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Social cybermovements: a review of the concept and theoretical framework

Abstract

The empirical works that explore the ways in which social movements and democracy are changing in the Information and Communications Technology (ICT) age have increased in number, especially since 2011 (with the emergence of global indignation movements). The growing mass of studies devoted to this subject has begun to define a new field of research. This area requires specific categories and an organised theoretical framework to distinguish the wide scope of collective action that forms the basis of this field. This paper aims to advance in this direction, offering an analysis of theoretical framework for the study of "social cybermovements". Firstly, we will explore some of the main causes that have got involved in the birth of this field of study in the digital era. Secondly, we will differentiate the theoretical framework of the social cybermovements and we will stress that it is important to keep in mind the particular characteristics in the diverse cases of collective action. We will review the different studies that have tackled the collective action in the Internet age. We will observe that there are several terms of collective actions which do not refer exactly to the concept of social movement. Thirdly, we will analyse the emerging theoretical framework on social cybermovements. We will study some of the principal works of the literature in the field of the social movements in the networks society.

Keywords
Social movements, Internet, web, protests, cyberactivism, social change, communication

1. Introduction

The studies that have been conducted into the transformations in social movements of the Information and Communications Technologies (ICTs) age have shown a notable increase as of the second decade of the 21st century. This trend is the result of three primary factors:

Firstly, the evolution of the new communication environment in the Internet and the Social Web era. The emergence of studies that have reflected on the ICTs and the collective action is especially developed in

the 1990s, alongside the Internet and World Wide Web boom. This field of research increased to a greater extent during the first decade of 2000, when the research community became aware of the arrival of a new communication model in the 21st century (Cardoso 2008; Castells 2001, 2009; Chadwick & Dennis, 2016). For the first time, citizens appropriated the communication tools of the Social Web (Marí, 2004), social media emerged, and new possibilities for the transformation of social movements appeared.

Secondly, the late consolidation of the Social Movements Studies, during the 1990s. The main theories of social movements were developed between the late '60s and the late '80s. Throughout the 1990s, researchers in the field aimed to achieve convergence between different approaches that had been carried out up until that point. The studies conducted during this period discussed the American approach and the European perspective. The first one refers to the resource mobilisation theory (McCarthy & Zald, 1973 and 1977), the political process theory (Tilly, 1978; McAdam, 1982; Tarrow, 1983) and the framing theory (Gamson et al, 1982; Snow et al, 1986). The second one is related to the "New Social Movements" theory (NSM) and the identity paradigm (Touraine, 1969, 1979; Inglehart, 1977; Melucci, 1980, 1989; Offe, 1988). Significant academic efforts were made in this decade, in order to establish an integrated theoretical framework in Social Movements Studies. This comparative approach is reflected in several works: *Comparative Perspectives on Social Movements: Political Opportunities, Mobilizing Structures and Cultural Framings* (coordinated by Doug McAdam, John McCarthy & Mayer Zald in 1996); *Sociologie des mouvements sociaux* (Érik Neveu, 1996); or *Social Movements: An Introduction* (della Porta & Diani, 1999). Thus, the 2000s was, on the one hand, an outstanding decade to consolidate the field of social movements; and, on the other hand, a relevant period in the proliferation of several works focused on social movements in the digital age.

The third primary factor is the rise of the collective phenomena and social movements that use ICTs, especially since the first and second decade of the 2000s. In the '60s, the outbreak of May 1968 events and the birth of NSM involved a boost for the development of social movements theoretical framework. There were new social transformations to be explained. Similarly, the protest cycles that have emerged in the 21st century have encouraged the works related to the possible changes which have taken place in the collective action of the Internet and Social Web stage. Examples of this are the Altermundist movement (since November 1999); the development of collective and sporadic phenomena which intent affect the social change (as the "smart mobs" (Rheingold, 2002) in Philippines 2001, Korea 2002 or the 13-M events in Madrid 2004); the movements that fight for civic rights on the Internet (as the *Anonymous* initiatives in support of *Wikileaks* since December 2010); the Arab Spring (since December 2010); or the global indignation movements (since May 2011).

These factors have promoted the formation of a new field of study: social movements in the Internet and Social Web era. This work aims to contribute to the theoretical research in this area with a review of these first studies and with the clarification of the main theoretical concepts. Thus, a proposal to study the "social cybermovement" concept is made, in order to delimit a specific theoretical framework for this type of collective phenomena.

2. Differentiating social cybermovements in the complex field of collective action

In 1980 Alberto Melucci identified the need of distinguish diverse phenomena in the scope of "collective action". At the dawn of this new theoretical field it is necessary to emphasise the particular features of the different terms, since they are not always related to the social movements' characteristics. Therefore, it is important to delimit the concept of "social cybermovements": social movements that use communication opportunities of the Internet

and Social Web era to promote and organise their collective actions, which can be developed online and/or offline (Ortiz, 2010, 2014, 2015).

