

**THE IMPACT OF MODERN INFORMATION AND COMMUNICATION
TECHNOLOGIES ON SOCIAL MOVEMENTS**

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Submitted to the Graduate Faculty of
Department of Sociology in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy

University of Pittsburgh

2012

UNIVERSITY OF PITTSBURGH

DEPARTMENT OF SOCIOLOGY

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2012

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University of Pittsburgh, 2012

Information and communication technologies (ICTs) have empowered non-state social actors, notably, social movements. They were quick to seize ICTs in the past (printing presses, television, fax machines), which was a major factor in their successes. Mass email campaigns, blogs, their audio- and video- variants (the podcasts and the videocasts), social networks like Facebook and MySpace, and other tools, such as Twitter, are increasingly popular among the movements and their activists.

The extremely rapid diffusion of new technologies has raised a lot of questions about their impact on many areas of life from macroeconomic consequences to interpersonal relations, including much comment on their impact on social movements. Social historians are even rethinking the whole history of media. However, up to this point, we have no broad view of how social movement organizations are making use of the media. What types of movements are making use of new media? In what way are they using them and for what purposes? Are they more common in younger organizations, or in organizations that operate on larger geographic scales? Does their use lead to a sense of democratic empowerment?

To answer these questions, this study analyzes an internet-based survey of four populations of social movement organizations ranging from the local to the international in geographic scope (four specific populations analyzed are: Pittsburgh (USA), Poland, the international movements, and the movements with high visibility online). This dissertation explores the use (and the non-use) of ICTs in the first broad survey on their use by modern social movements. It provides a broad overview of the movement's demographics (location, range, goal) and their membership (size, activity). It details the diffusion and use of over twenty ICTs, analyzing the success stories of email, static websites, phones and social networking, as well as the relatively poor performance of blogs, podcasts and faxes. Primary research questions revolve around the blurring boundaries between members and non-members (unofficial supporters and volunteers), the use of new media (by whom and for what), and the consequences of those trends (such as opposition to professionalization, or the empowerment of activists).

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PREFACE

This work would not be possible without the support of my parents, Anna and Kazimierz Konieczni, and generous advice of my committee, in particular, professor John Markoff.

INTRODUCTION

“The wireless music box has no imaginable commercial value. Who would pay for a message sent to nobody in particular?”

– Associates of David Sarnoff (founder of NBC) in response to his urgings for investment in the radio in the 1920s

“There is no reason anyone would want a computer in their home.”

– Ken Olson, president, chairman and founder of Digital Equipment Corp. (now part of Hewlett-Packard), 1977

“Television.”

– Lech Wałęsa’s reply to a journalist question on what caused the fall of the Soviet Bloc, 1990s.

Whether we look at the use of Twitter in Iran, Moldova or Tunisia, the importance of Facebook in the recent presidential elections in the United States, or the struggles of dissident bloggers in China, we can see how the social movements and other agents of social change are increasingly relying on the new information and communication technologies (ICTs). However, those digital revolutionaries, so often capturing the headlines, are only the most recent example of a trend that has been continuing for millenia.¹

Along with growing literacy, information and communication technologies have empowered both state and non-state social actors, such as non-governmental organizations, social

¹ The term “information and communication technologies” (ICTs) needs to be defined early on. While modern literature commonly associates this term with the electronic technologies (Haqqani 2005), this is not the most intuitive definition, rather it is just an extended synonym for the “information technology”. While in this work I focus on the Internet-era technologies, I do so in the context spanning a much longer part of human history, and therefore I use the broad definition of ICTs as “any technology that facilitates communication or acquisition, processing, storage and dissemination of information.”

Further, the usage of the word “technology” can be a bit limiting. The very first ICT used by humans was language in face-to-face communication, yet we do not usually associate speech with the word technology (for treatment of language as technology see for example Taylor and van Every 2000). A phrase “communication method” would, perhaps, be more appropriate, but the term ICT is much more prominent in the literature.

With ICTs defined as above, this work will discuss not only pre-Internet ICTs such as faxes, but also pre-electronic ICTs such as printing, and as well as face-to-face communication and its aspect prominent in the social movements, namely rallies and demonstrations.

movements and individuals in general, often laying foundations for a more liberal and democratic environment (Goody and Watt 1963; Markoff 1986; Woolf 1994; Tapscott and Williams 2010). At the same time, social movements, defined as a “collective challenge[s] by people with common purposes and solidarity in sustained interactions with elites, opponents and authorities” (Tarrow 1998) have played an increasingly important role in bringing about social change since they arose in their modern form around the late 18th century (Tilly 2009).

Although neither the rise of social movements, nor the diffusion of communication technology has been a “sufficient” factor in enabling social change, they have often been a “necessary” factor for it (Goody and Watt, 1963; Gough 1968). The pattern of empowerment by ICTs, and their use by innovative social movements, traceable throughout human history, is continuing in the Digital Age. With the rise of the Net Generation, as social interactions drift to cyberspace, that trend promises to be even more prominent, as shown by the 2008 election in the US (Dadas 2008; Kohut 2008; Smith and Rainie 2008). Many authors writing about the influence of ICTs comment on an enormous impact they have on many aspects of social life (e.g., DiMaggio et al 2001; 2003; Shneiderman 2003; Lessig 2004; Tapscott and Williams 2006; Yang 2007; Earl and Kimport 2011). Skeptics, however, such as Katz et al. (2001), Katz and Rice (2001), Rule, Gimlin, and Sievers (2002) and Morozov (2011), argue that such claims are founded on too little evidence. Others point out that enthusiasts of the Internet ignore issues such as the digital divide – equality in access to those new tools (Rice and Haythornthwaite 2006; Rogers 2003), or that the availability of technological solutions does not always translate to their widespread use, nor to the transformation of individuals or organizations employing them (Schlosberg, Shulman and Zavestoski 2007). As Earl et al. (2010) note, “one can identify research supporting any of these positions”.

In the midst of an ongoing theoretical discussion about the impact of ICTs (DeSanctis and Fulk 1999; DiMaggi et al. 2001; Katz and Rice 2002; Rogers 2003; Rule et al. 2003; Trippi 2004; Earl and Kimport 2008; Earl and Schussman 2008; Briggs and Burke 2010²; Carty 2010; Van Laer 2010; Earl et al. 2010), there have been a number of studies on the use of specific ICTs by social movements (Hampton and Wellman 2003; van de Donk et al. 2004; Kahn and Keller 2004; Ling 2004; Rohlinger 2007; Dadas 2008; King and Sanquist 2008; Raynes-Goldie and Walker 2008; Gaden 2009; Konieczny 2009; Mosca and Santuci 2009; Shulman 2009; Cheong and Lee 2010; Kellner and Kim 2010). However, there have been no attempts to collect and analyze data on the spread and use of all ICTs throughout the entire social movements sector. We have no systematic data on how widely social movement organizations have adopted new communications technologies, nor on the purposes for which they are used. Just a few years ago, in one of the most comprehensive reviews of the emerging field of the sociology of the Internet, DiMaggio et al. (2003) criticized sociologists for not taking enough advantage of the “unique opportunity to study the emergence of [this] potentially transformative technology”. This view was reaffirmed in later surveys and studies (van de Donk et al. 2004; Lenhart and Madden 2005 and 2007). Although Earl et al. (2010) note recently that this situation is improving, they pointed to another looming problem: that many or perhaps even most studies of Internet activism are focusing on several loosely connected fragments of the social movement sector, generalizing from populations that may not be representative of the big picture.

There are many different communication technologies that have emerged with the spread

2 Briggs and Burke's *Social History of Media*, now in its third and quite current edition (2010), is perhaps the best general overview of the history of ICTs and the scholarly research of that field.

of the Internet, most of which have not been previously studied in the context of their use by social movements. Mass email campaigns, or newsletters, as well as online petitions, are commonly used (Shulman 2009). Blogs – the self-published journals of the net – and their audio- and video- variants (the podcasts and the videocasts) are now ubiquitous in the world of the Net Generation, with new variants such as microblogging (Twitter) quickly gaining prominence (see Sterne et al. 2008; Pole 2009; Cheong and Lee 2009; Ekdale et al. 2010; Kellner and Gooyong 2010). Social networks, like Facebook and MySpace, are increasingly used not only by individuals, but by organizations – for example, in fundraiser campaigns, like Obama's presidential campaign in the US (Dadas 2008; Carty 2010). Social tagging, also known as folksonomy, another increasingly popular trend, is the practice and method of collaboratively creating and managing categories to annotate online content, in order to describe an item and allow it to be found again (Zollers 2007). Similarly, the wikis – a collaborative tool, enabling many users to easily edit the same document straight from their web browser – are becoming more widespread, blurring the line between consumers and producers, readers and writers (Konieczny 2009).

The purpose of the following study is to systematically explore and analyze the use of all ICTs in social movements. It will provide comparative, quantitative data on the demographics of the social movements and their activists worldwide, and on their use (and non-use) of the ICTs. It will enable the testing of numerous hypotheses, most crucially on how the ICTs are used on both the organizational and individual levels. It should further contribute to the debate on the empowering qualities of literacy and on the latest trends in the professionalization of social movements.

Primary research questions to be answered revolve around the blurring boundaries between members and non-members (unofficial supporters and volunteers), the use of new media (by whom and for what), and the consequences of those trends (such as opposition to professionalization, or the empowerment of activists).

THEORY: LITERATURE REVIEW AND MAJOR CONCEPTS

In this study I present the results of my survey of international social movements. Employing theories of literacy, communication and social movements I will illustrate how the developing information and communication technologies, in a positive feedback loop with growing literacy, contribute to the empowerment of previously underprivileged social actors.

STUDIES OF LITERACY AND SOCIAL MOVEMENTS: IMPORTANCE OF COMMUNICATION TOOLS

Until the mid-20th century, the social sciences paid relatively little attention to the study of literacy, communication technologies and their impact on society. The focus of ongoing research was on the histories of individual technologies – with little attention to their wider implications. First attempts to paint a larger picture were concerned with the modern technologies; hence patterns and trends linked with the historical perspective were not apparent. With sociologists studying the literate, and anthropologists the illiterate, only a few studies looked on the partly literate cultures – even though this was the dominant type of society for the past few millennia. This became remedied only in the 1960s, and since then a growing body of studies has contributed to our understanding of those phenomena.

The theoretical foundations of this research are built on studies of literacy (such as Goody

& Watt 1963; Markoff 1986), studies of social movements (such as McAdam, McCarthy and Zald 1996; van de Donk et al. 2004; Tilly 2009; Rohlinger 2007), studies on evolution and impact of communication technology and resulting changes in organizational form, (such as Katzman, 1974; Eisenstein, 1979; Fang 1997; Landes 2003; Ling 2004; Yang 2007; Briggs and Burke 2010), theories of sociotechnical change (such as Ackroyd 2005; Bijker 1995 and Weick 1990; van de Donk et al. 2004) and social constructivism (such as Carey 1992; Fang 1997; Furet and Ouzuf 1981; Fulk 1993; Gough 1968; Markus and Robey 1988; Stone 1969; Woolf 1994).

Already in 1981, Graff noted that that an attempt at a complete bibliography of only the study of literacy contains over 4000 items; the related but separate fields of communication studies and organizational studies are even larger (Markus and Robey 1988). In such a rich territory, there are many competing scholarly approaches and definitions (Markoff 1986). Markus and Robey (1988) in their overview conclude that “it is no secret that research on information technology and organizational change has produced conflicting results and few reliable generalizations”. In order to set a straight course through this maze, we cannot simply define literacy as “the ability to read and write”. This basic literacy is no longer enough, as the “new literacies” – roughly defined as the ability to use new, mostly digital information and communication technologies – became a necessity of the modern world (Buckingham 1993). Thus, when referring to literacy in modern context, I mean both the traditional and new literacy.

The importance of technology for the development of a society is a common observation, but we should always avoid the trap of technological determinism; the relation between society and technology is hardly one-sided. (Markus and Robey 1988; Weick 1990; Bijker 1995; DeSanctis and Fulk 1999; Ackroyd 2005). This relation is analyzed by Ackroyd (2005) and Bijker (1995),

who present the sociotechnical change theory, which Bijker put as follows: “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”. Weick (1990) clearly and succinctly summarizes this theory by saying that technology is both a cause and an effect of many social changes. A similar sentiment can be found in van de Donk et al. (2004).

According to social constructivist theories of communication in organizations, organization members “share identifiable patterns of meaning and action concerning communication technology” (Fulk 1993). Markus and Robey (1988) in their overview of the relation between information technology and social change stress that different meanings can be assigned to the same technology, depending on social setting and cultural context. A similar argument can be found in the works of Goody and Watt (1968) who note that in Tibet, literacy was so ingrained in the realm of mystical, religious experience, that it became a goal in itself, with no connection to the mundane world. Its fate was quite different in many other parts of the world, from Europe to the Middle East to China, where the skills of reading and writing were increasingly used in the realm of the mundane (Furet and Ozouf 1982; Eisenstein 1979). This has crucial implications, such as that depending on the cultural context, the same technology can empower both the states, the non-governmental organizations (like certain social movements) as well as individuals.

From the field of social movements, the resource mobilization theory offers valuable insights on how technology is one of the principal tools for acquisition of resources and mobilization of supporters (McCarthy and Zald 2001). As the new³ ICTs make communication

3 In this work, I use the phrase “new ICT” to refer to the “Internet-era ICT”, but the word new can raise a

cheaper and more efficient, it becomes much easier for the new challengers to spread their message and take on the established order (Earl and Kimport 2011).

Finally, it is enlightening to consider the much-cited definition of a social movement, advanced by Tilly (2009). According to him, social movements are composed of three major elements:

1. “campaigns: a sustained, organized public effort making collective claims on target authorities;
2. social movement repertoire: employment of combinations from among the following forms of political action: creation of special-purpose associations and coalitions, public meetings, solemn processions, vigils, rallies, demonstrations, petition drives, statements to and in public media, and pamphleteering; and
3. WUNC displays: participants' concerted public representation of worthiness, unity, numbers, and commitments on the part of themselves and/or their constituencies”.

Notably, this definition does not include the requirement that a social movement has to be an “organization”; rather, it puts a stress on the existence of contentious challenges to authority. This can be contrasted with the approach focusing on social movements as ensembles of interconnected organizations (SMOs) striving for similar goals (as seen in the works of Zald and McCarthy 1973; 1990 and others). Although due to methodological reasons my research was heavily focused on organizations, I would like to note that social movements do not end with organizations, but continue beyond them, with broad networks composed of semi-official organizations and individuals (the social movement community - Staggenborg 1998; van de

methodological eyebrow due to its transitory nature. What is new now – the Internet era ICTs – will likely be old to the next generation; even now some early Internet ICTs such as the Usenet discussion groups are quietly disappearing, labeled as obsolete. Some readers may have similar experiences with other ICTs.

Donk et al. 2004; Earl et al. 2010; Earl and Kimport 2011).

THE TOOLS OF THE REVOLUTIONARIES

Development of more efficient information and communication tools has provided a significant boost to the established actors, such as the state. Yet while governments certainly use such tools to further their social control (Lipsey and Carlaw 2005), they have always been a double-edged sword, as tools of communications increasingly become weapons of social revolutions (Fang 1997). McLuhan in one of his most widely cited statements wrote: “the medium is the message”. Some messages are vital, most are not, but the medium itself persists, enabling social change to occur when the conditions (perception of the medium) are right (Fang 1997). Consider the example of writing. It has a significant degree of symbolism; texts were often used to create a psychological impact – both by governments and by the individuals or movements in opposition (Woolf 1994). Writing operates not only as a tool of communication, but also as a symbol with mystical or magical qualities (Woolf 1994; Gough 1968; Fang 1997; Carey 1992; Goody and Watt 1968). As long as writing is associated with only a specific group, it empowers that group (empowerment being defined⁴ as the ability to control the environment around itself, including the behavior of other entities), but once writing becomes widespread, it encourages rationality and critical thinking among wider population, making revolutions and social change more likely (Goody & Watt 1963; Stone 1969; Furet and Ouzuf 1981; Markoff 1996; Fang 1997). Bowman and Woolf (1994) have built upon Goody and Watt's (1963) work on the importance of writing for governments, illustrating the significance of the type of medium (the easier it is to use, the harder it is to control).

4 For the operationalization of empowerment, see the Methodology chapter.

Despite new tools available to it, the governmental Big Brother's control is far from complete, perhaps because governments do not adapt as quickly as individuals. (Fang 1999). Literacy – which certainly influences people's behavior (Markoff 1986) – is hard to control (Bowman and Woolf 1994). Once the new information technology (a new type of media) spreads, it is next to impossible to put the genie back in the bottle (Woolf 1994; Furet and Ozouf, 1982). The dissemination of tools of mass communication has increased the potential for social protest, by increasing the power of the individual to communicate, to gather and disseminate information. New tools of communication allow greater anonymity than the public meeting places, encouraging participation (Fang 1997). Information revolutions make people more equal and pave a road to democracy, greater egalitarianism, and sharing of influence and power (Goody 1968; Fang 1997).

It is commonly accepted that the writing was first invented and widely used in the Sumerian Empire between 4000 and 3000 BC (Lipsey and Carlaw 2005). It is difficult to discuss with any degree of certainty the changes that took place with the invention of writing, simply because we have no written records from before that time; this is why Goody & Watt (1963) noted that introduction of writing separates history from prehistory. Nonetheless despite our relative lack of knowledge about the transition from pre-writing to the writing period, there is a consensus among scholars that this event marks a milestone in the human history.

Writing was an essential element of the Greek democracy (and thus much of the Western culture) (Carey 1992; Fang 1997; Innis 1972; Innis and Watson 2007; Goody and Watt 1963). Even before the rise of the true social movements in the late 18th century (Tilly 2009), proto-

social movements relied extensively on the media. The Polish-Lithuanian Commonwealth, where 10% of the population – the nobility (*szlachta*) – was highly literate, became one of the very few countries in Europe where the absolutist monarchy failed to take root (Wyczański 1965; Topolski 1994).⁵

Paper was introduced to Europe around the 12th century. The pace of correspondence and information exchange quickened, a prelude to the printing press revolution (Eisenstein 1979). Printing lowered the costs of distributing decisions made by policymakers (Lipsey and Carlaw 2005). However, in a sign of things to come, it also weakened many of them, from the Roman Catholic Church to the secular leaders (the Protestant Revolt, the end of traditional monarchies). Traditional power holders often opposed the spread of literacy and the printed world: consider examples such as the attempts to limit slave literacy in the US (Robbins 2006), the secret Polish language education in partitioned Poland, an important form of resistance against Russian and Prussian restrictions on Polish education (Lukowski and Zawadzki 2001), or even the implications of the Orwellian Newspeak, the deliberately impoverished language promoted by the state. Literacy facilitated separation of law from political power, increasing the stability and uniformity of law (Lipsey and Carlaw 2005). The leaders could no longer so easily alter the policies and law, now codified, to suit their purposes. The redefining of the relation between the state and the individual, the relation which stresses the rights of the individual and the state's obligation to him, was made possible by the spread of the written culture.

The printed word was at the heart of the religious conflict tearing Europe apart, during the religious wars of the Reformation period or before and during the French Revolution (Furet and

⁵ Other interesting cases include Switzerland and the Italian city states – particularly the Republic of Venice.

Ozouf, 1982). Writing broke out of the monasteries and influenced an increasingly secular and rational administration (Gough 1968b; Furet and Ozouf 1982). The printed word was essential in the French revolution (Markoff 1986). Lipsey and Carlaw (2005) write that “the Protestant revolution could not have occurred [...] without the printing press”.

Lawrence Stone (as cited in Furet and Ozouf, 1982) notes that the three “Great Revolutions” of modern times – in mid-17th century England, late 18th century France, and early 20th century Russia – all coincided with the moment at which over half of the male adult population became literate. Printing played a significant role in the French and American revolutions, helping to sell their ideas (Darnton and Roche, 1989; Furet and Ozouf 1982; Graff 1981; Lockridge 1981). The lower classes were needed for the revolution – and even if (as they often were) illiterate, they could look at posters and listen to others read – and were more easy to organize (Fang 1997; Furet and Ozouf 1982; Markoff 1986). Furet and Ozouf (1982) noted that Jacobinism was “an expression of an already-dominant written culture among the masses”. By the time the Bastille fell in the French Revolution, more than 900 publishers, writers and booksellers had been imprisoned there (Fang 1997).

Newspapers would become a “force for freedom”, giving rise to objectivity (but also to scandal-mongering and yellow journalism). In the United States, in synergy with growing literacy and the values of the free American nation, the concept of the freedom of the press evolved (Fang 1997). Similar developments occurred in the United Kingdom and much of continental Europe (Popkin 1987; Tilly 2009).

Muckrakers boosted their messages with photos, spearheading many a movement for

change (Schneirov 1994; Schudson 2008). Photographs – precursors of the film documentaries – vastly contributed to the establishment of the first US national park in Yellowstone and the child labor legislation of the late 19th century (Fang 1997). In the next century, radio and television replaced print as the delivery mode of information; making individuals more susceptible to emotional messages (Lauer 1997).

The inventions of the microphone, radio and movies allowed charismatic leaders to address masses. To some extent Nazism and the atrocities of World War II were a terrible product of technologies that allowed Hitler, the charismatic madman, to captivate millions (Ess 2004). However, soon afterward in the rapidly decolonizing world, such as in Algeria in the 1950s, the radio became an important tool of the pro-independence social movements, helping to establish a new collective identity. (Fanon 1994).

In many developing countries, television sets and videotapes sent by the government to show propaganda in villages were used to air opposition cassettes. In the Philippines, a video of an assassination of a prominent politician, Benigno Aquino was copied, rented, and even mailed by enthusiasts (Ganley 1992). The Soviet Union crumbled alongside its state monopoly on information. People could hear and see the other side's point of view and could see the gap in wealth that encouraged emigration – but also social changes at home (Fang 1997; Kennedy 1993). Asked what caused the fall of communism in Eastern Europe, Polish president Lech Wałęsa simply pointed the journalist who was interviewing him to the cameras and microphones present (Fang 1997). Information about one revolution encourages another; for example, Polish Solidarity in the 1980s became a model for other revolutions of the Autumn of Nations period (Fang 1997; Kenney 2002). Media was a major factor in the Iranian Revolution (Fang 1997;

Teheranian 1979). The recordings of the Tiananmen Square massacre became the haunting ghost for the Chinese government. Wall Street Journal reported on the Chinese youth two decades ago: “The fax machines are ... a fuel of the revolution. ... They have become the wall posters of this generation...” (Fang 1997).

Social movements learned how to use media, even though sometimes those were painful lessons (Gitlin 2003; Tilly 2009; Kenneth and Caren 2010). Martin Luther King organized demonstrations to gain maximum television coverage; the images of police brutally gaining him waves of support in the North (Fang 1999). TV beatified King, Kennedy and the Space Race, and at the same time vilified Nixon, Mao and the Vietnam War. It generated support for conflicts that produced media – such as Chinese opposition after the Tiananmen Square massacre – and led others (such as most conflicts in continental Africa) to be forgotten (Fang 1999).

In the end, Luther's theses and Mao's little red books, Lenin's pro-communist smuggled writings and anti-communist samizdats, Ayatollah Khomeini's audiotapes and bin Laden's videotapes, Iraqi's blogs and Iranian tweets, are the fuel of social movements and revolutions. And they became even more empowering with the arrival of a new technology, the Internet.

THE ARRIVAL OF THE DIGITAL AGE: THE MORE THINGS CHANGE...

When we consider how recent the Digital Age that has by now penetrated every aspect of our world is, we have every right to be shocked with its novelty. Darnton (2008) noted that this revolutionary change “took place yesterday, or the day before, depending on how you measure it.” An editorial stated that “something that people think of as just another technology is

beginning to change our lives, culture, politics, cities, jobs...”. (The Economist 2008).

The Internet developed from the military project ARPANET, dating back to 1969; the term was first used in 1974. The World Wide Web as we know it was shaped in the early 1990s, when graphical interface and services like email became popular and reached wider (non-scientific and non-military) audiences and commercial interests. Internet Explorer was first released in 1995. Google was founded barely a decade ago, in 1998. Napster, which greatly popularized digital music, file sharing and digital piracy, was created in 1999, the same year that the free and open source software movement’s most popular portal – sourceforge.net – was launched. Windows XP, currently the most popular operating system, was released in 2001. That year saw the birth of Wikipedia, the Free Encyclopedia – now the largest encyclopedia of the world, the creation of iPod, the most popular player of digital music, and the founding of Creative Commons, both a license and an organization spearheading the free culture movement. Most popular online social networks are even younger – MySpace, for example, dates to 2003, and its main competitor, Facebook, to 2004. Internet telephony begun around that time, as the Skype software was released in 2003. Online video, now seen everywhere, has become popular even more recently (with the switch from old modems to modern broadband networks), with the most popular online video sharing site, YouTube, founded in 2005. Twitter dates back to only 2006. 2007 saw the introduction and quick diffusion of the iPhone smartphone, quickly followed by the Android platform. Wherever we look, the case is clear – Internet is a very recent, emerging phenomenon, likely shaping an entire new generation.

SOCIAL-MOVEMENTS.COM

Charles Tilly 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: employment of combinations from among the following forms of political action: creation of special-purpose associations and coalitions, public meetings, solemn processions, vigils, rallies, demonstrations, petition drives, statements to and in public media, and pamphleteering (Tilly 2009) . All of those are deeply related to communication tools available to the specific movement.

Ruling classes are more likely to have access the new tools of communication than the underprivileged populace (Fang 1997). But in modern society, the border between ruling classes and the opposition is much less clear. DiMaggio et al. (2001) noted that communication technologies are usually developed in response to the agendas of powerful social actors – and those may include the social movements⁶. Stories matter (Polletta 2006), often catching the public eye, and with the cost of new technologies (cell phones, computers, Internet connection) spiraling down, even individuals and resource-poor NGOs can quickly put their hands on the equipment rivaling or exceeding what a decade ago was straining budgets of well financed business or governmental organizations (Smith 2001; Buttel and Gould 2004). New inexpensive and effective technologies give a voice to organizations that previously would not be able to have one due to low resources. Discussing the emergence of a new, digital repertoire of contention, Earl and Kimport (2011) stress the low, even zero cost of the Internet tools. A movement, even a transnational one, can be coordinated from the proverbial “teenager's bedroom”. Lin (2001)

⁶ For a real time example, see a list of tools developed by activists for activists at the Global Voices Advocacy Project (<http://advocacy.globalvoicesonline.org/projects/>)

describes the recent case of China's Falun Gong organization, which used the Internet to establish a powerful, hierarchical religious movement under the nose of an authoritarian regime.

