

THE ROLE OF THE INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT) IN THE URBAN 21ST CENTURY AND IN THE EMERGENCE OF NEW SOCIAL MOVEMENTS: REFLECTIONS ON EXPERIENCES IN THE SÃO PAULO MEGACITY¹

O PAPEL DAS TECNOLOGIAS DE COMUNICAÇÃO E INFORMAÇÃO (TIC) NO URBANO DO SÉCULO XXI E NA EMERGÊNCIA DOS NOVOS MOVIMENTOS SOCIAIS:

REFLEXÕES A PARTIR DE EXPERIÊNCIAS NA MEGACIDADE DE SÃO PAULO

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ABSTRACT: The emergence of Information and Communication Technologies (ICT) has changed lifestyles and relationships among individuals in the urban space. All over the world, experiences have shown that individuals organized in groups are exchanging information in networks, acting as actants, and experiencing “new” urban social movements. These individuals disseminate collaborative and creative interaction practices and provoke more active participation, seeking to overcome the limits of the opinion and consulting spheres. In the megacity of São Paulo, Brazil, these initiatives have also repercussions. In this study, we analyze some of these experiences, seeking to understand how the ICT are used by these groups to claim the right to the city. We analyze the use of the ICT by these groups for mobilization of resources, and for strategies of organization and action.

KEYWORDS: social movements; urban public spaces; right to the city; information and communication technologies; São Paulo megacity.

RESUMO: *A emergência das Tecnologias de Informação e Comunicação (TIC) tem alterado os modos de vida e as relações entre os indivíduos no espaço urbano. Experiências registradas no mundo têm mostrado que os indivíduos, ao se organizarem em grupos e trocarem informações em rede, agindo como actantes, experienciam novos movimentos sociais urbanos, difundem práticas de interação colaborativas e criativas e provocam uma participação mais ativa, que busca superar os limites da esfera opinativa e consultiva. Na megacidade de São Paulo, essas iniciativas também ganham repercussão. Neste artigo são analisadas algumas dessas experiências, buscando refletir a respeito de como as TIC têm sido apropriadas na reivindicação do direito à cidade por meio da mobilização de recursos e estratégias de organização e ação dos cidadãos inseridos nesses novos movimentos.*

PALAVRAS-CHAVE: *movimentos sociais; espaços públicos urbanos; direito à cidade; tecnologias de comunicação e informação; megacidade de São Paulo.*

¹ The authors thank the Coordination for the Improvement of Higher Level Personnel (CAPES) (Process no. 88881.131677/2016-01) for research support and the comments of the reviewers.

Contribution of each author: **A.** theoretical and conceptual basis and problematization; **B.** research data and statistical analysis; **C.** producing figures and tables; **D.** photographs; **E.** preparation and drafting of manuscript; **F.** selection of references.

DOI: <https://doi.org/10.22296/2317-1529.2018v20n1p161>

INTRODUCTION

In a context of globalization and cosmopolitanism, in which localities internalize what is global (BECK, 2002), cities have a revitalized political role (GIDDENS, 2005), both in the confrontation of the contemporary urban crisis (LEITE, 2010) and the democracy crisis (BAUMAN, 2016), as well as in the paradigm shift regarding the use of natural resources, construction of territorialities, production processes and management of the urban space (LEFEBVRE, 1999; 2014; CARLOS, 2007).

Big cities, here understood as human constructions and social-historical products resulting from the relations of society with nature (LEFEBVRE, 1999; 2014; CARLOS, 2007), are now larger in extent and more complex due to the existing diversities, connections and global flows (LEITE, 2010; SETO; SÁNCHEZ-RODRIGUES; FRAGKIAS, 2010), results of the process of capitalism (HARVEY, 2008; 2014), globalization and technological revolution (DI FELICE, 2009). It is exactly in these megacities² that major urban challenges emerge and require effective governance processes.

In this scenario, technology, particularly information and communication technologies (ICT), has played a vital role both for expanding society participation processes, from inspecting to proposing improvements in supervisory management of territories, and driving different perceptions of individuals regarding the environment and, consequently, the risks to which they are exposed (DI FELICE, 2013a; DI FELICE; TORRES; YANAZE, 2012). The emergence of ICT has significantly transformed lifestyles and relations between individuals in the urban space, bringing new social, cultural, communicative settings and policies (LEMOS; LÉVY, 2010). ICT also shaped forms of sociability and the way of inhabiting the urban environment (DI FELICE, 2009), providing new possibilities of action and interaction of individuals in search of improvements of living in the cities.

