Social engagement: the case of the Revolução dos Baldinhos in Florianópolis, Brazil

Helena Kuerten de Salles
helena.salles@ufsc.br
Universidade Federal de Santa Catarina, Florianópolis, Santa Catarina, Brazil

Marcela Silva Adam
silva.marcela121@gmail.com
Universidade Federal de Santa Catarina, Florianópolis, Santa Catarina, Brazil

Maryane Cristina de Souza
maryanecristinadesouza@gmail.com
Universidade do Estado de Santa Catarina, Florianópolis, Santa Catarina, Brazil
Abstract

Social innovations may be recognized as vectors for amplifying groups' capacities and the society to reinvent itself, creating its solutions to social problems. Social problems, the focus of social innovation, can be understood from the perspective of Wicked Problems (Rittel & Webber, 1973), which are considered difficult problems to demarcate, as they do not have understandable limits, and their confrontation involves an intelligence creative activity that presents itself through a collective activity, which shapes the environment, changes the ordering of things, awakens new rules, understands new facts, creates tools to capture situations and intervenes in order to order them according to the expected goods (Cefaï, 2017). For example, in 2008, the lack of a basic sanitation structure and deficiencies in garbage collection moved a community in southern Brazil to seek alternatives to face the excess of organic disposal accumulated on the streets, which increased the proliferation of diseases. As a result, locals and specialists developed a social innovation to confront the situation: the community management of organic residues and the incentive of urban farming, funding the organization known as Revolução dos Baldinhos. This organization has faced a great rotation of its members throughout the last years, and more recently, a low engagement level from local citizens. However, this is a very sensitive aspect, as the Revolução dos Baldinhos has been born from the community's initiative and depends on it for its survival. So, to bring light to the historical context and explore the topic of participation and engagement, a conversation circle with representative actors from the Revolução dos Baldinhos has been developed and recorded (videotaped). From this actor's narratives, this work is based on Granovetter's theory of weak ties (1973) to discuss the involvement of individuals in social innovations. Granovetter (1973), explains the lines of connection between social actors, distinguished from each other by weak and strong ties, an analysis of social networks that contributes to the study of the involvement of individuals in social innovations. Considering that social innovation doesn't focus only on the technological aspects but is also related to the responses that civil society can give to matters that affect them, there is a fundamental dependency on the engagement of the civil society itself. Therefore, carefully exploring the aspects that favor strengthening the actor's participation may contribute to social advancement. Therefore, the objective of this work is to present an analysis approach to the engagement of actors in a social innovation initiative through an analytical framework based on Granovetter's Theory of Weak Ties.
Keywords: Participation; Engagement; Social Innovation; Weak Ties; Wicked Problem

INTRODUCTION

Social innovations can be recognized as vectors for expanding the capacity of groups and society to reinvent itself and create solutions to social problems. Social problems, the focus of social innovation, can be understood from the perspective of wicked problems (Rittel & Webber, 1973), which are considered difficult problems to demarcate as they do not have understandable limits. Their confrontation involves a creative intellectual activity that presents itself throughout a collective activity. That activity shapes the environment, changes the ordering of things, awakens new rules, understands new facts, creates tools to capture situations, and intervenes to order them according to the common good (Cefaï, 2017).

Following the example of social innovation processes, in 2008, the lack of a basic sanitation structure and the deficiencies in waste collection moved a peripheral community in the south of Brazil to seek alternatives to face the excess of garbage accumulated in the streets that caused the disease proliferation. To face this situation, residents and specialists developed a social innovation: the community management of organic waste and the encouragement of urban agriculture, founding the organization Revolução dos Baldinhos (Salles, Adams & Souza, 2021).

The Revolução dos Baldinhos (RB) works fundamentally based on voluntary action. However, over the last few years, this organization has been facing a high turnover of its members and, more recently, a low engagement of residents. This fact is a susceptible aspect since the RB was born as an initiative of the community and its survival depends on it. Thus, in 2020, to raise the historical context and explore the issue of participation and engagement, a conversation wheel was developed with representative actors of the RB (recorded on video) (Adam & Souza, 2020). The reflections generated from this conversation indicated a research question: what role does the bond between actors play in social innovation?