It is rarely the social movement that invents or even sponsors the invention of the new communication technologies. Some may be sponsored by the governments (ARPANET...); most are the result of accidental breakthroughs. But they always have unintended consequences, consequences that shake businesses and governments, and are exploited by social movements (Tilly 2009) – just as the printing press was used by the Protestants in 17th century, and by the Polish Solidarity in the 20th.

Schramm (1988) noted: “If it seems far fetched to relate the French and American and British revolutions to the Bible that came off the press in Mainz in 1455, it is less far fetched to relate them to news sheets, newspapers and political tracts.” Social networks, mobile phones, blogs and podcasts, empowering individuals, repeat the story of the past, allowing them to chip away at the governments, businesses and even undermine traditional media. They are helped by wikis, videocasts, online petitions, instant messengers, listervs, and other media of the digital age.

The past two decades have witnessed increasing use of the modern technologies – such as the mobile phones and the Internet – by social movements (Buttel and Gould 2004; Smith 2001; Van Laer 2010; Earl and Kimport 2011). Their usage gave a new meaning to the term “wisdom of the crowds” – the crowd is certainly better organized if most of its members are fed regularly updated information, gathered by the few individuals deep in the Internet web of information.

How is that possible? Three theories support the proposition that new tools are tested by

innovative social movements and then spread to others: Tarrow's (1998) cycle of contention⁷, Rochon's (2000) cultural change,⁸ Aldrich and Ruef's (2006) theory of innovative organization. In particular, Aldrich and Reuf's reasoning yields itself to making an association between innovation and young age in organization, something that could also be applied to the members of an organization, as suggested by Mannheim's (1952) theory of generations.¹⁰

Demographics offer another piece of the puzzle. 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. MySpace, Facebook, Technorati, flickr, Twitter are not the future – for the teenagers and many young adults, they are already here and now, and this trend will only strengthen, as the Net Generation members increasingly come of age. Lenhart and Madden (2005, 2007) presented statistics for mid-2000s that show that more than half of US teens (64%) are content creators: they blog, they edit wikis, they create websites, they post videos and photos. 2005 data, compared to 2004 data, show that those numbers are on the rise: 57% teens surveyed a year before were content creators.

7 Tarrow stresses that cyclically, there are periods where a rapid diffusion of collective action and mobilization occurs as existing social movements create political opportunities for others to act or join in. 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.

8 Rochon 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.

9 Aldrich and Reuf differentiate between reproducer and innovator organizations, and further differentiate the innovator organizations into competence-enhancing and competence-destroying. They noted that competence-enhancing organizations have a lower survival rate, being often absorbed or surpassed by traditional ones, but the competence-destroying can turn the tables and change the entire environment.

10 Mannheim suggested that if a new generation is raised in a significantly different environment, and witnesses significant historical events, it will display different modes of behavior from its predecessors. Different generations have been used as predictors of involvement in social movement activity (Willis 1977, Caren, Ghoshal and Ribas 2011). It is not too far fetched to speculate that the Internet can be seen as a major environmental change, and many writers have suggested that the Net Generation is significantly different from previous ones (ex. Tapscott and Williams 2006).

As seen in the 2004 US presidential campaign, and even more so in the 2008 one, much of the political discourse takes place online (Trippi 2004; Kohut 2008; Smith and Rainie 2008; Dadas 2008). 35% of Americans say they have watched online political videos. 24% – and the number grows to 42% for ages 18-29 – who say they regularly learn something about the campaigns from the Internet. 10% say they have used social networking sites such as Facebook or MySpace to gather information or become involved.

Putnam (2000) described the decay of traditional social networks, but noted that the Internet may offer a solution: and indeed, there is evidence that new ICTs are strengthening local communities and organizations (Hampton and Wellman 2003; Hampton 2007). Tapscott and Williams (2006) speculate that the denizens of the Internet, especially the younger ones, have a very strong sense of common good and collective social and civic responsibility. The Net Generation is accustomed to a world built upon principles of *openness* – sharing ideas with talented outsiders; *peering* – moving towards more horizontal organizational forms; and *sharing* – of intellectual property, stimulating innovation on a worldwide scale. Initially the Internet, like any other tool, shaped itself to the existing customs, but – as happened with all such technologies – it is now shaping its users and creating new customs.

New social movements have arisen on the net: consider the growth of the Free and Open Source Software Movement (Stallman 2006), the Free Culture Movement (Lessig 2004) or the revitalization of the Open Access Movement, shaking the ivory towers of academia itself (Suber 2009). All of them are concerned with changing the copyright law stifling our economy, culture and science in the aftermath of the Digital Revolution. Some scholars have also suggested that the traditional organizational model is becoming obsolete, with SMOs being to a certain degree

replaced by individual organizers, who do not consider themselves part of any specific movement or organization (Earl and Kimport 2011).

DiMaggio et al. (2001) noted that the Internet is much more versatile than tools of the past because “it combines point-to-point and broadcast capability within a single network.” The new Internet-era tools are increasingly user friendly, particularly for the members of the Net Generation, and for certain tasks at least, they eliminate or vastly reduce the need for physical co-presence among the activists (Earl and Kimport 2011). It can be any and all of the past communication tools. For decades or centuries, we had capabilities to communicate in various ways with different tools, but the Internet allows one to do all of these things at once. This versatility makes it an excellent tool for social actors who want to influence the world.

Finally, in the ever evolving sea of information, it is doubly interesting to look at one of the newest tools that has just begun to spread throughout the world of the social movements: the wikis (a type of a web page that anybody can edit). Unlike blogs, which have already attracted increasing attention from scholars (Kahn and Kellner 2004; Dadas 2008), the relation between wikis and social actors has not been well researched. This can be explained by the fact that wikis are very recent – barely a few years old – and they have only recently begun to spread through organizations. While they are increasingly popular within the Free and Open Source Software sector of the social movement industry, they have only begun to appear within the more traditional social movement organizations, many of which still lack their own wikis. Not all the wikis are run by organizations; many are topic-centered (for example, the Animal Rights Wiki, or the Anti-War Wiki). This is not surprising. As John Seely Brown, former chief scientist of XEROX, noted, a lot of early adopters throughout various organizations “are using wikis without

the top management even knowing [about] it” to bypass organizational inertia (Tapscot and Williams 2006).

Wikipedia, the Free Encyclopedia, one of the Top 10 most popular sites of the Internet, is a flagship of wiki technology. It has over 8,000,000 registered accounts; there are nations with population only a fraction of that number. Its goal of creating an encyclopedia can be seen as a promise-driven¹¹ type of social movement (Konieczny 2009). Among the ten wikis listed in the “Politics and Activism” section at Wikia – one of the biggest wiki hosting providers – none is connected to a well known social movement organization, and they are all fairly recent. One was started in 2004, two in 2005, six in 2006. With regards to wikis hosted by individual organizations, Indymedia is likely one of the pioneers, dating to June 1999, but most wikis used by social movements are much recent. The wiki for the Free Culture Movement dates to February 2004; the Social Movements Across Europe wiki was started in May 2006; the New Orleans Wiki (concentrating on recovery and rebuilding) dates to June 2006; the Amnesty International wiki dates from May 2007. At the beginning of that year the Washington Post wrote about Wikileaks, a site that “allows anonymous posts of government documents” (with the stated aim of combating corruption and spreading transparency). Wikileaks' popularity has been steadily growing since then (Alexa 2008). It may appear that older social movements are slow to adopt wikis – but newly established social movements, like ChangeCongress, launched in January 2007, are often built around wikis from their very birth. Without doubt, usage of wikis by social

¹¹ A promise-driven or grievance-creating movement is one that first creates a grievance (like a demand for a “free encyclopedia”) and then rides the wave of popular support. This can be contrasted with the more traditional movement approach, where a movement is formed in response to an existing grievance. For more on the difference between those types of a movement see Gamson (1990) and for a discussion of the popularity of the promise-driven approach in the new online movements, see Kling (1996).

This is similar to Tilly's (1978) discussion of proactive (for something) and reactive (against something) movements.

movements is just beginning, but the number of social movements' wikis and their users is growing – as the very knowledge of wiki technology existence and potential spreads beyond the early adopters to the mainstream activists.

EMPOWERING INDIVIDUALS

As organizations challenging the status quo are becoming empowered, so are individuals, inside and outside them. The empowering effect of computer technologies on organizations was seen even in the early days of the Digital Age (Rubinyi 1989; Straub and Werherbe 1989; Mahmood and Mann 1993). Some authors depicted the impact of information technology on organizations as replacing closed, hierarchical, bureaucratic workplace structures with flat networks in which a local initiative takes over the authoritative chain of command, reshaping strategy on a nearly daily basis; unfortunately such claims are too often based on case studies that may not be very generalizable (Tapscott 1999; Tapscott and Williams 2006; 2010).

In 1972 Marshall McLuhan and Barrington Nevitt suggested that, with newly developed computer-based communication technology, the consumer would become a producer. Alvin Toffler named this individual a “prosumer”. The emergence of the prosumer has transformed many businesses, and change has accelerated in the Internet era (with practices where companies encourage their “prosumers” to write free reviews of their products, and advertise it to their friends on social networks). Tapscott and Williams (2006) describe this phenomenon as the emergence of the “Wikinomics”, a “new art of science of collaboration”, best exemplified by the wikis, which for them are much more than just as a type of a collaborative software. They

describe them as “a metaphor for a new era of collaboration and participation.” Key principles of the new organization of the “wikinomics” era are to be based around the principle that contributing to the commons accelerates growth and innovation.

The argument about ICT potential to empower social actors and influence social changes, however, needs to be tempered with a few words of caution. Governments (and businesses) have not given up on trying to adapt the new tools as a mean for information control and there is no denying that they have powerful tools of surveillance with which they can threaten our privacy and freedom (Lessig 2004; 2006). There are persisting and new social inequalities (from illiteracy to the digital divide) that cannot be ignored. To whatever degree our society is being empowered, we cannot forget about the underprivileged groups (the poor, the uneducated, the old) that are in danger of being left behind.

METHODOLOGY: KEY HYPOTHESES AND DATA COLLECTION

HYPOTHESES

In this study, in addition to generating a comprehensive understanding of how social movements are using both the old and new communication tools in the early 21st century, I will address several questions and test several hypotheses, originating from my own observations as well as from relevant literature.

- 1) With the new many-to-many communication tools, and the culture of collaboration, the borders between members and non-members (unofficial supporters and volunteers) of movement organizations may be blurring, with non-members becoming involved in core activities that in the past did not allow participation of non-members. (Smith (1997); Tapscott and Williams (2006; 2010); Staggenborg 1998; van de Donk et al. 2004; Earl et al. 2010; Earl and Kimport 2011)
- 2) Growing importance of non-members translates into weakening of the professionalization of movements. (Zald and McCarthy 1990; Gamson 1990; Skocpol 2004a, b)
- 3) There are correlations between the use of the new media and the age of the social movement organization. (van de Donk et al. (2004); Earl (2006); and Earl and Kimport (2008))
- 4) There are correlations between the use of the new media and the age of its members and supporters. (Bennet (2008))

- 5) There are correlations between the use of the new media and the size of the movement. (Raynes-Goldie and Walker (2008); Rogers (2003)¹²)
- 6) There are correlations between the use of the new media and the area(s) (issues, industries) it focuses on. (Earl and Kimport (2008); Scardaville (2005), Earl (2006), Earl and Kimport (2008), Bennet (2008) and Kenneth and Caren (2010)¹³)
- 7) SMOs use new media when talking to each other, members and supporters, but not when talking with the government. (Yang (2007))
- 8) Youth are engaged in “the issues they care about – not in the issues that the adults believe they should care about”. (Earl and Schussman (2008))
- 9) The activists who use the media themselves are more likely to see them as important, and feel that they empower them. (Schramm 1988; Rubinyi 1989; Straub and Werherbe 1989; Mahmood and Mann 1993; Fang 1997; Ward and Lusoli 2003; Lipsey and Carlaw 2005; Kahn and Keller 2005; Tapscot and Williams 2006; Schlosberg, Shulman and Zvestoski 2007)

SURVEY METHODOLOGY

This study surveys social movement organizations (SMOs), concentrating on those that have been publicly using new ICTs. Data were collected from chosen samples of activists from various social movement organizations to estimate the popularity and use of new ICTs among

12 Here, the literature offers two contradictory predictions: 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.

13 Scardaville (2005), Earl (2006), Earl and Kimport (2008), Bennet (2008) and Kenneth and Caren (2010) suggest that the target of social movements is changing, noting the emergence of movements protesting issues like the cancellation of a TV show or a discontinuation of support for massive online multiplayer games.

them.

In an attempt to survey a broad range of movements, from local to global, in different countries, and to generate data that can be used for comparative analysis, four sampling schemes were utilized to generate lists of activists to be approached with a survey. 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 to international networks.

I designed the following four sampling schemes: 1) a convenience sample from a general list of SMOs for local (Pittsburgh) movements listed at the Thomas Merton Center webpage. As recommended by Peterson (2000), this convenience sample was selected for pretesting the survey; 2) a random sample of global SMOs that have been used in past overviews in scholarly literature, based on the “Yearbook of International Organizations 2008/2009”, as suggested by Smith (2008); 3) a random sample of SMOs from Poland, a developing country and a member of the European Union, based on the “bazy.ngo.pl” website and 4) a theoretical sample designed to locate interlinked clutches of organizations working in the same issue area, based upon identifying websites of SMO's using innovative ICTs.

Overall, those sampling schemes were designed to produce enough data to allow a generalization on trends present in the universe of SMOs. In the developed¹⁴ world, it is estimated that almost all voluntary organizations (over 90%) have access to the internet (Surman 2000).

¹⁴ Developed in this contexts means a core country in the world-system theory (Babones and Alvarez-Rivadulla. 2007)

Since hundreds and possibly thousands of entities were contacted, reliability demands should be satisfied as well. Literature on response rates to online surveys (computerized self-administered questionnaires) is still evolving. Published results report response rates in the range of <5% to over 90%, and there are indications that data quality and response rates can be, on average, similar or even higher to those in traditional surveys, particularly when a survey is preceded by an email notice and followed up by a reminder (Cook, Heath and Thompson 2000; Babbie 2004:271; Kaplowitz, Hadlock and Levine 2004; Klandermans 2002). The average reported response rate in recent years for online surveys is 30% (Wessner 2009).

A recruitment script was sent to publicly listed representatives or activists in the selected social movement organizations. The script was sent several times, first to inform the organization about the survey, then as an invitation to the survey itself, and finally as a reminder and a thank you note. Willing respondents were able to access an online survey linked in the notification and invitation emails. The survey asked the participants about their experiences with both the traditional communication methods (face to face communications, snail mail, faxes, etc.) and the new ICTs. The participants were asked, for example: which tools are used, for what purposes and by whom? Which tools are seen as most useful? Are those tools seen as empowering their organizations, or the respondents themselves? By providing clear definitions and examples for terms used, and incorporating findings from the pretesting period¹⁵, the survey was designed to increase validity, and to minimize respondents' time and the chance of erroneous questions.

15 For example, multiple organizations that we would see as social movement organizations do not see themselves as such, leaving the label “social movement” to the organizations they see as closer to the traditional image of social movement activism we see in the media (protesters in the streets and such). This resulted in reframing of my survey and replacement of “social movement organization” with “social movement and affiliated non-governmental organizations”, to better capture the entire spectrum of what we understand is the social movement community. Similarly, many people described in the social movement literature as “activists” do not use this label towards themselves (Earl and Kimport 2011).

To reduce the number of responses from organizations other than social movements, in addition to careful design of the sampling frames (detailed in the following subchapters), the recruitment script made it clear that the survey is intended for “social movements and related organizations”. The “related organization” part was added to ensure that respondents from the general social movement community, but not identifying themselves with the word “social movements” would still be inclined to take part in the survey.

In order to increase the depth of the data, open ended questions were included in the survey, and follow-up interviews were conducted. The respondents were given a choice of being interviewed in person, by phone (Skype) or by email, depending on interviewee location and preference.¹⁶ As recommended in literature (Babbie 2004:263), the interview questions were designed to clarify survey answers (the ones with the highest number of “don't know” and similar responses), and to increase the depth of understanding of the most interesting cases (outliers in the survey data). During the survey, several dozen respondents indicated that they were willing to take part in the interview; twelve confirmed this and were available for an interview. One (local) respondent chose the option of a face-to-face interview, the remainder (eleven, from different surveys) were conducted online as an exchange of emails. However, the data collected from the interviews constitute only a small portion of the overall data.

Most of the survey data were collected from closed-end questions. The resulting data were imported into statistical packages (Excel and SPSS), and variables were coded. Free text data

¹⁶ Useful literature on interviews in the context of the Internet studies includes Hine (2000), Mann and Stewart (2000) and Miller and Slater (2000).

from open answers were coded as well into categorical values. The data were analyzed using established techniques (such as ANOVA, t-tests and Pearson correlations), in an attempt to develop statistically significant models. Post-coding checks for invalid values were run. Results of the survey, adjusted to ensure anonymity and privacy of the respondents, will be made accessible to other researchers online (by the end of 2011).

With regard to bias inherent in the survey design, all surveys were designed to limit such bias, as suggested in the relevant literature (Babbie 2004; Ferguson 2000) and explained below and in the chapters dedicated to particular surveys. One specific bias is unavoidable due to the research design: since the surveys were conducted through email, the results are almost certainly affected by the digital divide. Existing research (such as Coupera et al. 2005) suggests that there are significant demographic and socioeconomic differences between people who have Internet access, and those who do not. On a global scale, this can be an issue particularly relevant to the international comparisons (as fewer movements have access to the Internet in the developing countries than in the developed countries). There are many figures on the digital divide available in the literature; for example Plaickner (2010) notes that while close to 70% of the middle class members have access to the Internet in the US, that number is only 10% for Africa – and this does not take into account the relative sizes of middle classes, nor their disposable incomes.

This, however, is not a major issue for my research, as the surveys were intended from the very start to focus exclusively on movements using Internet-based ICTs (thus at least using email). Such a built-in bias does, however, mean that, even if no other biases affect the results, they can be used only to draw conclusions on movements that have the resources and skill necessary to operate an email account. In other words, while this study will provide 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 the organizations with no presence online.

The following sections provide a discussion of methodology and related issues relevant to each of the four surveys.

THE PITTSBURGH SURVEY

This first of the four surveys was targeting the activists of the social movement organizations in the Pittsburgh metropolitan area, US, aiming to provide a snapshot of the ICT use in a relatively representative, geographically-defined, developed-country region. Scope-wise, this was the smallest of the four planned surveys, and as recommended in the literature (Ferguson 2000), it also served as a pilot (pretest) survey, allowing me to refine the wording of certain questions and answers, based on the comments provided by the respondents.

This sampling scheme was based on a list of local organizations maintained by the Thomas Merton Center (TMC). The Center is a Pittsburgh-based organization concerned with issues such as social justice, poverty, workers' rights, racial discrimination, ecology and peace. It serves as an organizing center for many of the city's left-leaning and liberal social movement organizations and community.¹⁷

¹⁷ For more on the Thomas Merton Center, see for example Blee and Vining 2010.

As of June 2009 the Center's Directory, created in 2001,¹⁸ listed approximately 200 organizations. Analysis of the list revealed, however, several problems. Lack of proofreading and/or verification¹⁹ resulted in the use of improper abbreviations (for example, in several instances substituting Pgh for Pittsburgh created an unofficial name variant unused anywhere but the list). Further, as happened in several cases, the information on two organizations has been merged into one, or one organization was listed multiple times under similar names. Cleaning up the list to control for those problems yielded 192 unique organizations.

A cursory analysis of those 192 organizations suggested that only about 15% of them have some form of online presence (email or a website listed). The reality, however, is quite different. I researched each of the 192 organizations, and this verification revealed that in fact 125 of them have or had some form of online presence (either they own a website, or their contact person is listed online with an email in another online database). Further research also revealed that 25 of the organizations that had an online presence at one point are no longer active; in addition the list (as of March 2009) did not seem to have been updated since March 2008.

Because of its relatively small size, I decided to survey the entire population. All of the above 125 organizations were thus contacted by email and invited to take part in the survey.

The significant inaccuracies of the list represent a common problem that appears when

18 The list address is

http://www.thomasmertoncenter.org/Directory_Justice_Groups/directory_of_justice_groups.htm. It was however no longer online as of 20 November 2010. The existence of the March 2008 version which was accessed by me in June 2009 can be verified in the Internet Archive at http://web.archive.org/web/20080328140320/http://www.thomasmertoncenter.org/Directory_Justice_Groups/directory_of_justice_groups.htm

19 The list is created based on submissions from the organizations wishing to be included in it; and variety of styles and information provided indicate that the original information submitted to TMC is usually simply copied (presumably from emails) to the directory.

one uses databases. The Center, an organization with only two staff members, is unable to properly maintain the list in its current, static html format. As noted in my correspondence with the staff, those problems could likely be alleviated by migrating from the static html to a dynamic wiki format, or using an external, free wiki, outsourcing the list maintenance to volunteers online. Such a migration, however, is time consuming, and as of fall 2010 the Center was no longer maintaining the list. The fate of this database serves as a timely reminder of the importance of new ICTs, and the ephemeral quality of online information (phenomena known as “link rot”).

Another potential bias may exist within this population due to the 2009 G-20 Pittsburgh Summit, which coincided with the time that the data was collected, and which significantly affected the local movement scene. It is possible that this event affected the goals of the local movements, making the Pittsburgh scene less “local” and more “international”. For more on this issue, see Duncan, Kutz-Flamenbaum and Staggenborg (2011).

As indicated in the discussion of the Center itself, one specific bias of this sampling scheme was apparent from the very beginning, as the Center is unlikely to list right-leaning, conservative social movements and related organizations. Even if the Center itself was prepared to list them, the activists from certain organizations may not be willing to be listed on the Center pages (which could imply their association with it). Given that there is no equivalent organization maintaining a similar listing for the right-leaning, conservative organizations in the Pittsburgh region, and the time and budgetary constraints involved in creating such a listing, I have decided to accept this listing as comprehensive *for the left-leaning, liberal organizations operating in the Pittsburgh metropolitan area up to Spring 2008*.

THE INTERNATIONAL SURVEY

Since the first survey had a significantly limited geographical scope (Pittsburgh, US), the second survey was designed to expand the dataset by gathering information on ICTs use from international²⁰ social movement organizations.

It has to be noted, however, that there are no comprehensive lists of social movement organizations. As noted in the literature (van de Donk et al. 2004), social movements are a “fuzzy and fluid phenomena”, and represent a “moving target”. There are various partial lists concerning the social movement industry, usually dedicated to social movements focused on a particular geographic region or a set of issues. Some databases available on the market do lay claims to a significant level of comprehensiveness; the validity of those claims is, however, dubious (see also the preceding analysis of the Pittsburgh-area organizations' list maintained by the Thomas Merton Center).

The 2009-2010 edition of International Yearbook of Organizations was employed in this survey. The Yearbook of International Organizations was first published in 1910; it has been published under the current title by the Union of International Associations since 1950. The Yearbook contains a directory of names and addresses of about 60,000 organizations active

20 Recent social movement literature favors the terms transnational social movements or global social movements rather than international social movements (for a discussion of differences between international and transnational organization, see Archer, 1983). The distinctions, however, are neither crystal clear nor universally accepted (for relevant critique, see Colás, 2001, p.75). Additionally, the Yearbook does not distinguish international from transnational movements; neither do most activists. While the nuanced term “transnational” can be useful in some areas of social movement research, it offers little to this study. For those reasons I decided to use the traditional term “international social movements”.

throughout the world, as well as their profiles (historical and structural information, specifics on activities, events and publications and biographies of important members).

The Yearbook has been reviewed by scholars several times, for example by Alger (1997) and Modrow (2004). It is seen as a highly reliable source for research on international organizations and was used or recommended for such research by Smith and Johnston (2002), Minkoff (2002) and Smith (1997; 2008). Smith (1997) described it as “the most complete census of international organizations.” Hajnal (2001) refers to it as “the most authoritative directory of international organizations.” Powell and Steinberg (2006) noted that it “is a premier source of information about international organizations... seen as a quasi-official source associated with the United Nations.” Peters (2008) pointed out that “the Yearbook is a widely accepted and commonly known work concerning the classification of intergovernmental organizations and provides popular empirical means of classifying many kinds of organizations”.

Despite words of praise, it is important to consider how comprehensive and unbiased the Yearbook truly is. First, the Yearbook of International Organizations, as its name implies, focuses on international organizations. Thus by its very nature, it lacks entries on the vast majority of organizations, which are not international in scope (Lofland 1996). As such it is not representative of all movements, only of the ones with international reach.

Many sources describe the Yearbook as “the most comprehensive” list of international organizations. Nonetheless, Porter (2002) noted that a “number of significant collaborative initiatives” in his study did not appear in the list, presumably due to a lack of resources to achieve sufficient visibility to appear in the Yearbook. The Yearbook itself admits on its webpages that

“priority is generally given to information received from the organizations themselves, although every effort is made by the editors to check this information against other sources (periodicals, official documents, media, etc.).” This process makes it less likely that it lists organizations that do not consider being listed in it as a priority (or advisable, due to its perceived biases, such as the Yearbook’s affiliation with the UN). One should also consider that the longer the organization exists, the higher the chance for it to be noticed by and get listed in the Yearbook. It is obvious that organizations that are not aware of the Yearbook are also less likely to be included in it. On the other hand, seeing it as a relatively expensive English-language reference work one can ask how easy it is – for example – to find out about the Yearbook in China or the Congo, and to have one’s organization listed in such international Yearbook. In my correspondence with the Yearbook editors, they noted that, while they have a multilingual staff, they are aware that language barriers may be limiting the data flow from the Eastern European, African and Middle Eastern regions.

Smith (1997) argues that the Yearbook is unbiased, as “most organizations that are even minimally active are not likely to be omitted for long, and organizations that are politically active are even less likely to be long unreported”. However, the Yearbook’s publishing cycle means that it will rarely list organizations less than 6 years old. Smith further notes (in Smith and West 2005) that right-wing and extremist organizations can be under-reported, as they are less motivated to be listed in the UN-affiliated publication. Johnson and McCarthy (2005) noted that, due to the Yearbook’s reliance on official documents, notably those of the UN, “there may be some bias towards more institutionally integrated organizations.” Further, the Yearbook admits that “the editors are subject to pressure from some international bodies to suppress certain categories of information“ and that “some organizations included in the Yearbook of

International Organizations are perceived as highly suspect by other bodies, whether because of dubious academic standing, questionable values or as a threat to public order. The editors do not act on such judgments which may be contradicted by others.” Finally, the Yearbook editors themselves caution: “The databases are at no time considered complete, rather they reflect work in progress to clarify the complexity of the international community and its actions” (Alger 1997).

With regard to this study, possible inefficiencies in the Yearbook's information gathering methodology mean that three major potential biases need to be taken into consideration. They can be summarized as follows:

- 1) The Yearbook seems biased towards long-established organizations;
- 2) The Yearbook seems biased towards the developed countries (and within them, towards the English-speaking countries);
- 3) The Yearbook is unlikely to include organizations that do not want to be associated with the UN.