More recently, through these new technologies, especially those of social networks, experiences registered in Arab countries (“Arab Spring”), North America (“Occupy Wall Street –OWS”, in the United States of America), Europe (“*Movimiento 15-M*” and “*Puerta del Sol*”, in Spain; “Syntagma Square”, in Athens; “Stairs of Saint Paul”, in London) and also in South America (“Occupy Estelita” and “June Journeys”, in Brazil) (LEMOS; LÉVY, 2010; LIRA; FERNANDES, 2015) have shown that individuals organize themselves and seek to break away from the logic of Western democracy operation (DI FELICE, 2009; SANTAELLA; LEMOS, 2010; PEREIRA, 2011; CASTELLS, 2013; SANTOS JUNIOR, 2014). They search for overcoming one-way communication (DI FELICE; TORRES; YANAZE, 2012), in order to act in a context of information exchanges, motivated by networks posed by several actants³ (LATOUR, 1996; DI FELICE, 2009; 2013b; LEMOS, 2013). By organizing themselves into groups, they experience new urban social movements, disseminate collaborative and creative interaction practices (DI FELICE, 2009; LÉVY, 2010), leading to active participation, which overcomes the limits of the opinionated sphere and the electoral participation (DI FELICE; TORRES; YANAZE, 2012; CASTELLS, 2013), inaugurating a new way to “make society” (LEMOS; LÉVY, 2010).

² Cities that have more than 10 million inhabitants, as defined by the United Nations (UN).

³ The term “actant” is described on Actor-Network Theory (TAR) and is used to refer to human or not human entities that generate an action, a movement or difference (LATOUR, 1996; LEMOS, 2013).

In the megacity of São Paulo, these initiatives also have repercussions. In this paper, we analyze the use and appropriation of ICT in the process of organization and action of some new social movements that come up in this Brazilian city. These movements are motivated by a rethinking of quality of life in the city and modifying long-term discontentment scenarios. We present and discuss results from a study in progress, based on literature review, documentary research, semi-structured interview and participant observation. In this paper, we seek to understand how movements related to urban gardens, urban mobility and use and occupation of public spaces that emerge in São Paulo use ICT in their formation, performance, mobilization and projection processes. Our data are analyzed considering analytical variables: (i) resources mobilization; and (ii) organization and action strategies of citizens within these collectives. Our results show that the new social movements studied in the megacity use ICT to expand possibilities of interactivity, to set directions conditioned to the so-called “right to the city,” prioritizing more horizontal political relations, in a self-management model, and relying on a new form of digital activism in/on network. The analysis of the situation of action of these movements suggests that ICT are used by these collectives and their members as a facilitator for the mobilization of resources considered essential for their actions, dissemination and for organizing and structuring of the groups.

This paper is structured in three sections, in addition to this introduction. First, we present our methodological approach. Then, from the literature review, we discuss elements that characterize the 21st century urban as an environment-space and a conceptual arrangement. The urban 21st century is thought considering the current ecological crisis, the emergence of a post-scarcity order, the need for sharing processes of decision-making power and the search for a new city project. We reflect on the role of ICT in this process. In the next section, we focus on the emergence of new social movements in São Paulo, which arise and expand through ICTs, and seek the right to the city, with transformations of the use and occupation of public spaces. Finally, in the conclusion section, we indicate possible paths for future research focused on the connections between technology, urban movements, governance and use and production of urban space.

METHODOLOGICAL APPROACH

To observe more closely some experiences associated with these movements in São Paulo, we focus on urban collectives that act regarding Urban Gardens, Mobility and Use and Occupation of Public Spaces - contemporary issues of everyday life. We seek to analyze how these collectives use ICT in their formation, performance, and projection processes.

Our research is based on three main methodological strategies, considering the studied action situation, including (i) bibliographical and documentary research, centered on theoretical and analytical references, and publications about studied collectives; (ii) semi-structured interviews; and (iii) participant observation. In this paper we present and discuss our data from 28 interviews

4 Approved by the Ethics Committee – Opinion no. 1,687,653.

conducted between September and November 2016 with participants of these new movements, in semi-structured format (with a guide of questions previously established)⁴, through virtual devices, such as Skype, WhatsApp and Google Hangouts, phone calls and in person. For choice of respondents, we opted for the snowball technique, in which an individual suggests to the researcher the name of another, providing the name of a third person and so forth (ATKINSON; FLINT, 2001). In our study, the decision about who would be the first individuals to be interviewed in each social movement was based on the frequency of their names linked to news about the issues studied, both in mass media as in the main social networks. For assessment of the collected data, we opted for the technique of Thematic Content Analysis to “[...] discover the nuclei of meaning that make up a communication whose presence or frequency mean something for the targeted analytical objective” (MINAYO, 2004, p. 209).

Our results also include data from observation and participation (between 2015 and mid-2017) of routines and situations that are considered relevant to understand collective action, in particular: i) follow-up of information and exchanged messages in Facebook’s timeline (posts and comments on individual profiles and group discussions open to the public or closed with access of persons involved in these movements); ii) our involvement in events held by the movements, with physical or virtual presence in seminars, group meetings and joint efforts of collective plantations, for example.

USE AND PRODUCTION OF PUBLIC SPACE: FROM CITIES TO THE 21ST CENTURY URBAN

During the last century and especially after the second half, city development was accelerated by the promises of economic growth, post-war social development and industrial race (LEFEBVRE, 1999; CARLOS, 2007; HARVEY, 2014). The promise of more and better professional opportunities and the improvement of quality of life inflated the cities (CARLOS, 2007; LEITE, 2010), making them “[...] unique environments of a desirable, democratic and exciting concentration of diversity” (LEITE, 2010, p. 119) and complexity. However, as Harvey (2008, p. 74) argues, cities are also fabrication “of social and geographical concentration of the exceeding product,” and urbanization is a class phenomenon, since the excess is extracted from somewhere and someone, while the control over its distribution lies in a few hands.

