8%	13
Self-publish.	63.7%	8	3.40	5	31.5%	6	9.3%	22	29.4%	6
Social net.	52.4%	11	2.23	9	22.2%	9	10.0%	20	25.8%	10
Social tag.	13.7%	24	0.37	25	3.9%	25	10.4%	17	4.7%	24
TV	42.3%	14	0.82	18	15.0%	14	18.4%	4	16.5%	15
Videocasts	27.4%	19	1.18	12	12.3%	19	10.5%	15	10.6%	20
Website	83.3%	3	17.61	3	51.5%	2	2.9%	23	50.8%	2
Wikis	18.5%	22	6.60	22	0.0%	23	0.0%	21	7.8%	22

only in 2004). The next most widely diffused Internet-era ICTs are instant messengers, used by over 30% of the respondents, followed very closely by online petitions. The use of videocasts (primarily YouTube, which came to dominate the videocast scene since its launch in 2005) has reached and even surpassed blogs (both around 27%). Microblogging (here dominated by Twitter) is on the rise, approaching 23% (a respectable number again, considering that the service was introduced only in 2006). In comparison, podcasts seem surprisingly unpopular with 17%.
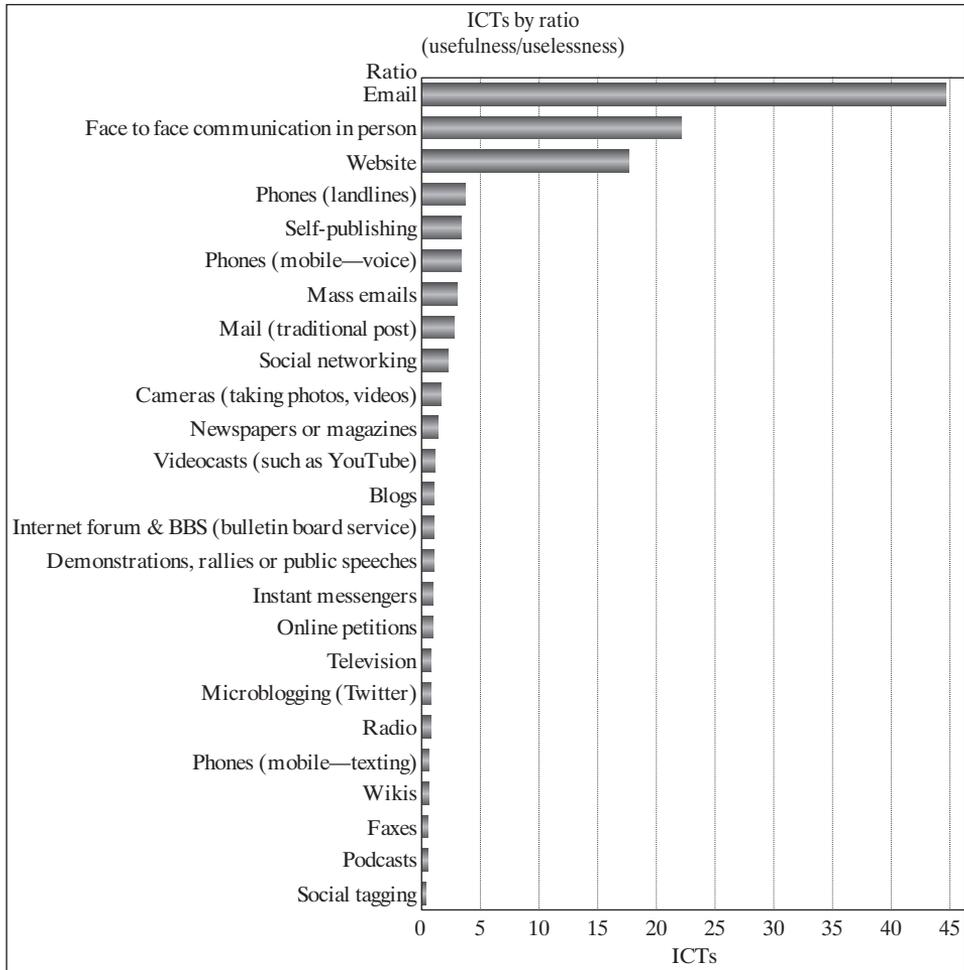
Moving to *how long those tools have been used in the organizations*, the rapid spread of social networks, videocasts and Twitter microblogging is noticeable. All of those ICTs started to be widely adopted only in the last few years, but they have already reached the penetration levels of 52%, 27% and 23%, correspondingly.

With regards to *how the Internet is used*, approximately 70% of respondents use it for communication, 20% for research, 5% for fund raising and 4% for recruitment.