To what degree, however, those biases are really a result of delays in Yearbook's publishing cycle and inefficiency in its research on developing countries, and to what degree they simply reflect the findings in the literature on the high failure rate in new organizations and their concentration in the developed, English-speaking countries, is nearly impossible to answer without further research²¹.

Admittedly, we are faced with the fact that neither the comprehensiveness nor the biases

21 It should be stressed that we need further research that is independent of the Yearbook. The reliance on the Yearbook can be worrisome, in particular as some major studies that find international organizations being concentrated in the developed world and having high failure rate in the early years are using the Yearbook as their primary source.

of the Yearbook have been tested by independent scholars. Further, we lack any comprehensive, global list (survey, etc.) of social movements, hence we can only try to generalize from more narrow previous studies and draw conclusions about the real, global population of the social movements. Until such studies are carried out we have no answer to a rather fundamental methodological question: to what degree do the results from studies based on the Yearbook represent the true population of organizations – and to what extent do they only represent the biased population of the organizations listed in the Yearbook?

Moving beyond comprehensiveness and biases, we are faced with the fact that the Yearbook's database lacks a social movement-related categorization scheme (in other words, the Yearbook does not distinguish “social movement organizations” as separate, categorizable entities). While the Yearbook does not include for-profit enterprises (which allows it to rule out international business corporations, cartels and transnational or multinational enterprises), it does profile both intergovernmental organizations and non-governmental organizations (NGOs), from formal structures to informal networks, from professional bodies to recreational clubs. Thus, many of the organizations listed in it do not fit our definition of a social movement organization. This required a review of all entries, in order to see whether they can be assigned to the social movement category (for similar problems and solutions in the use of the Yearbook, see for example Porter 2002).

Upon analysis of the categorization scheme in the Yearbook, the category of organizations concerned with “Societal problems” appeared to be the best fit for the purposes of this study. The organizations listed within it were reviewed, and governmental organizations (as

well as the few organizations that appeared to be profit motivated²²) were excluded.²³

The next problem was with obtaining the count of the organizations in this category. My initial estimate was that this category contained approximately 6,000 entries. The Yearbook's categorization scheme is such that within that category, it further splits the organization by their more specific concerns, such as age, refugees or violence. Unfortunately, if the organization is concerned with multiple issues (as is often the case), it will be listed in multiple subsections, thus inflating the count of organizations in the top level category (the “Societal problems”).

Discarding organizations not fitting the social movement criteria (such as intergovernmental agencies like those of the European Union and the United Nations) and eliminating duplicate entries allowed me to revise the count down by about 40% to about 3,600. This yielded a larger set than Smith's (1997) whose numbers were 183 (for 1973 Yearbook), 348 (for 1983) and 631 (for 1993). The larger number in this study can be explained by the steadily growing Yearbook's database (my dataset is almost two decades newer than Smith's 1997), as well as the inclusion of the entire category “Societal problems” (listing categories not included in Smith's research, such as education²⁴). To further improve data quality, a self-screening tool was implemented in the survey, as the respondents were asked to take part in the survey only if they consider their organization (broadly) related to social movements.

22 One may also ask whether all movements have to be non-profit, but I agree with the reasoning that profit-making is a core mission in itself, and as such tends to replace other core missions (defined in my surveys as human rights, anti-war, and others). For more on social entrepreneurship, see for example Ziegler (2009).

23 Whereas the exclusion of the governmental organizations was rather easy (as they almost always use the .gov domains), the exclusion of for-profit companies was more problematic, and involved analysis of their websites.

24 Education is listed as one of the areas of the social movement industry in, for example, della Porta and Diani (2006).

It has been noted (Miller and Bratspies 2008) that the Yearbook lists an unknown percentage of organizations that appear dead, inactive, or whose existence cannot be confirmed. To that end, organizations whose active presence online could not be confirmed (their email addresses were inactive over a period of several months, and alternative email accounts either did not exist or were inactive as well) were removed. When possible, the email address(es) provided by the Yearbook were used, but in many instances the email was not indicated or was not valid. In such instances I endeavored to obtain alternative email contact information through Internet search.

Eliminating such inactive organizations resulted in a further downsizing of the population, by about 17%. In the final count, in the period the survey was carried out (January-June 2010), the above procedures resulted in a population of 2619 active social movement organizations (so less than half of the organizations in the initial list made it into the final frame). Because of the relatively small size of the population, I once again decided to survey the entire population. All of the above organizations were thus contacted by email and invited to take part in the survey.

With regards to bias, it should be noted that the survey was written in English, thus likely limiting the number of responses from non-English speaking countries, and compounding the likely existing bias of the Yearbook.

Finally, regarding the expected response rate, existing literature (Babbie 2004) and the Yearbook itself suggested that the rate may be lower due to the fact that international organizations are recipients of many survey requests, scholarly and commercial. They are often unable to answer them due to limited staff. Others are essentially closed membership groups and

see little need for communication from external bodies.

THE POLISH SURVEY

Since the second survey showed a bias towards organizations in the developed world, the third survey was designed to expand the dataset by gathering information on ICT's use from developing countries. Given time and budgetary constraints involved in translating the survey into multiple languages, as well as finding and parsing lists of possible movement-related organizations (a problem discussed in the previous section, compounded by the fact that such lists would likely not be available in English), I limited myself to one convenience sample and, utilizing my knowledge of the Polish language, focused on Poland-based social movements organizations.

A comprehensive Polish language list of Polish non-governmental organizations is maintained by the ngo.pl non-governmental organization (<http://portal.ngo.pl/>). This database has been used in several studies of the NGO scene in Poland (Krajewski 2007; Domański 2009), and while it is still waiting for a detailed scholarly review, it has been positively if cursorily summarized as: “the most complete [database on Polish movements]” (Bryane 2005) and “an unofficial but most up-to-date internet database [on Polish movements]” (Reichel and Rudnicka 2009).

Ngo.pl traces its history to 2001, and was founded by the apolitical Stowarzyszenie Klon/Jawor (Klon/Jawor Foundation). The nature of the database – aiming to list all Poland-

registered NGOs, without prejudice to their objective – reduces the chance of bias based on what types of organizations are listed in it. Such a bias cannot, however, be completely eliminated, as the database is composed of records sent by volunteers (not necessarily from the organizations themselves). It is therefore possible that there is a certain self-selection bias affecting this database as well. However, compared to the Pittsburgh and International Surveys, this database is unlikely to exhibit a bias against right-wing organizations.

As of October 1, 2010, the database had 152,831 entries, divided into numerous categories. Those categories, unfortunately, were overlapping in a fashion similar to that found in the Yearbook database, and the rather rudimentary ngo.pl search engine does not provide the ability to combine search results for several categories, or specify multiple or exclusion criteria.

Therefore, I manually reviewed the following most-broad categories:

- Charities (Działalność charytatywna, 4,025 entries)
- Social work (Pomoc społeczna, 15,964 entries)
- Spreading and defending of human rights, citizen freedoms and democracy promotion (Upowszechnianie i ochrona wolności i praw człowieka, swobód obywatelskich oraz działań wspomagających rozwój demokracji, 5,165 entries)
- Ecology, human rights and environment protection (Ekologia i ochrona zwierząt oraz ochrona dziedzictwa przyrodniczego, 5,240 entries)

Thus, 30,394 out of 152,831 entries were included.

As indicated in the general research design, only organizations with an online presence were contacted (in numerous cases, the ngo.pl database did not list an email, only a website, which I used to harvest the email from, if indicated). Out of the 152,831 entries, 21,877

organizations list a website (so, 14.3%), and 32,066 an email (20.9%), and 19,948 list both (13%). The database is unfortunately not prepared to answer a query about how many organizations have a website OR an email OR both.²⁵

On a subset of organizations that did not have email or website listed in the database, I decided to carry out further research to confirm whether they really have no contact information online (similar to the research I did for the organizations from the Pittsburgh survey missing online contact information). I randomly selected a hundred organizations that according to the ngo.pl database had no online presence. I found that 13% of them did indeed have a website and/or an email. In this situation one can estimate that about 32.3%²⁶ of social movement organizations in Poland have an online presence (and we can realistically expect this number to be an underestimate).

One may also want to ask what organizations do not have an online presence. Using the previous subset of organizations I analyzed their impact, operationalized by whether their name was mentioned anywhere online, how often and in what context. All organizations with an online presence were mentioned in numerous places, and it was relatively easy to determine their goals and activity. Of the 67.7% which had no presence, 17% were mentioned on the web (so 11.5% of all). This leaves as many as 56.2% of the organizations which have no online presence nor have been active enough to warrant a mention in the online media (which, in Poland, as of 2010, does include the majority of local news sources). In other words, slightly over a half of the

25 Nonetheless even if the database cannot provide those numbers, it is possible to calculate that 1.3% of organizations have a website but no email and 7.9%, an email but no website. Thus according to the bazy.ngo.pl database, 22.2% of Polish organization have an online presence (a website OR an email OR both).

26 We arrive at the 32.3% estimate by combining the 22.2% estimate with the 10.1% estimate (13% of the 77.8% of organizations that the ngo.pl database reports as having no Internet access).

organizations listed in the ngo.pl database have no other proof of their existence available online.

There is also a substantial difference in coverage for organizations that have online presence, and those which do not. The organizations with their own email and/or websites had dozens of online mentions. On the other hand, the organizations that have no online presence, but have some mentions in other online sources, had three or fewer mentions. Close to a half of them had only one mention. In one case, the only online mention an organization had was a local press article about it being a scam. Further doubts are raised when we consider, for example, how active and efficient an organization dedicated to spreading Internet democracy can be, if the said organization has no website or email. With regards to the organizations with no contact information online, it is even difficult to confirm whether such organizations still exist (and given that the entries to the ngo.pl database are added by volunteers, whether they ever existed).

Those figures allow us to conclude that about 32% of social movement organizations in Poland have an online presence, and they account for over 90% of social movements' activity mentions online.

There are, certainly, various social movement activities that have little need of an online presence. Therefore I would be wary of making an assumption that mentions online can be treated as an exact estimate of the organization's activity and influence. However the data seem to indicate that the majority of social movement activity is being carried out by organizations with at least a basic Internet presence. Far reaching statements aside, the data supports the less controversial proposition that an organization with an online presence (website and/or email) is more likely to be mentioned by other sources than an organization without such presence.

In my review I discarded all organizations whose name implied they did not fit the social movement definition. I also discarded a small but significant number of organizations listed in the database that hail from either the West or other Eastern European countries. I have noticed numerous (certainly over a hundred for each case) entries for such organizations. They were not included in the further analysis (as not compatible with the intended population of the survey). As such entries were often filled in non-Polish language (and in some cases, non-Latin – Cyrillic – alphabet), it is unclear what are the reasons for those organizations' desire to be listed in a database that self-describes itself as a list of Poland-based NGOs. At the very least this only reinforces the need for the researcher to carefully screen all such lists before employing them in further research.

Discarding organizations without an online presence, numerous duplicates across all categories, organizations not fitting the social movement criteria (for-profit, governmental), non-Polish organizations, and inactive organizations, I ended up with 1,569 unique email addresses (thus approximately only 1 in every 20 entries in the ngo.pl made it into the final frame).

Due to the relatively small size of the population, I once again decided to survey the entire population. All of the above organizations were thus contacted by email and invited to take part in the survey.

THE INNOVATIVE SURVEY

The fourth and last survey was based on a theoretical sampling approach, designed to locate interlinked clutches of organizations working in the same issue area, based upon identifying websites of SMO's using innovative ICTs.

As recommended by literature (Babbie 2004; Ferguson 2000), this approach was used to gain a deeper understanding of analyzed cases and facilitate the development of an analytic frame and concepts used in the final analysis.

Innovative social movement organizations were operationalized as social movement organizations using new ICTs (blogs, podcasts, videocasts, social networking, Twitter, social tagging) and announcing that fact on the main page of their websites. The websites 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.

A methodological issue specific to this survey arose since I found numerous websites that while concerned with supporting, advocating and enabling social movement activism did not seem to have been the creation of any organization. Rather, such websites appeared to be the work of a single individual or a small group without an obvious legal organizational form. This is consistent with the recent literature (van de Donk et al. 2004; Staggenborg 1998; Earl et al. 2010; Earl and Kimport 2011), which argues that social movements are composed not only of clearly defined organizations but of less official entities, as well as individual supporters who do not

identify themselves with any single organization, yet create artifacts (such as websites) that can be quite influential. Earl and Schussman (2002) following Zald and McCarthy (1990) term such individuals “social movement entrepreneurs”, and argue that their importance in the movement decision making process is growing, at the same time lessening the importance of the more traditional organizations. I have decided to include those websites in my survey, as their creators are undeniably part of the social movement, and their use of ICTs form an important part in our understanding of the use of ICTs by social movements (composed of organizations and the wider community).

As with all theoretical samples of a given population, this approach was intended to present a non-representative sample of the social movement population. It is also possible that the use of different keywords (notably, non-English keywords) would result in a different set of organizations. Nonetheless this sampling method successfully identified a number of social movement organizations with prominent websites (highly ranked on Google) and employing numerous new ICTs. 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.

This approach yielded 142 organizations, which once again, because of the relatively small size of the population, became the sample for this survey. All of the above organizations were thus contacted by email and invited to take part in the survey.

FINDINGS

This chapter presents the main statistical patterns found in my data. The interpretation of their sociological or historical significance can be found in the following Discussion chapter.

RESPONSE RATES

As of October 30, 2010, 412 out of 4522 respondents have completed their surveys, resulting in a response ratio of 9.1%, with 4.6% confidence interval at the 95% confidence level. The response ratio, as expected given the length and complexity of the questionnaire, was lower than the average 30% for online surveys (Kaplowitz, Hadlock, and Levine 2004) but still providing a satisfactory confidence interval and comparable to similar empirical studies²⁷ (Benlian 2006; Cook, Heath and Thompson 2000; Babbie 2004:271, Kaplowitz, Hadlock and Levine 2004; Klandermans 2002; Wessner 2009).

With regards to particular surveys:

- 33 out of 192 respondents responded to the Pittsburgh Survey, resulting in a response ratio of 17.1%, with 15.7% confidence interval at the 95% confidence level.
- 196 out of 2619 respondents responded to the International Survey, resulting in a

²⁷ With the caveat that literature on social movements on average reports higher response rates than literature on ICT use and diffusion, and interdisciplinary comparisons are less than perfect, here is a sample of published studies with comparable response rates: Ward and Lusoli (2003) who used multiple sampling schemes and studied labor unions and social movements, reported the lowest response rate in their schemes of under 5%, and another at 15%; Chaves (2002) who studied religious movements reported a response rate of 19%; Benlian (2006) who studied ICT and infrastructure use in organization reported a response rate of 10.5% and noted similar studies with a response rates of 5% and 8.5%. Moffett and McAdam (2009), surveying organizations on the knowledge management and ICT use, reported a response rate of 9%. Dimitrova and Chen (2006) studying ICT use in government agencies reported a response rate of 9% as well, noting that this number is “comparable to similar web surveys and acceptable for exploratory analysis” and that “higher response rates are often related to convenience samples or surveying census populations.”

response ratio of 7.4% with 6.7% confidence interval at the 95% confidence level.

- 153 out of 1569 respondents responded to the Polish Survey, resulting in a response ratio of 9.8% with a 7.5% confidence interval at the 95% confidence level.
- 30 out of 142 respondents responded to the Innovative Survey, resulting in a response ratio of 21.1% with a 15.6% confidence interval at the 95% confidence level.²⁸

Due to self-screening among the respondents, some of those who chose not to respond might have been respondents from organizations that were not intended to be included in the survey (such as business organizations) that made it through my preliminary self-screening.

Different surveys had different biases, which however tend to counteract themselves to a certain extent. As a reminder: 1) the Pittsburgh Survey population was local, US-based, and left-leaning 2) the International Survey population was international, affiliated with the UN, leaning towards the English-speaking, developed countries 3) the Polish Survey population was Poland-based 4) the Innovative Survey population was composed of the English language-using organizations highly ranked by the Google search engine. All surveys required the organizations to have at least a basic online presence in the form of an email.

MOVEMENT DEMOGRAPHICS: REACH, AGE, SIZE, GOALS

The geographical reach of their organization. The majority of respondents in the Pittsburgh Survey declared their organizations as local, and most of the remainder as regional²⁹.

28 Higher response ratio from Pittsburgh and International survey may be related to the fact that due to their smaller size (International and Polish surveys were a factor larger) I was able to personalize the invitation letters.

29 Region, in this context, refers to a region inside a country (such as Pennsylvania or Lesser Poland).

The majority of respondents in the International Survey declared that their organizations are international, and most of the remainder saw them as national, with only a few seeing themselves as regional or local. The majority of respondents in the Polish Survey declared that their organizations are national, closely followed by regional and local levels; only a small group saw themselves as international. The majority of respondents in the Innovative Survey declared their organizations as international, and most of the remainder as national. See Table 1 for details.

The geographical distribution. Answering a question on where is their organization located, all Pittsburgh Survey respondents declared their organization as hailing from the United States. The majority of the surveyed organizations in the International Survey come from the developed countries (see Table 2 for details). All respondents from the Polish Survey identified their organization headquarters as Poland. As for the respondents from the Innovative Survey, the vast majority identified their organizations as hailing from the developed-countries.

The age of surveyed organizations. A majority of the respondents of the Pittsburgh Survey noted that their organizations were over 20 years old, with the remainder grouped in the ranges of under 2 years and 5-20. The respondents of the International Survey indicated that most of their organizations were over 20 years old, with the rest following the declining trend; no organizations in that population were younger than 2 years old. The age of the organizations from the Polish Survey were much more widely distributed, with the majority clustered in the range of 3-20 years old. 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. See Table 3 for details.

The collected data indicate that the number of responding organizations increases with

their age: from the organizations aged 3-5 years, there were 6 responses (2 responses per year), from those aged 5-10 years, 20 (3.3 per year) and from those aged 10-20 years, 55 (5 per year).³⁰

Reach, headquarters locations, organization's age and its numbers of members proved to be significantly correlated, as confirmed by both the ANOVA results and Pearson's correlation. As the organization's reach increases, it is increasingly likely to be older and have a larger membership. International organizations are almost entirely based in the developed world. See Table 4 for details.

Looking at those results from another perspective, the importance of headquarters location becomes quite apparent. Organizations located in the developed world are much more likely to have an international reach, be older and have a much larger membership. See Table 5 for details.

In linear regression modeling, headquarters location and average membership are mediocre predictors of organizational reach, yielding a model with the adjusted R squared value of 0.096 (Model 1 with explanatory power of 9.6%). As an organization gets bigger and its headquarters moves to a developed country, its reach is increasingly likely to be international.

Reach, organizational age and average membership are better predictors for the headquarters location, yielding a model with the adjusted R squared value of 0.233 (Model 2 with explanatory power of 23.3%). As the organization gets larger, older and its reach more international, its headquarters are increasingly likely to be in a developed country. See Table 6 for details.

³⁰ The “over 20” category does not allow us to draw conclusions about the maximum age of the organizations.

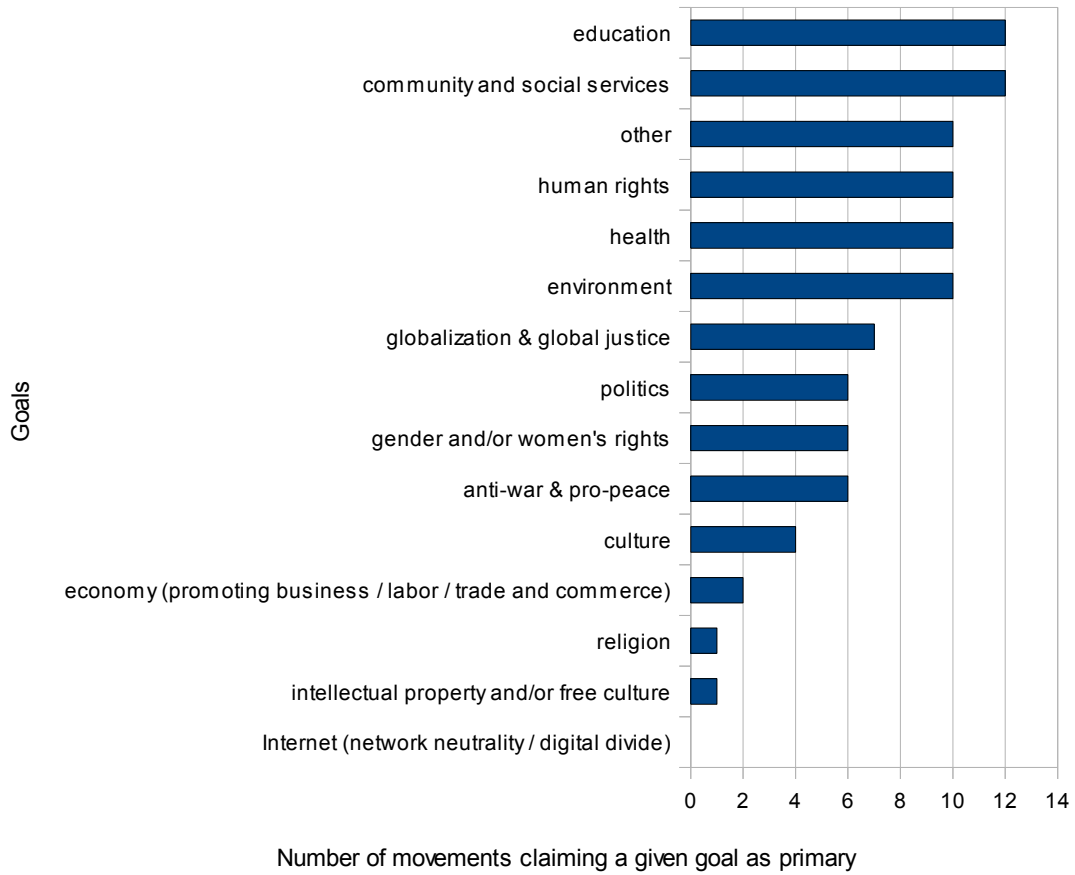
The goals of the organizations. The respondents were asked to list areas of core, average and least importance.

In the Pittsburgh survey, for their core mission, five areas were claimed as such by over 30% of respondents: community and education, environment, health and human rights. Four areas were unpopular, claimed as core by fewer than 10% of the movements: economy, intellectual property and free culture, the Internet and religion (although even they were of some importance to over 40% of organizations). See Table 7 and Graph 1 for details.

As will be a common pattern with the three other surveys, the responses in the category of other goals were in fact differently worded versions of existing categories (“energy efficiency” for “environment”, “violence against women” for “women's rights”, “housing policy” for “community and social services”, and so on). One respondent's more detailed response gives a good example of a local/regional focus of their organization, with the local state (of Pennsylvania) being their main target: “We focus on state policy as it relates to land use, transportation, infrastructure and community and economic development“.

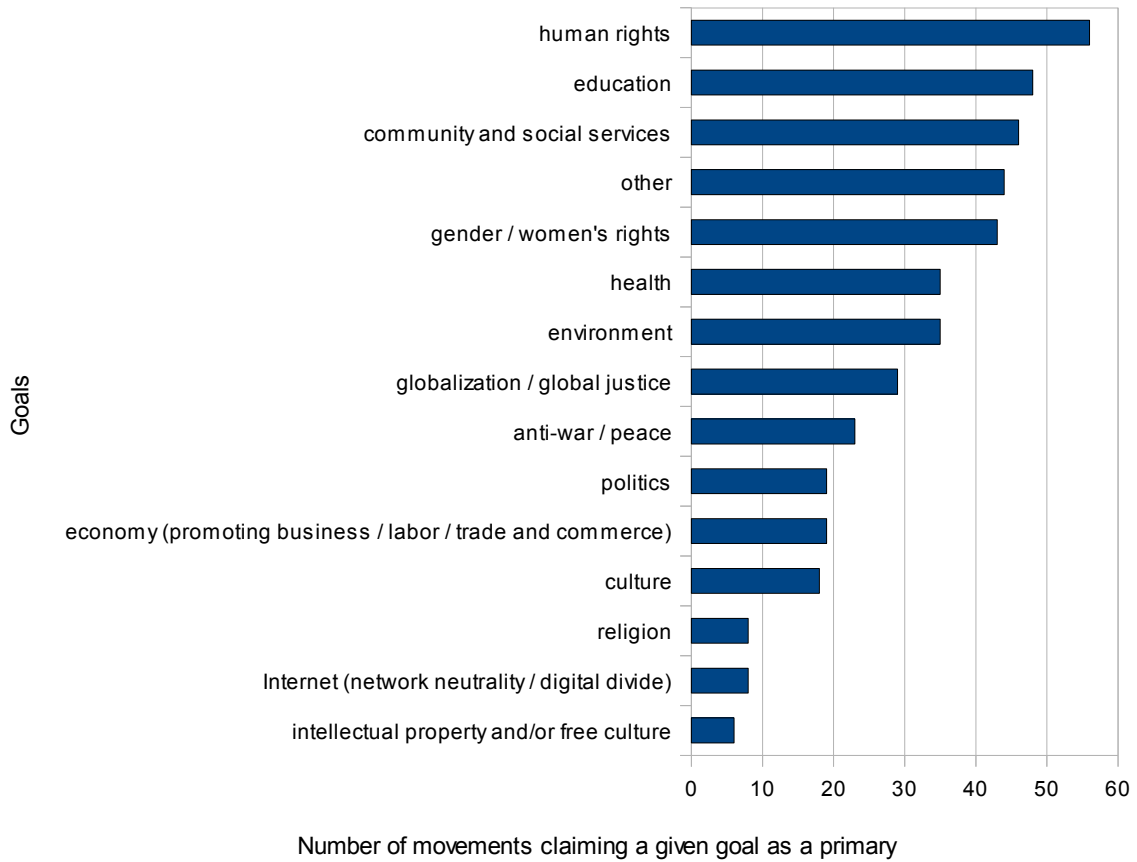
In the International Survey, five areas were claimed as core by over 30% of respondents: human rights, education, community and social services, gender and woman's rights and environment. Three areas were relatively unpopular, claimed as core by fewer than twenty movements: religion Internet-related issues, and the intellectual property and free culture. Those issues, while not of core importance, were still of some importance to over 40% of the surveyed organizations. See Table 7 and Graph 2 for details.

Movement goals (Pittsburgh Survey)



Graph 1: Number of movements claiming a given goal as a primary. Pittsburgh Survey.