Megacities, currently most concentrated in less developed regions of the “Global South”⁵, deal daily with problems related to population density, social inequality, modernization of infrastructure, urban logistics and environmental issues (DI GIULIO et al., 2017), that have been recurrent subject of disputes and conflicts in political arenas (ONU-HABITAT, 2016; MATIAS, 2014). In addition to these problems, such cities, dominated by private power at the expense of the public, have produced spaces which become more and more fragmented, characterized by voids in significant quantity, represented by land stocked as a store of value, following the strategy of real estate entrepreneurs (CARLOS, 2007).

All these transformations not only affect greatly the contemporary ways of life,

5 Of the 31 existing megacities in 2016, 24 are located in these regions, with China alone accommodating six of them, and India, five (ONU-HABITAT, 2016).

but transform the conception of urban, understood in this paper from the perspective of Lefebvre (1999; 2014) and Carlos (2007): i.e. urban designates not anymore the city or life in it, but the constitution of a reality by society, which encompasses and transcends the city and the place. Urban is a place of modification that is socially produced, where contradictions arise from individual interests and use of power. This new urban reverberates the current ecological crisis (MORIN, 2001; BECK, 2010), which is namely a social, environmental, political, geographic, cultural (MATIAS, 2014), and autonomy crisis (SOUZA, 2008; BAUMAN, 2016). From the perspective of German sociologist Ulrich Beck (2010), we are experiencing a rupture within modernity (of a classic industrial society) and the emergence of a new form, called a risk society. This society is characterized by the fact that the social production and distribution of goods (labor, social security) are today accompanied by social production and distribution of risks (pollution, economic crises, terrorism etc.); and by the need to remedy these risks and deal with non-foreseen effects that society itself has produced. Hence the idea of reflexive modernization, which is essential in the concept of risk society (BECK, 2010). This reflexive modernization would imply a reflection on the limits and contradictions of modern order and possibilities for a positive political engagement (GIDDENS, 1999).

In a conception of society with greater reflection of its actions and less stuck in hierarchical structures (BECK; GIDDENS; LASH, 1996), it is possible to expect a post-scarcity order (GIDDENS, 1999), which would begin to emerge as individuals would restructure their professional lives, valuing other aspects besides their economic prosperity. For these authors, the main social changes observed no longer occur more at State level. Beck, for instance, reminds us that environment and quality of life are themes that did not originate on formally organized stages by the political system, but were organized by spontaneous social movements. If in simple modernity, citizenship rights were related to equality regarding the law, political and social rights of the welfare state; in late modernity, citizenship rights were transformed in rights to access information and communication structures (BECK; GIDDENS; LASH, 1996).

This challenging context that characterizes the urban scenario of the 21st century demands responses that make use of sharing processes of decision-making power (DAGNINO; OLIVEIRA, 2006), within plural and interactive approaches of power (GAUDIN, 2001), involving coordination among interdependent actors to deal with issues of collective and cooperative action (GUIMARÃES; MARTIN, 2001) with features of transparency and accountability. This “new” governance is only possible through the interaction of a set of social actors, including the State, which may share decision-making processes and set the direction in search of sustainability (MATIAS, 2014). As Beck (2010) observes, there is a need for the development of new forms of direct participation in the decision-making process within the political system, to redraw the legitimation of state policy.

In this context the new urban social movements arise focusing on the so-called right to the city (HARVEY, 2008; 2014), with a view to social justice and the pursuit of happiness through claims, including greater democratic participation (SANTOS JUNIOR, 2014). This right is associated with the collective demand for a new city project connected to creation of an alternative urban life, less alienated and that

promotes human emancipation (SANTOS JUNIOR, 2014). From such perspective, these movements seek construction, revitalization and occupation of common urban spaces; i.e. spaces within a city that are of public use, collective ownership and which belong to the public authority or to society as a whole (SANTOS JUNIOR, 2014).

In this search, sufficient and reliable information access and equal chances for participation in decisions that directly affect the society are *sine qua non* conditions for the arise of a public sphere led by concerned, responsible and participant citizens (SOUZA, 2008). ICT have vital role in this process by opening possibilities for citizens to empower themselves through joints and collaborative processes, enhancing social capital and (re) building a society that values cooperation and actions to improve the quality in the urban environment. ICT rewrite the production process of the public space and extend negotiation and decision-making processes, particularly in risk situations and conflicts of power and interest. We are not arguing that before the emergence of virtual devices social movements seeking improved management in the city did not exist; however, the existence and use of these technologies provide unprecedented ways of inhabiting and perceiving the public space (DI FELICE, 2009; DI FELICE; TORRES; YANAZE, 2012), bringing changes in social practices and collective actions in a speed hard to monitor, but with easy power of social transformation.