2.1. *The definition of social movement*

Reflecting on the concept of "social movement" is vital in order to narrow down the phenomenon of social movement in the new communication environment of the 21st century. The first works that analysed the theoretical framework of social movements focused on the NSM characteristics, following the May 1968 protests (Touraine, 1979; Melucci, 1980).[1] Researchers observed the arrival of new citizen protests which fought against the consequences of Modernity. The two World Wars, the Cold War, growing environmental disasters, nuclear threat, and social and gender inequalities contributed to the rise of the Civil Rights movement, the Student movement, the Environmental movement, the Peace movement, the Feminist movement, and a range of other resistances.

Existing studies have emphasised that these collectives appeared in a period when nation-states began to lose their power and in a global political context increasingly dominated by supranational entities (Touraine, 1969; Castells, 2003). The dimensions of the conflicts reached the "transnational" scale (Tarrow, 1994), while stressing the importance of local actions. Works observed their horizontal structure, their rejection of hierarchies and leaders, and the informal networks in their organisation. These phenomena were conceptualised as movements built around a strong collective identity, which was based on culture values to promote their actions, rather than in political ideologies. The studies showed that these collectives did not intend to reach the political power, but the political and social change from the cultural transformation in the society. Finally, the research underlined their repertoires of collective action, which defended non-violent tactics and creative and innovative strategies to impact on media agenda (Tarrow, 1994; Riechmann & Fernández Buey, 1994; Laraña, 1999; Rucht, 2004; Ibarra, 2005; della Porta & Diani, 2011).

The analysis related to the characteristics in NSM, which were made since the late '60s, influenced the several approaches to conceptualise the term "social movement". Based on different and outstanding definitions of the social movement concept (Turner & Killian, 1972; Melucci 1989, 1980; Touraine, 1965; Riechmann & Fernández Buey, 1994; Laraña & Gusfield, 1994; Tarrow 1994; McAdam, McCarthy & Zald 1996; Laraña, 1999; Javaloy, Rodríguez & Espelt, 2001; McAdam, Tarrow & Tilly, 2001; Snow, Soule & Kriesi, 2004; Ibarra, 2005; Castells, 2009, 2003; della Porta & Diani, 2011; Diani, 2015; Roose & Dietz, 2016), a series of common features in this type of phenomena are proposed.

In the first place, the concept of "social movement" implies the existence of (1) "collective action", that is, a group of people that acts in the social environment. As Melucci emphasises there are two coexisting elements in social movements: the collective character and the social practice –the action– which is exercised by the different individuals (1995). This collective action is developed in order to influence some aspects that affect society, (2) the social change. This is the main feature which has been highlighted by several attempts to conceptualise the phenomenon. Ralph Turner and Lewis Killian (1957) define social movements as "collectivity acting [...] to promote or resist social change [...]" (1972: 2). Jorge Riechmann and Francisco Fernández Buey underline: "Collective agent that takes part in the process of social transformation" (1994: 47). Enrique Laraña pointed out: "Form of collective action that appeals to the solidarity to block or promote social changes [...]" (1999: 127).

In this way, the studies have noted in several definitions that social movements intend to achieve (3) objectives of a public character. They therefore refer to aims that not only

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[1] Studies identified the birth of social movements in the mid-19th century, with the Labor movement. In the 60s works described a number of features in NSM, different from the "old social movements" in the Modernity.

concern movement members, but also the wider society. Thus, Pedro Ibarra explains that social movements attempt to implement objectives which "express collective wellfare, or equality, or freedom, or justice, or emancipation, or, in general, human dignity" (2005: 80). The development of these public objectives is caused by the existence of (4) a conflict. Alain Touraine proposes in his definition that these collective actors are organised against "an adversary which is a clearly circumscribed social group" (1969: 184). Sidney Tarrow also emphasised this feature, describing them as "collective challenges" (1997: 21).

In fifth place, a very significant characteristic in social movements is (5) collective identity. Touraine suggests that, in addition to opposition and totality principles (the conflict and the movement' aims), a social movement "cannot exist without an identity principle to base their demands" (1969: 181). Social movement members must define the meaning of the action, the allies and the adversaries, to be able to recognise one another and to contribute to the formation of a "we", as Melucci affirmed (1989, 1995).