Movement goals (International Survey)

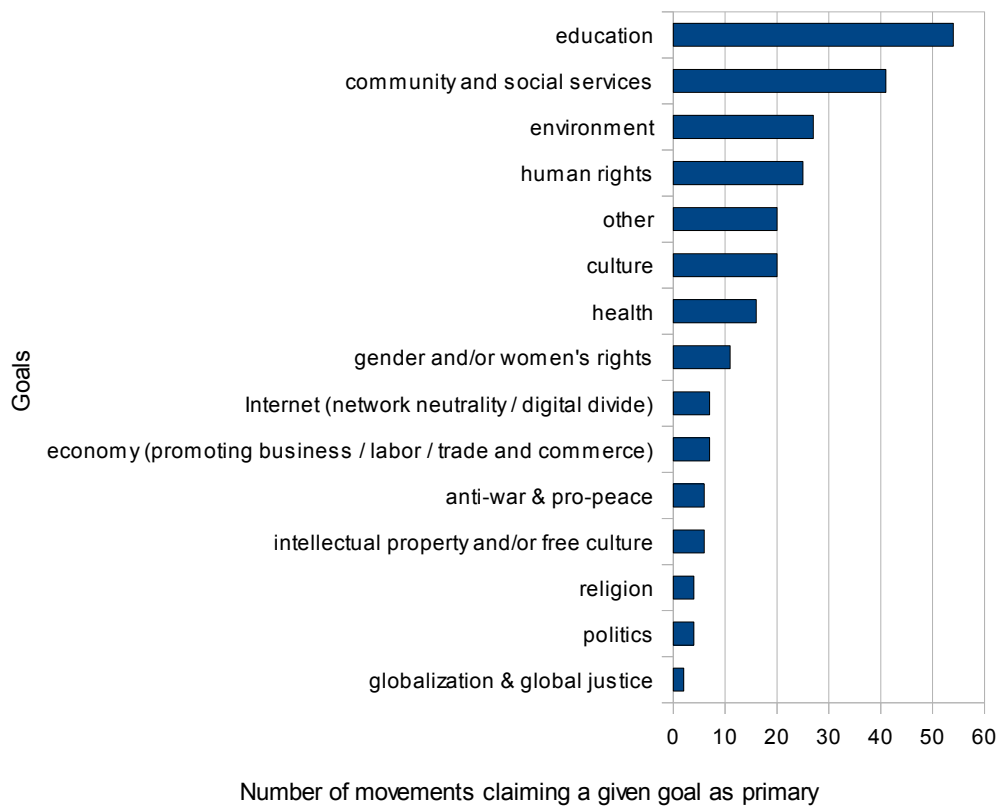


Graph 2: Number of movements claiming a given goal as a primary. International Survey.

With regard to the fifty five responses in the category of other goals, notable categories that do not fit into the employed categorization scheme were “youth mobilization” (N=4) and “mine clearing” (N=2).

With regard to the goals of the Polish organizations, only two areas are treated as core by close to or over a third of the surveyed organizations: education and community and social services. Three areas of least importance were globalization, politics and religion. See Table 7 and Graph 3 for details.

Movement goals (Polish Survey)

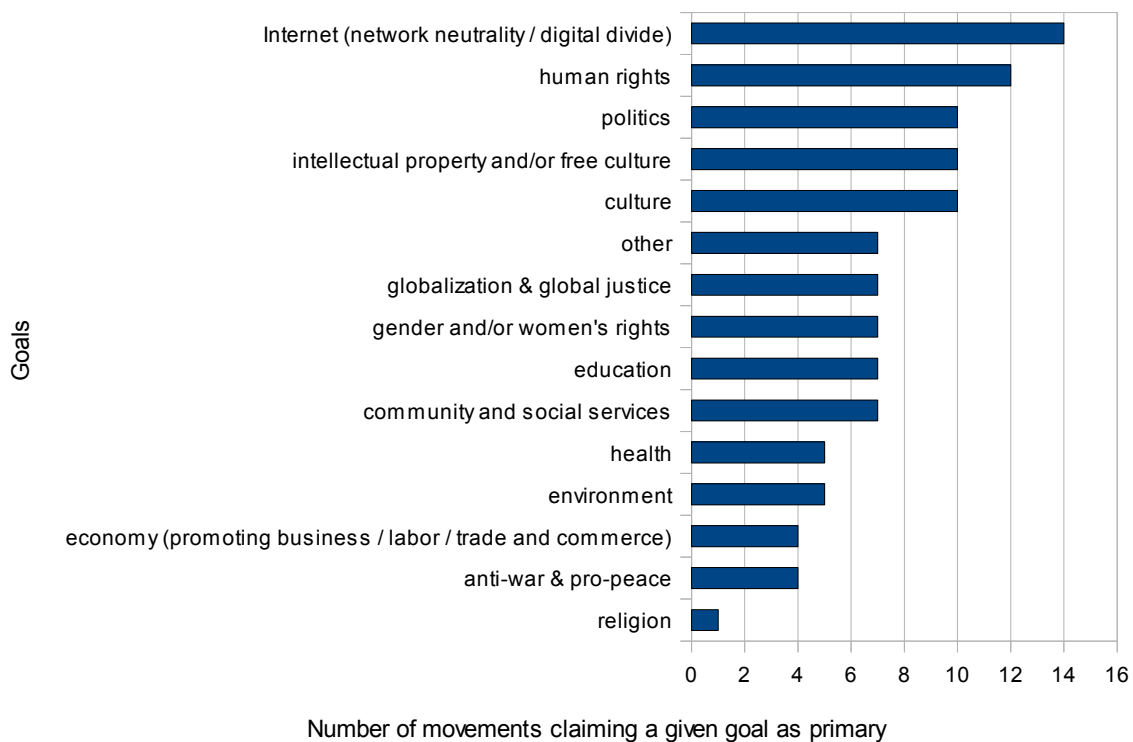


Graph 3: Number of movements claiming a given goal as a primary. Polish

With regard to the other category, again, nearly all responses fit into existing categories. Interesting exceptions included “access to public information, freedom of information”, “European volunteering”, “supporting other NGOs”, and “Polish-Jewish dialogue”.

Finally, for the Innovative Survey, five goals score above 30%: the Internet, human rights, politics, intellectual property and free culture, and culture. With the remaining goals distributed relatively smoothly together, only one stands out at the bottom of the scale – religion. See Table 7 and Graph 4 for details.

Movement goals (Innovative Survey)



Graph 4: Number of movements claiming a given goal as a primary. Innovative Survey.

MEMBERSHIP: AGE, SIZE

Asked about *the most common age of the members of their organization*, a majority of the respondents of the Pittsburgh survey noted that the most common age of their members is 31 to 50, followed by the over 50 group. In the International Survey, the majority of respondents noted that the most common age of their members falls between 31 and 50 years, with other groups represented relatively equally. In the Polish Survey, a majority of the respondents once again reported membership in the range of 31-50 years. Compared to the two preceding surveys, there was, however, a significant difference between the remaining groups, with the over 50 being a distant last. With regards to the Innovative Survey, the 31-50 group once again holds the dominant position. See Table 8 for details.

With regards to the members own age, it is most commonly reported as 31-50, the exception being the Innovative survey, whose respondents show a significant skew towards the younger age. See Table 8 for details.

Average membership. The *average active membership* in the Pittsburgh Survey is 905. The *average inactive membership* is significantly higher reaching 1,719; thus the ratio of active members to inactive members can be approximated as 1:2. As membership often does not represent the total influence of the organizations, the respondents were asked if there are active non-members (supporters) of the organization who nonetheless carry core tasks such as 1) participating in organization activities and 2) recruiting others. The estimated *size of the supporter network* is 2,867. Two thirds (66.6%) respondents note that they have supporters who partake in the organizational activities, and 42.4% noted that they also act as recruiters. See Table

10 for details.

The *average active membership* of the International Survey is reported at 5,799. The *average inactive membership* is significantly higher reaching 17,896, thus the ratio of active members to inactive members can be approximated as 1:3. The estimated *size of the supporter network* is 3,838. Two thirds (65.5%) note that they have supporters who partake in the organizational activities, and almost one fifth (19.5%) noted that they also act as recruiters. See Table 8 for details.

The *average active membership* of the Polish Survey is reported at 128. The *average inactive membership* is higher reaching 169, thus the ratio of active members to inactive members can be approximated as 3:4. The estimated *size of the supporter network* is 434. Close to four fifths (79.6%) note that they have supporters who partake in the organizational activities, and one fourth (25%) noted that they also act as recruiters. See Table 8 for details.

The average active membership of the Innovative Survey is reported at 1,985. The average inactive membership is significantly higher reaching 10,184, thus the ratio of active members to inactive members can be approximated as 1:5. The estimated size of the supporter network is 41,621. Over two thirds (73.3%) note that they have supporters who partake in the organizational activities, and almost one fifth (46.6%) noted that they also act as recruiters. See Table 8 for details.

Combining all the data and controlling for outliers,³¹ the *average active membership* is

31 Occasional instances of a movement claiming tens of millions of members and similar figures were primarily

1,563, *average inactive membership* is 3,437 (ratio of 1:2), *estimated size of the supporter network* is 4,800. 72% report that they have supporters who partake in the organizational activities, and 26% noted that they also act as recruiters. See Tables 8 and 10 for details.

The above data can be further broken down. With regard to the region, in the International Survey, controlling for outliers, the active membership size declines from approximately 9,000 in the developed countries to less than 200 in the rest of the world. The difference in non-active membership is smaller, with the average in the developed countries of 17,500 and developing, 19,000. The differences in the sizes of a supporter network show another important difference, with supporters in the developing countries outnumbering those in the developed ones (6,500 to 2,500). See Table 11 for details. The significance of the first two trends is confirmed with one-way ANOVA test.

With regard to the age of organizations, there is a positive correlation between the age of the organization and the reported number of members, significant for the active and nonactive memberships. In the International Survey, controlling for outliers, organizations younger than five years report an average number of active members of 55, five to ten years, 625, ten to twenty, 1,750 and over twenty, 11,000. The progression of inactive membership and active non-membership is similar. Organizations younger than 10 years report that their inactive membership is roughly 2,900, older ones – 21,000. For the supporters, the numbers are 2,800 and 4,100, respectively. One-way ANOVA tests confirm the relations for active members, inactive members and supporters as significant, both for the International Survey dataset and the combined all

responsible for outliers. Numbers for all movements claiming 100,000 members or more have been verified and in all cases significantly downgraded.

survey dataset. See Table 12 and 13 for details.

The number of active members and supporters is also significantly and positively correlated (.287 and .314) to the geographical scope and reach (for the entire dataset). In the International Survey, controlling for outliers, the number of active members grows from 620 for non-international organizations (the differences between regional, local and national not being significant) to 4,900 for international. Similarly, the number of inactive members grows from 146 for local organizations, through 2,220 and 3,000 for regional and national, respectively, to 22,500 for international. Those relationships are confirmed as significant by one-way ANOVA test. The numbers for the supporters show a similar rising pattern (from 500 for the local organizations, through 600 for regional, to 4,000 for national and 5,150 for international). See Table 14 for details, The relationship is significant when the organizations are compared as two groups: one group composed of local and regional organizations, and another of national and international organizations. For the entire dataset, the patterns hold true (see Table 15 for details), although only the active membership numbers are statistically significant.

IMPORTANCE OF THE INTERNET

With regard to *the importance of the Internet* for their organizations, the respondents were in strong agreement that it is, indeed, highly important. In the Pittsburgh Survey, over 95% of respondents agreed with this statement (over 60%, strongly). In the International Survey, over 90% of respondents agreed with this statement (over 75%, strongly). In the Polish Survey over 95% of respondents agreed with this statement (over 80%, strongly). In the Innovative Survey, over 80% of respondents agreed with this statement (all strongly).

Respondents further elaborated on how exactly the Internet empowers their organizations. With regard to the International Survey, 37% left comments stressing the generic value of the Internet, and out of those about a third (13%) used quantifying adjectives describing it as the “best” tool used “heavily” for “most” of their “essential” activities. Respondents stressed that the Internet is well suited to empower small organizations: “We are small. With the website we are present on the internet“; “The internet allows us to be a small operation but do big work. 11% see it as a tool without which the organization could not function, noting that “All correspondence is by email”; “Without it, no work can be done. We are that dependent on the internet”; “It is our only tool...”; “[It is] impossible to work without”; “[It is] absolutely critical to human rights work; “It is vital...”; “[Our work] can't be done efficiently without internet connection.” One respondent commented that his/her organization exists only in cyberspace; another pointed out that their organization's core mission is related to the Internet: “It is our mission to promote the use of the internet and other ICTs for social change, advancement of human rights and social justice.” A respondent from the Polish survey noted: “A day we have no Internet access is a day we do no work”. There were no negative comments; the most conservative one noted that “most of our networking started before Internet ... [the Internet] is, however, [helpful] in accelerating some facets of our international collaborative networking”.

10% noted that the Internet was highly effective and efficient. Others described its qualities, of which the Internet's global spread and reach were the most important – perhaps not surprisingly, considering that this survey focused on the international movements. Global reach as a quality was stressed by 21% of the respondents, notably for operations in developing regions: “[Internet is] especially important for our members organizations in countries as Belarus,

Ukraine and Russia”; “In the Caribbean people are spread out over the sea and the net allows us to stay connected”; “It enables us to communicate between the US and our staff in Rwanda”. In addition to the global reach, other qualities that were mentioned were the cost-effectiveness (7%) and speed (6%).

In the Innovative Survey, 68% of respondents left comments on the importance of the Internet. 26% noted that their organization exists mostly or completely online, and that it would be hard or impossible for them to function without the Internet: “We are an entirely virtual organization. All our business, all meetings, all discussions, all decisions are made online”; “We are an online-only community that writes about internet events. About the internet on the internet.”; “Almost ALL the work, communication, and coordination is done online”; “The very substance of the organization rests over a community which is all over the world and connects to each other through the net.”; “Our organization does not have a headquarters. All of our organizing and socializing is mediated via the internet. Furthermore, most of the events that concern us are taking place within and around the internet.”; “we organize and mobilize globally based in the northern forests of Thailand, there would be no other way without the internet”; “We have no physical office but interact online. Without the internet, our organization could not exist.”; “We are a digital organization where members are located around the world and interact online.”

Another indicator of the increasing importance of the Internet can be seen in the goal analysis. In the Pittsburgh Survey, the Internet-related issues are not of core importance to any SMOs, and the related free culture and intellectual property issues are of core importance to only

3.3% of the respondents.³² Moving beyond the Pittsburgh survey, this changes. In the International Survey, 3.4% of the respondents chose the Internet-related issues of core importance for their SMOs, and 5.7% did the same for related free culture and intellectual property issues. In the Polish Survey, the responses were 4.1% and 4.7%, respectively, and in the Innovative Survey, 33.3% and 43.3%, respectively. In the entire dataset, Internet was of core importance to 20.5% organizations, and free culture and intellectual property issues, to 21.6%. See Table 16 for details.

DIFFUSION AND USE OF THE ICTS

As predicted in the relevant literature (Couper et. Al 2007; Kaplowitz, Hadlock and Levine 2004) the results obtained when the data were analyzed separately were much less likely to return statistically significant results, as the survey respondents were increasingly less likely to provide answers to questions appearing later in the survey. For example, in the following analysis, the small sizes of Pittsburgh and Innovative surveys would make them useless, as the chances of obtaining any significant results from those datasets would be slim. Therefore in the following analysis, unless otherwise indicated, data from the four surveys was combined. The reader should keep in mind that the population of the four surveys is not identical, as outlined in the preceding section; however for the purposes of understanding the more generic population of social movements across the world, data combination and integration provides a solution to the

³² I am treating the free culture and the intellectual property movements as significantly related to the Internet-focused movements, as the concepts of free culture and the intellectual property / copyright reform stem to a major degree from the Free and Open Source Software Movement, which first came up with alternative copyright licenses such as GFDL (GNU Free Documentation License, where GNU is a recursive acronym for “GNU’s Not Unix!”). Today, while free culture and copyright reform extend beyond the net, they are still significantly focused on the Internet-related issues, not the least because this debate is often framed with regards to the media piracy on the Internet. For a history of the FOSS Movement, see Elliott and Scacchi (2008), Konieczny (2009) and Sullivan (2010).

problems arising from the insufficient data obtained from small populations.

How the Internet is used. Approximately 71% of respondents stressed that it is used for communication, 21% for research, 3% for fund raising and 2% for recruitment. 5% of the respondents simply noted that the Internet is used for “work”.

ICT's diffusion. the respondents were queried about both the traditional (pre-Internet) as well as the Internet-era tools. The most widely diffused tool is email (89.9%), followed very closely by landline³³ phones (86.3%)³⁴ websites, and mobile phones, used by over 80% of the surveyed organizations. Setting aside email and websites, newer ICTs are used more sparingly, by less than 50% of organizations, with the noteworthy exception of mass emails (listervs, discussion groups and such) used by 60% of the respondents and social networks (the use of sites like Facebook or MySpace) used by over 50% of the respondents. The next most widely diffused Internet-era ICT are the online messengers, used by 32.4% of the respondents. Online petitions are relatively popular, used by 30.4% of the respondents. The use of videocasts has reached and even surpassed blogs (27.4% to 26.8%). Microblogging (Twitter) is on the rise, approaching 23.2%. In comparison, the podcasts seem relatively unpopular with 17.3%. See Tables 17 for highlights and Table 29 for all details.

33 In my research I differentiated between landline phones, mobile phones used for oral communication (voice), and mobile phones used for written communication (texting). The distinction was necessary as the three modes of communication are quite different. The separate nature of texting is apparent due to its written nature; as for landline voice versus mobile voice, existing literature (Rheingold 2003; Ekine 2008) often differentiates between them, with Rheingold going as far as to interpose the “tyranny of a landline” and the “freedom of a mobile”. Although Rheingold does discuss those differences mostly in the context of private, not organizational life, I believe that clear separation of those media allows us to refine our understanding of their use and importance. For readers not interested in this level of distinction, averaging the landline and mobile scores should offer a relatively simple, if conservative, approximation. Less conservatively, one could use the higher value.

34 Although all respondents were contacted by email, a question arises – why 10.1% of the respondents do not see email as a tool used within their organization? As this question was tied to the date of ICTs introduction into the organization, it is likely that some respondents who were not sure of that answer chose to skip it, thus resulting in the under 100% answer. Since all the respondents do in fact use email, the true figure should be 100%.

How long those tools have been used in the organizations. Traditional ICTs, as well as email and websites, have been adopted over 10 years ago. Between 3 and 10 years ago we see the adoption of blogs, mobile phones, instant messengers, mass emails (including newsletters and listervs), BBSes and online fora, and online petitions. In the last three years, we see the adoption of podcasts, videocasts, Twitter microblogging, wikis, and the spread of social networking. See Table 18 for details.

The respondents were asked whether they find particular ICTs useful for management, recruitment, reaching out, fund raising, and interaction with the governmental and non-governmental organizations. The most common responses are presented in Tables 19-24.

Management, organizing regular, everyday activities and internal communication. With regard to those uses, it appears that the most useful ICT is email, ahead even of the control variable, face to face communication, which is the second most popular mode of communication in the above activities. Those two ICTs are followed by phones and websites, with mass emails, self-publishing, traditional mail, instant messengers, cameras, social networking, internet fora and wikis seen as more useful than not. Remaining technologies are seen as unhelpful. See Table 19 for details.

Recruitment. Email retains its dominance, and websites overtake face to face communication. Those three are followed by mass emails, landline phones, self-publishing, mobile phones, social networking, mail, newspapers and magazines, videocasts and instant messengers. Remaining technologies are seen as unhelpful. See Table 20 for details.

Fund raising. Email and website retain their respective 1st and 2nd places, as does face to face communication at 3rd, while old fashioned mail and self-publishing (of booklets, pamphlets, etc.) raises up to the 4th and 5th, respectively. Those are followed by phones, mass emails, visual materials (photos), newspapers and magazines, social networking, as well as television, radio and videocasts. Remaining technologies are seen as unhelpful. See Table 21a for details.

Reaching out (publicizing information, public relations, organizing supporters). A wide range of ICTs is being used, wider than for previous tasks. Email retains its dominant position, while face to face communication slips to the 4th position, overtaken by self-publishing and websites. Following are the mass emails, newspapers and magazines, phones, the use of visual materials (photos, etc.), social networking, mobile phones, radio, television, mail, demonstrations and rallies, videocasts, blogs, online petitions, Internet fora, microblogging (Twitter) and wikis. Remaining technologies are seen as unhelpful. See Table 22 for details. Notably, in reaching out, only a single respondent has declared websites as useless.

Interaction with governmental agencies. Email retains its dominant position, and face to face communication climbs back to the second position, for which it is tied with the landline phones. They are followed by website, mail, mobile phones, self-publishing, faxes, mass emails, demonstrations and online petitions. Remaining technologies are seen as unhelpful. Interestingly, online petitions are seen as only marginally more helpful than not, and less helpful than traditional faxes. See Table 23 for details.

Interaction with non-governmental organizations. Here the situation is similar to the

previous ones. Changes compared to the governmental interaction include importance decreased for faxes, and increased for the social networking. See Table 24 for details.

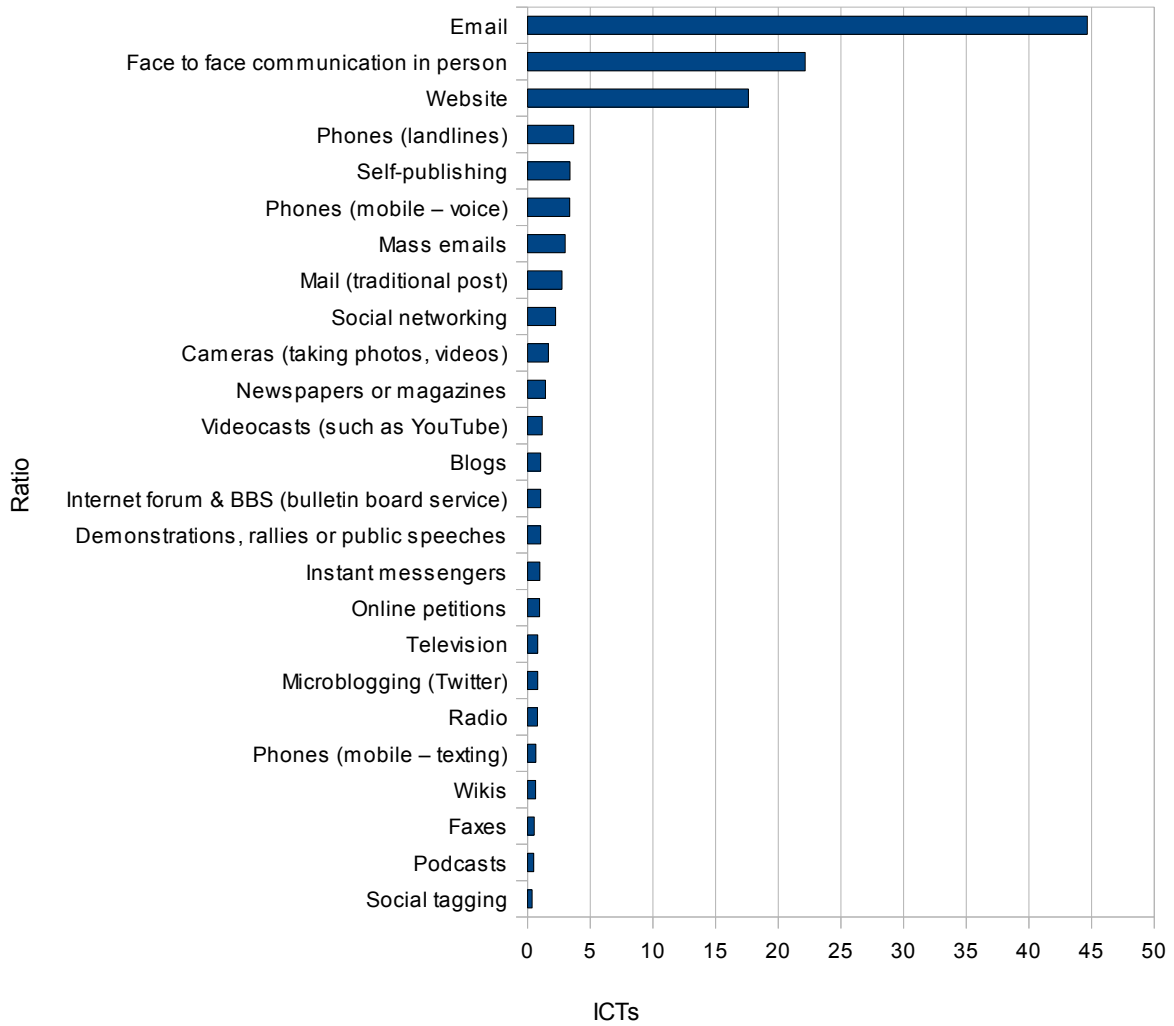
USEFULNESS AND EMPOWERMENT

Table 25 and 29 and Graphs 5-7 present the aggregated data on the uselessness and usefulness of ICTs. Those variables are presented in two formats: as average usefulness, and as a ratio of usefulness to uselessness. For the purpose of this analysis, usefulness has been operationalized as the number of respondents who agreed 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 in the same way, 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).

ICTs by ratio

(usefulness/uselessness)

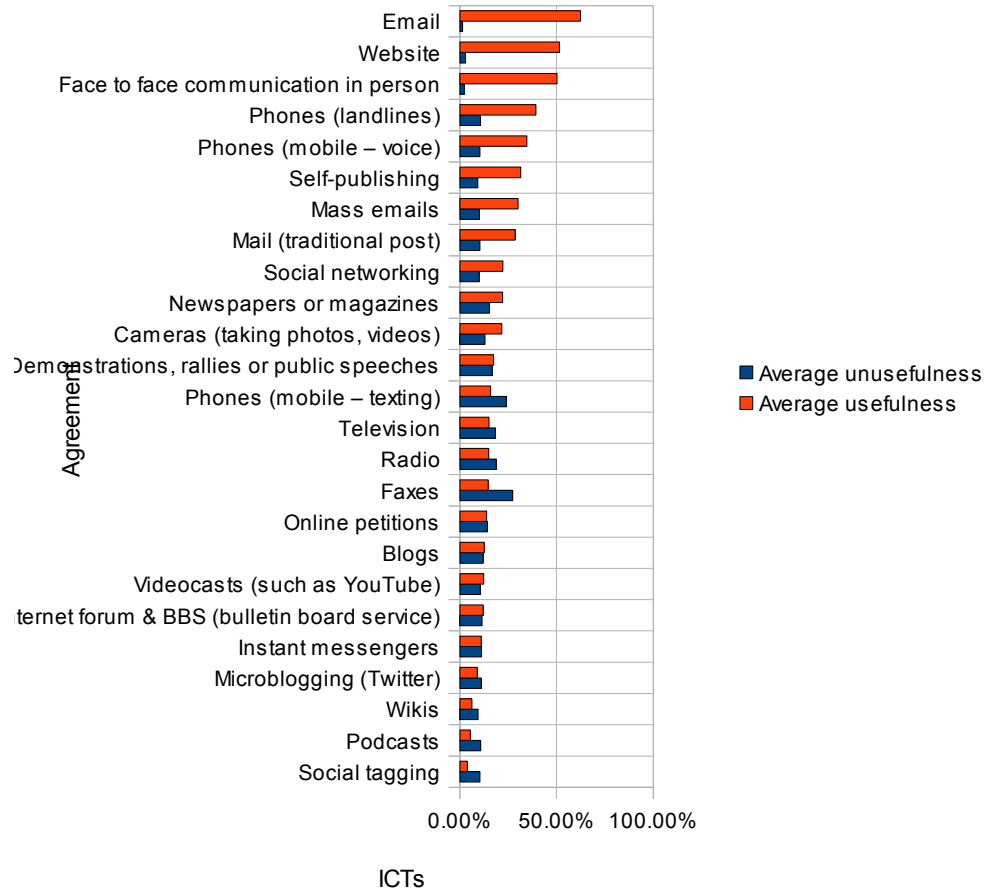


Graph 5: ICTs by ratio (usefulness / uselessness)

Usefulness. With regards to *the total usefulness*, the five most useful technologies are email, websites, face to face communication, landline phones and mobile phones. See Graph 6 for details. With regards to *the usefulness ratio*, the five most useful technologies are email, face to face communication (22.15), websites, landline phones and self-publishing. See Graph 5 for details.