When it comes to *management*, *organizing regular, everyday activities and internal communication*, there is a pattern, with email holding the first place, followed by face to face communication, phones and websites, forming a cluster of five ICTs

Graph 5

ICTs by Ratio of Usefulness to Uselessness (most useful at the top)

ICTs by ratio
(usefulness/uselessness)

ICT	
Ratio	
Email	
Face to face communication in person	
Website	
Phones (landlines)	
Self-publishing	
Phones (mobile—voice)	
Mass emails	
Mail (traditional post)	
Social networking	
Cameras (taking photos, videos)	
Newspapers or magazines	
Videocasts (such as YouTube)	
Blogs	
Internet forum & BBS (bulletin board service)	
Demonstrations, rallies or public speeches	
Instant messengers	
Online petitions	
Television	
Microblogging (Twitter)	
Radio	
Phones (mobile—texting)	
Wikis	
Faxes	
Podcasts	
Social tagging	

0   5   10   15   20   25   30   35   40   45

ICTs

significantly more used (and seen as more useful) than the others. With regards to *recruitment*, the picture is similar, but there is a drop in use after the first three ICTs (email, website and face to face communication). For *fund raising*, we see the weight shift to the older ICTs, with traditional mail and self-publishing following the same trio as in recruitment. Moving on to *reaching out (publicizing information, public relations, organizing supporters)*, a wider range of ICTs is being used and seen as useful; in particular where 10 to 15 ICTs are seen as useful for other tasks, almost 20 (out of 25) are seen as useful for the reaching out. The situation changes when it comes to *interaction with the governmental agencies*; we see the resurgence of traditional ICTs. It may come as a surprise that online petitions, a tool that was designed to influence governments, are seen as marginally more helpful than not. Finally, in the case of