Furthermore, another prominent feature refers to (6) the intentional action. This is an aspect discussed by the theorists in the '60s. They made a concerted effort to differentiate social movements from other examples of collective behavior –due to classical studies had described the irrational character, impulsiveness, etc. (della Porta & Diani, 2011). Manuel Castells stresses this matter in his definition, in 1997: "Collective and conscious actions with an impact [...] on the transformation of the social values and institutions" (1997: 25).

In seventh place, some works have highlighted the importance of (7) continuity over time, in order to develop the actions in social movements. Turner and Killian reflect on this aspect in their definition: "Collectivity acting with some continuity [...]" (1972: 2). Laraña underlined that "social movements are characterised by their continuity over time [...] [which] is the result of their connection with the processes of social change" (1999: 112).

Research has also revealed (8) the organisational structure in social movements, which generally takes the form of a network. A network implies a level of flexibility in relations among the members of the group, suggesting a horizontal structure in the decision making process. In this way, Mario Diani showed this feature in his conceptualisation of social movement: "Networks of informal interactions between a plurality of individuals, groups and/or organisations" (2015: 7). Della Porta and Diani explained as well: "Informal networks, based on shared beliefs and solidarity, which mobilise about conflictual issues, through the frequent use of various forms of protest" (1999: 16).

Finally, studies indicated that actions in these collectives are not developed in the institutional scope, but they intend (9) to influence in civil society and public opinion through communication strategies (Cohen & Arato, 1992; Castells, 2009; Ortiz, 2016).

The previous features can be summarised by the following definition of social movement: Collective actor involved in a social conflict with a network structure, which acts consciously, in an organised way and with a certain continuity, to raise public awareness and to achieve of its adversary some objectives of a public character and in line with its collective identity, to affect social change (promoting or refusing it) (Ortiz, 2014, 2015). Localising these characteristics enables one to distinguish between social movements and the other phenomena associated with collective action.

First of all, they are different from (1) actions in repertoires of contention, that is, the collective and organised protest tactics (demonstrations, strikes, sit-ins, etc.), which are strategies of communication in collectives to carry out their demands. But, they are not social movements in themselves. In addition, from (2) isolated collective protests, actions with a greater or lesser degree of organisation, with objectives that can be aimed or not to impact in social change. They are initiated by a collective which are not going to meet again and are not related to a group or specific and lasting collective identity. They can be differentiated from (3) spontaneous outbreaks of collective behaviour, phenomena suddenly appeared, without previous organisation, in panic or collective rage situations. They are not

associated with social change, as the cases of natural disasters, episodes of violence or collective euphoria (Laraña, 1999; Javaloy et al, 2001).

There are other terms, as (4) associations and (5) social networks, which would not refer to social movements if they pursue private objectives and are not intended to affect social change. As Pedro Ibarra affirms, "groups such associations or simple collective activities whose intention seeks to spend some leisure time with play, sport, artistic or culinary activities" would not be social movements (2005: 80). Studies have also shown the difference with (6) interest groups, (which pursue private objectives) and with (7) political parties (which seek a social change, but from the institutional sphere). In addition, both organisational structures are characterised by their vertical and hierarchical form and by their conventional type of actions (Cohen & Arato, 1992; Tarrow, 1997; Ibarra, 2005). Finally, the concept of (8) NGO has been highlighted as well. These organisations can be considered as social movements, taking into account the defence of objectives of public character. However, NGOs are characterised by a more reformist participation (as it has happened in international forums and meetings). Some social movements have criticised the lack of independence in several NGOs, which run the risk of legitimising the established system (Ibarra 2005; Echart, 2008; Lopes de Souza, 2013).

The bibliographical review facilitates a description of the several features in social movements, and their distinction from the rest of concepts related to collective action. According to these categories a proposal is made (see Table 1). Differentiating these concepts can be useful to define the social cybermovements field.

Table 1. Differences between the concept of social movement and other collective action phenomena

SM FEATURES	PHENOMENA ASSOCIATED WITH COLLECTIVE ACTION								
	Social movement	**Tactics in repertoires**	**Isolated collective protest**	**Spontaneous outbreak of collective behaviour**	**Social network**	**Association**	**Political party**	**Interest group**	**NGO**
Collective actor	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Social conflict	Yes	Yes	Yes	Possible	Possible	No	No	No	Possible
Continuity	Yes	Possible	No	No	Possible	Yes	Yes	Yes	Yes
Intentional action	Yes	Yes	Possible	Yes	Possible	Yes	Yes	Yes	Yes
Horizontal structure	Yes	Possible	Yes	No	Yes	Possible	No	Possible	Possible
Actions based in civil society and public sphere	Yes	Possible	Yes	Yes	Possible	Yes	No	Yes	Yes
Public objectives	Yes	Possible	Possible	No	Possible	Possible	Yes	No	Yes
Collective identity	Yes	Possible	No	No	Possible	Yes	Yes	Yes	Yes
Social change	Yes	Yes	Possible	No	Possible	Possible	Yes	Possible	Yes

Elaborated by the author, based on the bibliographical review
(especially from Diani & della Porta, 2006; Ibarra, 2005; Snow, Soule & Kriesi, 2004 & Laraña, 1999).