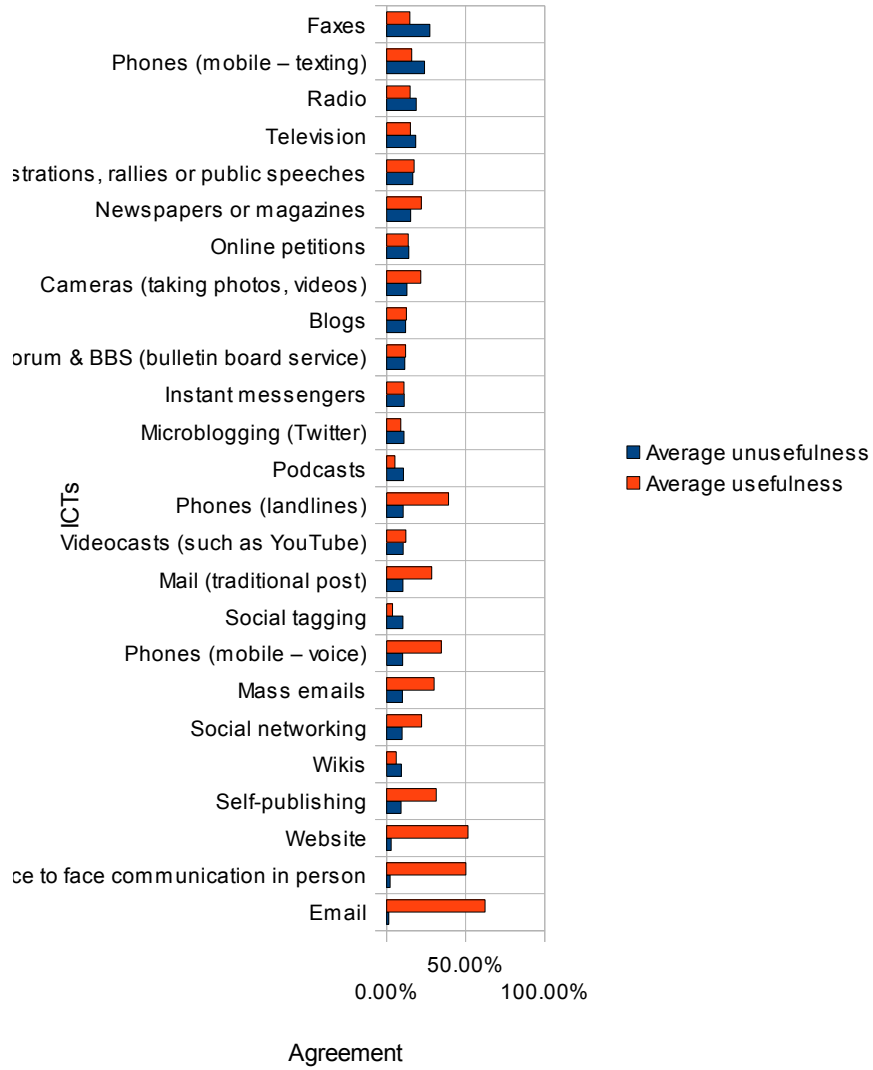
Uselessness. With regards to *the total uselessness*, the five most useless technologies are: faxes, texting, radio, television and demonstrations and rallies. See Graph 7 for details. With regards to *the usefulness ratio*, the five most useless technologies are social tagging, podcasts, faxes, wikis and texting. See Graph 5 for details.

ICTs by usefulness



Graph 6: ICTs by usefulness

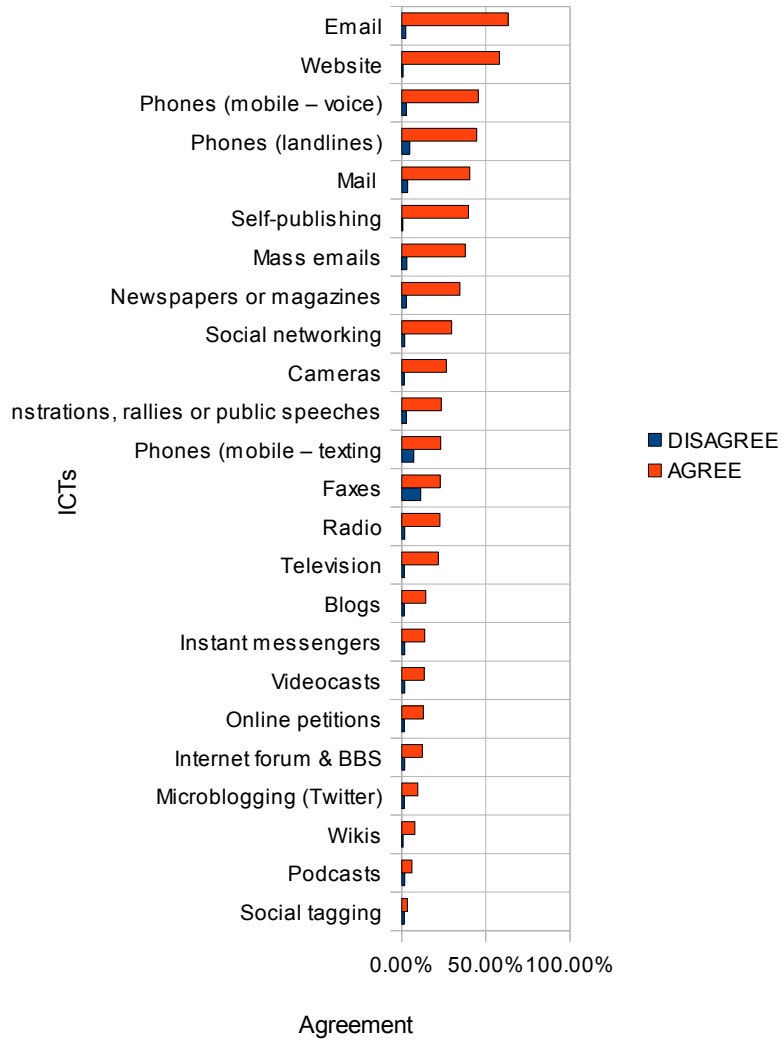
ICTs by uselessness



Graph 7: ICTs by uselessness

Respondents were asked if the existence of a given ICT provides their organization with more influence. The results are very similar to those indicated by previous findings on their use and usefulness. Two ICTs claim the dominance for the most influence given – email and the website. Following are phones (landlines and mobile), traditional mail, self-publishing, mass emails, newspapers and magazines, social networking and visual tools (cameras, photos, etc.). Demonstrations and rallies are placed in 11th position. See Table 26 and Graph 8 for details.

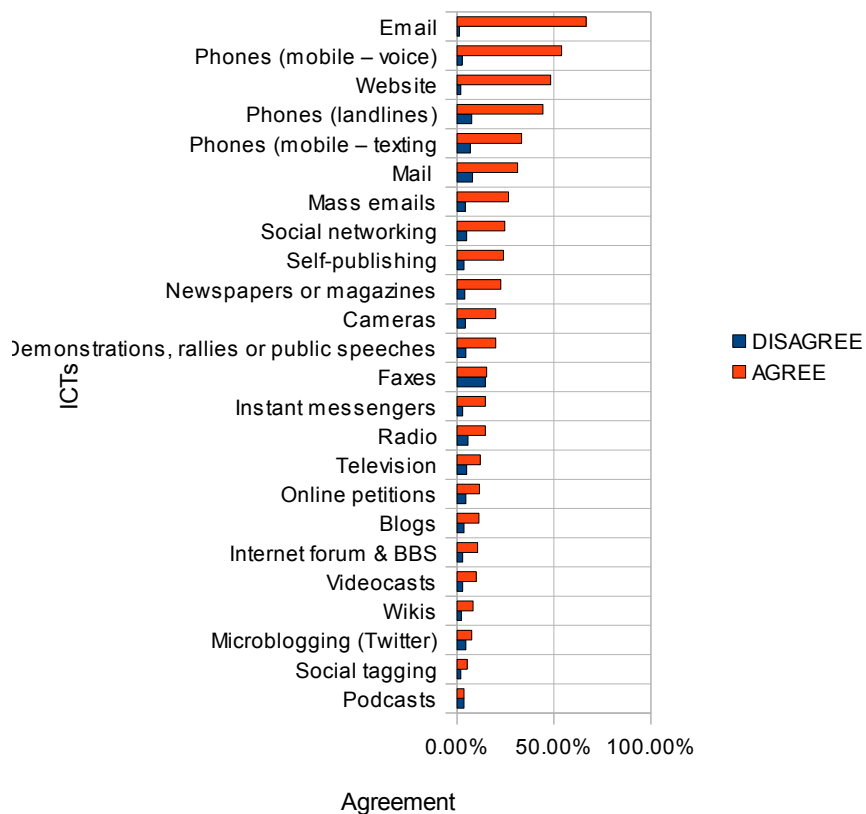
ICTs by influence given to organization



Graph 8: ICTs by influence given to the organization

Next, the respondents were asked *if a specific ICT gives them more of a say within and outside their organization*. Within the organization, email once again takes the lead. It is followed by phones (including their texting ability), websites, traditional mail, mass emails, social networking and self-publishing. See Table 27 and Graph 9 for details.

ICTs by influence given within the organization

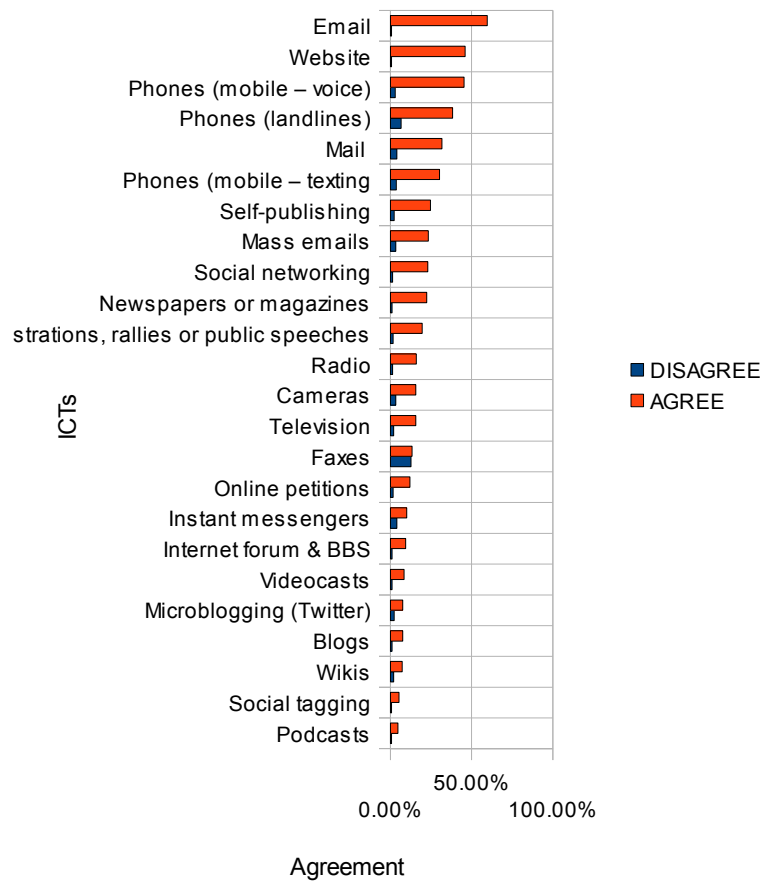


Graph 9: ICTs by influence given within the organization

Outside the organization the email retains its top position, followed by the website, phones, traditional mail, mass emails, social networking, and self-publishing – virtually the same

order as within the organization. See Table 28 and Graph 10 for details.

ICTs by influence given outside the organization



Graph 10: ICTs by influence given outside the organization

DIFFUSION, USE, USEFULNESS AND EMPOWERMENT BY SPECIFIC ICTS

Table 28 puts together information on diffusion, usefulness and empowerment of each ICT reviewed in this study.

Email is the clear winner across the board: diffused among all respondents, it has the highest usefulness (both total (62.4%) and ratio (44.6), the highest empowerment (both total, at 63.24%, and ratio, at 43.31) the lowest uselessness (1.4%). Notably, face to face communication is clearly seen as less useful than email communication.

Websites come in the second place; with second best total (54.5%) and third best ratio (17.61) usefulness, second best diffusion (83.3%) and the third lowest uselessness (2.92%). They also come second in the empowerment rankings (total – 50.8% and ratio – 42.8). Where controlled for, face to face communication can be seen as tied with websites, it is ranked in the third place in total usefulness 50.26% and second with ratio of 22.15, as well as with the second lowest uselessness at 2.27%). Earl et al. 2010

Mass emails (listervs, discussion groups) are used slightly less than emails (and websites), nonetheless still come through as the 9th most widely used ICT and the 3rd most widely used Internet ICT. They rank highly among the most useful tools, with the 7th highest usefulness (total), the 7h highest usefulness ratio, and the 8h smallest uselessness; similarly they rank at the 7th highest empowerment (total), the 7h highest empowerment ratio.

Social networking is the 9th most useful (total of 22.1%, ratio of 2.2) and with only the 20th position (9.95%) in the most useless scale. They are the 11th most diffused ICT, and are also seen as the 10th most empowering ICT (6th in ratio).

Videocasts are the 19th most widely diffused ICT, the 19th most useful, the 15th most useless, and are ranked as 12th on the usefulness ratio). They are the 20th most empowering ICT (15th in ratio).

Podcasts report the very low (23rd) diffusion, the 24th highest usefulness – both total and ratio and 13th highest uselessness. Likewise, they report low empowerment (both total and ratio at 23rd position).

Blogs have the 18th highest usefulness total (12%), 13th highest usefulness ratio (1.04) and the 9th most uselessness (12.5%). They are the 18 th most empowering ICT (16th in ratio).

Microblogging (Twitter) is fairing poorly as well, at the 14th highest usefulness total (11%), 19th highest usefulness ratio (0.8) and the 9th most uselessness (11%). They are the 21st most empowering ICT (22nd in ratio).

Online petitions are seen as relatively useless, being the 7th most useless ICT (14.1%) and only the 17th (13.8%) most useful, coupled with the low usefulness ratio of 17th, just below 1 (0.97). They are the 17 th most empowering ICT (18th in ratio).

Wikis present a mixed picture, with the 23rd highest usefulness (6.15%) but also low - 5th - lowest uselessness (9.38%), ending up nonetheless with a rather low usefulness ratio (21st at 0.7). They are the 22nd most empowering ICT (19th in ratio).

Both the instant messengers and the Internet forum rank in the middle. Instant messengers are the 16th most diffused ICT, Internet fora, 18th. Their usefulness and empowerment ranks are in the same range, and their usefulness ratios oscillate around 1.

The email and website have displaced the phones to the 4th highest total usefulness and the 4th highest usefulness ratio (in both cases landlines are followed by mobiles in 5th) and the 8th lowest uselessness (mobile, followed by landline at 12th). In the latter case, in addition to the email, websites and traditional face to face communication, the phones have also been displaced by self-publishing, wikis, mass emails and social networking. Phones are still widely diffused (landline phones are the second most widely diffused technology and mobiles the fourth). Texting, while widely diffused (6 th) is not as valued for its usefulness (21 st) or empowerment (17th).

Faxes are reported as the most useless technology – first in total uselessness (27.36%), and third to last in the usefulness ration (at 0.5), with 16th position in total usefulness (14.7%). They are the 14th most empowering ICT (24th in ratio).

Demonstrations and public rallies also rank relatively high in uselessness: their usefulness is ranked only as the 12th highest – 17.4% – giving this ICT a 15th usefulness ratio of just 1.04, barely above 1 (thus barely more useful than not) whereas they have the 5th highest uselessness

at 16.7%. They are the 11th most empowering ICT (8 th in ratio).

DIFFUSION, USEFULNESS AND EMPOWERMENT BY AGE, GOALS AND OTHER FACTORS

When breaking down the ICTs' usefulness and empowerment by organization and members' age, goal and region, the age of an organization does not seem to be significantly related to the positive view of newer ICTs.

The data on the *members' age* indicate that it may be a more significant variable. Mean analysis reveals that whereas organizations with a membership base in the range of 18-30 years find newer ICTs more useful than the older ones (usefulness score of 3.85 to 3.58), the usefulness for both old and new ICTs is virtually the same for organizations with a membership base of 30-50 years old, and reversed for those where the membership base is over 50 years old (3.06 to 3.32). There is a similar pattern with regards to seeing the younger ICTs empowering the organization more than the older ones, where organizations with the membership in the range of 18-30 report the empowerment by the new ICTs to be higher than when compared to the empowerment provided by the old ICTs (4.11 to 3.95). Once again, this is confirmed when the respondents are asked if the new ICTs give them more influence within the organization. The respondents from the organizations with membership base in the range of 18-30, as well as those from organizations with membership base of 30-50 report that this is the case (respective ratios are 3.8 to 3.62 and 3.72 to 3.56) whereas the respondents from the organizations with older membership bases disagree.

The above findings are confirmed by data on the *respondent's age*. The respondents aged 18-30 are the only group that finds the new ICTs more useful than the older technologies (3.74 to 3.55). They are also the only group that finds that the new ICTs give them more influence in the organization than the older technologies (4.12 to 4.01) and they are the only group that finds them more empowering than the older ICTs, both within the organization (3.97 to 3.63) as well outside it (4.13 to 3.76). The significance of the above relationships involving members' age is confirmed by a t-test comparing members aged 18-30 with the rest. There is a significant relation between younger age and seeing new ICTs as more useful and empowering inside and outside organization (although not for empowering the organization itself). For these age groups, the respondent's own age is also significant, as the younger respondents find new ICTs more useful.

With regard to an *organization's size*, there seem to be no statistically significant relation between size of the organization and the respondents finding ICTs more or less useful or empowering.

As for the *region* an organization is based in, developing countries seem to find the older ICTs slightly more useful (the ratio of usefulness 3.73 for the old ICTs compared to 3.38 for the new ones); the empowerment ratio however shows no significant difference.

With regard to the *issues taken by the organizations* (social movement industry sectors), most industries seem to value both old and new ICTs similarly; notable exceptions include the intellectual property/free culture, the Internet and the culture industries, which find the new ICTs more useful (ratios are, roughly, 4 to 3.5). At the same time, movements focusing on politics

value the old ICTs higher than the new ones (ratios are 3.5 to 3).

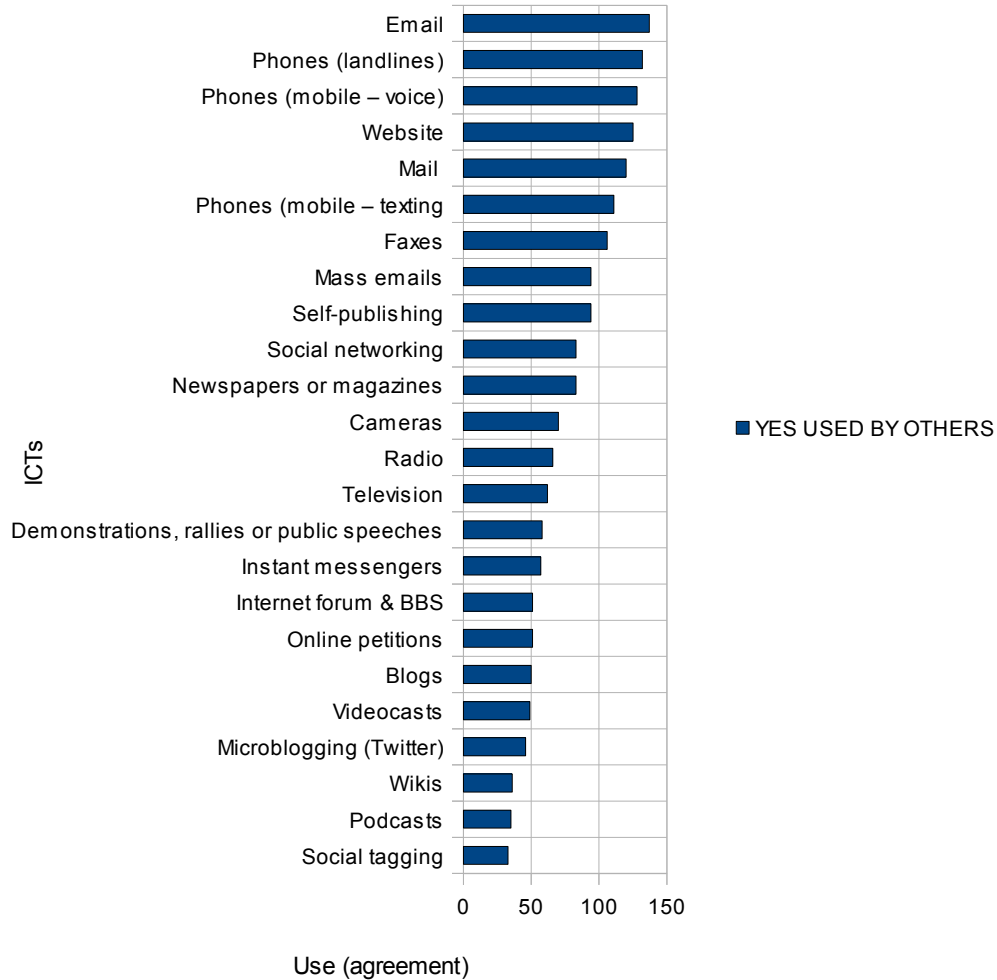
Respondents were asked *if they agree with the statement: “Younger members of the organization are primary users and advocates of the Internet-based communication tools.”* More than half of the respondents (60.1%) agree with this statement, with about a quarter disagreeing (28.7%). See Table 31 for details.

FUTURE GROWTH

Respondents were asked *who in the organizational hierarchy is the primary user of the Internet based ICTs.* The majority of the respondents (74.7%) agreed that they are used equally by all. 15.1% noted they are used primarily by the top management, and 7.5%, by the ordinary members. See Table 32 for details

Respondents were also asked *if a given ICT is used by others to contact their organization.* The answers were weighted in a similar way to the calculations of usefulness, with “yes, [a given ICT is used by many to contact us]” weighted as 1, and “yes, by few” as 0.5. Email is, again, the most commonly used ICT, followed by phones, the use of websites; those ICTs are used to contact over 75% of the organizations. Mail, faxes, mass emails, texting, self-publishing and social networking achieved a weighted score of over 50%. See Graph 11 for details.

ICTs used to contact the organization



Graph 11: ICTs used to contact the organization

In one of the final questions, the respondents were asked *whether any of the newer, Internet-era ICTs they are not using are interesting enough to be potentially used in the future by their organization*.³⁵ The leading position is taken by the videocasts, followed by social networking, podcasts, wikis and social tagging. The two least interesting ICTs are websites and

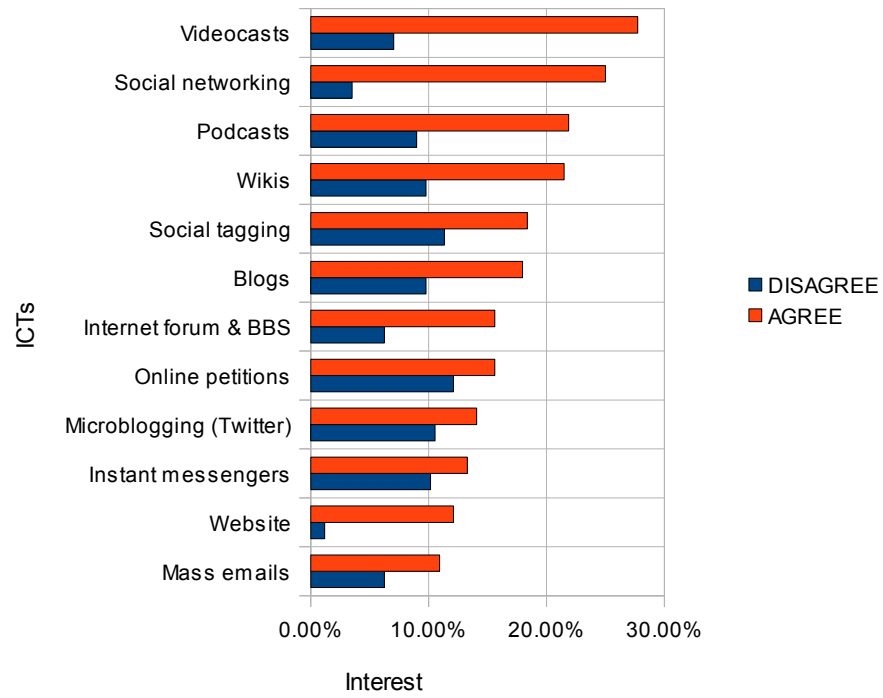
³⁵ Email was excluded from this question, as it was assumed all respondents are using email.

mass emails. A ratio of interest and disinterest was also calculated, with the same method as in the case of usefulness and uselessness. Here, the top five ICTs are websites, social networking, videocasts, internet fora, and podcasts; the two ICTs with the lowest ratio (and also leading in the number of respondents seeing them as uninteresting) were online petitions and instant messengers. See Table 33 and Graph 12 for details.

