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New development: Complexity-informed interpretation of social innovation

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IMPACT

Complexity concepts help to open the black box of social innovation for public sector managers and policy-makers and to understand why social innovation can simultaneously be both a solution and problem. Complexity thinking guides formulating essential questions and helps to imagine the desired future and, in so doing, it also provides heuristic tools to address the paradox of social innovation.

ABSTRACT

Social innovation is a systemic and complex process aiming at achieving added value for the whole society. This article explores the applicability of complexity thinking as a useful resource for conceptualizing social innovation. The author advances the complexity-informed research tradition by emphasizing the emergence of social innovation and addressing the paradox of being in charge but not in control. By drawing on such concepts as emergence, self-organization, diversity, co-evolution, feedback processes, dissipative structures and attractors, the article proposes a new approach to cope with the complexities of social innovation.

KEYWORDS

Complexity thinking; emergence; social innovation; wicked game; wicked problems

Introduction

This article assumes that social innovation addresses the societal needs and demands of different service users, that it refers simultaneously to both the means and the ends of action, is systemic in nature, and usually deals with ‘wicked’ problems (Mulgan et al., 2007; Howaldt et al., 2019). Research interest in social innovation has been growing rapidly in the past two decades. One emerging strand of research suggests that social innovation represents a kind of service transformation from ‘deficit-based’ approaches to ‘asset-based’ ones (Sherraden, 2014). Instead of seeing citizens as more or less passive beneficiaries or service users, many scholars believe that citizens should be approached as active co-innovators. Some have called for favourable conditions for social innovation ecosystems (Terstriep et al., 2020); others have analysed the policies of social innovation (Krlev et al., 2019). Despite the publication of many studies in recent years, social innovation remains an incompletely understood phenomenon.

This article builds on the idea that we know far more about the adoption and diffusion of social innovations than their rejection and suffocation. There is a lack of understanding of why well-intentioned initiatives produce the opposite of what they were supposed to accomplish. In order to balance the bias, my aim is to provide a fresh, but theoretically inspiring understanding of the complexity of social innovation. I use the complexity lens approach as a heuristic tool for making sense of why good intentions sometimes end up as bad consequences. This article takes a view that complexity thinking can guide actors to ask essential questions and imagine the desired future.

The complexity lens on social innovation

Complexity thinking refers to a multidisciplinary approach in which comprehensive, holistic thinking replaces a worldview

—an approach that emphasises simplifying causal relations and reductionism alongside linear reasoning, control over issues, and predictability. Complexity arises from the diversity of stakeholders and their strategic goals, interdependencies within and between macro, meso and micro levels, and multiple and incompatible institutional logics (see, for example, Cilliers, 1998; Geyer & Rihani, 2010; Byrne & Callaghan, 2014).

One of the key lessons of complexity thinking is the idea that the entity that emerges from the interaction is at the same time the structure that guides (enables or constrains) the behaviour of the actors (see Figure 1). Since every model describing the activities of social systems is always a simplification of reality, this framework of interpretation must also be treated with caution. A social system refers to a durable organization of interaction between ‘actors’ (who may be individuals, groups, or organizations), and ‘contexts’ (either in the form of environment, institutions, regulation or ‘intangibles’, meaning norms, values, and beliefs). With reference to Figure 1, the components of the emergence (ovals) and the interaction between them (rectangles) are, despite the arrows between them, not causally related to each other. The emergence of social innovation is thus seen as a process in which things happen without clear and visible reason.

The remainder of this article provides a system view on social innovation and discusses the emergence of social innovation through concepts of self-organization, diversity, co-evolution, feedback processes, dissipative structures and attractors.

Self-organization

Self-organization is a more or less spontaneous process happening without externally applied coercion or control.