Graph 6

ICTs by Usefulness (most useful at the top)
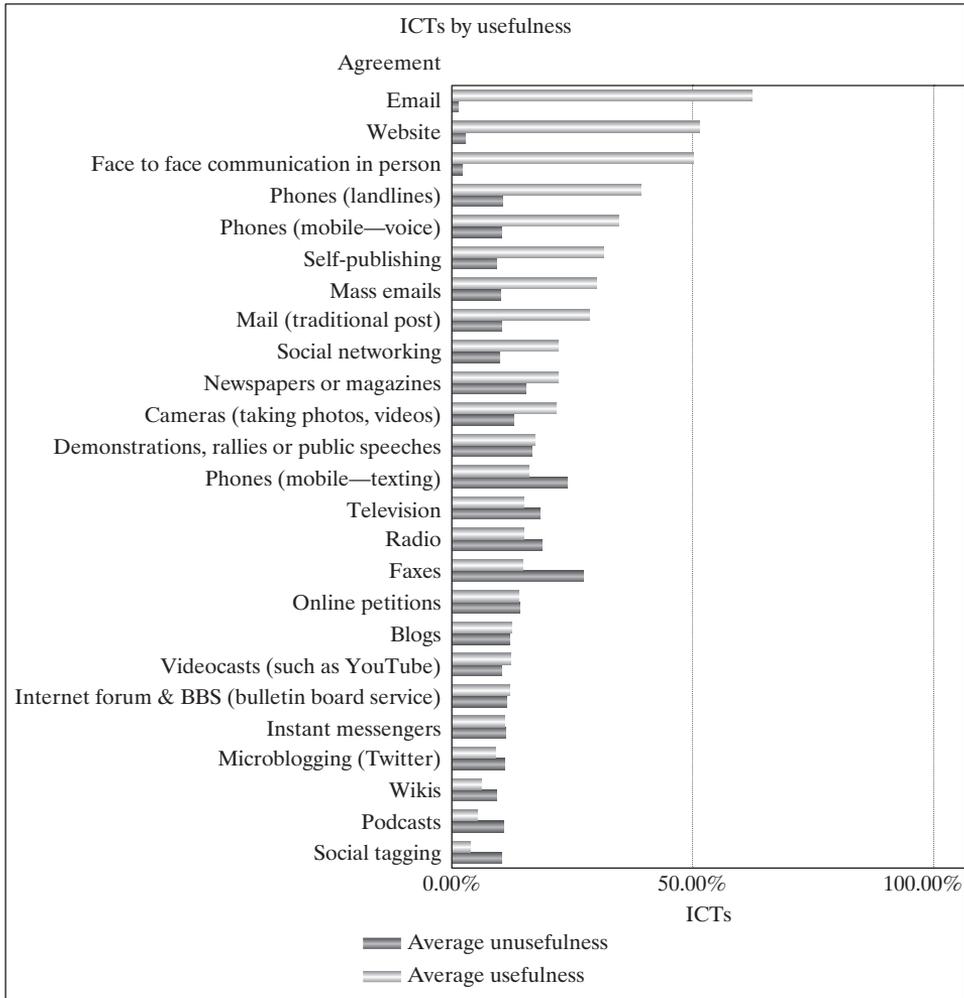
interaction with the non-governmental organizations, compared to *interaction with the governmental agencies*, we can observe a lessened importance of the traditional mail and increased importance of social networking.
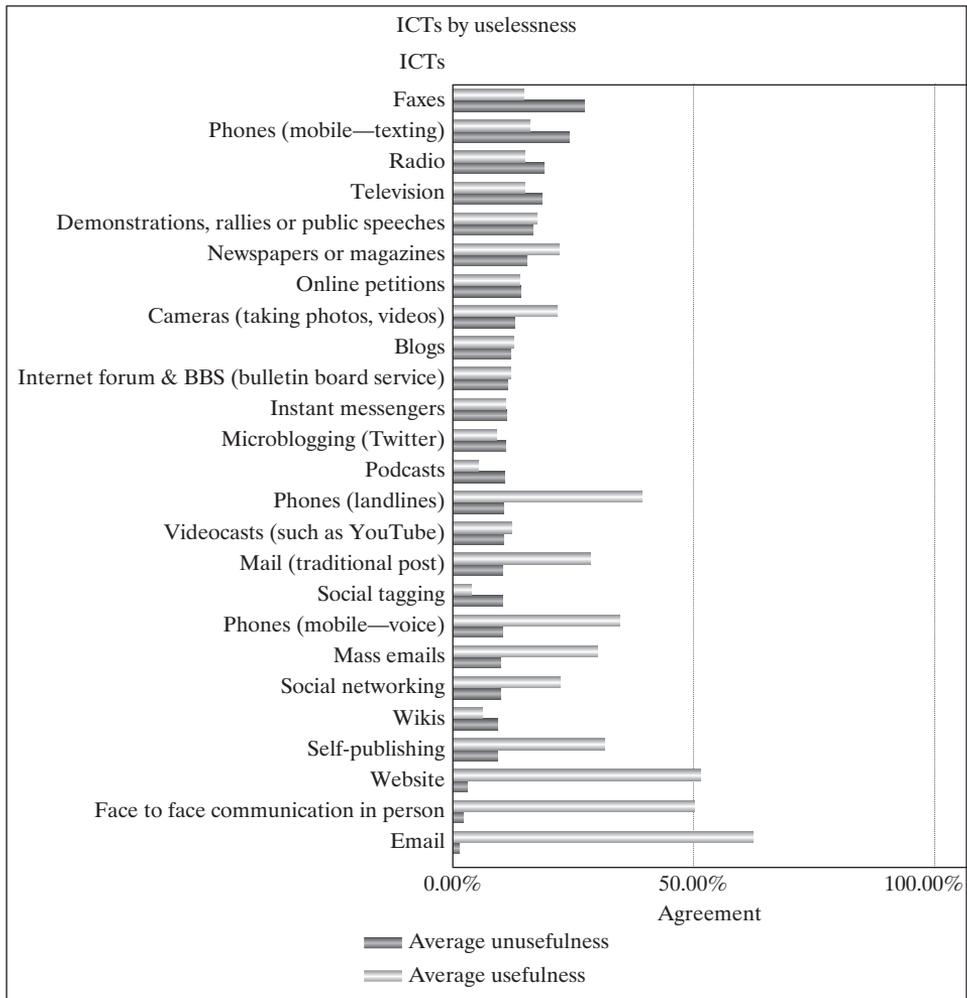
Overview of Specific ICTs

The respondents were asked *which ICTs they find most useful* (Graph 6) and whether *the existence of a given ICT provides their organization with more influence and if a specific ICT gives them more of a say within* (Graph 8) *and outside their organization* (Graph 9).

Email is the clear winner all across the board, with the highest overall rank in diffusion and usefulness and lowest in uselessness. It is not difficult to offer a plausible

Graph 7

ICTs by Uselessness (most useless at the top)

ICTs by uselessness

ICTs

ICT	
Faxes	
Phones (mobile—texting)	
Radio	
Television	
Demonstrations, rallies or public speeches	
Newspapers or magazines	
Online petitions	
Cameras (taking photos, videos)	
Blogs	
Internet forum & BBS (bulletin board service)	
Instant messengers	
Microblogging (Twitter)	
Podcasts	
Phones (landlines)	
Videocasts (such as YouTube)	
Mail (traditional post)	
Social tagging	
Phones (mobile—voice)	
Mass emails	
Social networking	
Wikis	
Self-publishing	
Website	
Face to face communication in person	
Email	

0.00%   50.00%   100.00%

Agreement

■ Average unusefulness
▨ Average usefulness

explanation for email's dominance: over two decades of widespread use, global reach, and ease of use. Nonetheless the literature on the use of email by social movements is not as rich as it could be, and studying the technology seems as most important in communication by modern activists, thus emerging as an interesting avenue for future research.