Table 1: Do any of the following ICTs NOT USED by the organization sound interesting enough to be potentially used in the future? Summary table (All surveys)					
	STRONGLY DISAGREE	DISAGREE	NO OPINION	AGREE	STRONGLY AGREE
ICTs		Online petitions	Instant messengers	Mass emails Microblogging (Twitter) Videocasts Internet forums Blogs Podcas Wikis Social tagging	Website Social networking

N=128

Interest in ICTS for future use



Graph 12: Interest in ICTs for future use

DISCUSSION

MOVEMENT DEMOGRAPHICS: REACH, AGE, SIZE, GOALS

Geographical reach and location

The respondents were asked to characterize *the geographical reach of their organization*. The majority – almost nine tenths – of the Pittsburgh-based social movement organizations are focused on local or regional issues. This finding, to the extent that we can generalize from the Pittsburgh region to social movement organizations worldwide, provides empirical evidence to back claims that most social movements and their activities are local in scope (Snow, Soule and Kriesi 2004; McAdam et al. 2005).

With regards to 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, suggesting a level of discrepancy between how the organizations perceives itself and is perceived by the Yearbook. It is especially curious that some respondents from that survey see their organizations as local, although this might be explained by the respondent thinking in terms of his or her local chapter instead of the international umbrella organization. The Yearbook self-declared bias towards international organizations makes the data from that survey relatively unhelpful for the discussion of the social movement's geographical reach.

In the Polish Survey, the findings *on the geographical reach* indicate that the plurality of the Polish social movement organizations 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 or regional in scope.

Comparing the Pittsburgh and Polish surveys, a noticeable difference can be seen in the number of organizations that see themselves as national (6.7% to 37.8%). This could be explained by the fact that the Polish survey included the Polish capital city of Warsaw, the location of headquarters of many Polish SMOs with national influence, whereas Pittsburgh, a major town in the US state of Pennsylvania, is less likely to host such organizations (which are more often headquartered in Washington, DC). Without a comparative nation-wide survey of the social movements in the United States, drawing further conclusions on that difference may not be warranted; however, further research on a movement's country of origin and their geographical scope would certainly be useful.

The findings on the *geographical reach*, with regards to the Innovative Survey, indicate that over three quarters (76.7%) of the surveyed organizations see themselves as international, with most of the rest (20%) as regional. Unlike the International Survey, the Innovative Survey had no expected bias towards international organizations, hence the question arises: why was it dominated by them? Possible explanations include:

- the Internet makes it very easy to set up an organization with international reach;
- the survey was done in the English language, a modern *lingua franca*;
- the sampling scheme relied on the top 400 Google hits for specific queries. The

Google ranking technology³⁶ prioritizes information based on their popularity. International organizations attract more members, page hits, links-to, and so on, thus increasing the likelihood that they will be ranked more highly than non-international organizations.

Given these possibilities, I am unwilling to conclude that the majority of the social movements using new ICTs innovatively are international in scope. I am, however, confident 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 engine³⁷ will have an international scope. Future researchers pursuing a similar line of research and aiming to reach beyond the international SMOs may be well-advised to tailor their queries to go beyond English language, to include words “local”, “regional”, “national”, specific regions or localities, and to exclude the words “international”, “transnational”, “global”, “worldwide”, and the like. Alternatively, they may keep generic keyword queries similar to the ones I employed, but go deeper than the first 400 search engine hits.³⁸

The findings on the *geographical distribution*, with regard to the Pittsburgh and Polish Surveys, are unsurprising as all the respondents from those surveys chose the United States or Poland, respectively, as their organization's host country.

36 For more on Google PageRank, see Langville and Meyer 2006.

37 I refer the reader to my methodology section for the list of specific keywords I used.

38 Simple queries often generated hundreds of thousands or millions of hits, a probability sampling scheme would likely be necessary to reduce the number of websites to be reviewed.

The findings with regards to the International Survey do offer a more useful insight, indicating that the majority of the surveyed organizations (84.5%) come from the developed³⁹ countries.

I would be careful, however, about arguing that social movement organizations are more common in the developed world than elsewhere. We do not have any reliable numbers on the worldwide distribution of social movements to serve as a baseline to which we could compare the Yearbook entries. Nonetheless, existing literature offers some useful indicators. Smith (1997), Smith, Chatfield and Pagnucco (1997) and Smith and West (2005)⁴⁰ noted that international social movements are based disproportionately in the developed part of the world, although this was slowly changing with time, with 17% of surveyed movements reporting having headquarters in the developing world in 1983, and 24% in 1993. Smith and West (2005) reported that 75% of the international SMOs have members in the Western Europe and the US, while merely 50% have members in other parts of the world. Other scholars, however, found that developed countries hold no monopoly on social movements' activity. For example, Reese et al. (2005, 2008) surveying 639 participants of the World Social Forum (WSF) in Porto Alegre, Brazil, found that the majority of activists came from local SMOs, with over half (68%) from South America, followed by Western Europe (13%) and North America (9%). Patrick Ball's (2000) analysis of the worldwide distribution of human rights SMOs paints a similar picture. Ball found that while there are significant differences in their distribution among countries, the regions with the most human right SMOs are not the developed regions we might expect (North America, Europe) but Latin America, followed by South Asia (in fact he finds that the countries with most

39 Developed in this contexts means a core country in the world-system theory (Babones and Alvarez-Rivadulla 2007).

40 Whose research was based on the Yearbook.

human rights SMOs are Peru, South Africa, and the Philippines⁴¹).

The discrepancies in the findings presented above can be attributed to the international movements being concentrated in the developed world, while at the same time a significant, perhaps even larger number of local, regional and national movements are present in the developing world. Indeed a one-way ANOVA test on my data confirms that there is a statistically significant relationship between the geographical scope and the location of the movement headquarters. 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. My findings confirm those of Smith and others about the international movements being located mostly in the developed countries. This however should not be taken as a claim that those regions are the site of the majority of all movements – as noted earlier, it is likely that majority of world's movements, in both the developed and the developing countries, are local, not international, in scope.

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 origins, discussed earlier, with international organizations being much more likely to be headquartered in the West. In fact, controlling for geographical reach makes the innovative use of ICTs no longer statistically significant. Second, as noted earlier, this survey had a self-selecting bias due to the use of the

41 For a rather fascinating discussion of why this is so, involving measurement of variables such as state terror and ages of rights and treaties, please see Ball (2000). For an argument on why developed countries are more likely to be the sites of international SMO activity, see Smith and West (2005).

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. With those factors in mind, I would caution against too far reaching generalizations from this survey. Nonetheless I 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 world.

Infusing the two previous claims from the Innovative Survey with causal logic, we can construct the following hypotheses that are supported by the results from my study:

- if an organization is based in the developed world, it is significantly more likely to have an international reach and scope than if it was based in the developing world; and
- if that organization has an English-speaking website, it is much more likely to be ranked highly in Google's English-search query.

There is, however, no significant relation between the organization's use of innovative ICTs, its scope or headquarters' location. Though perhaps surprising at first, this finding fits with emerging analysis of recent events such as the Arab revolutions of early 2011. Even though that event fell outside the time frame of this research, it is a good illustration of how numerous organizations or even individual activists from that developing region, focused on their own local

to regional issues, used ICTs innovatively and obtained high (if temporary) visibility on the net.

Organization's age

The findings on the *age of surveyed organizations*, with regards to the Pittsburgh Survey, indicate that the majority (70%) of the surveyed organizations are over 20 years old. New organizations do continue to appear. 16.6% of the surveyed organizations were under 2 years old. However even controlling for the fact that the Thomas Merton Database is no longer actively maintained, it appears that the Pittsburgh movement scene is dominated by social movement organizations established in the 20th century.

Similarly, the findings with regards to the International Survey, indicate that none of the organizations were younger than 2 years old, and most of the surveyed organizations were over 20 years old. This is similar to the findings in the literature. Smith (1997), using the data from older editions of the Yearbook, found that in 1993 the average age of the organizations was about 25 years.

The lack of organizations younger than 2 years can be explained by the delay between Yearbook obtaining its information and its actual publication. Johnson and McCarthy (2005) noted that a lag in a similar publication, the Encyclopedia of Associations, is 6.2 years old. In my correspondence with the Yearbook editors, they admitted that they have a similar lag, although the outliers in survey data indicate that occasionally a younger organization will make it into the Yearbook's database. The collected data also indicates that the number of responding organizations increases with their age.

One might expect that there should be fewer (active) older organizations than younger ones. After all, younger organizations which are not going to be around in few years time are still able to answer the survey, but the older organizations which are no longer active are not. The findings, however, contradict this, and the existing literature offers an explanation. Smith (1997) notes that organizations that were 10 years old or younger are significantly more likely to disband than older ones. She observed that the organizations that disbanded had a mean age of 16, and the ones that survived, a mean age of 25. Other studies have found a similar pattern, which is sometimes known as the “liability of newness” (Minkoff 2002). My results support Smith's and Minkoff's findings about older organizations being more stable.⁴²

As mentioned earlier, about 17% of the organizations listed in the Yearbook are no longer active. The Yearbook does contact organizations to see if they are still active and its editors claim to be in contact with all organizations listed in the Yearbook on an annual or bi-annual cycle.⁴³ Its publishing cycle is estimated by its editors to be close to a 6 year mark, which means it may take up to 6 years between editors learning that an organization became inactive and its delisting. Therefore an organization inaccurately listed in the Yearbook as active can be assumed to have become inactive in the last 6 years. Hence, it is reasonable to hypothesize from my data that about 17% of international social movement organizations fail every 6 years (so, about 3% per year). Walker and McCarthy (2007) reported similar yearly rates of failure (3-9%). Based on Smith's findings (1997), those failure rates are likely negatively correlated with the age of the

42 An alternative explanation can be attributed to the biases in the Yearbook's database (i.e., the positive correlation between the likelihood of an organization being listed and its age).

43 This makes the Yearbook much more reliable in estimating the failure rate of organizations than the two other databases used (for the Pittsburgh and Polish surveys), as those other databases do not have a clear policy on checking up on the organizations (or simply do not check up on them at all).

organization, with the older organizations having a smaller failure rate than the younger ones.

With regards to the Polish Survey, the picture we find is quite different: the organizations are much more equally distributed across the periods surveyed, with the majority (63.5%) clustering in the age range of 3-20 years old, and only 11.7% over 20 years old. This can be explained by considering the history of Poland: the country regained its freedom as a sovereign, democratic state only in 1990. Before that, the legal operation of social movement organizations and similar NGOs was very restricted, and it was only in the aftermath of the Autumn of Nations that barriers to registering and operating such organizations were removed. As Ekiert and Kubik (1997) note, “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 movement scenes, and also it indicates that such countries may have valuable opportunities for researchers who want to study (relatively) young movement scenes.

The Innovative Survey also departs from the Pittsburgh and International Surveys, and is similar to the Polish one in its distribution. This highlights a major difference between the respondents in this survey and the previous ones. Although the Innovative Survey respondents share the geographical reach and location of the Pittsburgh and International Survey respondents, their organizations are much younger, with close to half (48.4%) being 5-10 years old, and only 3.2% being over 20 years old. Once again, cautioning against too far reaching generalizations, the survey of *the social movement organizations that use new ICTs innovatively and are ranked most highly in the English-language query in the Google search engine* suggests that they are much younger than an average social movement organization. The relation between the use of ICTs and organization age, however, is not found to be statistically significant in the other surveys.

Organization's goals

The findings on the goals of the organizations, with regards to 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).

With regards to the International Survey, the findings indicate that the most popular movement industries (goals of “top concern”) are the human rights, education, community and social services, gender and women's right issues and the environment. Religion, intellectual property and Internet issues being 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 by Smith (1997; 2005) who distinguished between the following issues: human rights (27%)⁴⁴, environment (14%), women's 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, consumers' protection, population issues and violent revolutions.

There are some methodological differences between Smith's and my surveys, In my

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

survey respondents were allowed multiple answers, in Smith's research only one. In addition, our categories are not identical⁴⁵. 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 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 in 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, the labor issues could be subsumed by the global justice and globalization ones. 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.

With regards to the Polish movement scene, its goals stand apart from those seen in Pittsburgh and International surveys. While two issues (education and community with social services) hold the top position in all three (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 decline is much smoother in the International and Pittsburgh surveys (compare Graphs 1 and 2).

⁴⁵ Smith's categories are listed in the preceding paragraph; for my categories, see Table 4.

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, which I can only hope will be carried out eventually, should provide comparative data for an international analysis.

With regards to the Innovative Survey, one of its most distinctive features compared to the other surveys 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. This highlights another major difference between respondents in this survey and the previous ones. Once again I would like to caution against too far reaching generalizations (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 and are ranked most highly in the English-language query in the Google search engine suggests that they have a significantly different set of core goals than an average social movement organization.

On a final note, based on common patterns across those surveys of four different populations, it does appear that there are certain issues which seem universally popular (or the reverse, universally unpopular). Human rights seem to be one of the most popular issues, although their importance diminishes the more we move from the international to the local level. Education, environment and community and social service issues seem popular on most levels. Internet, intellectual property, religion and politics seem of minor consideration, with the caveat that (religion excluded) they raise to top prominence for the organizations with a significant web presence which supports findings of Earl et al., 2010, on high use of online tools by certain social movement issues, and lends support to **Hypothesis 6**⁴⁶).

MEMBERSHIP, PROFESSIONALIZATION AND VOLUNTEERING

With regards to members' age, the majority of the respondents in all surveys reported the most common age of the members of their organization, and their own age, as between 30-50 years (with 40-45% of members in that age group). With regards to other age groups, there is a trend of moving away from “equal age” and “over 50” age groups towards the “under 30” age group, as we progress from the Pittsburgh and International Surveys to the Polish and Innovative Surveys. This can be seen in 1) a very small number of respondents in the Polish Survey reporting that the most common age of their members is over 50 (5.7%, compared to 10-17% for other surveys), and 2) the most common age of respondents in the Innovative Survey being “under 30” (and reported by 56.6%, compared to 15%-30% in other surveys). Also in the

⁴⁶ Hypothesis 6 states: *there are correlations between the use of the new media and the area(s) (industries) it focuses on.*

Pittsburgh and International surveys the age ratio of “under 30” to “over 50” can be reported as 3:2 and 1:1, respectively; it becomes 5:1 for the Polish and Innovative Surveys. The skew away from older members and towards younger ones in those surveys can be explained as follows:

- in the Polish Survey case, with most SMOs being formed in the past two decades, the older generations would have less experience with them, compared to regions where such organizations could have been created and operated for many decades or even centuries;⁴⁷
- in the Innovative Survey case, the younger age of the membership and the respondents seems to be related to the younger age of the organizations, and their focus on the relatively new Internet and free culture goals.

Overall, the data supports the conclusion that, on average, members of social movement organizations are between 30 and 50 years old, and the “under 30” and “over 50” age groups are balanced. There are however notable exceptions, with a skew away from “over 50” and towards the “under 30” group, if we look at the countries with a relatively recent history of SMO activity (such as Poland), or at the fields dominated by younger organizations and newer goals (Internet 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

⁴⁷ Which is not to say that those older generations have no experience in activism. After all, it is those generations who have created what is likely the most famous Polish movement, the Solidarity (Solidarność) movement. However, despite its eventual popularity, it should be remembered that for most of People's Poland's history, involvement with such an organization was illegal. Therefore it can be reasonably assumed that the number of people involved in long-term activism in People's Poland was much smaller than in places where costs of activism were much lower. Marc R. Beissinger in his analysis of movements in the Soviet Union shows clearly that numbers of demonstrations, and in particular, number of demonstrations, rose sharply in USSR's last years, as the rate of convictions of activists fell (Beissinger 2002:71). For an argument about social movements larger popularity in democratic regimes, see Goldstone (2004). For more on Solidarity, see Perdue (1995).

depending on a movement's industry, country and age. Lofland (1996), attempting to estimate 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. [...]” Kriesi (1996) who looked at professionalization and focused on the numbers of paid staff, found that the movements he studied had an average paid staff of 14 people, with an unequal distribution: 25% had no paid staff, 50% had less than 4 paid staff members, 10% more than 50; he also noted that the reported numbers represent the “tip of an iceberg”.

The actual numbers are masked by several factors. Professionalization has been traditionally operationalized as the [growing] number of paid staff (Kriesi 1996, Zald and McCarthy 1996). 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 others 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 movements either knowing that the organization cannot afford to hire them at the moment or refusing 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. This approach is seen in works such as that of Walker and McCarthy (2007) who reported that the average membership of the groups they studied was about 10,000, Giugni (2004) who discussed SMOs with hundreds of thousands of members and at an extreme, the studies which deal with the Polish Solidarity (Solidarność) movement, at its height numbering over ten million members – close to half of the country's adult population in that time (Perdue 1995). 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. According to some scholars, large movements may be in decline (Skocpol 2004).

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) and McCarthy (2005), 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 (Staggenborg 1998; van de Donk et al. 2004; Earl et al. 2010; Earl and Kimport 2011). In other words, 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 an electronic petition.

To deal with those problems, survey respondents were asked questions 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 low intensity 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 organizational activities, 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, helping out with various organizational activities (including recruiting others, a task carried out by close to a third of active non-members). Those trends (there are more inactive than active members and more supporters than members) hold true for all surveys, although the exact proportions do differ. A sole exception is found in the International Survey, where the inactive membership is in fact larger than reported size of the supporter network. It is hardly surprising that the number of active members is eclipsed by a larger number of inactive members; as others have noted (Tapscot and Williams 2006; Shulman 2009; White 2010), many can be willing to donate money or click on a petition – but few can be bothered to do more. The even larger number of supporters shows the significant scope of the social movement community (Staggenborg 1998; van de Donk et al. 2004; Earl et al. 2010; Earl and Kimport 2011).

Further, the membership numbers do provide an insight into the debate on

professionalization of social movements. Many movements become professionalized, moving away from informal, grassroots-based organization to centralized bureaucracies that are seen by some as more effective in changing the status quo (Zald and McCarthy 1973; Gamson 1990). There are however numerous examples to the contrary, suggesting that the professionalization does not affect all movements (Kriesi 1996). Piven and Cloward (1977), drawing upon Michel's Iron Law of Oligarchy (1915), found that professionalization and formal organization can hamper some movements and lead to taming of protest; for a broader argument see also Skocpol (2004a, 2004b). Smith (1997) hypothesized that movements will become more decentralized as their membership becomes increasingly grass-roots based and new technologies facilitate a greater scope of participation. Van de Donk et al. (2004) similarly noted that the spread of new ICTs throughout rank-and-file is challenging the top-down flow of information, crucial in professionalization, bureaucratization and oligarchization, processes predicted as part of Michels' Iron Law. The existing comparable, longitudinal data makes it difficult to offer reliable conclusions on the trends. Nonetheless, one and a half decade after Smith's hypothesis it appears that unpaid volunteers and supporters play a significant role in the international SMOs: the ratio of active members to active non-members is roughly, 1:3, and thus they constitute about 75% of the individuals who carry out tasks for the SMOs.

There are noticeable differences between geographical regions. With regards to the International Survey, the average active membership size in developed countries is as much as 45 times larger than in the developing countries, likely suggesting that organizations in developed countries have access to a much larger pool of resources, including budgets to pay for trained staff, to draw on. The difference in inactive membership is negligible, whereas the supporter size network in developing countries is almost three times as large as in the developed ones. This may

suggest that organizations in developing countries, with smaller budgets, are instead outsourcing much of their work to volunteers.

Similarly, the organizational reach seems to influence size as well. In the entire dataset, membership and supporters numbers grow, sometimes even hundredfold, when we move from local to international organizations. This indicates that on average, the larger the reach of the organization, the larger its resource pool, membership size and the number of interested volunteers and supporters it can draw on.

In the entire dataset, there is a positive correlation between the age of the organization and the reported number of members. Therefore we can conclude that as organizations grow older, they tend to get larger – or that larger organizations are more likely to survive. There is certainly a potential for further research here, to answer the question of which factors are responsible for the close ties between the organization's age and membership size. It would be interesting to see whether organizations accrue more members through time, or whether they are founded as small or large bodies, and the trend we are seeing is a result of some generational change.

There are certainly correlations between the movement's location, geographical scope, organization age and membership size. Older movements from the developed world that focus on international issues are significantly larger than their younger brethren from the developing world that are focused on the regional and local issues. A movement's goal does not seem to be a major factor.

In summary, for the SMOs in our dataset the average active membership size of 1,563 is

eclipsed by the average number of inactive membership (3,436), and in turn overshadowed by the average number of supporters (4,800). Certainly, the SMOs' use of paid staff members and professionalization is a current and ongoing phenomenon. However, the paid staff professionals, even if boosted by groups like interns or “career volunteers” number fewer than unpaid supporters and volunteers. That holds true even in the population of large, international organizations that have been operating for several decades. The data shows that social movements rely heavily on outside, unpaid labor of supporters and volunteers (active non-members), clearly supporting the blurry boundary hypothesis (**Hypothesis 1**⁴⁸) and offers support to the arguments that professionalization in social movements is not rapid or inevitable (**Hypothesis 2**⁴⁹). Further, this high proportion of active non-members distinguishes SMOs from business organizations, which until recently had few if any supporters. Nonetheless, as noted by Tapscott and Williams (2006), Bruns (2008) and Ritzer and Jurgenson (2010), some recent trends – such as prosumerism (blurring of the boundary between producers and consumers) – may be changing that, as for-profit companies attempt to imitate the movements and engage volunteers in various activities like marketing campaigns, previously left to paid professionals.

IMPORTANCE OF THE INTERNET

The vast majority of the respondents were in strong agreement that the Internet is important (over 90% agree that it is important; over 70%, strongly).

48 Hypothesis 1 states: *that with the new many-to-many communication tools, and the culture of collaboration, the borders between members and non-members (unofficial supporters) may be blurring, with non-members becoming involved in core activities that in the past did not allow participation of non-members.* For the full list of hypotheses, see Methodology chapter.

49 Hypothesis 2 states: *growing importance of non-members translates into weakening of the professionalization of movements.* For the full list of hypothesis, see Methodology chapter.

Those comments need to be taken with a grain of salt, as previous studies demonstrated that respondents tend to overestimate the importance of ICTs, particularly in the short term (Crawford, 1999; Rule, Gimlin and Sievers 2002, and Carey and Elton 2010). That said, it seems beyond any doubt that the majority of the respondents hold the Internet in high regard.

Respondents further elaborated on how the Internet empowers their organizations. A detailed analysis of the International Survey responses shows that 37% of the respondents left comments stressing the generic value the Internet, and out of those about a third (13%) used quantifying adjectives describing it as the “best” tool used “heavily” for “most” of their “essential” activities. It empowers small organizations, giving them global reach. 11% see it as a tool without which the organization could not function. This is even more pronounced in the Innovative Survey, where 26% of the respondents noted that their very existence is vitally tied to the Internet (one respondent wrote: “Without the internet, our organization could not exist”).

Based on the analysis of movement goals, we can estimate that 3-8% of the international movements are concerned with issues that were not on social movements' agendas before the rise 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, using innovative new ICTs and highly ranked in the Google search engine.

DIFFUSION AND USE OF ICTS

With regards to *how the Internet is used*, approximately 70% of respondents stressed that

it is used for communication, 20% for research, 5% for fund raising and 4% for recruitment.

With regards to *the ICT's diffusion*, the most widely diffused tool is email, used by all of the surveyed organizations, followed very 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 or MySpace) used by over 50%. Social networks already surpass such traditional methods as newspapers and magazines, demonstrations and rallies, radio and television. They are surprisingly widely diffused (52.38%), considering their relatively young age (2004 for the introduction of Facebook, 2003 for MySpace). The next most widely diffused Internet-era ICT are the instant messengers (AIM, ICQ, MSN and such), used by over 30% of the respondents, followed very closely by the 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 (27.4% to 26.8%). Microblogging (Twitter) is on the rise, approaching 23.2% (a respectable number again, considering that the service was introduced only in 2006). In comparison, the podcasts seem relatively unpopular with 17.3%.

Considering the recent studies on the popularity of blogs (Barlow, 2007), one may wonder if these findings represent the decline of that medium. Perhaps, if this survey could have been carried out a few years ago, the blogs might have been found to be more widely used. Did they never gain a larger following within the SMOs, or are they being displaced by newer, trendier tools such as social networks, videocasts and microblogging? Hopefully this question will be

addressed in further research.

With regards to *how long those tools have been used in the organizations*, the results are close to what we might have expected. The traditional ICTs, as well as email and websites, have been adopted over 10 years ago. Between 3 and 10 years ago we see the adoption of blogs, mobile phones, instant messengers, mass emails (including newsletters and listervs), online forums, and online petitions. In the last three years, we see the adoption of podcasts, videocasts, Twitter microblogging, wikis, and the spread of social networking.

Combining the data on the diffusion and the period of adoption, 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 three years, but they have already reached the penetration levels of 20% to 60%.

The breakdown of ICT use for management, recruitment, reaching out, fund raising, and interaction with the governmental and non-governmental organizations is presented in the previous chapter. The use roughly mirrors the diffusion, with several interesting differences and observations. Notably, the respondents were asked to include face to face communication in their rankings. While this control variable often ranks high (in the Top 3 or Top 5), it is always surpassed by email, often by website, and sometimes, by other modes of communication.

With regards to *management, organizing regular, everyday activities and internal communication*, we see the standard pattern, with email in the first place, followed by face to face communication, phones and websites, forming the cluster of five ICTs significantly more used

(and seen as more useful) than the remaining ones. With regards to *recruitment*, the picture is very similar, but there is sharp drop in use after the first three ICTs (email, website and face to face communication). With regards to *fund raising*, we see the weight shift to the older ICTs, with traditional mail and self-publishing following the same trio as in recruitment. With regards to *reaching out (publicizing information, public relations, organizing supporters)*, a wide range of ICTs is being used and seen as useful, much wider than for other tasks; 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. With regard to *interaction with the governmental agencies*, we see the resurgence of traditional ICTs (this confirms **Hypothesis 7**⁵⁰). It may also come as a surprise that online petitions, a tool that was designed to influence governments, are seen as only marginally more helpful than not, and less helpful than traditional faxes. With regards to *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.

The above findings also offer insight into changes occurring in movements' campaigns, repertoires and “WUNC displays” – participants' concerted public representation of worthiness, unity, numbers, and commitment on the part of themselves and/or their constituencies (Tilly 2009). What movements do in public has been slowly changing in the past decades, particularly with the rise of online activism. Campaigns can be conducted online. Repertoires have been enriched with tools such as online petitions and email newsletters, and participants can display their worthiness, unity, numbers and commitment in cyberspace. This is particularly helpful in

⁵⁰ Hypothesis 7 states: *SMOs use new media when talking to each other, members and supporters, but not when talking with the government, which prefers more traditional means of communication.*

explaining the growing popularity of social networking sites seen in my results. Many movements have actively maintained pages there, where their members and supporters can interact and display their WUNC to the outsiders. Such phenomena have led scholars such as Earl and Kimport (2011) to discuss the emergence of a new digital repertoire of contention, formed around activities that are cheap or require no physical co-presence. This in no shape of form invalidates Tilly's definition. Rather, allowing for long term change in repertoires of contention, it strengthens the case for the universality of his definition.