2.2. *The proliferation of terms in the scope of digital collective action*

Distinguishing several denominations that have appeared in the field of collective action of the digital environment is vital to study rigorously social cybermovements. Based on the bibliographical review, three categories of terms can be highlighted. These ones are not necessarily related to the social movement concept: 1) denominations associated with terrorism or crime; 2) denominations related to the several types of association or to spontaneous collective protest; 3) denominations that refer to repertoires of collective action in different forms of collective phenomena (see Table 2).

In the first place, in the category of terms associated with terrorism or crime, denominations such as "cyberwar" or "netwar" can be found. These terms were coined by John Arquilla and David Ronfeldt, who began research into typologies of military conflicts that were emerging in the information era. These authors studied the "cyberwar" phenomenon in 1992, but they were interested in lower intensity conflicts, related to social activism (Arquilla & Ronfeldt, 2001). They coined the concept of "netwar" in 1993, which includes acts ranging from the most radical forms of conflict and crime –such as cyberterrorism– to the most peaceful actions –such as civil rights committees that are formed on the Internet.

However, as studies about repertoires of collective action in NSM have underscored, symbolic actions in social cybermovements were influenced by Henry David Thoreau, Gandhi, or Martin Luther King's ideas. They defended the use of peaceful actions and non-violent civil disobedience. Therefore, concepts that allude to collective actions based on cybercrime, cyberwar or cyberterrorism would be excluded from the field of social cybermovements. The development of this type of conceptualisation implies a conflict within collective action studies. There have been some examples of the same social cybermovement that have been studied as cybercrime by some, or as electronic civil disobedience by others. Actions of Zapatista movement or demands claimed by Anonymous collectives are examples of movements that have provoked controversy, or at least lack of consensus, in the literature (Castells 2003; Fuchs, 2014; Treré & Barranquero, 2013; Baybars-Hawks, 2015).

In the second place, several concepts that refer to collective behaviour phenomena – which does not necessarily imply social change as an objective or continuity over time– have been disseminated. Cases of collective protests that occur in isolation or spontaneous outbreaks of collective behaviour in the digital environment can also be taken into account. The concept of "virtual community" (coined by Howard Rheingold in 1993), must be highlighted in this category of denominations. It refers the associations with links that can be for entertainment or for social relation. In the same regard, the general term of "social networks" must be distinguished, as Barry Wellman underscored in 2001, when he emphasised the impact of computer networks in the rise of social networks or of virtual communities through e-mail or Internet chat rooms.

Another related term in this scope is "smart mobs", popularised by Rheingold in 2002. This author uses this concept to explain the emergence of powerful variety of organisation in citizenry based in the cooperation and the use of ICTs, which enables fast and easy mobilisation, even between groups of unknown and otherwise unconnected people. This denomination includes several forms of collective action, from performances to political mobilisations. Víctor Sampedro refers to "*multitudes on line*" ("online multitudes") (2005) to describe the case of the quick protests that took place in Madrid, in the well-known 13-M evening, the "evening of mobile phones", in 2004. In 2011, this author also stressed the term "*cibermultitudes*" ("cybermultitudes"), linked to the birth of new collectives in the 15-M context (Haro & Sampedro, 2011).

In 2007, Manuel Castells, Mireia Fernández-Ardèvol, Jack Linchuan Qiu and Araba Sey studied collective phenomena and networks of activists which had used the wireless and instant communications to organise themselves. This second group of denominations could be, on the one hand, related to as social cybermovements, provided that they pursue a social and political change. On the other hand, we can distinguish social cybermovements from phenomena without any continuity over time, with isolated or sporadic actions, which not have necessarily defined their collective identity.

In the third place, several researchers have mentioned general concepts that refer to the field of political activism in the Internet age. These denominations are specifically related to forms of participation and repertoires of action to be involved in politics. It has been considered as a broad concept, which includes all kind of actors, from institutional and civil society sphere to political parties, associations, isolated individuals, etc. Stefan Wray named this category as "computerized activism", which in a broad way includes the repertoire of actions typical of activism of the digital age. Dorothy Denning's studies analyse the issue of activism in the Internet age: "Normal, nondisruptive use of the Internet in support of an agenda or cause" (2001: 263). In this regard, there are several forms of collective action to be used in social movements, as well as in other kinds of collectives. Pippa Norris (2002) examines new forms of "political activism". This author indicates the importance of differentiating between "activism" and "protest". The first one refers to other kinds of political action, while the protest was specifically related to actions for social criticism. She describes the role of the Internet in NSM protests, describing them as unconventional participation.