However, we must recognize that the possibilities inaugurated and/or accelerated by ICT are far from being fair and egalitarian for all. A vast literature acknowledges and discusses the existence of socioeconomic barriers that do not allow everyone to access technology, especially for its excessive cost and high rate of digital illiteracy (BARBER, 1984). Data security risks, superficial approach of subjects provided and discussed in the digital media, fluidity of relations and handling in the dissemination of information are negative examples associated with the use of these modern technologies (SMITH, 2005; BAUMAN, 2016). Castells (2010) recognizes that, especially for the working class, the emergence and use of ICT and of the internet triggers negative effects, such as the reducing of salaries and widespread unemployment due to the replacement of human labor by automation (CASTELLS, 2010). These technologies bring structural changes to the work, breaking the boundaries of “work places”, with increasingly connected employees outside of their working hours (VALCOUR; HUNTER, 2005).

Regarding decision-making processes, on the one hand ICT amplify the access and sharing of information and enable to reduce costs for participation (which no longer needs to be in presence and physical). ICT amplify the involvement of different actors with other networks of connections created in a logic of free-association and self-expression, and contribute to increase transparency in the processes of consultation or deliberation (VON WALDENBERG, 2004). These technologies expand the power of participation in governmental decisions, opportunities to influence governance (DI FELICE, 2009, 2013a; LEMOS; LÉVY, 2010; SANTAELLA; LEMOS, 2010; KARAMAGIOLI et al., 2010; CASTELLS, 2013), and promote an e-democracy – a *cyborgracy* (TORRES, 2008). On the other hand, the success of e-participation depends on the existing infrastructure for implementation of ICT, on the technological education of society, and particularly on the acceptance on the

part of the Government and its employees about the use of these initiatives (MOON, 2002; JAEGER; MATTESON, 2009).

Then, results of participatory processes differ between countries and cultures. While positive experiences of ICT use on decision-making processes add up in Europe, Canada and Brazil (TORRES, 2008), for example, others highlight the limitations and barriers that still exist in less democratic countries, such as the case of the censorship to the use of ICT in China (DANN; HADDOW, 2008). In Brazil, for example, research on ICT uses by non-governmental organizations point out limitations on the participation and interaction of individuals, especially considering the lack of communication strategies that support and increase public discussion (OLIVEIRA; SANTOS, 2013).

Apart from these limitations, we argue that ICT provide the emergence of major movements in the so-called “metropoleletrônica” (DI FELICE, 2009), which are characterized by information flows and new territorialities that are in continuous mutation and provide communicative spaces and flows in networks (CASTELLS, 2010) that, ultimately, result in a new post-urban form of inhabiting. This unprecedented way of seeing the world, rooted in informational connecting techniques, provides changes in social practices for quickly improvements of housing in the cities, involving creative and collaborative actions, led for what we call new urban social movements (CARLOS, 2007; DI FELICE, 2009).

NEW SOCIAL MOVEMENTS AND THE RIGHT TO THE CITY: THE CASE OF SÃO PAULO

To observe experiences associated with the new social movements arising in the megacity of São Paulo, we focus on urban collectives which discussions and actions are aligned to three issues: Urban Gardens, Mobility and Use and Occupation of Public Spaces, described below. The results presented and discussed afterwards permeate two analytical variables regarding the use of ICT by these movements: (i) forms of resource mobilization; and (ii) organization and action strategies of its participants.

ORGANIC AND COMMUNITY URBAN GARDENS

The *Hortelões Urbanos*, a network with currently more than 60,000 members and which focuses on the interaction and online discussions about agroecology in general, and other collective initiatives such as *Flores no Cimento* and *Novas Árvores Por Aí*, both aiming at promotion and increase of green areas in the city through fellowship plantings, workshops and educational lectures, are examples in the megacity of São Paulo which are aligned with other similar experiences that have appeared in several countries. Recently, it is possible to see the increase in the number of organic community gardens in São Paulo, according to information obtained through interviews, with special focus on the West side of the city, which appears to be a fertilizer locus of these experiences since the inauguration of *Horta das Corujas*, in 2012. This initiative branched out into other areas of the city, originating, for

instance, *Horta do Centro Cultural São Paulo*– CCSP and *Horta dos Ciclistas*, in the Central district of the city, *Horta Comunitária da Saúde* in the South, *Horta das Flores* in the East, *Horta da Faculdade de Medicina da USP* – FMUSP and *Batatas Jardineiras* (in *Largo da Batata*) in the West region.

In Europe, there are approximately 3 million urban gardens/vegetable gardens and most of them, as in São Paulo, are self-managed by local communities. They are called “Urban Green Commons,” and are seen as green spaces in urban environments, which may be of public or private domain, and that depend on the collective organization and management of individuals (COLDING; BARTHEL, 2013). In recent studies, these gardens are also seen as one of the adaptation and resilience strategies to climate change (ecosystem-based adaptation framework) and helpful in promoting well-being (COLDING; BARTHEL, 2013).

In the case of São Paulo, some of these gardens are the result of illegal occupations of public land or spaces owned by private entities, which remained empty and lifeless, as reports one of the interviewees:

Guerrilha Garden is when we come to the public space and begins to plant without asking permission to anyone with their own means [...]. We don't use this expression publicly because it gives plenty of room for misunderstanding. [...] The *Horta dos Ciclistas* was created totally in this form of guerrilla, one day we took the stuff out of the car and we did the garden.

