

IMPROVING COMMUNICATION FOR COLLABORATION IN SOCIAL INNOVATION PROJECTS - A FRAMEWORK FOR PRAGMATIC RESEARCH

Hans Weigand, TiSEM, Tilburg University, The Netherlands {H.Weigand@uvt.nl}

Aldo de Moor, CommunitySense, Tilburg, The Netherlands, {ademoor@communitysense.nl}

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Abstract

Nowadays, many innovation projects are based on the collaboration of multiple parties to co-create value. Communication is a critical success factor. This paper introduces a pragmatic research framework that aims to improve communication practices in innovation projects. The framework draws on a revised Theory of Communicative Action in which the boundaries between spheres are explicitly acknowledged, as well as Bourdieu's practice concept and the theory of boundary spanning. In this way, justice can be done to the many different communities that are involved in social innovation and the various ways they interact.

Keywords: Language/Action Perspective, social innovation, pragmatics, spheres

1 Introduction

Social innovation is about “the relationship networks and collaboration processes around new ideas that meet unmet needs” (Murray et al, 2010). Its goal is to improve society's capacities to solve its problems. A characteristic of social innovation is that it cuts across organizational, sectoral or disciplinary boundaries. In social innovation, a critical role is played by the ‘connectors’ – the brokers, entrepreneurs and institutions that link together people, ideas, money and power – who contribute as much to lasting change as thinkers, creators, designers, activists and community groups. In the rest of this paper, we will use the term “innovation” as shorthand for “social innovation, but the results apply to any kind of innovation that involves multiple organizational stakeholders (e.g. open innovation – Chesbrough, 2006). Drawing on the Language/Action Perspective, Denning & Dunham (2006) indicate an innovation to happen when a group or community is adopting a new practice. This can be a painful process. *Practice* includes habits, routines and other forms of embodied recurrent actions that as such resist radical change. According to (Hillgren et al, 2011), mutual trust relationships are critical to achieve social change, and social innovation projects easily fail if they are not based on long-term commitments.

Bringing about a change of practices requires other practices. The framework proposed by Denning and Dunham contains seven practices of innovation: sensing possibilities, envisioning new realities, offering new outcomes, executing plans and actions, adopting new practices, sustaining integration, leading and, as a cross-cutting concern, attending to somatics (the bodily interaction). Each is said to have a particular structure of conversations and actions.

Our research motivation is to study social innovation by a pragmatic research approach. By a pragmatic research approach, we mean two things: firstly, that the research object of IS is formed by communication and coordination processes, embedded in local practices. Secondly, that the research aims at “knowledge-for-use”. We use the Theory of Communicative Action (Habermas) as one important theoretical lens, but we focus particularly on the spatial aspect of communication, and the consequences of a localized theory of communication. This is because our experience with social innovation practices so far has shown that social innovation does not take place in one, amorphous communication space. Instead, the Social Innovation Collaboration Model derived from our earlier

analysis posits that there are several interacting “conversation spheres” consisting of a core community, developer, user and stakeholder networks (De Moor 2012). The main results of this short paper are an outline of a localized theory of communicative action and its application to social innovation by means of the pragmatic research framework.

2 Communication for Innovation

2.1 Communicative Action

Communicative action as defined in Habermas’ Theory of Communicative Action (Habermas, 1984/1987 – TCA for short) is aimed at the *coordination* of activities. This theory is written in the tradition of the Frankfurter School and has three main components:

- a concept of communicative action as coordinating device.
- a concept of rationality that goes beyond the individualistic premises of modernity.
- a two-level concept of society (lifeworld, system world) .

With these ingredients, Habermas is able to develop a critical theory of modern society, accounting for its pathologies but without abandoning the Enlightenment project as such. For developing the concept of communicative action Habermas draws on the speech act theory of Austin and Searle, as well as the linguistic theory of Buhler. Like Austin, he breaks with the idea that words are just there to describe the world. People *do* things with words, but what? For Austin, typical speech act examples are ritual, e.g. closing a marriage, and they derive their meaning from an established social practice. A basic assumption of TCA is that language is a medium for coordinating action. It accomplishes this goal by allowing the participants to reach a common understanding. From this common understanding, it follows what should be done and on what beliefs these actions should be based. TCA complements Austin’s analysis in deemphasizing the practice aspect and foregrounding the coordination objectives.

2.2 From TCA to TCA 2.0

In (Weigand, 2013) it has been argued that TCA lacks a conceptualization of space and therefore has difficulty in accounting for the localized nature of communicative action. Its orientation is universalistic. However, before being able to communicate, actors must be bodily (in the traditional case) together in some space, with a certain atmosphere and boundaries. As has been explored extensively by the philosopher Peter Sloterdijk (2011), one of the first human needs is to protect themselves by building safe spheres (house, city, airplane ...). For one thing this means that at each moment a distinction can be made between the inner group and outsiders. It also means that the universalistic notion of rationality in TCA should be replaced by a notion of *bounded* rationality. Paradoxically, Habermas’ ideal speech situation – relatively absent of external forces and in which everybody is allowed to participate – *assumes* boundaries; for how could these conditions be realized anyway?