The website comes second . Usefulness of websites is quite clear, as one of the dominant types of end-user Internet infrastructure. As noted by Earl et al. (2010), they significantly replaced self-publishing for many movements (hence the term "brochure-ware"). One may wonder, however, if in the coming years they will not be replaced by Web 2.0's more interactive tools like social networking pages, blogs or wikis (Lenhart et al. 2010).

Graph 8

ICTs by Influence Given Within the Organization (most empowering on top)

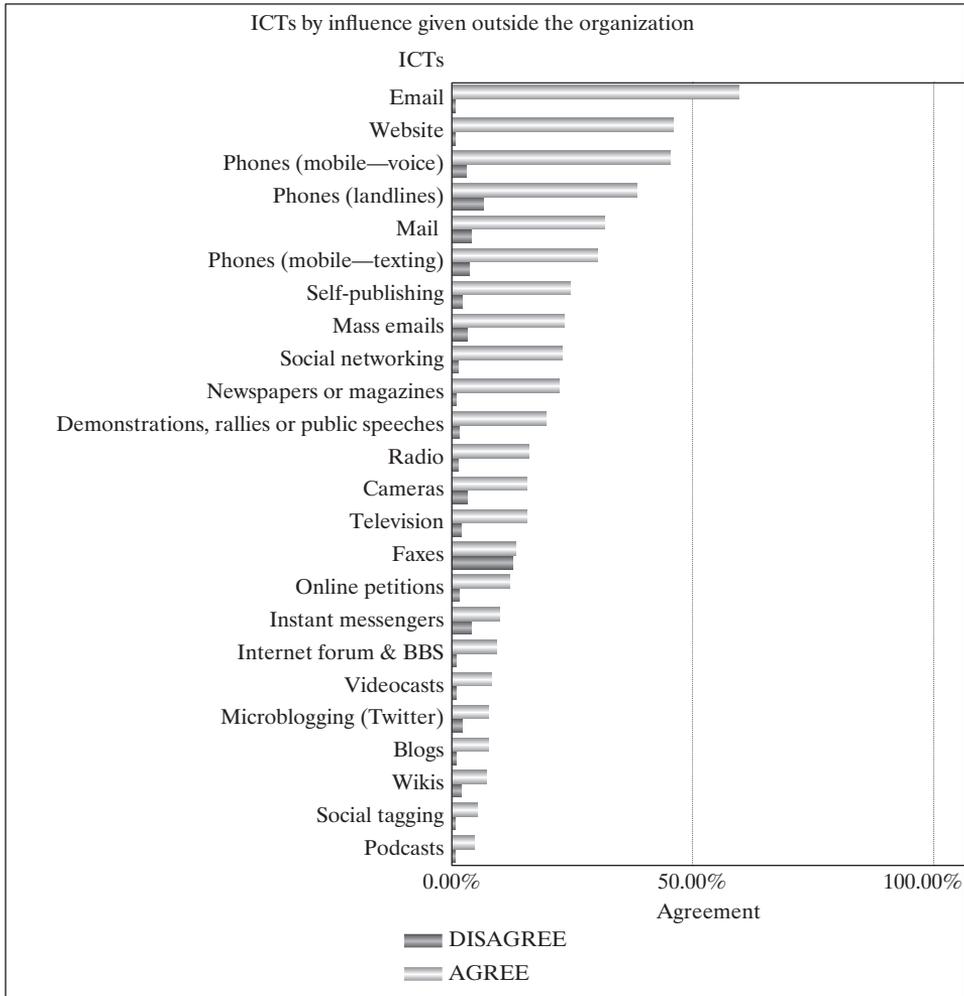ICTs by influence given within the organization
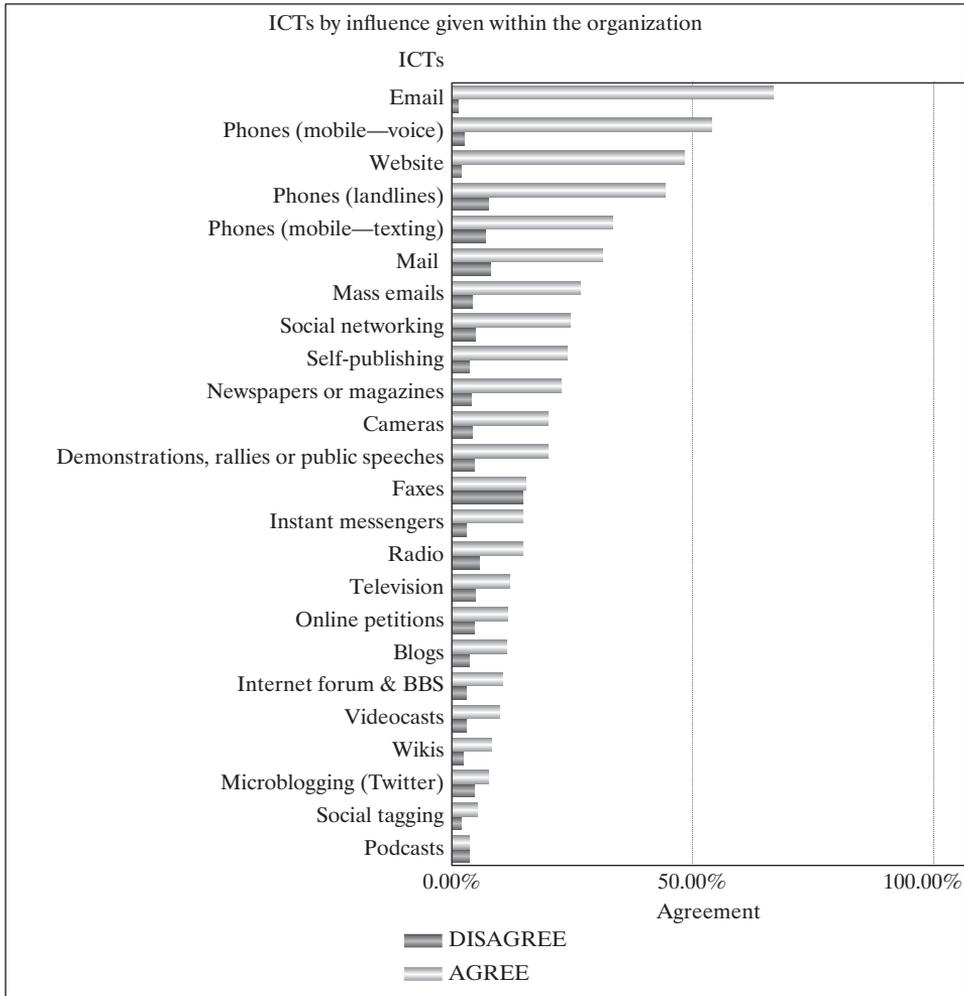
The situation of social networking (Facebook being the most popular representative of such tools) looks impressive. As a new form of ICT, social networking tools such as Facebook appear to be growing in importance, considering how new this tool is. In less than a decade of its existence it has diffused to over half of the surveyed activists, and moved to the top half of usefulness chart. It allows for more efficient use of both weak and strong ties (between individuals but also organizations), and incorporates the most user-friendly and popular elements of traditional websites, blogs, wikis and other technologies.