The implications of the use of specific ICTs will be discussed below, incorporating insights from data on ICTs' usefulness and empowerment provided by them to their users.

USEFULNESS AND EMPOWERMENT

The respondents were also asked *which ICTs they find most useful*. Email is the clear winner all across the board: it has the highest usefulness (both total (62.35%) and ratio (44.6) and the lowest uselessness (14%). While we might have expected the high popularity of email, which other technologies join it at the top is less obvious (readers may want to pause here and create their own list, before comparing it with the following results). My survey indicates that it is the website that comes in the second place, with second best total (51.5%) and ratio (17.6⁵¹) usefulness, and the third lowest uselessness (2.9%).

Respondents were asked if *the existence of a given ICT provides their organization with*

51 Usefulness ratio of 17.6 means that for each respondent who finds this technology useless, there are 17.6 respondents who find it useful.

more influence. The results are very similar to those indicated by previous findings on their use and usefulness. Two ICTs are tied for the most influence given – email and the website. Following are phones (landlines and mobile), traditional mail, self-publishing, mass emails, newspapers and magazines, social networking and visual tools (cameras, photos, etc.). Demonstrations and rallies are placed in 11th position.

Next, the respondents were asked *if a specific ICT gives them more of a say within and outside their organization*. Within the organization, email once again takes the lead. It is followed by phones (including their texting ability), websites, traditional mail, mass emails, social networking and self-publishing.

Outside the organization the email retains its top position, followed by the website, phones, traditional mail, mass emails, social networking, and self-publishing – virtually the same order as within the organization.

Notably, the respondents agree that ICTs are highly empowering. An empowerment ratio was calculated in a way analogical to the usefulness ratio. Not a single ICT scored below 1; with the use of faxes by individuals outside the organization scoring the lowest, but still above 1 (at 1.05). This shows strong support for **Hypothesis 9**⁵².

The new ICTs (email, websites) are seen as the most empowering; particularly noteworthy is the high position of social networking, which is listed high not only with regards to

⁵² Hypothesis 9 states: *the activists who use the media themselves are more likely to see them as important, and feel that they empower them.*

empowering individuals outside organizations (4th place), but also as empowering organizations (6th) and individuals within them (9th). However, with the exception of social networking, other Internet-based ICTs of the last decade – blogs, microblogs, wikis, podcasts, videocasts – are not scoring high, even if we control for the number of respondents (fewer respondents use and reply to the question on newer ICTs than on older ICTs). Nonetheless when an aggregated empowerment score was calculated, the Internet-based technologies obtained the ratio of empowerment of 16:1⁵³, while the non-Internet had the ratio of 14:1. Thus it appears that the Internet-based technologies are seen approximately 15% more empowering than non-Internet based technologies.

DIFFUSION, USE, USEFULNESS AND EMPOWERMENT BY SPECIFIC ICTS

For a listing all ICTs by diffusion, usefulness, uselessness and empowerment, see Table 29.

Email is the clear winner, taking the first position in all rankings but the total uselessness, where it takes the last place. This is hardly an unexpected finding. In my interviews, the respondents asked which ICT they expect to be most useful, and email was the most common guess. Numerous studies have been done on the use of emails in organizations (see for example Shneiderman 2003 and Mutch 2008); my study confirms that SMOs are no exception to widespread use of email. It is not difficult to offer a plausible explanation for email's dominance. Email has had plenty of time to spread to all corners, as it became the first Internet ICT to be

⁵³ Analogically to the usefulness ratio, empowerment ratio of 16:1 means that for each respondent that does not find a given technology empowering, there are 16 who do.

widely disseminated, appearing in most offices around late 1980s and early 1990s. We may also recall the most important quality attributed to the Internet by respondents – its global reach. One can easily get in touch with coworkers and activists all over the world through email – something often not possible face to face. We also often communicate with our local coworkers by email, even if we could potentially reach them through other means. In the big picture, email is just the newest of a series of widespread ICTs trying to improve on the deficiencies of face to face communication – it was preceded by phones, faxes, mail and others. Notably, however, it is seen as more useful and efficient than all of its precursors, and with regards to usefulness, has even displaced the face to face communication.

Websites come in the second place; closely following email. Usefulness of websites is quite clear, as one of the dominant types of end-user Internet infrastructure. One may pause for a second and ask, however – how can websites be empowering? Just as with other ICTs, empowerment in this context can be seen as having more power (control) for oneself, and having others exercise less of their power (control) over us. Websites can provide, without the need to interact with another living being, a treasure trove of information, well organized thanks to modern search engines.⁵⁴ They can also be interactive, and allow people to sign up for events, express support, donate money, and so on. Creation of a website is within anybody's reach. Face to face communication – a force that certainly cannot be underestimated – can be seen as tied with websites; this can only serve to stress the website's importance. One of the early Internet technologies, websites are undeniably still holding strong, and as noted by Earl et al. (2010), they significantly replaced self-publishing for many movements (hence the term “brochure-ware”).

⁵⁴ In fact, as Earl et al. (2010) note, about half of movements' websites do just that – provide information, and do little else.

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. In fact, this is already happening to a certain degree, as noted by Lenhart et al. (2010) and others. That said, is this process a replacement, or an upgrade? Social networks, blogs, wikis and such are, after all, just improved websites...⁵⁵

The situation of social networking looks rather optimistic. It is the 11th most widely diffused ICT and the 9th most useful – not bad when we consider that it is a very new technology, dating to the mid-2000s decade. Social networks are the 12th most useful tool in management, the 8th in recruitment (bypassing traditional mail, newspapers, radio, television and demonstrations), the 11th in fund raising, and the 9th most useful in reaching out (just after face to face communication). Predictably, social networking is rather useless when it comes to interacting with the government (the 15th most useful, the 5th most useless), but it jumps up again in usefulness when it comes to interacting with non-governmental organizations (the 9th most useful). Social networking allows more efficient use of both weak and strong ties, and incorporates the most user-friendly and popular elements of traditional websites, blogs, wikis and other technologies. Increasingly, social networks allow not only individuals but organizations to create pages, they can be also created for specific products or events (Tapscott and Williams, 2010). Lenhart et al. (2010) in their recent study note that use of social networking sites is related to lessened use of other methods of communication; they also note the rapid growth in social networking's popularity in recent years (“73% of wired American teens now use social

⁵⁵ It is useful to distinguish between static (“brochure-ware”) and dynamic (“Web 2.0”) websites, although the problem of blurry boundaries can be seen here as well. Even the early websites contained some interactive elements, in the form of email addresses and hyperlinks (while they are ubiquitous now, consider how their lack can “inconvenience” a reader of a traditional book). For the purposes of this research, I differentiate static from dynamic websites based on whether they serve as a one-to-many brochure (with some limited interactivity), or a many-to-many collaborative platform.

networking websites, [...] 55% used social networking sites in November 2006. [...] 47% of online adults use social networking sites, up from 37% in November 2008”). This trend has been noticed by social scientists already, and there is a growing body of studies of social networking sites (primarily, Facebook) from a sociological perspective⁵⁶; the research from social movement scholars is less intensive but growing similarly (see Carty, 2010, for a recent study and overview).

Videocasts show a mediocre performance (they are the 19th most widely diffused ICT, the 19th most useful, the 15th most useless, and are ranked as 12th on the usefulness ratio). This is still a decent performance for a technology introduced only in the past few years, but its rise, while promising, is not as rapid as that of social networking. On the other hand, the performance of older podcasts is disappointing (24th highest usefulness – both total and ratio, 13th highest uselessness). The comparison between podcasts and videocasts makes it clear which the winner here is, with videocasts' usefulness rank of 1.2 putting them at the 12th most useful place, compared to podcasts' 0.5 at the 24th. Videocasts are also seen as quite useful in reaching out (15th most useful with that ICTs' highest usefulness ratio at 2.7), useful in recruitment and fund raising (15th most useful, again, but with usefulness ratio around 1.1 and 1.5, respectively) and, barely useful, in interacting with the non-governmental organizations (the 18th most useful). Podcasts, and to a lesser extend, videocasts, have been subject to some research from social scholars, although there is certainly a need for more research, particularly longitudinal trend studies. For some recent scholarly works on the subject, with a focus on the social movement perspective, see Sterne et al. (2008), King and Sanquist (2008), King (2008), Gaden (2009),

⁵⁶ The proceedings of the Online Communities and Social Computing conference series that begun in 2007 are a useful resource.

Kellner and Gooyong (2010).

The performance of blogs (the 18th highest usefulness total, 13th highest usefulness ratio, the 9th most uselessness) is rather disappointing as well; the ratio of 1.04 makes them only marginally useful. The diffusion of 26.79%, only half of the social networks score, is surprising as well. Their position as the 18th most empowering ICT (16th in ratio) is also unexpected considering all the hype about blogosphere witnessed over the past decades (see for example Barlow 2007). Blogs are somewhat more useful than podcasts, in particular for reaching out (where there are ranked as the 16th most useful ICT, with a usefulness ratio of 2.3) and in interacting with the non-governmental organizations (the 18th most useful, with a usefulness ratio of 2.1); nonetheless that still places them near the bottom of the ICTs usefulness for SMOs.

In 2006 Bruns and Jacobs (2006) compared blogs to the Usenet discussion groups⁵⁷ of the 90s, and discussed whether the similarity between those ICTs may indicate that blogs will decline, just as Usenet has (Segan 2008). While there is still optimism among some regarding the future of blogs (Morris 2010), recent studies (Lenhart et al. 2010) do show that levels of blogging have leveled off in the past few years (with a decline among the youth, and still growing popularity among the adults). I do not believe that this indicates the death or even decline of blogs; such claims (Arthur 2009) would require more dedicated studies. 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

⁵⁷ In this study, the Usenet (a public, topic-specific listerv) is included in the mass email ICT. Among the most popular Internet ICTs in late 80s and early 90s, now a term that rarely makes an appearance in media or print, it offers a useful reminder about the rapid and transitory nature of digital ICTs.

much more widely. Arthur (2009) and Lenhart et al. (2010) specifically point to the growing popularity of social networking and (Twitter) microblogging, both of which seem to offer the blogging functionality in a more efficient and user-friendly package. Unfortunately, the use (or non use) of blogs by social movements has not been a subject of significant longitudinal research, although the waters are not totally uncharted. For some recent overviews of some trends in blogosphere, see for example Pole 2009 or Ekdale et al. 2010.

Microblogging⁵⁸ is fairing poorly at first glance, at the 14th highest usefulness total (11%), 19th highest usefulness ratio (0.8) and the 9th most uselessness (11%); it is the 21st most empowering ICT (22nd in ratio). However, when we consider its recent introduction (as discussed earlier, it 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 those words are being written. Twitter is spreading rapidly – it was used by 11% of the Internet users in 2008, and 19% in 2009 (Fox et al. 2009). It has also gained prominence in early 2011 as media reported its use in the Middle East revolutions. Nonetheless it seems reasonable to say that as of early 2011, the majority of Internet users are still not Twitter users. Whether this will be the case a few years down the road, is, however, an open question. While microblogging is not the most common tool in the social activist repertoire, taking into account that in barely four years, tweeting has reached the popularity of much more established blogs, this is likely an ICT that bears close watch in the near future. For some early studies of microblogging from the social movement perspective, see for example Cheong and Lee (2009).⁵⁹

58 Microblogging – posting short updates, often through a mobile phone, and commenting on them, with Twitter being the most famous service in that sector, and “tweet” on its way to becoming an established verb.

59 For a collection of case studies in how Twitter is being used by activists, see “13 Ways Twitter Enables Activism” at <http://www.trendhunter.com/slideshow/twitter-activism>.

Despite the relative visibility of websites such as MoveOn.org⁶⁰ online petitions are only the 17th most diffused ICT and the 5th most widely diffused Internet-era ICTs after email, websites, mass emails and social networking. What is more, they are seen as much less useful than those (being the 7th most useless ICT and only the 17th most useful, coupled with the low usefulness ratio of 17th). They are the 17th most empowering ICT (18th in ratio). They are surpassed by fourteen other technologies (including, from the new ICTs, also videocasts), and are seen as the most useless of the Internet-era ICTs. In fact, they are slightly more useless than not (uselessness of 14.1%, usefulness of 13.8% and the usefulness ratio of just 0.97). The final surprise comes with regards to particulars of their use: they are seen as the most useful for interaction with the non-governmental organizations (usefulness ratio of 1.5), and for reaching out to the public (ratio of 1.7); they are seen as much less efficient with regards to the interaction with the government (ratio of 1.1). This suggests that online petitions are useful for the interaction with the supporters (likely, the ones with weak ties to the organizations), and public image, but not so much for actually achieving the end goals. An explanation of the inefficiency of the online petitions is that while it is easy to set up and use an online petition – hence their high diffusion – the same ease is their downfall, as they swamp recipients’ inboxes, creating an image of the “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. Recalling Tilly's (2009) definition of what a social movement is, and his WUNC principle, the question of the C – commitment – comes to mind; after all, if

60 For an overview of the history of online petitioning, see, for example, Mosca and Santucci (2009).

petitions fail to demonstrate commitment, and in fact suggest a lack of it – they could be seen as 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. For a discussion and a critique of online petitions, see for example Shulman (2009), and “clicktivism”, White (2010).

Wikis come off as relatively useless (with only the 23th highest usefulness, 22nd rank, and similar results for empowerment). This came as a surprise for me; I expected that a tool that was designed for the very purpose of collaboration, and which has been popularized in the recent years by Wikipedia, one of world's most popular websites, would be much more popular among the activists. This, however, was not the case. Wikis seem to have a rather specialized function – they are in fact useful for management (where they have the 21th highest usefulness ratio of 1.05), but are mostly useless for other purposes. It does appear, however, that the few respondents who do use wikis are rather enthusiastic about them (which also helps explain their 20th position in the total uselessness chart – where wikis are used, they are used quite efficiently). To a certain degree this parallels findings on who edits Wikipedia: only few percent of Internet users have ever contributed to the site, but those who do are highly motivated (Konieczny 2009).

To get a more in depth understanding on the use of wikis, the respondents were queried about their use of this technology. 66.7% of respondents agree learning a wiki is easy. 60.9% see it as a valuable skill. 39.1% wish more organizations were using wikis. 56.5% expect wikis to become more popular (only 4.35% disagree). 43.5% think more social movement organizations should be using wikis. 56.5% agree that there should be a wiki where all social movements would

share their knowledge and skills. For all of those questions the ratio of agreement to disagreement was 6:1 or higher; no question generated more than 9% of disagreement. Further, wikis rank well - 5th – on the lowest uselessness ranking. This suggests that while the diffusion of wikis is small, the respondents who did use them find them rather helpful. This is further supported by the positive attitude to wikis shown by non-users: respondents were asked about technology they do not use now but they may use in the future. 32% of respondents think wikis are an interesting technology that their organizations may use, as compared to 15% who think wikis are not interesting and doubt their organizations will adopt it. Overall, it seems that wikis have a niche in organizations, including social movements, albeit a rather specialized one (see Tapscott and Williams 2006 and 2010).

Both the instant messengers and the Internet forum rank in the middle of the diffusion, usefulness and empowerment charts. They are relatively old technologies, both dating to early 1990s. With higher entry barrier than most other Internet-era ICTs (such as installation of dedicated software for instant messengers) and less features (comparing Internet forums to social networks), they are significantly affected by the process described by Lenhart et al. (2010), as their functionality is increasingly incorporated into more popular, newer ICTs. Facebook, for example, has the functionality of both, offering its own instant messenger and forums.

The respondents were also given the opportunity to comment on the other tools used. Several respondents noted the use of VoIP⁶¹ tools (in particular, Skype), saying that they have replaced older phone and video conferencing technologies. Skype is a free software package that came to dominate Internet telephony, allowing one to make cheap or even free phone calls

61 Voice over Internet Protocol, or more simply, Internet telephony

worldwide. This raises a methodological issue, as the existence and increasing diffusion of such technologies is blurring the line between using phones and using the Internet. If respondents are using Skype to make more calls that they would not be able to afford before, are they using the phone ICT or Internet ICT? It is likely that some respondents who were discussing the usefulness of phones were in fact discussing the usefulness of both traditional phones AND Skype telephony. A similar problem can be encountered with other ICTs; for example social networking, as discussed previously, incorporates features of numerous other communication tools (blogs, instant messengers, Internet fora and others). Finally, smartphones, enabling their users' access to a myriad of ICTs, are blurring those boundaries *once again*. Imagine social activists with a smartphone – on which they can call, text, tweet, use social networks, send emails and surf the web, at the same time chatting, face to face, with a friend – in the midst of a demonstration. Asked about the use of ICTs at that time, how can they differentiate between them? Such methodological problems are likely to be intensified in the near future, as the multi-purpose mobile devices become more common and cheaper.

Moving away from the Internet-era ICTs, some of the most popular ICTs, prominent in the social movement repertoires can also be analyzed using the survey data. To begin with, it is noteworthy that while phones for many decades provided functionality similar to the Internet (relatively cheap and fast global communication), email and websites have superseded them. The new ICTs have displaced the phones to the 4th highest total usefulness (landline, followed by mobile in 5th), the 4th highest usefulness ratio (exactly the same rankings as with the total usefulness) and the 8th lowest uselessness (mobile, followed by landline at 12th). In the latter case, in addition to email, websites and traditional face the face communication, the phones have also been displaced by wikis, social networking and mass emails. Landline phones are also less

diffused than emails; and mobile phones are less diffused than websites; nonetheless the fourth most diffused place for mobiles is not a small achievement considering that their age is on par with those of the older Internet technologies such as email and websites. Texting is less valued than voice communication, although this does change for individual empowerment outside organizations, where it is ranked in the middle (with the mobile voice in the lead, and the landline voice at the far end).

The relative popularity and high diffusion of phones is hardly unexpected; their widespread use in social movements is in line with popular evidence based on numerous stories of smart crowds using mobile phones (Rheingold 2003). The analysis of the time and geography of such stories 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) 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 (or multi-purpose smartphones).⁶² Regional comparisons of the mobile phones’ aggregated usefulness⁶³ 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).⁶⁴

While phones do remain a popular technology, it is interesting to consider to what extent they and other traditional ICTs (most common, besides phones, is self-publishing and traditional mail) have been displaced by the new ICTs; in particular, by email. Data collected in my surveys

62 This also raises the question how do we classify the increasingly common smartphones, which allow users to bring the Internet – with its myriad tools – to the streets?

63 Aggregated usefulness means the averaged usefulness in all areas.

64 For an overview of how mobile phones are used for activism in Africa, see Ekine (2008).

do suggest that as widespread and useful as the phones may be, email has become more popular on both counts. Hopefully future studies with access to longitudinal data will provide the needed answers with regards to when the phones lost their dominating position in the world of ICTs.

Whereas phones are holding strong, this is not the case with a related technology – faxes. It may be shocking how far this technology, once heralded as revolutionary,⁶⁵ have fallen from grace. The Internet has displaced various technologies, yet none was hit as hard as the faxes. Consider this story: on 19 June, 1989 (the day of the Tiananmen Square protests), Newsweek (p.29) reported how “The students collected about 1,500 fax numbers in China from anyone who knew them. They posted the numbers on their computer bulletin boards and sent their messages without any idea who was at the other end [...] students, hotel waiters or officer workers retrieved the messages; then they were reproduced by hundreds in photocopies and put on public display.” Today, barely twenty years later, movement activists and their supporters see faxes (still widely diffused, at 66% and 7th position) as among the least useful and empowering technologies: they are the first in total uselessness, and third to last in the usefulness ratio (at 0.5), with 16th position in total usefulness. This is another useful illustration of how quickly ICTs evolve in the modern day, with just one generation being enough to redefine a technology from revolutionary to obsolete. Nonetheless, we should not give up on faxes just yet; when the government clamps down on newer ICTs, older ones can come back to grace – as demonstrated by media reports during 2011 Arab protests, which noted fax use to bypass government's Internet censorship (BBC 2011).

65 For a history of faxes, the concept of the “fax revolution” and a discussion of how they were once seen with “excitement”, see for example Coppersmith (2001).

Interestingly, demonstrations and public rallies⁶⁶ also rank relatively high in the uselessness; their usefulness is ranked only as the 12th highest – 17.4% – giving this ICT a 15th usefulness ratio of just 1.04, whereas they have the 5th highest uselessness at 16.7%. Demonstrations are not seen as good opportunities for the recruitment (13th most useful, 5th most useless), nor for the reaching out (12th most useful, 8th most useless). They are used by about 41% of surveyed organizations, netting them a 15th rank in the list of most widely used ICTs. An explanation can be offered here: demonstrations and rallies are associated with the popular image of social movements, but in fact, they are used only by a select few. Those few however gain the most media attention and thus become associated in the public mind with social movements in general (Walgrave and Manssens 2005; Kenneth and Caren 2010). Most movements do not engage in such activities, Earl et al. (2010) noted that less than 20% of SMO's websites they studied contained information on offline protest methods. Indeed, this becomes clearer when we look at the total usefulness of demonstration for different types of movements. The group concerned with the issues from the fields of culture, religion, Internet, environment or education are much less likely to employ demonstrations and similar actions in their repertoire of contention than movements concerned with the economy, health, intellectual property, politics, gender issues, human rights and peace. While respondents from the first group of movements consider demonstrations barely useful (their average rating of that ICT, on a scale of 1-5, is 3.09), for the second group, they are rated as more useful (at 3.79). What are the reasons for demonstrations being a favored tool in the repertoire of contention by some groups, and not by others, is a fertile ground for further studies.⁶⁷

66 I decided to include demonstrations and rallies in my studied ICTs, as they are commonly associated with social movement activity by general public, form one of the most commonly described parts of their repertoire of contention by scholars, and can be seen as a many-to-many extension of the traditional face-to-face communication.

67 Some insights are offered in a recent study by Caren, Ghoshal and Ribas (2011), who noted that the choice of demonstrations, rallies and such as a protest tactic may be generational, particularly related to "the civil rights,

One of the final issues to consider is the position of the face-to-face communication. A staple of human social interaction for most of our existence, my data indicates that its use in organizations is still very high, but that it has been displaced on all fronts by email. It can be seen as tied with the websites, ranked in the third place in total usefulness of 50.26% and second with ratio of 22.15, as well as with the second lowest uselessness at 2.27%. 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 not a sign of a major change occurring in our society and culture.

On the subject of one ICT displacing another, one can wonder about what is it that email and websites have displaced. Obviously, they have risen to their prominence from obscurity or even non-existence in just twenty years. If we were to obtain some data from that earlier period, what would have been the most useful and empowering ICTs? Would it be face-to-face communication? Or was that already displaced by phones, faxes or typewriters? Although the spread and importance of both the phones and face-to-face communication today surpasses those of the faxes, and even more obsolete typewriters, Goody (1987) notes the important distinction between oral and written forms of communication. We could hypothesize that today's dominance of emails and websites over phones and face-to-face communication in organizations represents a longer trend of written communication being more useful and empowering than oral ones in a workplace environment. Goody himself noted that it is the written ICTs that “underpin civilization, the culture of cities”. To be able to confirm this hypothesis, we would however need to obtain a data set that goes beyond recent changes.

anti-war, feminist, and other movements of the 1960s protest wave”.

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), most of the times we are seeing mixes of technologies being used. What is being used depends heavily on time, place and purpose. In recent protests in the Middle East, new, Internet-era ICTs played an important role among the key organizers, helping them to lay ground for the protests, and were instrumental in their communication with the outside world. At the same, due to both the government interference and impact of the digital divide (the majority of the population in that region still lacks Internet access), most activists and supporters were reached through more traditional media (Srinivasan 2011). One of the YouTube videos credited with sparking the process includes a call to “discuss it with others” who don't have Internet access.⁶⁸ Gene Sharp's book, a popular, practical manual for nonviolent tactics, has been distributed online, but also widely distributed in photocopies (Peterson 2009; Arrow 2011). This is hardly surprising and it fits well with our knowledge about repertoires of contention: they are usually composed of multiple elements, elements that are known to evolve, being added to, as well as becoming obsolete (Tilly 2009). Earl and Kimport (2011) note that while new media can create new effects, they are also often used in a more traditional way, “supersizing” traditional activities. There never was one dominant, “ultimate” social movement technology; nor should we expect it to emerge in the future. New ICTs contribute to the empowerment of their users not only because they are more efficient, but also because they add to the pool of options available to the actors. The existence of multiple modes of communication, steadily cheaper, useful in an increasing number of scenarios, and available to an increasingly literate population, is an essential part of the story of the social movement's successes.

68 The video, as of March 2010, was accessible at <http://www.youtube.com/watch?v=SgjIgMdsEuk>

DIFFUSION, USEFULNESS AND EMPOWERMENT BY AGE, GOALS AND OTHER FACTORS

Age of an organization does not seem to be significantly related to either a positive or negative opinion or use of newer ICTs. In other words, the hypothesis that the younger organizations, being more innovative, are thus are more likely to embrace the cheaper, newer ICTs (**Hypothesis 3**⁶⁹) cannot be confirmed.⁷⁰

The data on the members' age indicate that it may be a more important variable. The mean analysis reveals that organizations with membership bases in the range of 18-30 years find newer ICTs more useful than older ones, unlike the organizations with a membership base of 30-50 years, where there is no significant difference, and even more so in the organizations with membership bases over 50 years, where older ICTs are seen as more useful. There is a similar pattern with regards to empowerment. Once again, this is confirmed when the respondents are asked if the new ICTs give them more influence within the organization. The respondents from organizations with membership base in the range of 18-50 agree, whereas those from the organizations with a membership base over 50 disagree.

The above findings are confirmed by data on the respondents' ages. The respondents aged

69 Hypothesis 3 states: *there are correlations between the use of the new media and the age of the social movement organization.*

70 Please note that certain spurious relationships may obscure this conclusion. Results from the Innovative Survey do indicate, for example, that organizations focusing on Internet issues are more likely to use the Internet ICTs; and that those organizations are also younger. While it seems that it is their area of focus, not their age, which is of primary importance, further studies are needed before we can fully discount the age of the organization as a significant variable.

18-30 are the only group that finds the new ICTs more useful than the older technologies. They are the only group that finds that the new ICTs give them more influence in the organization than the older technologies and they are the only group that finds them more empowering than the older ICTs, both within the organization as well outside it. This allows us to confirm **Hypothesis 4**⁷¹.

With regards to size (**Hypothesis 5**)⁷², there seem to be no statistically significant relation between the size of the organization and the respondents finding ICTs more or less useful or empowering. Thus this hypothesis has to be rejected. However, lack of a simple relationship between size and the use of ICTs could also mean that we are seeing two contradictory trends nullifying one another. Larger organizations are usually better funded and thus have access to more resources, but organizational inertia puts them on the same level as smaller organizations, who can use their resources more efficiently and face fewer bureaucratic barriers when it comes to employing new ICTs. Such an outcome was speculated about by van de Donk et al. (2004), who noted that new ICTs may be most common in informal networks with significant geographical reach on one end, and large, influential and centralized SMOs on the other. The proposed more nuanced hypotheses present another opportunity for future, more detailed studies.