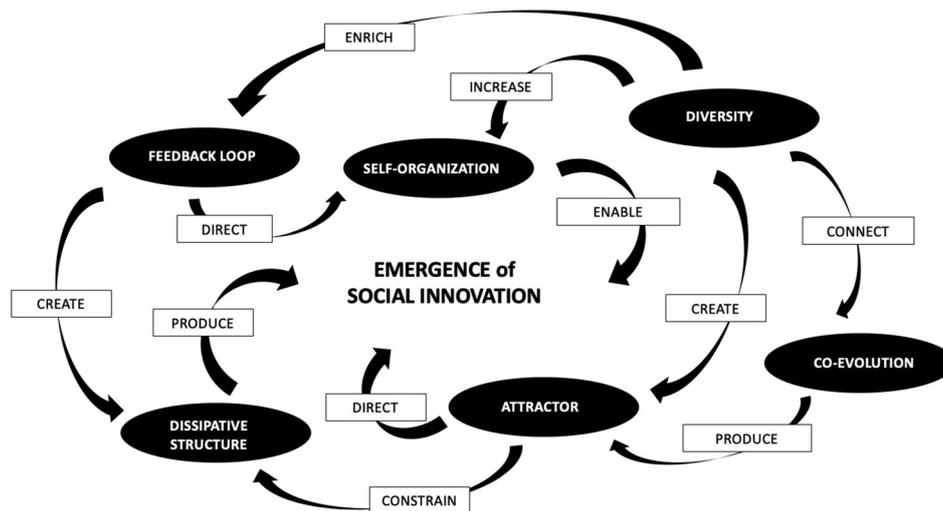


Figure 1. The emergence of social innovation.

Self-organization happens when social systems exchange information, undertake actions, and continuously adapt to others' actions in contrast to the situation where an overall plan is imposed by a central authority (Mitleton-Kelly, 2003). In social innovation there is no central planning or managing, but constant re-organizing is undertaken to find the best fit with the environment. Social innovation is a demand-driven process aimed at improving the life of the most vulnerable. It is not a product whose consumption can be detached from its production. Therefore, instead of a top-down rational planning process, social innovation arises from bottom-up interaction. Social innovation emerges from self-organizing, which cannot be predicted or decided in advance. This also makes it possible that social innovation can be beneficial for a system, but not beneficial for certain groups or individuals in the system, and vice versa.

Diversity

Diversity is the state or quality of being different and is the prerequisite resource for self-organizing. Without diversity there is no difference that makes a difference (Holland, 1995). Social innovation initiatives typically include a diverse set of heterogeneous agents, such as citizens, households, third-sector organizations, businesses, government agencies and regulators, that interact with and are influenced by each other. There is no particular organization or individual responsible for developing and leveraging social innovation. A particularly important aspect is the involvement of the most vulnerable. Put simply, the rationale behind this argument is that people are the best qualified experts on their own needs. The lack of diversity also provides an explanation for the paradox of why some innovations diffuse rapidly, yet are of unproven value or pose risk, while other innovations that could deliver benefits to the most vulnerable remain slow to gain traction (see Dixon-Woods et al., 2011).

Co-evolution

The ways in which the agents connect and relate to one another is critical to the survival of the social system. These relationships are sometimes more important than the

agents themselves. All social systems exist within their own environment and are also part of that environment. As their environment changes, those systems need to change to ensure the best fit (Mitleton-Kelly, 2003). Social innovation is required to tackle complex societal problems; which in turn requires crossing several administrative, organizational and sectoral boundaries. Social enterprise, for example, is a result of concerted actions taken by policymakers, socially oriented entrepreneurs, third-sector organizations and volunteers. It can be described as a co-evolutionary process in which both supply and demand conditions change. Social enterprises set up to meet particular needs that may have proven out for successful system which will be charged with the new tasks. This, in turn, has consequences for public and private services. The need for the co-ordination and co-operation of different stakeholders is evident, especially in the context of social innovations that are usually based not on specific products, but on changes in relationships, typically those between service providers and users. Instead of individual and isolated actors, social innovations are typically invented, implemented, and diffused in complex relationships between different actors.

Feedback processes

Feedback affects the way a social system behaves. Positive feedback enhances its capability (i.e. it is stimulating), whereas the effects of negative feedback are the opposite (i.e. they are balancing). Positive does not necessarily associate with good or negative with bad. A circular dependency relationship is typical in feedback processes, meaning that the result of the previous situation is the stake in the following one. Agents interact through physical and social networks, by sharing information or learning from one another, influenced by social norms and institutional rules. These interactions change over time according to dynamic rules that emerge with the availability of new objects, policies and so on (Stacey, 2010). In a social innovation context, feedback processes are important as they enable the consequences of small actions to be multiplied. Feedback processes can launch nonlinear and unpredictable chains of action. At best, the outcome may be a positive development in which events and actors

feed themselves—this can happen, for example, when citizens are engaged in service development. Framing service users and citizens as experts-by-experience (Meriluoto, 2018) can potentially create self-enforcing dynamics. However, the inclusion of the user voice in social innovation may also give rise to challenges concerning democracy and accountability, as several justifications and dependencies have to be negotiated.