Communicative action is aimed at agreement between actors. TCA 2.0 adds to this: agreement in a given sphere *in the face of an external sphere*, in the sense that the communication draws on and modifies the relationship and distance to other spheres. Communicative action not only always happens in some (usually explicitly designed and protected) sphere, but also has an ambivalent relationship with external spheres. On the one hand, it has a function in building and protecting the identity of the sphere against other spheres. On the other hand, it draws on the other sphere(s) as a reference point. A typical example of the first function is the use of the pronouns “us” versus “them” that indicate and reinforce the group cohesion. It should also be recognized that any agreement and sharing of norms between actors has the effect of turning others who are not aware of these norms into outsiders (Wenger, 1998:103). An example of the second function is a research lab that legitimizes itself (inner sphere) by referring to the role of research in society (external world). In the organizational context, Taylor calls this “uplinking”. The uplinking question is defined as the question

“how the respective local organizations are reconciled to each other and to their work as part of an encompassing larger network of communities” (Taylor & Every, 2011:27). This uplinking is not only needed to foster inter-group collaboration, but also for the sphere itself, to give meaning (Taylor uses the Peircean term “thirdness”) to the practices in the sphere by their relation to an external reference point. The lab experiments in the lab get framed as research & development; the surveys performed by the marketing department get framed as marketing, which are two functions of the enterprise, and indirectly serving the customers and society.

Note that if we accept these assumptions, spheres are never completely isolated, even if there would be no material exchange between them, but exist in mutual dependence. Taylor uses the term “imbrications” which suggests that there is always a certain overlap. Given this interdependence, we can expect exchanges to happen between them. It is here that, in the line of Taylor, we talk about texts as boundary objects. In this view, a text is not just a form of communication on a permanent medium such as paper, but a communication mode – communication between spheres. It is typically created in one sphere to be used in another sphere. Since the two spheres will differ (in terms of shared knowledge and implicit life world), the text depends on a careful crafting (including externalization of tacit knowledge, decontextualization) and careful interpretation), and it has to be accepted that the same text gets a different meaning in different spheres. However, this is not only a limitation but can be a useful feature of the text as a boundary object. For instance, the same ER diagram is a conceptual model of the enterprise for the business analysts and an abstract database design model for the programmer.

It can be conjectured that the communicative action between spheres will differ from intra-sphere communication. Inter-sphere communication will have a more textual character. What that means exactly is a research question that we start to explore in this paper. A sphere that aims to bring about inter-sphere communication is called an inter-sphere.

So far we have talked about communication taking place in physical space, with physical boundaries. Nowadays, more and more communication takes place in virtual space, via web forums, Twitter, email etc. Some of these spheres are more open (public) than others. Our conjecture is that virtual spheres often (not necessarily always) function as inter-spheres, spheres that link private spheres, just like the streets outside link houses and corridors link rooms. These inter-spheres are connected themselves via more global inter-spheres (like streets are connected to highways, to pursue the analogy) However, unlike with physical spheres, the virtual boundaries are often fuzzy, even though the social norms requiring their clear demarcation are still there. This leads to many problems, such as the well-known continuing issues with Facebook privacy settings (Boyd and Hargittai, 2010). Using a TCA 2.0 lens should help clarify exactly what is at stake and suggest directions for improvement.

2.3 Boundary spanning and inter-spheres

According to the practice theory of Bourdieu (1990) actors are engaged in fields, where each field shapes an agent’s interests and practical competencies while distinguishing him or her from agents practicing in other fields. Fields unite agents in pursuit of a common interest, over against other fields. According to (Levina & Vaast, 2005), the emergence of a boundary spanning competence in practice is associated with the emergence of a new joint field, both uniting and distinguishing. This emergence is also intricately tied to the emergence of boundary objects that must be locally meaningful (in the practices of the various fields) and have a common identity across these fields (to be acquired in the context of a joint practice). This “joint field” corresponds of course to what we just called inter-sphere.

Levina & Vaast (2006) make a distinction between community-like and market-like inter-spheres. In the former, boundary objects are produced in the inter-sphere, whereas in the latter they are exchanged via the inter-sphere but produced separately by each party involved. The former give priority to embodiment (personal relationships), the latter to objectivation (objects). The use of IT is often

correlated with a market-like inter-sphere, as IT allows sharing objects without reliance on individuals to "carry them across boundaries". However, IT support is not limited to that.

Taking it together, we distinguish 3 kinds of spheres: (1) private spheres that cannot be entered anonymously and in which *reproduction* is important; (2) closed inter-spheres that have a focus on *production* of boundary objects and that cannot be entered anonymously; (3) public inter-spheres that have a focus on the *exchange* of boundary objects and can be entered anonymously.

As far as we know, a formalization of norms pertaining to boundary spanning does not exist yet. As a first step, we define a few informal rules;

- a. Inter-spheres should stimulate either the creation or the exchange of boundary objects and provide them with a global identity.
- b. Inter-spheres should contain actors that are also a member of other spheres - boundary spanners - and provide them with a clear role (in the case of exchange, possible roles are importing and exporting) .