For Sassen (2017), these empty spaces arise from an oblivion process of the urban history and, therefore, are invaded. This invasion is seen as a provocation to the destruction of the ancient urban existing memories in the cities, which the author calls “urban amnesia.” Although there is a law regulating the participatory management of squares (Law No. 16,212) – proposed in 2013 by the then City Councilman Nabil Bonduki and sanctioned by former mayor Fernando Haddad, in June 10, 2015 –, it was never really implemented. Then, most of these urban gardens do not have official recognition by the Government, which in turn generates uncertainty for those involved, as pointed out by the interviewee:

[...] We are in a state of limbo, Nabil Bonduki created that law of squares, but this law was not implemented [...]. Today there is an informal agreement [...] the Regional City Hall knows the garden exists, respects it, but there is no formal process and we're on this path [...]. No community garden in public space in the State of São Paulo in Brazil is official.

PUBLIC SPACES: OCCUPATION AND REVITALIZATION

In São Paulo, we observe the emergence of movements focused on revitalization of squares and public spaces. One of these examples, which may be considered to be a pioneer in this theme, is *Movimento Boa Praça*, which appeared in 2008 through the initiative of residents of the neighborhood of Alto de Pinheiros. Initially focusing on revitalizing the François Belanger Square, nowadays it has been extended to other squares of this same neighborhood (through initiatives like the *Casinha* movement

in the Waldir Azevedo Square) with the objective of “[...] mobilizing citizens, corporations, governments and institutions to occupy and revitalize the public spaces, in particular the squares of the city, returning them its original purpose: the places for socializing, leisure, debate and inclusion” (MOVIMENTO BOA PRAÇA, s.d.). Important achievements, including political realizations, have been reached by this collective, as reported by the precursor of the movement, interviewed in this study:

[...] We began to participate in a broader group to plan the neighborhood Vila Jataí [...] and we got to the Ecobairro that is the local convergence where everyone wants to get [...]. We made proposals for the urban zoning with the city hall [...] we create a law about participatory management of squares (Law No. 16,212) [...] I became adviser of CADES⁶ of Pinheiros and I've been trying to do these mobilizations in the territory.

6 City Council of the Environment and Sustainable Development.

Another experiment involving the *Largo da Batata* region started with a group of local residents in 2014, with a focus on the revitalization of this space located in the Pinheiros neighborhood. After a process of Urban Operation (in 2007) implemented by the city hall, involving the expansion of bus and subway lines, this place has been dramatically modified. The ample and concreted space without any green areas or possibility for social and cultural coexistence bothered a group of people which organized themselves to works in this and other regions of the city. One of the actions of these individuals was creating a Facebook group called *A Batata Precisa de Você!*, which now has more than 6,000 participants. The result of the actions carried out by the movement can be observed in practice: *Largo da Batata* became a more tree-lined square, with infrastructure for social use and cultural events, getting recently around it the planting of approximately 400 trees - result of a joint effort of people involved in urban agroecology issues and that took note of this planting through the disclosure on Facebook.

In this same perspective, the collective *Ocupe & Abrace*, which operates at the Homero Silva Square (later dubbed by members of the movement as *Praça da Nascente* due to springs there), emerged with the surrounding residents, who did not feel happy with the situation of abandonment and neglect of the place. The analysis of the interviews with some members of this collective demonstrates that, in mid-2013 and through a contest called *A Pompeia que se Quer* promoted by *Cidade Democrática*,⁷ a group of people decided to restore springs, plant vegetable gardens and preserve agroforestry cradles, resulting in a modified square. “Before, people were afraid to enter the square because it was a no man’s land. Today they socialize in a super harmonious, peaceful and interactive way. Before, there was a lot of crime and today there’s opening. There was no lighting and garbage collection, and we demanded the Regional City Hall to do that”, says an interviewee. The transformation of this public space itself seems to have motivated changes in the behavior of some residents, more concerned with the improper disposal of garbage (formerly done in the square) and with voluntary care to avoid that the place will be perceived as unsafe once again. All this thanks to the visibility the square has gained in social networks, as well as the insertion of some of the collective’s members into the Regional City Hall of Pinheiros.

7 Electronic platform that promotes collaboration between citizens, government and society in general.

SUSTAINABLE URBAN MOBILITY

Urban mobility is another cause that has engaged these collectives. Through the use of ICT, these movements seek to draw attention to and gather individuals around a common goal: that the city of São Paulo does not neglect other forms of active mobility, beyond cars, and wake up to a significant relationship between citizens and the streets. One of these initiatives is collective *Bike Anjo*, which teaches cycling in cities for free, through the action of volunteers. The Association of Urban Cyclists of São Paulo (Ciclocidade) is one of the main responsible entities in São Paulo for the implementing of public policies focused on mobility by bicycle since 2009. Its performance, in partnership with the municipal management and other collectives of urban mobility, brought remarkable results to the use of bicycles in the city, such as exclusive bike lanes in strategic points implemented by the previous public management. An interviewee highlights some results achieved by this movement:

In 2012, we made the candidates for mayor in São Paulo sign a commitment card with mobility in the city by bicycle [...] this happened within the goals of Haddad's plan to build 400 km of cycling routes. Then there was the creation of Bicycle-themed Chamber to discuss quality of bicycle tracks and tracings and the victory of the Paulista Aberta and, consequently, and in the context of the CET, we were able to create a Thematic Chamber for Mobility on Foot [...].