Dissipative structures

Sometimes social systems can undergo a significant type of change: a phase transition. Dissipative structures refer to phase shift, breaking of symmetry, and to multiple choices. A complex system is repeatedly driven towards the edge of chaos or to a state known as ‘far-from-equilibrium’ (Nicolis & Prigogine, 1989). The far-from-equilibrium example is a typical paradox containing the seeds of both good and bad outcomes. It implies the simultaneous presence of elements capable of generating order or disorder. Boisot (1999) described the dual nature of far-from-equilibrium as a state which enables social systems to move in two directions at the same time, towards fossilization and disorganization. Disorganization—albeit a concept with a negative connotation—is a prerequisite for the emergence of a new order and the emergence of social innovation. Societal reforms and changes in regulation and legislation are typically drivers that allow the simultaneous presence of the elements of social innovation generating disorder and order. Social innovation depends upon and calls for a change, but change always generates new challenges.

Attractors

The emerging patterns may have a rich variety, but like a kaleidoscope, the rules governing the function of the system are quite simple. A social system’s non-linearity is not indefinite; it is bounded by attractors. Although a social system develops through a series of different phases, the way it behaves is constrained by its reigning attractor(s) such as norms, values, and ideals. An attractor is social system’s organizing principle, which limits a system to a pattern of behaviour (Mitleton-Kelly, 2003). When a system’s dominant behaviour is disturbed, it will eventually revert to that behaviour consonant with the reigning attractor. The presence of attractors means that each system has its own characteristic set of behaviours. Interactions between the diverse set of actors shape the social system, but are constrained by regulation, legislation and institutions. Therefore, societal reforms and changes in regulation and legislation not only cultivate the phase transition but also delimit that phase transition. This means that potentially advantageous social innovations may not be adopted if they do not fit with the dominant attractors of the system.

Conclusions

This article claims that complexity concepts are potentially useful in exploring the characteristics of social innovation. Complexity concepts help to open the black box social innovation and to understand why social innovation is simultaneously both a solution and problem. From management point of view, at the heart of social

innovation is the paradox of being in charge but not in control. Without seeing, understanding, and accepting the paradox, there is a risk of a naïve interpretation of social innovation. The value of complexity concepts is that they make it possible to conceive of structural and procedural factors that contribute to or inhibit social innovation. Therefore, it is possible that complexity thinking can be used for several purposes such as juxtaposing the positive benefits of social innovation against its negative consequences, exploring critical elements of social innovation and their interdependencies, designing social innovation initiatives, and obtaining the support of practitioners and policymakers.

One possible avenue for further research relates to the wicked aspect of social innovation and particularly to the question of how to deal with wicked problems (Rittel & Webber, 1973). Leaning on Lundström et al. (2016), this article proposes a wicked game approach to cope with the complexities of social innovation. The approach acknowledges several characteristics of a wicked game:

- There is no coherent set of rules—everybody can play the game with their own rules.
- Players change all the time.
- The playing field is networked and complex—the scale is relative and can vary.
- No one can master a wicked game because the game, the rules and the players change constantly.
- The game does not end.

In the wicked game, it is assumed that citizens have unique expertise on the problems in question and are therefore able to understand the wicked problems. The wicked game cannot be won, but it can be played fairly. The approach emphasizes the dynamic nature of working wicked problems (Raisio et al., 2018) and calls for sensitivity and adaptation to local conditions (Heimer, 2013). In addition to tackling wicked problems, it is possible that the wicked game approach is potentially beneficial for public and social imagination and anticipation purposes (Mulgan, 2020). The ability to consider a wide menu of options when taking decisions in the present according to imagination about a desired future inevitably entails contradictions and tensions. Without an ability to adapt to wickedness, the potential of social innovation will remain untapped.

Disclosure statement

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