Considering that social innovation is not only focused on technological aspects but is related to the responses that civil society can give to the issues that affect it, there is a fundamental dependence on the engagement of civil society itself. Thus, carefully exploring aspects that favor strengthening the actors' engagement can contribute to social progress. Understanding the dynamics that the actors' bond can offer is a vital issue in Social Innovation.
Different approaches can provide analytical perspectives on this issue. One perspective is Granovetter's theory of transitory emotions (1973), which explains, through lines of connection between social actors, distinguished from each other by passions and strengths, an analysis of social networks that contribute to the study of individuals' involvement in social network crises.

THEORETICAL FOUNDATION

2.1 Wicked Problems and Social Innovation

The RB established itself as a proposal for community management of organic waste through thermophilic composting and incentives for urban agriculture. The lack of proper management of organic waste, a problem faced, is linked to other problems. The neighborhood where RB operated originated through irregular occupations and was mainly populated between the 1970s and 1990s due to the rural-city migratory movement, generating a disorderly and irregular occupation. This process negatively affects the installed community, including the lack of urban planning, basic sanitation, assistance services, and housing (Adam & Souza, 2020).

Neighborhood sprawl is typically a social problem (or public problem) and depicts a wicked problem. Wicked problems are considered a category of problems that are difficult to define since they do not have understandable limits. In that matter, definition and confrontation correlate, that is, through the definition of the wicked problem, which presents itself as coping (Rittel & Webber, 1973).

In addition to the problem related to uncontrolled growth, this region also has a high concentration of poverty, a high crime rate, a high concentration of people per dwelling, as well as significant deterioration, malnutrition, illiteracy, school dropout, infant mortality, among countless others (Adam & Souza, 2020). This correlation between different problems is a characteristic of wicked problems, as they belong to a category of problems that do not have understandable limits about other problems. As a result, there is no way to establish an adequate scope for their response (Rittel & Webber, 1973). The process of facing these problems must be continuous in the constant restructuring of the confrontation discussed.

Most social problems faced by Social Innovation are considered wicked problems because no tangible limits define them, not having even a concise answer capable of solving them. It is impossible to define delimitations, and there needs to be an adequate scope to solve
the problem. They are commonly restructuring themselves, and the pandemic is an example. The wicked problems are no longer the same ones faced before social isolation. This issue needs new public policy reformulations (Rittel & Webber, 1973). In order to understand the wicked problems and develop public policies to face them, it is necessary to study the current moment and analyze the possible causes and associations with other problems.

When it comes to wicked problems, it will hardly be possible to carry out a plan and follow it to the point of realizing all the points raised in our study. It is only possible to understand these problems by analyzing the situation in reality by observing the event. Facing wicked problems is a challenge because of its inherent complexity and because traditional forms of public sector management tend to intensify and limit efforts to resolve these issues. Traditional public administration is inadequate to deal with the wicked problem positively (Head & Alford, 2015).

Dealing with wicked problems, at first, may seem like starting lost causes (Head & Alford, 2015). However, it is necessary to understand that each problem interacts with several other problems. In this way, they are called interrelated problems or systems of problems. To better understand the problems, it is necessary to look from the whole to analyze their specificities (Ackoff, 1974). Head and Alford (2015) bring some strategies to deal with wicked problems: the focus on collaboration so that it is possible to bring other confrontations and different points of view; broader ways of thinking about variables; more options and connections; new leadership models; and finally, changes in management structures and processes.

Usually, the greater the complexity of the problem, the greater its perversity. For the decision maker, complexity generates levels of uncertainty or ambiguity. The public sector's hierarchical forms of organization and control systems, with a focus on processes, restricted the opportunity to think broadly about policy issues associated with the wicked problem (Head & Alford, 2015). Social Innovations emerge, then, as a way to modify these perspectives.

Wicked problems pose significant challenges for individuals working in government. There may even be a certain amount of frustration among policymakers as they keep trying to solve problems that may not have a solution. There is no way to know if they are following the ideal path because wicked problems do not have a "stopping rule" and also, "additional efforts may increase the chances of finding a better coping" (Rittel & Webber, 1973). In recent decades, some political leaders have persisted in carrying out interventions to address wicked
problems, even starting from imperfect knowledge. With the results taking years, methods to understand the problem are very important (Head & Alford, 2015).