We can also distinguish between the terms "Internet activism" (Kahn & Kellner, 2004; Earl & Kimport 2014, 2011; Earl, Hunt & Garrett, 2014), "online activism" (Vegh, 2003; Juris 2008; Xu, 2016), "cyberactivism" (Morris & Langman, 2002; McCaughey & Ayers, 2003; López & Roig, 2006; Tascón & Quintana, 2012; Fernández Prados, 2012; Sampedro, 2014; Carty, 2015), "digital activism", (Robles, 2008; Gerbaudo & Treré, 2015; Chadwick, 2016), "technoactivism" (López, 2006; Callén, 2011) or "technopolitics" (Toret, 2013). In this sense, we differentiate "cyberprotest" (Pickerill, 2003; Van Laer & Van Aelst, 2009;), "e-protest" (Fernández Prados, 2012), which particularly refers to forms of collective actions and repertoires of social movements in the online environment. There are several types of collective phenomena that can be highlighted, which are not necessarily related to the characteristics of social movements (see table 2).

Thus, the theoretical framework in social cybermovements in the Internet and Social Web era requires addressing the characteristics in the concept of social movement. Based on the analysed definitions, we can specifically define social cybermovement as: collective actor with a distributed network structure, which acts intentionally and with a certain continuity, using communication opportunities of the Internet and Social Web age to affect social change; they promote several collective actions, developed online and/or offline, in order to raise public awareness about social conflicts and to manage some objectives of a public character, which have been demanded from a shared collective identity.

3. The field of study in cybermovements

The clarification of the concept of social cybermovement allows us to delimit its field of study. A review of the literature that has focused on the transformations in social movements of the Internet and Social Web age is outlined below. The analysis of the bibliographical review has detected three main approaches: 1) studies focused on communication transformations and changes in repertories of movements; 2) works that have researched the emergence of a new type of movement in the networks era; and, 3) bibliographical and analytical reviews related to this field.

3.1. *Transformations in communication resources and repertoires of action*

Several studies have focused on assessing the potential of the Internet as a communication resource and, especially, the changes in repertoires of collective action in the new scenario. In the 1980s some authors, from the resource mobilisation theory, mentioned the link between social movements and ICTs. They took into account that the available resources could reduce the costs of participating in protest. Investigations about the new opportunities of communication in computer networks for social movements were developed.

Sidney Tarrow (1983), John McCarthy (1986), and David Snow and collaborators (1986) showed that the ICTs advances were extending communication channels in social movements, especially as a result of e-mail. In 1989 John Downing examined the new possibilities of computer-mediated communications (CMC) for publishing and spreading information between unknown people, especially through e-mail and BBS. Their works in the 21st century (2008, 2011) explained the study of "social movements' media" in the Social Web stage. Daniel Myers (1994) describes the ways in which development of computer networks changed the type of communication in social movements. The paper highlights the speed and costs of communications; the accuracy in transmission of messages; the interactivity; the microsocial processes; the media communication versus mass media; the new possibilities of mobilisation; the new forms of coalition between movements; and the development of coordination.

Several works dedicated to changes in repertoires of actions in the Internet age can be pointed out. Martha McCaughey and Michael Ayers (2003) coordinated a work that explored some questions about new kinds of innovative protests in cyberspace. They note that the Intern*et al*lows the connection between activists and modifies collective action processes. In addition, new political opportunities could be created, compared to other mass media. Mark Surman and Katherine Reilly (2003) investigate the strategic use of the Internet for collaboration, publishing, mobilisation, and observation in civil society. The report underlines the role of social movements, and observes the birth of "new forms of mobilisation" in the Internet era that can be associated with the traditional type of protest, but also with the innovative and developing technological form.

Jenny Pickerill has also explored the potential of new cyberprotest tactics. As she explained in 2003, the use of CMC strengthened social cohesion in the Environmental movement, for the control of adversaries and the spontaneity in actions. In addition, she argued that they improved the speed, reduced the costs, kept the meaning of the initial message and provided connection to isolated individuals. In 2008, she concluded with Gillan and Webster that using e-mails and websites were crucial for the movement coordination, call, and synchronisation. In 2015, she described with John Krinsky the importance of the information dissemination for the global dimension in the Occupy movement.