Videocasts show a mediocre performance; still decent for a technology introduced only in the past few years, but its rise, is not as rapid as that of social networking, to which it loses with regards to diffusion and perceived usefulness. The situation of

Graph 9

ICTs by Influence Given Outside the Organization (most empowering on top)

ICTs by influence given outside the organization

ICTs

Email	
Website	
Phones (mobile—voice)	
Phones (landlines)	
Mail	
Phones (mobile—texting)	
Self-publishing	
Mass emails	
Social networking	
Newspapers or magazines	
Demonstrations, rallies or public speeches	
Radio	
Cameras	
Television	
Faxes	
Online petitions	
Instant messengers	
Internet forum & BBS	
Videocasts	
Microblogging (Twitter)	
Blogs	
Wikis	
Social tagging	
Podcasts	

0.00%   50.00%   100.00%

Agreement

■ DISAGREE
▨ AGREE

podcasts is very similar, as blogs, considering all the hype about blogosphere witnessed over the past decades. There is not a single statistic that would put them in the lead, and the diffusion of 26.79% is only half that of the social networks score. In 2006 Bruns and Jacobs (2006) compared blogs to the nearly forgotten Usenet discussion groups of the 90s, and discussed whether the similarity between observed patterns may indicate that blogs will disappear, just as Usenet has. Some recent studies (Lenhart et al. 2010) do show that levels of blogging have leveled off in the past few years (with a decline among youth, and still growing popularity among adults). It is likely that blogs, like Usenet, have matured and reached the limits of their diffusion, and are being eclipsed by newer, more user-friendly and efficient (useful, empowering) technologies that are spreading much more widely. Arthur (2009) and Lenhart et al. (2010) specifically point

Graph 10

Interest in ICTs for Future Use (all four surveys)