The most significant concern with wicked problems arose with how disasters and crises of different types are treated, highlighting the inability of government systems to prepare, coordinate and mobilize resources quickly (Kettl, 2009; Head & Alford, 2015). Modern political science studies have moved beyond old-style systems theory. They are currently following an extensive set of argumentative, deliberative, collaborative, and network-supported approaches to dealing with problems and improving outcomes (Crowley & Head, 2017).

Although the focus in the literature on wicked problems is more related to proposing strategies to implement, it is essential to emphasize that wicked problems require not only alternative action strategies but also ways of observing and preparing to implement them. For wicked problems to be better addressed, it is necessary to provide a set of alternative lenses so that new observations can emerge, leading to new action strategies. It is improbable that policymakers will deal wisely with the varied characteristics of wicked problems. Need to have a variety of approaches (Termeer et al., 2015).

Noordegraaf, Douglas, Geuijen & Van Der Steen (2019) report that there is an absence, in many cases, of the micro-level view of people in organizations and network practices in the analytical and prescriptive dimensions of the theory of wicked problems. Most studies treat the implications very abstractly, presenting what needs to be done but not clarifying how and by whom it should be carried out.

The authors portray three critical principles of the theory of wicked problems (Noordegraaf et al., 2019):
1 - Emphasizes the political nature of the problems but does not address the practical experiences of individuals who deal with these problems daily.
2 - Emphasizes collaboration and learning in response to perversity and ends up overly romanticizing this type of confrontation, ignoring the difficulties involved in its application.
3 - Remains to be more precise about managerial and professional implications.

Dealing with public problems is a kind of creative intelligence that presents itself through a collective activity, which shapes the environment, changes the ordering of things, awakens new rules, understands new facts, creates tools to capture situations, and intervenes in order to order them. Them according to the common goods (Cefaî, 2017). RB is an example of creative intelligence. Throughout its history, the organization has been restructuring itself
according to the community's needs. In this way, new activities were implemented to meet other needs. An example is the "Cozinha Mãe" or "Mother Kitchen" a project created within the RB association to provide balanced meals for the needy in the neighborhood. The initiative was put into practice during the Covid-19 pandemic in 2020.

Social innovation lies in the social change that facing a social problem can generate. Based on this perspective, it is possible to understand the specificities of creating social innovation with new ideas and actions that lead to social change. Social innovation occurs when an idea establishes a new conviction in thinking and acting, changing existing paradigms and generating future social development (Cajaiba-Santana, 2013).

The different activities of the RB show that the organization has become much more than community management of organic waste. That is, the characteristics of the research case are aligned with the definition of Social Innovation by Cloutier (2003): a new response to a social situation considered unsatisfactory by the individuals of a community as a way to seek the well-being of citizens through actions that promote lasting change in all sectors of society. To achieve this objective, social innovation represents the result of different actors' cooperation enabling a collective knowledge construction process.

Correlating Cloutier's definition (2003) with the research object, it is possible to highlight that RB emerged in 2008 as a result of a public health problem, the outbreak of leptospirosis, in the Chico Mendes community in Florianópolis, as a result of excessive rubbish strewn across the streets of the region. This unsatisfactory social situation was related to a flawed garbage collection system that could not meet the demand for waste collection on-site. So, aiming at the well-being of the residents, many meetings took place between local actors to collectively build a solution to the problem. To achieve this end, a simple extermination of the area would not fulfill the function of being a lasting change and a practical solution since it was necessary to face waste disposal in the streets. Thus, the various agents gathered had the idea that the deposit of organic waste in "little buckets" with lids would prevent the spread of dirt along the streets and access by animals, in addition, to educating and raising awareness among residents about the correct disposal of garbage. According to the case correlations with the adopted definition of SI, the social innovation initiative called the Revolução dos Baldinhos is presented.

This interaction between different social actors that culminated in the creation of RB was only possible due to forming a social network of innovation between different actors with a common goal. Therefore, it becomes possible to observe the existing intersection between
Social Innovation and the "Strength of Weak Ties" theory by Granovetter (1973). For Social Innovation to occur, it is necessary to have the participation of social actors.