Víctor Marí (2004, 2007, 2012) has described the main uses of ICTs in social movements. He distinguished several levels of ICTs "appropiation": the access to technological equipment, infrastructures and systems; the integration of digital literacy; placing at the service of social change the communication and technologies, to create networks and develop work dynamics in movements; and the implementation of mechanisms to process and use the information (2007). Jennifer Earl and collaborators have also noted the transformation in tactics of collective action in this stage (Earl, Hunt & Garrett, 2014; Earl & Kimport 2014, 2011).

Paolo Gerbaudo (2012, 2014) has observed how activists are using social media in collective actions. In 2012, referring to the Arab spring context, the 15-M movement and the Occupy movement, he explained that the internal and local use of these media allows the

organisation and mobilisation of the activists and the action. The work of Javier Toret and collaborators (2013), in relation to "technopolitics" in the 15-M movement, showed how communication tools were decisive to the emergence of these mobilisations. Eloísa Nos Aldás (2015) has emphasised that the use of new media in the activism of the 21st century (in the 15-M movement scenario) has risen the power to disseminate the information and memes of the collectives, in order to favour the breakdown of the Spiral of silence. Chadwick and Dennis (2016) have analysed the weaknesses and strengths in digital repertoires, taking into account the citizen's movement 38 Degrees. As they have detected, virtual collective actions coexist in an environment that still requires mainstream media attention.

3.2. *Studies that have highlighted the emergence of new movements in the era of networks*

There are several works that have specifically pointed out new characteristics and transformations in the nature of social movements that are associated with the Internet era. They have also mentioned some denominations to identify these collectives. Mario Diani's investigations have explored new forms of communication in social movements on the Internet. In 2000 he specified the term "virtual social movements" and described the main transformations that were taking place in the communication and organisation areas of these collectives. In 2011 he set four types of collective action for the "modes of coordination" through the use of ICTs, including social movements. He argued that dense resource exchanges can occur between groups with a broader, longer term political project.

Manuel Castells' works have stressed that "the Internet is adapting to the basic characteristics of the social movement type that are emerging in the information age" (2001: p. 161). He affirmed that computer communications are indispensable in shaping social movements of the Internet era, characterised by the mobilisation for culture values; the non-hierarchical organisation; and the local and global action of the activists. In 2012 he explained the arrival of a new model of "networked social movements", with specific characteristics, as: the use of networks of multimodal communication; the formation of collectives in an autonomous space of communication; their local and global nature; the timeless time; and, their viral character.

Douglas Morris and Lauren Langman developed in 2002 a typology of "social movements in a global age": "cyberactivism *through* the Net" and "cyberactivism *in* the Net" (emphasis original). The first ones would be influenced by internetworking, capital and information flows, and alternative media. The second ones were based on direct cyberactivism, the contesting and constructing the Internet, and online alternative community formation. Brian Loader (2003) defined "online social movements" as: "The adoption and use by social movements and community activists of new information and communication technologies (ICTs), such as the Internet and the World Wide Web" (p. 1319). Charles Tilly also refers to the transformations of new technologies in "the social movement of the early 21st century" (Tilly, 2005: 14; Tilly & Wood, 2009: 193).

Win van de Donk, Brian D. Loader, Paul G. Nixon and Dieter Rucht coordinated a work which analysed and explored the implications of the ICTs, such as the Internet, in citizen mobilisation, legitimacy, formation and efficiency in old, new and "newer" social movements. Rucht affirmed in this book that in the '90s was born a new generation of movements against neo-liberal globalisation. He emphasised their transnational character and the adoption of ICTs. Peter Van Aelst and Stefaan Walgrave wondered if it is plausible talking about new movements in new media age. They argued that we cannot be sure whether technological evolution has changed collective action or just the speed of dissemination. However, they listed a range of changes associated with the non-hierarchical

structure of the Internet, the new possibilities for political participation through ICTs, and the decrease in costs and obstacles in the organisation of collective action (2004).

Lance Bennett spoke about "new transnational activism" in 2005. He explained that it was setting a change in social movements "beyond borders". He pointed out that collectives are able to combine easily both online and offline relationships. For the first time in history mass communication is transformed through networked communication, which promotes organisation and coordination. In 2014, this author identified with Segerberg and Walker, three essential changes appeared in movements such as Occupy (2011-2012): possibilities for creating and sharing digital resources ("production"); mechanisms for preserving produced resources ("curation"); and options for switching and linking within movements ("dynamic integration"). Della Porta and Diani have also examined some of the main transformations in virtual communication in the field of social movements: changes in the networked organisation; creation of collective identities; transformations in repertories of social protests; and the rise of online counterinformation (2011).