Interest in ICTS for future use
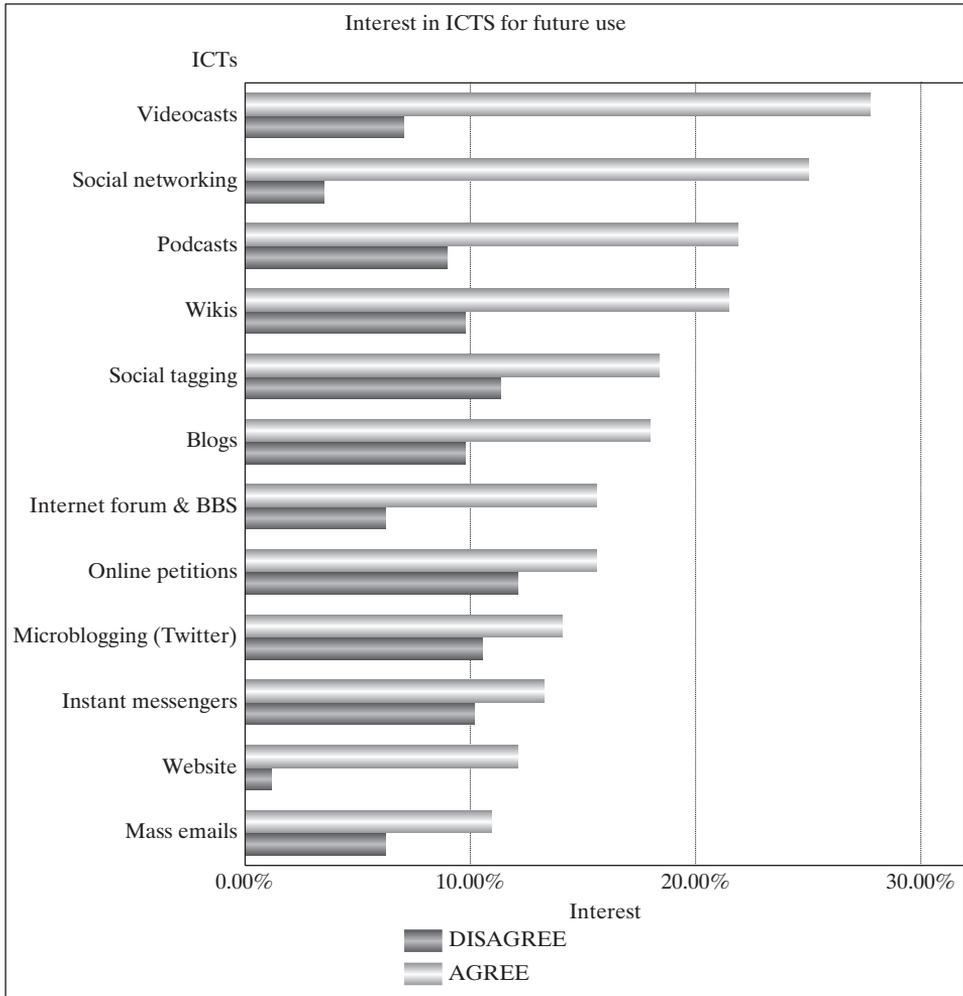
to the growing popularity of social networking and microblogging (Twitter), both of which seem to offer the blogging functionality in a more efficient and user-friendly package. Also, blogs, as well as a number of other ICTs from the 90s, such as the instant messengers and the Internet forums, are likely affected as their functionality is being incorporated into more popular ICTs, such as social networking, which are offering an "all-in-one" service (Lenhart et al. 2010).

Microblogging is fairing poorly, ranked near the bottom for diffusion and usefulness. However, when we consider its recent introduction (Twitter was launched just in 2006), those numbers may be somewhat misleading, given that many individuals are still not familiar with this technology. This, however, is changing as these words are being written. Twitter is spreading rapidly; nonetheless it seems reasonable to say that

the majority of Internet users are still not Twitter users, and the claims of "Tweeted" revolutions should be taken with a grain of salt, in the context of its diffusion just approaching 25% as of 2011.

Despite the relative visibility of certain websites, online petitions are less widely diffused than emails, websites, or social networking. What is more, they are seen as much less useful or empowering, and in fact, the most useless of the Internet-era ICTs. The final surprise comes with regards to particulars of their use: they are seen as useful for interaction with supporters (likely, the ones with weak ties to the organizations), and public image, but not so much for actually communicating the movement goals to the government. An explanation of the inefficiency of online petitions is that while it is easy to set up and use an online petition—the same ease is their downfall, as they swamp recipients' in-boxes, creating an image of "activist spam," effortless "clicktivism" with little meaning behind it. Instead of convincing the recipients that there are numerous people who "really care" about the issue, they only show that there are numerous people who care enough to click a link once, but are hardly guaranteed to do anything else. Tilly's (2009) WUNC (worthiness, unity, numbers and commitment) principle comes to mind; after all, if petitions fail to demonstrate commitment, and in fact suggest a lack of it—they could be hurting, not helping, the movements. In a similar note, van de Donk et al. (2004) predicted that the very ease of online mobilization may devalue it as a form of protest, also noting that for the activists themselves, it may be less enjoyable, lacking satisfaction and enjoyment accompanying more difficult or daring forms of protest.