As for the social movement industry, most industries seem to value both old and new ICTs similarly. Notable exceptions include the intellectual property/free culture, the Internet and the culture industries, which find the new ICTs more useful. At the same time, movements

71 Hypothesis 4 states: *there are correlations between the use of the new media and the age of its members and supporters. The use of new media should be positively correlated with younger members and supporters; specifically, within organization, their younger participants will be more likely to be using the new media.*

72 Hypothesis 5 states: *there are correlations between the use of the new media and the size of the movement.*

focusing on politics value the old ICTs more highly than the new ones. This indicates that the **Hypothesis 6**⁷³ about different use of ICTs in different social movement industries can be confirmed, and combined with the findings on the relation between age and use of new ICTs, supporting **Hypothesis 8**.⁷⁴

World region plays only a slight role, as the developing countries seem to find the older ICTs slightly more useful. The empowerment ratio however shows no significant difference. This may be at first surprising, as the research on digital divide would suggest a stronger relationship here. However, the research was affected by the digital divide at the data collection level (only movements using email were contacted). It is possible that in the developing world, the use of older media among movements with no access to the Internet is still more significant, but confirming that would require a different approach than used in this study.

With regards to the use of ICTs by age groups, over 60% of respondents agree that *younger members of the organization are primary users and advocates of the Internet-based communication tools*. This confirms **Hypothesis 4** that the age-based digital divide is present in the SMOs, and also illustrates an area of potential conflict in an organization. As remarked by a respondent in one of my interviews, the generational gap in the use and even understanding of ICTs can create tensions within the movements, as younger activists use ICTs they find more efficient, and unintentionally but effectively lock out the older activists, unfamiliar with those new ICTs, from their communication network. A similar situation was described by others, for example by Lynch (2007) in his analysis of the use of blogs by the Egyptian activists. Further, as

73 Hypothesis 6 states: *there are correlations between the use of the new media and the area(s) (industries) it focuses on.*

74 Hypothesis 8 states: *that the youth are engaged in the issues they care about – not in the issues that the adults believe they should care about.*

suggested by Tapscott (1998), in organizations with more rigid hierarchy and control the younger members may be prevented from using the technologies they desire, leading to tensions and dissent.

Organizational hierarchy is still present and influential in social movements. In close to 75% of the organizations, the new ICTs are used equally by all. In the remaining 25%, however, there is a bias towards ICTs use by the top management instead of ordinary members, with a 2:1 ratio.

Respondents were asked if a given ICT is used by others to contact their organization. Email is again the most commonly used ICT, followed by phones, the use of websites, mail and mass emails, all of which achieved a weighted score of over 50%. Another two ICTs received a score of over 25%: faxes and social networking. This is the first time that faxes were seen as having a purpose. They may not be used much by SMOs themselves anymore but they can still be used by others to reach them. Nonetheless, organizations with an online presence consistently find that they receive the highest number of inquiries through email, although traditional methods (phones, mail) still hold strong.

FUTURE GROWTH

In one of the final questions, the respondents were asked whether any of the newer, Internet-era ICTs they are not using are interesting enough to be potentially adopted in the future.⁷⁵ The leading position is taken by videocasts, followed by social networking, podcasts,

⁷⁵ Email was excluded from this question, as it was assumed all respondents are using it.

wikis and social tagging. The two least interesting ICTs are websites and mass emails. A ratio of interest and disinterest was also calculated, with the same method as in the case of usefulness and uselessness. Here, the top five ICTs are websites, social networking, videocasts, internet fora, and podcasts. The two ICTs with the lowest ratio (and also leading in the number of respondents seeing them as uninteresting) were online petitions and instant messengers. This indicates that we can expect further diffusion of the new ICTs, in particular, social networking and videocasts, as sites such as Facebook and YouTube are becoming commonly known, just like Google a decade earlier. Websites are becoming even more ubiquitous, as the late adopters catch up to them.

CONCLUSIONS

In this study I explored and analyzed the use of all ICTs in social movements, providing comparative, quantitative data on the demographics of the social movements and their activists worldwide, and on the use (and non-use) of the ICTs.

Social movements, a cornerstone of our civil society, have always been quick to seize the new ICTs. People seeking change embrace more effective ways of communication, the receivers are introduced to the medium, embracing it as well. In the end, the media first embraced by the spearheading revolutionaries become commonplace. Social revolutions do not require information revolutions, but are often facilitated by them. Development of those technologies does not guarantee a change – but when it falls on fertile soil, effects can be rapid and fundamental – in other words, revolutionary.

Spreading literacy commonly translates to the erosion of traditional paradigms. ICTs were always available to the rich and the powerful, but their diminishing costs and growing literacy makes them increasingly available to everyone. Those trends empower the underprivileged, non-state social actors, from individuals to entire movements, giving them more rights, more freedoms, and more ways to influence social change. As information and communication technologies, in a symbiotic relationship with growing literacy, become widespread, they encourage rationality and critical thinking among a wider population, empowering previously underprivileged individuals and entire societies. I believe that my findings provide empirical evidence that this trend is alive and well. They should facilitate the construction of a frame of

reference, since the collected information on social movements' demographics and their use of ICTs aid comparative research.

Modern organizations, including the new, emerging cyberspace-centered social movements, such as the Free and Open Source Software Movement, the Free Culture Movement and the Open Access Movement, are increasingly reliant on ICTs and staffed by members of the Net Generation, who cannot imagine the world without empowering tools like Twitter, YouTube or Facebook. My data provide a unique snapshot of the social movements in this state of transition, as the new ICTs are spreading among the movements.

The results of my study **confirm that the international movements are located mostly in the developed countries**. Further, **if an organization is based in the developed world, it is significantly more likely to have an international reach and scope than if it was to be based in the developing world; and if such organization has an English-speaking website, it is much more likely to be ranked highly in Google's English-search query**. At the same time the data suggests that **international movements are outweighed by local, regional and national movements and that those in the developing countries may outweigh those in the developed regions**.

Older organizations dominate the movement scene, confirming the “liability of newness” theory. 17% of the international social movement organizations fail every 6 years (about 3% per year), but the failure rates are higher among younger movements than among the older, established ones. At the same time, the picture may vary between countries, with a much younger social movement scene in countries that have more recently lifted restrictions on their creation

(such as the countries in the former Soviet Bloc).

Goal-wise, it appears that there are certain themes which are universally popular (or the reverse, universally unpopular). Human rights are among of the most popular issues, and education, environment, community and social service issues trail them closely, all recognized as goals of core importance for over 30% of movements worldwide. Issues of the Internet, intellectual property, religion and politics give the impression of being a minor consideration. However, since between 3% to 8% of the modern international movements are concerned with issues that were not noticeable on their agendas or simply did not exist before the rise of the Internet (like the issues of the digital divide, free culture and network neutrality), this statement could be seen in another light. In barely two decades, Internet-related issues have risen to the levels of religion, culture and politics, carving a small but noticeable niche in the social movement sector; it is an issue of core importance for 30% to 40% of organizations from the Innovative Survey. Even if they were not to progress beyond it, the claim of “minor consideration” should be taken with caution.

My data support the conclusion that on average, members of social movement organization are between 30 and 50 years old. There are however notable exceptions, in particular a skew away from “over 50” and towards the “under 30” group, in countries with a relatively recent history of SMO activity (such as Poland), or in the fields dominated by younger organizations and newer goals (Internet and free culture) which tend to have a much younger membership.

For the SMOs in my dataset, the average active membership size of 1,563 is eclipsed by the average number of inactive membership (3,436), and in turn overshadowed by the average number of supporters (4,800). Certainly, the SMOs' use of paid staff members and professionalization is a current and ongoing phenomenon. However, the paid staff professionals, even if boosted by groups like interns or “career volunteers”, number significantly fewer than unpaid supporters and volunteers. That holds true even for the large, international organizations that have been operating for several decades. Thus the proportion and number of unpaid volunteers confirm the hypothesis about increasingly blurry boundaries between professional members and unpaid volunteers in the movements.

With regards to ICTs diffusion, usefulness and empowerment, **the success stories of email and website draw attention. In just two decades, those technologies have climbed to the top, bypassing old favorites (such as phones), and even face to face communication.** Throughout my surveys email in particular has been consistently recognized as the most diffused, most useful and most empowering tool. As some **old stars are fading (faxes), and others may follow soon (blogs, podcasts), newcomers are quickly drawing the public's and the activists' attention (social networks, Twitter, microblogging).**

Different ICTs are used for different purposes. **SMOs use new media when talking to each other, members and supporters, but not when talking with the governments,** which prefer more traditional means of communication. Empirical evidence from my surveys reveals **that social actors, such as social movements and their activists, value their communication tools for giving them significant freedom and power.** Over 80% of respondents see the new, **Internet-era ICTs as very important and a significant portion (10%) of them see them as**

vital for their function. 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 Internet-related issues (Free and Open Software, free culture, digital divide and network neutrality). These findings lend support to scholars who note **that the new media facilitate youth engagement in contentious politics, but that the contentious political issues in question are ones the youth care about** – not the issues that the adults (or older, established movements) believe they should care about.

While my findings contribute to our understanding of the evolving nature of social movements and the use of ICTs, there is still much scope for improvement and further research. It is my hope that the idea of the first social movement census (with a focus on ICT use) will, in the future, be built upon by a team of dedicated scholars, leading to an ongoing series of longitudinal data sets. All great journeys begin with a single step, and I hope this will be the first of many to come.

Appendix 1: Tables

Table 2: Global reach or the organizations.

Dominant category for each survey bolded.

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%

N=30 (Pittsburgh), 158 (Int.), 143 (Polish) and 23 (Innovative)

Table 3: Surveyed organization headquarter location.

Region	Respondents, International Survey	Respondents, Innovative Survey
English speaking developed countries ⁷⁶	42.6%	66.6%
Non-English speaking developed countries ⁷⁷	41.9%	20.0%
Eastern Europe	7.0%	0.0%
Middle East	0.0%	0.0%
Central and Latin America and Carribean	3.8%	0.0%
Asia	9.7%	8.6%
Africa	7.0%	8.6%

N=175 (Int.) and 30 (Innov.)

⁷⁶ Those included: Australia, Canada, Ireland, New Zealand, United Kingdom and United States

⁷⁷ Those included: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Hong Kong, Iceland, Italy, Luxemburg, Netherlands, Norway, Spain, Sweden and Switzerland.

Table 4: Age of surveyed organizations.

Dominant category for each survey bolded.

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%

N=30 (Pitt.), 159 (Int.), 145 (Pol.), 31 (Innov.)

Table 5: Relations between reach, headquarter location, age and membership.

Reach	Headquarters in a developed country	Organization is over 10 years old	Average membership
Local	27.0%	33.0%	163
Regional	23.0%	48.0%	254
National	23.0%	49.0%	808
International	83.0%	73.0%	7074
Totals	45.0%	57.4%	1563

Table 6: Relations between headquarter location, reach, age and membership.

Headquarters in	International reach	Organization is over 10 years old	Average membership
Developed country	71.00%	74.00%	30000
Developing country	11.00%	36.00%	130

Table 7: Regression models. ⁷⁸

Independent variables	Model 1 Predicting organizational reach		Model 2 Predicting headquarters location	
	Std. co.	Sig.	Std. co.	Sig.
Average membership	0.21	0.000	0.27	0.000
Organization's age	-	-	0.27	0.000
Organization's reach	-	-	0.14	0.004
Headquarters location	-0.18	0.001	-	-
Adjusted R squared	0.096		0.233	

⁷⁸ Organization's reach was coded as 1 for local to 4 at international; headquarters location was coded as 1 for developed and 2 for developing. Membership was coded as 1 for under 100 to 4 for over 50,000 and age was coded as 1 for under 5 years old to 4 for over 20 years old

Table 8: Top four issues of concern to an organization

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

N=31 (Pitt), 54 (Int.), 142 (Pol.), 30 (Innov.)

Table 9: Average reported age of membership and average reported age of the respondents.

Dominant category for each survey bolded.

Survey	Membership age				Respondent age		
	<30	31-50	>50	equal	<30	31-50	>50
Pittsburgh	14.3%	42.9%	10.7%	32.2%	31.0%	41.4%	27.6%
International	16.6%	41.6%	17.6%	23.3%	22.5%	42.3%	35.0%
Polish	26.4%	43.6%	5.7%	24.3%	28.3%	47.1%	24.6%
Innovative	35.7%	46.4%	7.1%	10.7%	56.7%	30.0%	13.3%
Totals	21.8%	43.1%	11.2%	23.9%	29.7%	42.3%	28.0%

Table 10: Membership of the organization: descriptive statistics (International Survey)

Mean	Mode	Median	Range, lower	Range, upper
5789	10	80	1	500000
N=144				

Table 11: Size. Activity of non-members (supporters). All Surveys.

	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	66.6%	65.5%	79.6%	73.3%	71.6%
organizational activities					
Supporters recruit others	42.4%	19.5%	25.0%	46.6%	25.7%
N=144					

Table 12: Size of membership broken down by regions (International Survey)

	Active membership	Inactive membership	Supporters
All regions	5789	17896	3838
Developed	8893	17641	2582
Developing	160	19330	6508
			N=82

Table 13: Size of membership broken down by organization age (International Survey).

Where there were no significant differences, ranges were combined.

	Active membership	Inactive membership	Supporters
1-5 years old	55	2918	2806
5-10 years old	625		
10-20 years old	1755	21284	4128
Over 20 years old	10958		
			N=159

Table 14: Size of membership broken down by organization age (all surveys).

Where there were no significant differences, ranges were combined.

	Active membership	Inactive membership	Supporters
1-5 years old	322	1474	719
5-10 years old	515	1977	
10-20 years old	2405	4484	3187
Over 20 years old	2493	11965	
			N=384

Table 15: Size of membership broken down by organization reach (International Survey).

Where there were no significant differences, ranges were combined.

	Active membership	Inactive membership	Supporters
Local	620	146	500
Regional		2220	600
National		3000	4000
International	4900	22500	5150
			N=159

Table 16: Size of membership broken down by organization reach (all surveys)

	Active membership	Inactive membership	Supporters
Local	163	52	249
Regional	254	648	252
National	806	1141	2526
International	7074	17309	8217
			N=384

Table 17: Internet and free culture/intellectual property issues as goals of core importance (All surveys)

Survey	Internet	Intellectual property/free culture
Pittsburgh	0.0% (0)	3.3% (1)
International	3.4% (6)	5.7% (10)
Polish	4.1% (6)	4.7% (7)
Innovative	33.3% (10)	43.3% (13)
All	5.9% (23)	7.8% (30)
		N=384

Table 18: What ICTs are used in your organization? Five most widely used and least widely used ICTs.

(All surveys)

ICT	Respondents (%)
5 most widely used ICTs	
Email	89.88%
Phones (landlines)	86.31%
Website	83.33%
Phones (mobile - voice)	82.14%
Mail (traditional)	79.17%
5 least widely used ICTs	
Blogs	26.79%
Microblogging (Twitter)	23.21%
Wikis	18.45%
Podcasts	17.26%
Social tagging	13.69%
N=168	

Table 19: For how many years has this technology been used in the surveyed organizations? Summary table of most common (mode) responses. (All surveys)

	3 or less	3 to 10	Over 10
ICTs	Microblogging (Twitter) Podcasts Videocasts Wikis Social networking Tagging	Phones (mobile) Mass emails Online petitions Internet forums/BBS Instant messengers Blogs	Phones (landlines) Faxes Self-publishing Newspapers and magazines Radio TV Demonstrations Mail Cameras Email Website
N=168			

Table 20: Are the following ICTs used for management (organizing regular, everyday activities of the organization, internal communication)? Most common (mode) responses. (All surveys)

	STRONGLY DISAGREE	DISAGREE	NO OPINION	AGREE	STRONGLY AGREE
ICTs	Radio TV	Newspapers or magazines Demonstrations Online petitions	Blogs Microblogging (Twitter) Podcasts Videocasts Wikis Social tagging	Phones (mobile - texting) Faxes Self-publishing Mail Cameras Internet forums Instant messaging Social networking	Email Face to face communication Phones (landlines) Phones (mobile – voice) Website Mass emails
					N=191

Table 21: Are the following ICTs used for recruitment? Most common (mode) responses. (All surveys)

	STRONGLY DISAGREE	DISAGREE	NO OPINION	AGREE	STRONGLY AGREE
ICTs	Demonstrations	Faxes Phones (mobile – texting)	Online petitions Blogs Microblogging (Twitter) Podcasts Wikis Social tagging Instant messaging	Phones (landlines) Phones (mobile – voice) Self-publishing Newspapers or magazines Radio TV Mail Cameras Mass emails Internet forums Videocasts Social networking	Email Website Face to face communication
					N=191

Table 22: Are the following ICTs used for fund raising? Most common (mode) responses. (All surveys)

	STRONGLY DISAGREE	DISAGREE	NO OPINION	AGREE	STRONGLY AGREE
ICTs	Faxes	Phones (mobile – texting)	Demonstrations Blogs Microblogging (Twitter) Internet forums Online petitions Instant messengers Podcasts Wikis Social tagging	Face to face communication Phones (landlines) Phones (mobile – voice) Self-publishing Newspapers or magazines Radio TV Mail Cameras Mass emails Videocasts Social networking	Email Website Face to face communication
					N=191

Table 23: Are the following ICTs used for reaching out? Most common (mode) responses, (All surveys)

	STRONGLY DISAGREE	DISAGREE	NO OPINION	AGREE	STRONGLY AGREE
ICTs		Phones (mobile – texting)	Podcasts Wikis Instant messengers Social tagging	Face to face communication Phones (land.) Phones (mobile – voice) Faxes Newspapers or magazines Radio Mail Cameras Social networking Internet forums Microblogging Online petitions Videocasts TV Demonstrations	Email Website Mass emails Self-publishing Blogs
					N=191

Table 24: Are the following ICTs used for interaction with the governmental agencies? Most common (mode) responses. (All surveys)

	STRONGLY DISAGREE	DISAGREE	NO OPINION	AGREE	STRONGLY AGREE
ICTs	Radio	Phones (mobile – texting) TV Social networking	Blogs Microblogging (Twitter) Internet forums Podcasts Videocasts Wikis Instant messengers Social tagging	Phones (land.) Faxes Phones (mobile – voice) Newspapers or magazines Self-publishing Demonstrations Mail Mass emails Cameras Online petitions	Email Website Internet forums Face to face communication
					N=191

Table 25: Are the following ICTs used for interaction with the non-governmental organizations? Most common (mode) responses. (All surveys)

	STRONGLY DISAGREE	DISAGREE	NO OPINION	AGREE	STRONGLY AGREE
ICTs	Faxes	Radio TV	Newspapers or magazines Podcasts Videocasts Wikis Instant messengers Social tagging	Phones (land.) Phones (mobile – voice) Phones (mobile – texting) Self-publishing Demonstrations Mail Blogs Internet forums Microblogging Internet forums Cameras Online petitions Social networking	Email Mass emails Website Face to face communication
					N=191

Table 26: Average perceptions of uselessness and usefulness of ICTs (percentage of respondents who find a given ICT useless or useful). Three most popular responses in each category (All surveys)

ICTs	Average uselessness	Average usefulness	Ratio (usefulness / uselessness)
Highest uselessness			
Faxes	27.36%	14.70%	0.54
Phones (mobile - texting)	24.08%	15.92%	0.66
Radio	18.85%	14.88%	0.79
Highest usefulness			
Email	1.40%	62.35%	44.66
Website	2.92%	51.48%	17.61
Face to face communication in person	2.27%	50.26%	22.15
Highest ratio			
Email	1.40%	62.35%	44.66
Face to face communication in person	2.27%	50.26%	22.15
Website	2.27%	50.26%	22.15
Lowest ratio			
Social tagging (Digg, Technocrati, etc.)	10.38%	3.88%	0.37
Podcasts	10.73%	5.37%	0.5
Faxes	27.36%	14.70%	0.54

N=58

Table 27: Are the following ICTs giving your organization more influence? Most common (mode) responses. Summary table. (All surveys)

	STRONGLY DISAGREE	DISAGREE	NO OPINION	AGREE	STRONGLY AGREE
ICTs			Podcasts Social tagging Internet forums	Faxes Phones (mobile – texting) Radio TV Mail Cameras Blogs Microblogging (Twitter) Online petitions Videocasts Wikis Instant messaging	Phones (landlines) Phones (mobile – voice) Self-publishing Newspapers or magazines Demonstrations Email Mass emails Website Social networking
					N=168

Table 28: Is the following ICT giving you more of a say within the organization? Most common (mode) responses. Summary table. (All surveys)

	STRONGLY DISAGREE	DISAGREE	NO OPINION	AGREE	STRONGLY AGREE
ICTs			Faxes Podcasts Internet forums Radio TV Wikis Social tagging	Phones (land.) Phones (mobile – voice) Phones (mobile – texting) Self-publishing Newspapers Demonstrations Mail Cameras Blogs Microblogging Online petitions Videocasts Instant mess. Social network.	Email Mass emails Website
					N=150

Table 29: Is the following ICT giving you more of a say outside the organization? Most common (mode) responses. Summary table.(All surveys)

	STRONGLY DISAGREE	DISAGREE	NO OPINION	AGREE	STRONGLY AGREE
ICTs			Faxes ts Internet forums Radio TV Blogs Podcas Wikis Social tagging Instant messengers	Phones (land. Phones (mobile – voice) Phones (mobile – texting) Self-publishing Newspapers or magazines Demonstrations Mail Cameras Microblogging Online petitions Videocasts Social networking	Email Mass emails Website
					N=150

Table 30: ICTs ranked. (All surveys).

	Diff. (%)	Diff. (rank)	U-ratio	U-ratio (rank)	Useful.	Useful. (rank)	Usel.	Usel. (rank)	Emp.	Emp. (rank)	E-ratio	E-ratio (rank)
Blogs	26.8%	20	1.05	13	12.6%	18	12.0%	9	11.1%	18	5.41	16
Camer.	50.0%	12	1.67	10	21.6%	11	13.0%	8	20.7%	12	6.79	9
Demonst ration.	40.5%	15	1.04	15	17.4%	12	16.7%	5	21.1%	11	7.01	8
Email	100.0%	1	44.66	1	62.4%	1	1.4%	25	63.2%	1	43.31	1
Face to face	0.0%	N/A	22.15	2	50.3%	3	2.3%	24	0.0%	N/A	N/A	N/A
Faxes	66.1%	7	0.54	23	14.7%	16	27.4%	1	17.2%	14	1.33	24
Instant mess.	32.7%	16	0.98	16	11.0%	21	11.3%	11	12.8%	16	4.37	20
Internet forums	29.8%	18	1.05	14	12.0%	20	11.5%	10	10.7%	19	5.57	14
Mail	79.2%	5	2.75	8	28.6%	8	10.4%	16	34.5%	5	6.65	11
Mass emails	60.7%	9	3	7	30.1%	7	10.0%	19	29.3%	7	8.25	7
Micro blogging	23.2%	21	0.81	19	9.0%	22	11.1%	12	8.3%	21	2.93	22
Newspap ers	57.1%	10	1.44	11	22.0%	10	15.3%	6	26.5%	9	10.36	5
Online pet.	30.4%	17	0.98	17	13.8%	17	14.2%	7	12.2%	17	4.66	18
Phones (l.)	86.3%	2	3.69	4	39.3%	4	10.7%	14	42.4%	4	6.67	10
Phones (m-text)	67.9%	6	0.66	21	15.9%	13	24.1%	2	29.0%	8	4.88	17
Phones (m-v.)	82.1%	4	3.36	6	34.6%	5	10.3%	18	48.3%	3	17.36	3
Podcast	17.3%	23	0.5	24	5.4%	24	10.7%	13	4.8%	23	2.33	23
Radio	45.2%	13	0.79	20	14.9%	15	18.9%	3	17.8%	13	6.07	12
Self- publish.	63.7%	8	3.4	5	31.5%	6	9.3%	22	29.4%	6	13.38	4
Social net.	52.4%	11	2.23	9	22.2%	9	10.0%	20	25.8%	10	9.54	6
Social tag.	13.7%	24	0.37	25	3.9%	25	10.4%	17	4.7%	24	3.36	21
TV	42.3%	14	0.82	18	15.0%	14	18.4%	4	16.5%	15	5.82	13
Videocas ts	27.4%	19	1.18	12	12.3%	19	10.5%	15	10.6%	20	5.48	15
Website	83.3%	3	17.61	3	51.5%	2	2.9%	23	50.8%	2	42.81	2

Table 30: ICTs ranked. (All surveys). (cont.)

Wikis	18.5%	22	6.6	22	0.0%	23	0.0%	21	7.8%	22	4.48	19
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N=168

Legend for Table 30:

- 1) Diff (%): diffusion / use;
- 2) Diff (rank): diffusion ranking;
- 3) U-ratio: usefulness ratio,
- 4) U-ratio (rank): usefulness ratio rank,
- 5) Useful. – usefulness, total;
- 6) Useful. (rank) – usefulness ranking,
- 7) Usel. – uselessness (total)
- 8) Usel. (rank) – uselessness ranking;
- 9) Emp. – empowerment (total);
- 10) Emp. (rank) – empowerment ranking;
- 11) E-ratio – empowerment ratio;
- 12) E-ratio (rank) – empowerment ratio ranking.

All rankings ranked from most (1) to least (25) useful/useless/empowering.

Table 31: The use of wikis

The largest number of responses per row is shaded. “No opinion” responses were discarded. (All surveys)

USE	DISAGREE	AGREE
I am quite familiar with wikis.	20.90%	42.54%
Learning how to use a wiki was easy.	6.72%	39.55%
Editing wikis is a valuable skill.	4.48%	41.79%
I wish more members of my organization would use a wiki.	4.48%	32.09%
Wikis will become more popular.	5.22%	35.07%
Other social movements should use more wikis.	3.73%	33.58%
There should be a wiki where all social movements would share their knowledge and skills.	8.96%	35.07%

N=67

Table 32: Agreement or disagreement with the statement: “Younger members of the organization are primary users and advocates of the Internet-based communication tools.” (All surveys)

OPINION	Respondents (%)	Respondents (N)
STRONGLY DISAGREE	8.50%	16
DISAGREE	20.20%	38
NEITHER	11.20%	21
AGREE	36.70%	69
STRONGLY AGREE	23.40%	44
		N=188

Table 33: Who is using the Internet-based ICTs? (All surveys)

OPINION	Respondents (%)	Respondents (N)
top management	15.10%	28
ordinary members	7.50%	14
supporters (not members)	2.70%	5
equally used by all	74.70%	139
		N=186

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