In 2015, Gerbaudo and Emiliano Treré stressed how a new area of study is emerging to discover transformations that have arisen in the process of collective identity construction in the digital age. As they have explained, new media have converted themselves into crucial spaces to create, channel, and discuss the identities of movements. Thomas Tufte notes that there have arisen a number of "emerging movements", especially since 2011. He affirms that the role of new media has been crucial for developing critical spheres and new forms of mobilisation (2015). Victoria Carty (2015) also explores the manner in which new technologies of Web 2.0 have accelerated the activity in "e-movements". She has argued that mobilisation efforts have been decentralised; there is more capacity to achieve new membership (thanks to the virtual form of collective identity); and there are new possibilities to avoid the repression in protests.

3.3. *Reviews and organisation of the theoretical framework*

Some studies have considered the theoretical framework of social movements and ICTs, with some bibliographical reviews and analytical proposals. Kelly Garret (2006) explored several studies of the 1990s and 2000s that had analysed changes of ICTs in social movements. In regard to mobilising structures, she affirmed how it has modified the way to mobilise people and the type of actions in repertoires. According to the organisation, she explained changes in decentralisation and celerity. In respect of the opportunity structures, she emphasised the possibility for identifying allies, disrupting elites, and avoiding censorship. Finally, for the frame alignment process, she highlighted new options for creating and disseminating collective identities.

José Candón's doctoral thesis (2010) is based on several bibliographical resources and activist interviews and has shown the new role of the Internet in social movements. He has focused on some functions: Internet as a resource; Internet as facilitator of political opportunities; Internet as transformer of repertoires of contention and organisational structure, and as a creator of frames and collective identities (see 2013 as well).

Noriko Hara and Bi-Yun Huang (2011) have reviewed several studies that have described some cases of "online social movements" –they took Loader's term. They investigated whether the use of ICTs is promoting the development of social movements in this new era. They took into account the traditional frameworks in Social Movements Studies and they analysed whether the Internet is becoming a resource for: the formation of collective identities in movements; for the mobilisation in framing process; and for the emergence of a space for social movements. They concluded that these movements have acquired new capacities to strengthen collective action.

Igor Sádaba's works (2002, 2012), have studied some approaches that have focused on "virtual" and "digital" movements, from an historical viewpoint. He has classified social movements according to the influence of digital communication in organisational structure and repertoires of collective action. He has distinguished: classical social movements (before the 70s); movements that are dependent on face to face meetings, but they are expressed on the Internet; social movements that are organised through telematic networks with classical repertoires; and social movements operating daily in the digital area and acting through new technologies. He observed that the main changes were taking place in repertoires and types of conflict, coordination and processes to create shared identities. In 2015, he has described with Eduardo Romanos "the construction of the technophile frame in social movements", in a work about the speeches in the 15-M movement and its influence in the formation of new political parties. In this section they have explained the discussion about "technophobia and technophilia" in this field. They have also provided some considerations related to the impact of ICTs in social movements.

Treré and collaborators have stressed the complex nature of Social Movements Studies in the Web 2.0 era. In 2013, Treré and Alejandro Barranquero outlined an historical overview of the different perspectives (critical and optimistics) about the impact of ICTs on social movements. They noted that the development of this new field of study requires not only the participation of academics, but also the activists themselves. In 2014, Treré and Daniele Cargnelutti, explored the relevant advantages that have been highlighted in the literature about social networks and activism. They described: "Facilitating the participation of individuals that have limited political experience [...]; creating a shared awareness [...]; strengthening mobilization [...]; helping to organise [...] actions" (2014: 185). These authors have clarified these assessments, in their analysis about the Facebook page of the movement for Peace with Justice and Dignity. They showed that this page was a "space for publications", rather than a dialogue and interactive environment.

Rocío Ortiz's research (2014, 2015, 2016) has analysed the new communication scenario that is promoting changes in social movements of the 21st century. She has also explored the new possibilities for the development of a more representative and participatory democracy in this context. Her doctoral thesis (2014) reviews the theoretical framework of social cybermovements and describes their characteristics. Ortiz has pointed out how communication opportunities resulting from the Internet and Social Web transformations have favoured the emergence of new communication characteristics in social cybermovements. They are related, on the one hand, to changes in the composition of informal networks in movements, which facilitate new opportunities to create collective identities online; the digital coordination in collective actions and the real-time synchronisation; the organisation in distributed and horizontal networks; and the capacity to get involved in virtual and glocal conflicts. On the other hand, she has highlighted the transformations in repertoires of collective action in social movements, in the new "cyber-repertoire". She has taken into account cyberactions in the sphere of public communication, as well as the hacktivism and electronic civil disobedience (2016).

In this sense, the bibliographical review has allowed, on the one hand, the distinguishing of a theoretical framework of social cybermovements and, on the other hand, the differentiation of other denominations related to the field of digital collective action (see Table 2).