2.2 Strength of Weak Ties

It should be noted that both the initial group of the Baldinhos Revolution and the first members of the association are different. While the first was discussing how to solve the issue of the proliferation of diseases, the most recent can be characterized as individuals coming from very different groups and with different circles of interaction between them on the day-to-day work. They are community residents, representatives of the associations of the Complexo da Chico Mendes (neighborhood community where RB operates), the women of the Frente Temporária de Trabalho (community association), technicians from the Centro de Estudos e Promoção da Agricultura de Grupo (Center for the Study and Promotion of Group Agriculture), professionals from the Centro de Saúde do Monte Cristo (Public Health Center community, called SUS in Brazil), between others. According to Granovetter (1973), these agents with different origins and sporadic interactions are essential resources in the expansion of the social network, which, in turn, are defined as "a device for representing social structure that depicts people as points and relationships as connecting lines" (Granovetter, 1976, p. 1287).

These connecting lines can be studied by the theory of the Strength of Weak Ties, belonging to the approach of the new economic sociology, so called by the works of Mark Granovetter of the late 1970s. This theory can be defined as the continuation of the economic sociology of the beginning of the nineteenth century uniting sociological and economic analysis to explain socioeconomic facts more robustly than traditional economic theory. In turn, in the study of markets and social inclusion within economic behavior, from the perspective of the new economic sociology, it is necessary to analyze social networks, that is, an instrument that formalizes the relationships between actors, as well as the relationship between actors and other individuals in the network (Steiner, 2006).

Granovetter studied these ties in 1973 in his article "The Strength of Weak Ties." To obtain the conclusions found through the measurement of the strength of ties, Granovetter (1973) used a random sample of people from the suburbs of Boston, United States, looking for professional replacement.

As a result of his study, Granovetter explains that the strength of a tie is represented by the combination, probably linear, of four factors independent of each other: emotional
intensity, mutual trust or intimacy, amount of time, and reciprocity. These factors are highly correlated and can be weak, strong, or absent. In a more explanatory way, strong ties are high-frequency and high-intensity contacts represented by close family and friends. Distant acquaintances with little personal contact form weak ties, lower frequency, and intensity. On the other hand, absent ties denote a lack of interpersonal relationships between two individuals (Granovetter, 1973).

In this way, Granovetter (1973) argues that the more strong ties the individual has, to the detriment of the number of weak ties, the more restricted he will be to the information transacts in this group of friends or family members. Therefore, the expansion of its network becomes limited, as the principal agents that promote social cohesion are the weak ties responsible for interconnecting heterogeneous groups. Thus, when citizens of a community are strongly rooted in it, they may have the impression that their actions and group activities do not depend on external forces (Granovetter, 1983). However, in the closed network of a group of people, the more strong ties are represented by the affective network, and consequently, the bonds will be denser. The more open the network is to external connections, the weaker ties will be formed, constituting networks with less dense ties and greater access to information (Granovetter, 1973).

These weak ties are also crucial for the strength and expansion of networks by connecting different clusters that do not have connections. The author also argues that people with many weak ties are the greatest disseminators of innovation since some of these links are characterized as local bridges constituted by citizens with very different experiences (Granovetter, 1973). It should be noted that, in his later study, called The Strength of Weak Ties: A Network Theory Revisited (1983), Granovetter returns to the concepts already addressed in 1974. That theory emphasizes that weak ties are fundamental for the study of the diffusion of innovation in reason networks of individuals with diverse experiences are created by them.

Therefore, Granovetter (1973;1983) explains that people with few weak ties will be isolated from the information that circulates only in their clusters, limiting themselves to the knowledge passed on by close friends or relatives. Therefore, weak ties within social systems are essential in integrating citizens into society, dissemination of information, and innovation. In the diffusion of innovations, although weak ties are fundamental in this process, their acceptance can be challenging, requiring identification and trust among community members, that is, a well-established network of strong ties. In addition, they depend on individuals to establish weak ties that allow the formation of efficient networks in displacing information. In
this way, people with many weak ties can better spread innovation since most of these ties are local bridges. If the individual disseminating this innovation has few weak ties, it increases the probability of being confined to a small group without reaching diffusion capacity.