The transport on foot in the city also has engaged individuals around these collectives, such as *Corrida Amiga*, *Cidade a Pé* and *Sampa Pé*, which promote actions for improving the accessibility and quality of sidewalks and for extending the knowledge of São Paulo's citizens about the city where they live. For example, there is the campaign *Calçada Cilada*, created by the Instituto Corrida Amiga with support from other organizations and social movements, aimed to engage people in favor of walkable and accessible cities by inspecting sidewalks through a digital app: “[...] In 2016 we have reports of more than 80 municipalities of Brazil and, if it wasn't for the technological feature, it was going to be a lot harder for us to have such a large coverage in the national territory” (interviewee and one of the creators of this campaign).

WHAT ARE THESE MOVEMENTS AND HOW DO THEY USE ICT?

Overall, and despite having similarities with the “old” social movements, the experiences that emerge in the megacity of São Paulo can be called new social movements/urban collectives (DI FELICE, 2009; GOHN, 2014; LIRA; FERNANDES, 2015) by the way they seek the construction of a democratic society (GOHN, 2011), with new impetus for democracy, prioritizing political relations more horizontal (SCHERER-WARREN, 1995) and acting in a self-management model (self-organization) of existing resources. These movements ignore political flags, mistrust the mainstream media and reject hierarchies and formal organizations, relying on the internet and on local assemblies for collective debates and decision-making (CASTELLS, 2013). They can be understood as aggregations of urban collectives, i.e., smaller movements

of citizens in network that arise from the contradictions that exist in the cities. They have a central role to raise awareness, inform and engage citizens in their search for the right to the city (HARVEY, 2008), through pressure/mobilization practices aimed at disputes over the use and occupation of public spaces. Thus, they work as “[...] resonance boxes of social sphere [...] capable of bringing to the public sphere issues that were at that point still silenced” (PEREIRA, 2011, p. 7), with the possibility to connect the local with the global (DI FELICE, 2013a).

Di Felice (2013b, p. 10) highlights that we are facing a new form of digital activism in/on networks called “*net-activism*”, i.e., “[...] a set of actions that does not happen anymore simply within the political frames [...]” We call this new mode of organization and political action, which emerged in the 1990s, as “cyberactivism”. Cyberactivism is defined as “[...] a new type of participation based on the construction of information networks through dissemination of information on the web [...]” in order to “[...] maximize the opportunities for autonomy, sustainability and creativity processes under the *new-global* movements [...]” through citizens who inhabit digital networks and “[...] whose claims and *glocal* action advance towards meeting the common needs such as democracy, equity, conscious consumption and sustainability” (DI FELICE, 2013a, p. 53-54). This description is very similar to the logic of action of the urban collective analyzed in São Paulo.

These movements are a result of co-actions and interactions between various actants. They are like an “[...] expression of a new dwelling culture that is expressed by complex forms of interdependencies” (DI FELICE, 2013b, p. 10). As stated by Lemos (2013, p. 5), actants are those that “make it happen,” “[...] the mediators, the articulators that will make the connection and set up the network in themselves and out of themselves in association with others.” Actants become different from those immersed in the logic of the *cyborgracy* by Torres (2008). They do not perform only political participation in their actions, but also practices resulting from an activism that emerge in action through these actants. These actants would already have overcome the vision of dominance of territory and borders, and have a fresh look under the eco-habitat, i.e., a post-urban vision (DI FELICE, 2013b). In this perspective, actants can be identified in this logic of action as individuals, applications, government, environment, connection of the internet and smartphones.

The interactions and connections encouraged by the aforementioned collectives/movements enable the creation of new social scenarios by modifying the context of sociality that, in the urban of the past century, was fragmented into sectors, institutions, departments, and now, in the 21st century urban, is manifested through communicative interfaces with hybrid features. In this way, it becomes almost impossible to distinguish identities of functions of each of those involved (DI FELICE, 2009). Their actions range from occupations of public places (even if illegal according to the legislation) for creating community gardens and revitalize abandoned spaces to negotiations related to mobility, such as the examples studied in São Paulo. The actants, in synergy and feeling co-responsible for the management of cities, try to provide a “new” concept of territorial and democratic public administration, advancing in their claims in a *glocal* way, i.e., from a global perspective, but with actions which are specifically local (DI FELICE, 2013a). Thereby, these actants are considered modeling agents of urban

space. They belong to specific groups defined and organized according to specific goals and some criteria, including locational, ethnic, of affinities etc.