Wikis seem to suffer from low diffusion, but among the few who actually use them, there was a strong consensus that they are useful. This suggests that while the diffusion of wikis is small, the respondents who did use them find them rather helpful.

It is worthwhile to compare the new ICTs to the most successful ICT of the 20th century—the telephone.[4] While phones for many decades provided functionality similar to the Internet (relatively cheap and fast global communication), email and websites have quickly displaced them. Landline phones are already less diffused than emails; and mobile phones are less diffused than websites. The analysis of the time and geography of stories of widespread phone use by movements offers further insights. Most of them, particularly the ones in the developed world, date to early 2000s ("battle of Seattle" and others), whereas the newer ones (innovative use of phones in Iran, 2009 or Egypt, 2011) are from the developing world. In other words, where there is cheap access to the Internet, mobile phones with their voice and texting are simply not as efficient as computers. Regional comparisons of the aggregated usefulness of mobile phones indeed indicate they are seen as more useful in the developing world than in the developed regions; the usefulness scores are, respectively, 4.24 to 4.11 for voice, and 3.93 to 3.32 for texting.

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[4] It is important to note that telephones in this study are defined as devices for distance voice communication and separately, for texting (SMS). They should not be confused with multi-purpose smartphones, which should be classified as computers rather than phones, and whose use was not analyzed in this study (particularly as a modern smartphone or a tablet can be used as platform for virtually all other modern ICTs).

Whereas phones are holding strong, this is not the case with a related technology—faxes. It is rather surprising how far this technology, once heralded as revolutionary, has fallen from grace. The Internet has displaced various technologies, yet none has declined in use as much as the fax. Nonetheless, when the government clamps down on newer ICTs, older ones can come back to grace—as demonstrated by media reports during the 2011 Arab protests, which noted fax use to bypass government's Internet censorship; hence the story of the fax may not be over yet.

One of the final issues to consider is the position of face-to-face communication.[5] A staple of human social interaction for most of our existence, my data indicate that its use in organizations is still very high, but nonetheless it has been dethroned on all fronts by email, and tied by the websites. One may wonder whether ranking face-to-face communication as low as the second (or even third) position, superseded by technologies barely twenty years old, is a prime sign of a major change occurring in our society. This observation should be of interest to studies of symbolic-interaction in the digital age, and hopefully will be explored further in future research.

Diffusion, Usefulness and Empowerment by Specific Factors

Whereas the age of an organization does not seem to be significantly related to either a positive or negative opinion or use of newer ICTs, the data on the members' ages indicate that it may be a more important variable. The mean analysis reveals that organizations with membership base in the range of 18–30 years find newer ICTs more useful than older ones, unlike organizations with a membership base of 30–50 years, where there is no significant difference. This becomes even more pronounced in the organizations with membership base over 50 years, where older ICTs are seen as more useful. There is a similar pattern with regards to empowerment. Those findings are confirmed by data on the respondents' ages. Respondents aged 18–30 are the only group that finds the new ICTs more useful than the older technologies, that the new ICTs give them more influence in the organization than the older technologies, and that they are more empowering than the older ICTs. This finding supports **Hypothesis 2**.

With regards to the use of ICTs by different age groups, over 60% of respondents agree that *younger members of the organization are primary users and advocates of Internet-based communication tools*. This lends further support for **Hypothesis 2**, which states that an age-based digital divide is present in SMOs. This illustrates an area of potential conflict in an organization, as younger activists may unintentionally but effectively lock out older activists from their communication network (Lynch 2007).

With regards to organizational size, there seems to be no statistically significant relation between the size of the organization and the respondents finding ICTs more or less useful or empowering. Raynes-Goldie and Walker (2008) and Rogers (2003)

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[5] While face-to-face communication is obviously not a technological innovation by any stretch of the definition, I have included it in my survey to serve as a control and measurement variable. This allows the data on the use of other means of communications to be compared to this most traditional mode of human communication.

offer a possible explanation for this, as they present two contradictory hypotheses: that larger, better funded organizations are more successful in engaging youth, or that the small SMOs rely more heavily on new media due to the low cost of this solution and smaller organizational inertia. The lack of conclusive support for either one in the data presented here could suggest that both of their hypotheses hold true and counteract one another.