Granovetter also combines the study of community organizations related to weak ties. To this end, it develops its arguments to understand why some communities quickly turn to common objectives while others have difficulties mobilizing resources even under pressure from social actors. To answer this question, Granovetter suggests studying the network of ties that make up these communities to observe which characteristics of their structures favor or impede the organization of local actors. Therefore, the strength of ties is the theoretical framework to analyze the ability of a group to move towards common goals. The first step towards this investigation may be "the more local bridges (per person?) in a community and the greater their degree, the more cohesive the community and the more capable of acting in concert. Study of the origins and nature (strength and content, for example) of such bridging ties would then offer unusual insight into social dynamics of the community" (Granovetter, 1973, p. 1376).

In this way, one sees the relevance and importance of weak ties and network expansion in the dynamics of a community and the diffusion of innovations. With these reflections, one can see how the concepts of innovation, networks, and weak ties are interconnected and are characterized as a theoretical framework to operationalize the search for the effect of weak ties on social innovation.

**PROPOSITION OF AN ANALYSIS FRAMEWORK FOR THE PARTICIPATION OF SOCIAL ACTORS IN SOCIAL INNOVATIONS**

Based on Granovetter's theoretical framework, an analytical framework is proposed to investigate actors' roles in social innovation and understand their engagement. As an example, the case of the Baldinhos Revolution will be used throughout the proposition.

Before creating the framework for analysis, enabling the reconstitution of the history of the Baldinhos Revolution, identifying the challenges that demanded the mobilization of its actors to face certain situations, secondary and primary data collection techniques will be used, among the main sources of information from secondary data, also known as documentary research, are course completion papers, dissertations, theses, and scientific articles, which, despite not referring to the theoretical construction of this research in data analysis, can explore the history of RB. In addition, the search will also involve news in
virtual newspapers, blog posts, social networks, technical works, photos, videos, and awards that can provide knowledge that can contribute to the achievement of the objective. Documentary research of materials physically present in the organization may also be carried out. Godoy (1995) points out that documents constitute a valuable data source for research since they can be reexamined several times, generating new interpretations and bringing significant contributions to qualitative studies. However, it should be noted that even official records should not be considered absolute truths but rather truths inserted in a given context according to the intended purpose and personal interpretation of the phenomenon (Saldanha & O’Brien, 2014). Through semi-structured interviews, primary data sources may also be used with former and current RB employees to restore history.

To better explain the suggested paths to reach the intended result, an analysis framework is created for the participation of actors in social innovations. Below, in figure 1, four hypothetical situations in the history of the Baldinhos Revolution (S1, S2, S3, S4) are presented, symbolized by the circumferences, which are characterized as challenges or events that demanded an articulation of the social actors to face problems that threatened the continuity of RB's activities. Notably, these moments are not situated in chronological order, as it will only sometimes be possible to allocate them to a specific day or week. It should be noted that a large part of this reconstitution will take place based on the story narrated by the association's social actors.

![Fig. 1 Hypothetical situations in the history of RB](image-url)
In order to identify the social actors who were present in these situations, interviews and documentary research should be carried out, analyzing the speech of the interviewees through the identification, the repetition of names of individuals attributed as protagonists in the moments, and the frequency of appearance of the names in the analyzed documents. In the case of RB, the first interviewee will be the association's president due to the long period in management. Successively, the other interviewees will be indicated by those interviewed before them. This non-probabilistic strategy is Snowball, which works as follows: first, through documentary research and/or key people in the organization, called seeds, some individuals of interest for the research are found. Afterward, the researcher requests that the first selected people indicate other contacts with the desired characteristics for the study. Therefore, these seeds expand the network of contacts in social groups and contexts where information is not easily identified (Vinuto, 2014). The end of the interviews occurs when the researcher identifies the theoretical saturation when the data from the reports start to be repeated without appearing relevant information to understand the phenomenon under investigation and respond to the research objectives (Strauss & Corbin, 2008).

It is also noteworthy that the dialogue should be conducted in the least formal way possible so as not to cause discomfort to the respondents, allowing the appearance of more complete answers with a wealth of details. As they will be semi-structured interviews, the meetings will not have a pre-defined duration and will be recorded for later transcription. Semi-structured interviews are commonly used in case studies. They accept greater flexibility in varying the order of questions, which are primarily open, accepting new questions. They also allow co-constructing knowledge by removing the focus from the researcher in favor of the respondent (Saldanha & O'Brien, 2014).