4. Conclusions

The theoretical review and the conceptual analysis present a significant challenge at the beginning of Social Cybermovements Studies. The accelerated outbreak of new social conflicts organised through networks has increased the number of terminologies that are

used to explain the scenario of collective action in the Internet era. The analysis in this paper has shown that taking into account the conceptualisation of "social movement" is needed to frame the field of social cybermovements. The following characteristics that are relevant to distinguish them from other type of collective phenomena are proposed: 1) collective actor; 2) conflict; 3) continuity; 4) intentional action; 5) horizontal structure; 6) public objectives; 7) civil society; 8) collective identity; and 9) social change. Identifying these features allows to differentiate social movements from: 1) tactics in repertoires; 2) isolated collective protests; 3) spontaneous outbreaks of collective behaviour; 4) social networks; 5) associations; 6) political parties; 7) interest groups; and, 8) NGO.

Table 2. Differences between social cybermovements
and other denominations related to digital collective action

Denominations for collective phenomena that use forms of collective action which are distanced from the postmodern repertoire (symbolic actions, more or less disruptive, based on non-violence).	Denominations for phenomena of association or spontaneous collective protest which do not imply necessarily political objectives of social change, continuity over time or a consolidated collective identity.	Denominations for political participatory repertoires or forms of collective action. They may or may not be related to the scope of social movements.	Denominations that make reference to social movements that use the new possibilities of the Internet and Social Web environment in order to develop their collective actions online and/or offline.
Cyberwar	Virtual community	Computerized activism	Social cybermovements
Netwar	Social networks	Internet activism	Virtual social movements
Cybercrime	Smart mobs	Online activism	Networked social movements
	Online multitudes	Digital activism	Social movements in a global age
	Cybermultitudes	Cyberactivism	Online social movements
		Technoactivism	Virtual movements
		Cyberprotest	Transnational movements
		E-protest	E-movements
		Technopolitics	

Source: Elaborated by the author

Based on these attributes, the following definition of social cybermovement is proposed: collective actor with a distributed network structure, which acts intentionally and with a certain continuity, using communication opportunities of the Internet and Social Web age to affect social change; they promote several collective actions, developed online and/or offline, in order to raise public awareness about social conflicts and to manage some objectives of a public character, which have been demanded from a shared collective identity. According to these characteristics, this work has differentiated three categories of definitions that not or not necessarily refer to this concept in particular: 1) terms associated with terrorism or cybercrime (cyberwar, netwar, etc.); 2) denominations that are related to several types of association or phenomena of spontaneous collective protest (virtual community, social network, online multitudes, etc.); and, 3) denominations about repertoires of collective actions in several types of phenomena in digital era (online activism, cyberactivism, technoactivism, electronic protest, etc).

This definition of social cybermovement also allows the clarification of the studies that have specifically focused on the research of this type of phenomena from Social Movements Studies. The bibliographical review has identified three main categories of these works: 1) investigations that have primarily addressed repertoires of action in social movements of

the networks society; 2) approaches about the transformations in social movements of the Internet era, which have provided new denominations; and, 3) bibliographical reviews and analyses of the theoretical framework in this new field of study. Since the start of this area works related to the impact of ICTs in repertoires of collective action have prevailed. The first studies (1980-2000) have mainly focused on analysing the potential of Internet as a technological resource in movements. As of the decade of 2000, the research shows the social use of media in the communication environment of Web 2.0. The incorporation of new technological and communication resources in social movements of this stage has been an issue widely accepted in these studies. Overall, researchers have highlighted that ICTs are promoting a change in: 1) speed; 2) coordination; 3) synchronisation; 4) reduction of costs; and 5) media control in collective actions.

As yet, very little research has been conducted into the characteristics in social movements in the Internet era and analysed this theoretical framework. These type of approaches have contributed to establish the beginnings of this field of study. The new denominations (cybermovements, online social movements, virtual movements, networked movements, etc.) alludes to communication and technological changes that have appeared in the movements of this stage. In general, they have referred to transformations which can influence: 1) hierarchical structure; 2) communication autonomy; 3) network organisation; 4) transnationality; 5) timelessness; 6) mobilisation; 7) repertoires of action; and, 8) the creation of collective identities and political opportunities. These types of reviews usually make analyses based on social movements theories. Approaches have highlighted the resource mobilisation theory. There is a greater difficulty for empirical evidence in the transformation of the construction of collective identity or in political opportunities.

Advances in the inclusion of theoretical reviews related to social cybermovements are essential to further clarify the particular features of these phenomena. This is an evolving field of study which is associated with the characteristics of other forms of collective action that have begun to consolidate themselves in the age of networks.

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