In common, the movements that we analyze in this paper consider and use ICT as the main resource to organize and structure their groups, to later be able to elaborate strategies to directly influence the government's decision-making with expanded visibility of their claims in traditional media channels (TV and newspaper), particularly through the dissemination of information and connections made in these interactive platforms. Following this idea, these movements may be considered social movements that confront the power in the decision-making process with a high capacity of democratic monitoring (monitory democracy), thanks to the support of new technologies with access to sources of political information, reinforcing the sense of empowerment of its members (ANTONUCCI; FIORENZA, 2016).

For example, the articulation between the movement *Ocupe & Abrace* with the *Minha Sampa* network⁸ in using online tools available for this network to push the government relations against the construction of a real estate development in the surroundings of the Nascente Square is an example of using and appropriation of the ICT in action strategies of these collectives. In addition to strengthening the movement, this joint and extensive use of ICT have enabled the actions of the group to have greater impact, with disclosure of news reports on national television network. The performance of the Ciclodade Association in partnership with collectives of urban mobility is another example of how these movements use ICT as main resource to organize and structure their groups, for broad dissemination of information and as a strategy to directly influence the decision-making process. In view of the public management announcement of increased speed in some roads of the city of São Paulo, and based on the data about the decline in the number of deaths between 2015 and 2016, when the speed had been reduced, these collectives got an injunction against the decision, suspended later by the Tribunal de Justiça de São Paulo (Court of Justice of São Paulo). Even if the speed has been increased, the subject has generated heated debates, gaining more followers in the quest for a safer city in terms of mobility, like other cities around the world that have reduced their speeds and improved the quality of and access to the existing means of transport.

Our analysis indicates that, in general, ICT are used by these collectives and its participants as a tool for the mobilization⁹ of key resources to their actions, including: materials (financial and of infrastructure), similar to the logic of the Resource Mobilization Theory (ALONSO, 2009); social capital, understood here as the sum of the resources from interactions in social networks (QUAN-HAASE; WELLMAN, 2004) with value, in an effort of sociability (BOURDIEU, 1985); and power, analyzed in the context of communicative network action (CASTELLS, 2015). This logic of resource mobilization converges to what Garrett (2006) pointed out as the three main structures within the social movements: mobilization (mechanisms that allow organization, such as ICT); socialization (cycles of friendship and activism networks, such as Facebook); and opportunities (favorable conditions for action, as the current crisis of Western democracy). In addition, these resources are mobilized to influence decision-making processes (RENN, 1992), particularly for getting support and attention from the public to important causes.

8 A network that follows closely the decisions made in the city of São Paulo with a focus on the awareness and mobilization of its citizens through the dissemination of information and elaboration of tools to pressure these powers in decisions that affect the city.

9 Mobilization is here understood as a path designed by social movements so that they can acquire enough resources to make their collective actions liable to execution (TILLY, 1978).

Regarding material resources, the mobilization is more visible in the actions of groups involved in urban gardens and public spaces. They require products and processes for its action and maintenance, involving the implementation of joint efforts that rely on help from participants of the movement and of other individuals, including members of the government, as reports one of the interviewees of the *Horta da Saúde*: “[...] The Regional City Hall provides water in periods of drought [...] fellow neighbors bring gardening pruning in the building so we can chop and plant in the garden”. Only in 2016 around 50 joint efforts were carried out in these gardens. At the Largo da Batata participants were engaged in building urban furniture, which generated more visibility for the collective “*A Batata Precisa de Você!*”, as reports one of the interviewees:

[...] We started making temporary furnishings with disposable material. The furniture was there all week: people used to chat on it, but we also saw people breaking and stealing the furniture and we went there and we did it again [...] after that, people started to perform interventions in the space and it generated better dialogue with public authorities that even considered these experiences for the completion of Phase 3 of operation Largo da Batata.

Regarding power and social capital, our analyses highlights that these movements use ICT to attract members, and persuade them to act for the cause, with posts in Facebook groups seeking new volunteers for local maintenance, as a report found on the page of *Horta da FMUSP*: “We are in need of more volunteers in the Horta da FMUSP. If you would like to help and do not know how, come help us to water the plants. Over time, you can learn the names of plants, observe their growth, the appearance of flowers and fruits [...]. There is no way do not like it! [...]”. A interviewee points out his comprehension regarding the use of social networks in these strategies: “For me, the social network doesn’t have much social use, but political use. If you are on my profile, practically, it has no personal post [...] I use Facebook as a means of communication [...]. It’s a platform that today I don’t need to be linked to an owner of the means of production [...]”, referring to what Castells (2013) claims to be one of the differences of these new social movements: the ability to autonomously produce a communication free of the mediations and controls of those who hold the institutional power.

There are initiatives focused on broad dissemination of actions of the movements and spread relevant news about, for instance, water quality and healthy nutrition (urban vegetable gardens); benefits of green areas for quality of life and use of public space for recreation and leisure (squares); inclusive urban mobility projects (urban mobility). News information that are disseminated by these groups are not restricted to the national sphere, but primarily encompass events and discoveries of other countries, which shows the logic of *glocal* action of these movements (DI FELICE, 2013a), which may be related to the educational formation of their participants, mostly with graduate degrees and experience for a while abroad.