Across specific social movement industries, most seem to value both old and new ICTs similarly. Notable exceptions include the intellectual property/free culture, the Internet, digital rights and the culture industries, which find new ICTs more useful. This lends additional support for **Hypothesis 3** about different use of ICTs in different social movement industries.

Finally, the respondents were asked about their future use of ICTs. New ICTs are of interest to most respondents, with videocasting, social networking, podcasting and wikis being most highly ranked. See Graph 10 for details.

Closing the subject of different ICTs replacing or supplementing others, it is worth noting that although occasionally we are dealing with a near total phasing out of a technology (faxes), mostly we see a mix of technologies being used. What is being used depends heavily on time, place and purpose.

Conclusions

There are strong indications that many new ICTs which were expected to usher in major revolutions—Twitter, online petitioning, blogs, videocasts—have failed to deliver radical change in the way most SMOs work. That said, most of them are barely a decade old, and some much younger than that, and their rapid rise, and relatively high position—in particular social networking via e.g. Facebook—is worth noticing. While Web 1.0 tools (emails, websites) still are more popular compared to their younger Web 2.0 brethren, it will be interesting to see if, or likely, how this situation changes in five to ten years.

The results presented here confirm that the international movements are located mostly in the developed countries; this also holds true for the organizations using new media innovatively. Further, if an organization is based in the developed world, it is significantly more likely to have international reach and scope than if it were based in the developing world. Older organizations dominate the international movements, through it does not appear to be the case for countries with a younger social movement scene like Poland, nor in the emerging social movement industries focused on newer goals (such as digital rights and free culture), which tend to have younger membership in more recently established organizations.

The size of movements' active membership is eclipsed by the size of their inactive membership, and that is in turn overshadowed by the size of the supporter network (in a rough $1:2:3$ ratio), although there are indications that those proportions may vary between different movement scenes. The overall picture nonetheless suggests that the boundaries between professional members and unpaid volunteers, the latter

performing many of the core tasks such as recruitment, are often blurry. This supports
theories arguing that the professionalization of the movement scene is not inevitable,
and may even be in retreat.

Goal-wise, it appears that there are certain themes which are universally popular.
Human rights are among of the most popular issues, and education, environment,
community and social service issues trail them closely. In comparison, Internet, digital
rights, intellectual property, religion and political topics give the impression of being
of lesser importance. Even so, in barely two decades, Internet-related issues have
risen to core importance for about 5% of SMOs, having carved a noticeable niche in
the social movement sector.

Younger organizations, and those with younger membership tend to use modern
ICTs more, and see them as more useful and empowering. Those organizations are
also more likely to focus on the new, Internet-era issues. This is supportive of the-
ories suggesting that the spread of those new tools indicates a cultural shift across
generations (Mannheim 1952, Scardaville 2005, Earl and Kimport 2011), and the
emergence and growing significance of a new digital repertoire of contention. This
view of ICTs as a tool of empowerment is also interesting as it lends credence to the
argument that ICTs are (or at least are seen as) tools of empowerment rather than
social control. Nonetheless as concerns over topics such as "clicktivism," and recent
worldwide events (such as the Snowden affair) have demonstrated, the struggle be-
tween activists and authorities over uses of the emerging ICTs is ongoing—just like
it has been throughout the history of communication and activism (Kirkpatrick 2008,
Konieczny 2014, Lessig 2006, MacKinnon 2012).

With regards to ICT diffusion, usefulness and empowerment, the success of email
and website draws attention, particularly due to the unprecedented speed with which
those tools achieved their domination. In just two decades those technologies have
become the most widely used ICTs, bypassing old favorites (such as phones), and even
face-to-face communication. As some old, once dominant ICTs are fading (faxes),
and others may follow (blogs, podcasts), new tools are drawing the public's attention
(microblogging, social networks). However, the new ICTs are seen as only slightly
more empowering compared to the older ones, which still retain significant diffusion.
Similarly, with the notable exception of social networks, many popular Web 2.0 tools
such as Twitter or online petitions have—at least as of the late 2000s—failed to achieve
significant diffusion or impact, not justifying the hype that occasionally surrounds
them.

Different ICTs are used for different purposes. SMOs use new media when talking
to each other and their supporters, but not when talking with the governments, which
shun new ICTs. Social actors value their new communication tools for giving them
significant freedom and power. Recognizing the new ICTs as tools without which their
organizations could not exist is especially common for younger organizations, staffed
with younger activists, and concerned with recently emerging goals such as digital
rights and free culture.

While the findings presented here contribute to our understanding of the evolv-
ing nature of social movements and their use of ICTs, there is still much room for

improvement and further research. A complete social movement census with a focus on ICT use, built by a team of dedicated scholars, could result in a valuable series of longitudinal data sets that would enable social scientists to more fully understand how technology is shaping social movement activity for the Twenty-first century.

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