In the following analysis table, figure 2, drawings in the shape of a star will be added to represent the social actors in the situations mapped in the previous phase, who appeared most in the interviewees' speeches.
After mapping the situations that led to the mobilization of RB employees to confront and find the people associated with these events, it is necessary to identify the strength of these actors' ties with the Baldinhos Revolution - through new semi-structured interviews, exclusively with employees and association volunteers. These new interviews, again capturing the perception of individuals, will be directed explicitly to the strength of the bonds that the actors observed to exist in the mapped situations. Thus, who will define whether the tie is weak, represented in figure 3 by the blue color, or full and red color, will be the interviewee according to his perspective.

However, to achieve this end, it is necessary to previously define criteria that determine which ties will be considered weak and strong. Thus, the same Granovetter criteria are used. Strong ties are those contacts characterized as close friends or family with an interaction frequency of at least twice a week. The weak ties of the Baldinhos Revolution are those named as colleagues with occasional contact frequency when the interaction takes place less than twice a week and once a year or more, and rare when the frequency is once a year or less.
Once the data collection is complete, the treatment and analysis of the information acquired in the previous steps begin. This information needs to be transformed into data, and for that, the analytical strategy of triangulation between multiple sources of evidence is used: documents and semi-structured interviews.

Finally, an interpretative analysis of the graphic representations above will be used to describe the effects of ties in the mapped situations of the Baldinhos Revolution. Therefore, a hypothetical explanation is provided, in Figure 4, on the possibility of a phenomenon being found in the field. Two situations are conjectured, S1 and S3, full of weak ties around them as a result of boosting the activities of the RB, and situations S2 and S4, with a more significant number of solid ties generating little benefit to the activities of the association. It is observed in Figure 4 that the situations have a more significant number of blue connections or weak ties. Unfavorable moments have a more significant number of red connections or strong ties. This supposed finding, again characterized as just an example, corroborates Granovetter's premise about the strength of weak ties: the more weak ties, the greater the expansion of the network, the wider the circulation of information, and the greater the benefits arising from this context.
Social innovations are developed in pluralistic environments, where experimentation is encouraged, and multiple creative and determined actors engage in continuous responses to address interrelated public problems (Nine & Chein, 2016). Thus, it is socially constructed as individuals collectively engage in intentional actions and reflexively monitor the outcome of their actions (Cajaíba-Santana, 2013).

The social actors elaborate on the practices that arise in social innovation processes (Cajaíba-Santana, 2013). Therefore, they are related to the collaboration of different individuals who come together to propose a creative confrontation for different public problems. This collective confrontation and the creativity manifested in social innovation are essential to deal with wicked problems. It should be noted that this collaboration between different social actors that culminated in the creation of RB was only possible due to the formation of a social network of innovation between different actors with a common goal. Therefore, social innovation is evidenced by the change in attitudes, conducts, or convictions, originating new social practices (Cajaiba-Santana, 2013). Therefore, it has as a characteristic of the modification of social reality. When it comes to wicked problems, it will hardly be possible to carry out a plan and follow it to the point of realizing all the points raised, as well
as in our study. There is no way to understand these problems without analyzing reality and observing the facts.

Because of this, as a means of analyzing events of low engagement that occurs in the community of the Baldinhos Revolution, this article studies the strength of Laços Fracos by Granovetter (1973), which, in turn, distinguishes the connections between social actors between weak and strong ties, according to their particular characteristics. This last theoretical approach allowed the construction of an analytical framework to investigate the involvement of social actors in a social innovation initiative.

Thus, to enable the analysis through the categorization of ties, it is first necessary to identify the situations throughout the history of social innovation that demanded actors' articulations to face problems threatening the continuity of RB activities. Afterward, the actors who appear most frequently in the reports are sought. Soon after this step, the identified situation must be linked to the social actor through a line representing the strength of the bond. Finally, each event's weak and strong ties must be mapped. The consequences, benefits, or losses arising from these ties to the social innovation initiative must be explored. In this way, constructing an analytical framework model makes it possible to present an analytical approach to the actors' engagement in a social innovation initiative.

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