Finally, we observe that these movements use ICT to socialize lectures, courses and seminars. In 2016, for example, these groups jointly conducted in the city of São Paulo more than 200 events, a few of them with partnerships, participation and

even execution in government sites, demonstrating there is a connection between these movements and the government. Although most interviewees point out certain absence of a close relationship with the government, or experiences characterized by conflict and coalition, as reported by two interviewees (“It’s an always tense relationship. Relationship of conflict and after partnership” and “It’s a good relationship, with dialogue, but with pressure”), we note the presence of some participants of these movements in the public power sphere.

The analysis of action situation suggests that participants of these “new” social movements are constantly paying attention to government actions and, when necessary, they pressure for more influence on decision-making, and getting more information. Although these actants use ICT to promote new forms of organization, aggregation of citizens and broadening the reach for their causes, we observe that these participants do not rule out the need to continue to engage and participate in more formal and traditional instances of social representation with the government to intervene in the decision-making processes. This becomes clear in interviews when at least one member of each movement declares occupy a government chair in local discussion arenas to ensure access to and communication with the government. This happens, for example, in the Municipal Councils on the Environment and Sustainable Development (CADES) (collective of vegetable gardens and squares) and in the Municipal Secretariat of Transports of São Paulo (collectives of mobility). The use of ICT by these citizens enables real-time access to policy makers, building a non-mediated, quickly and directly communicative narration with those responsible for decision making (ANTONUCCI; FIORENZA, 2016). The analysis shows that it is not just a question of obtaining information on the causes being defended by these collectives, but, ensuring their participation as citizens, even though in an advisory way, in the arena of discussion; and gathering arguments in a fast, collaborative and collective way in digital networks and with other actants, both at local and global level. This help them to better prepare strategies that can serve as a basis for further discussions. They also use ICT when they need more power and influence for obtaining government approval of a specific project or cause (such as official recognition of vegetable gardens, decrease road speed and inclusion of pedestrians in urban mobility policies in city). ICT is also used to getting support for a citizen directly involved in local official decision-making entities (such as councils). Participants use ICT, especially Facebook, to mobilize information, share knowledge, skills (LÉVY, 2010) and power in their respective fields of action (CASTELLS, 2013), depending on the position of influence in relation to other movements or to the government, with friendship or work relationships.

CONCLUSIONS

Are these elements presented and discussed in this paper sufficient to identify such initiatives as new social movements? After all, what are these phenomena? How can they be truly referenced? The diffusion of ICT, and especially social networks, brought up these experiences that emerge from networks and that, by their virtual

interactions, create meanings, social transformations and news territories (re) setting the 21st century urban. However, “[...] the emergence of an invisible sociality, which is difficult to observe, catalog and order, while no more urban and territorial only, and virtually anonymous” (DI FELICE, 2009, p. 290), brings new challenges to those who take it upon themselves to understand how ICT have shaped ways of life and conceptions of use of the urban space, at the same time providing new ways of integration of citizens in local decision-making.

These initiatives that emerge in the megacity of São Paulo, as well as international experiences that have been studied all over the world, highlight that these collectives are seeking the right to the city under the logic of egalitarian insertion in local decisions arenas, regardless of their area of expertise. They use ICT to empower themselves by obtaining relevant information to influence decision-making, valuing social capital and sharing power to pressure the government on claimed causes. As a result, these initiatives reconfigure the production process of the public space, creating urban gardens and revitalizing public squares that were abandoned. They enhance the negotiating and decision-making processes, particularly in risk situations and conflicts of power and interests such as in discussions of public policies for urban mobility in the city of São Paulo. Using ICT, these collectives engage citizens, boost mobilization, bring up issues apparently silenced and seek to connect the local with the global. Within the logic of net-activism, these new movements express a new dwelling culture, seeking to modify the context of sociability in order to act as modeling agents of the urban space. However, as our data point, participants of these “new” social movements recognize the limits of the use of ICT for their actions and causes, and therefore, they do not give up participating in more formal and traditional instances of representation to intervene in cases of decision-making procedures.

These characteristics lead us to propose that these collectives resemble what Di Felice (2013b) conceptualizes as net-activists movement, since they emerge from digital networks and continue their actions on the streets of cities, valuing a political identity, but refusing the institutionalization. By all indications, these collectives are halfway, in a “coming to be” not yet formalized. Certainly, these initiatives pose in debate the course of future studies focused on the connections between technology, megacities, urban movements, governance and use and production of urban space. Future studies focused on understanding the motivations that lead citizens to engage to these movements and more accurate descriptions of logic in this network action are critical (CASTELLS, 2010), including detailed analyses on information flows, positioning of individuals in networks, influences between the actants and decision-making processes at a local level. These studies require an interdisciplinary perspective from researchers who now, more than ever, are called to integrate knowledge from different scientific fields, building a dialogue (increasingly needed) between Political Science, Sociology, Communication, Social Communication and Technology (C&T) Studies, Geography and Environmental Sciences to understand in depth the relations established by these movements and between its members in structures of networks.

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Paper submitted on February 27, 2017 and approved on July 1st, 2017.

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