3 Social Innovation Collaboration

In this section, we will move on to social innovation. We first introduce the Social Innovation Collaboration model originally introduced in (De Moor, 2012), and then interpret some of the results of recent case studies through a TCA 2.0 lens.

3.1 SIC model

The Social Innovation Collaboration (SIC) model aims to capture and link the various spheres of conversations in which social/open innovation takes place (Fig.1). The conceptual basis for modeling these conversations is the *communicative workflow loop*, which is the basic unit of coordinating actions in collaborative communities.

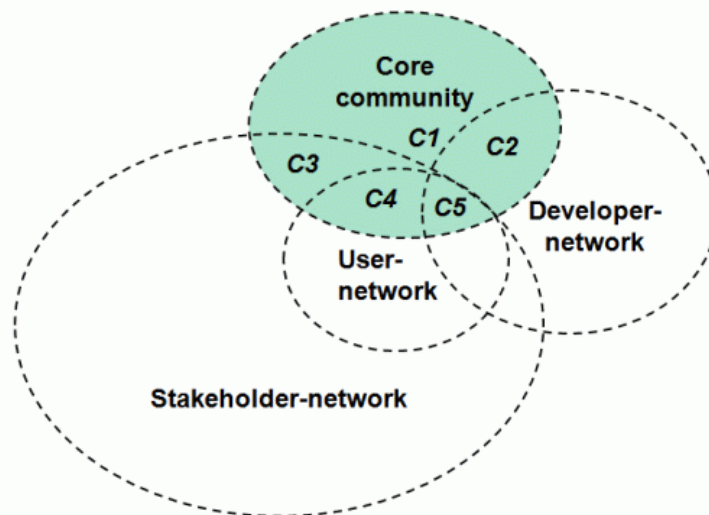


Figure 1 The Social Innovation Collaboration (SIC) Model (De Moor, 2012)

The SIC model is based on the premise that social innovations develop around a core idea, and take place in *communicative workflows* within and across several interrelated *conversation spheres*. These communicative workflows range from private conversations in the core and development teams, to very public ones with the stakeholder network, supported by often quite a complex tool system of face-to-face and online tools (sometimes supplemented by interactions with the mass media). The workflows can be further analyzed using the Socio-Technical Conversation Context Framework (De Moor 2010). In these workflows, community members play many different roles to accomplish community and individual goals, producing a set of concrete results. Each workflow consists of a

“loop” in which one role (“customer”) (1) requests another one (“performer”) to do something, who (2) after promising (3) produces the result, (4) reports back upon completion, after which the performer (5) evaluates the result. Any of these stages can spawn new workflow loops, leading to a complex web of conversations and commitments.

The SIC model consists of 4 main connected conversation spheres:

- The *core community*: the initiators of the innovation, often the co-owners of the intellectual property rights, plus the main investors. In the core community, the course for the innovation process is set.
- The *developer network*: the organizations and individuals doing the R&D necessary to go from initial idea to fully implemented product or service.
- The *user network*: the stakeholders using the product or service. In the early stages of the innovation process, often a small group of (future) users is involved as test users.
- The *stakeholder network*: a wide range of stakeholders who directly or indirectly do or could benefit from the innovation. The user network consists of a subset of these stakeholders.

Note that the networks in the SIC model are in fact connected in two ways: by means of actors that participate in two or more networks, and by means of boundary objects (the workflow results) that are transferred from one network to another.

3.2 Some preliminary results

In the cross-case analysis in (De Moor 2012), it is striking that the cases examined make use of a large number of both online tools (e.g. web site, LinkedIn, YouTube, Twitter, mailing lists) and tools supporting face-to-face interactions (ranging from individual one-on-one meetings to workshops, conferences, and “public meeting events”). The interactions these tools support are spread out over the different conversation spheres.

Where things become messy is that the individual tools afford and constrain various communication behaviors that start to interact in unintended ways. There is a recognized need for protection of spheres. To come up with socio-technical design interventions that properly address such complexities, taking into account available collaboration patterns (De Moor, 2009), we need to work towards a better distinction between the sphere types.

For example, it was found that for intellectual property rights reasons, the core community should have a way to work together online for internal planning and coordination privately, e.g. via a closed wiki or LinkedIn group that is not accessible to developers, users, and other stakeholders. This space corresponds to the Core Community C1 in Fig. 1 and can be characterized as a closed inter-sphere if the community is itself composed of several groups, or a private sphere if it is a homogeneous community with shared norms.

A regular series of face-to-face meetings (supported by virtual workspaces) should be organized to bridge the core community and the developer network (C2). These tools support a closed inter-sphere, which is a conversation sphere where multiple communities with different interests, norms, and practices interact, each in a particular role. An example of a text that plays an important boundary object function in such a sphere is the requirements specification. To develop the relationship to the stakeholders, a public inter-sphere is needed (C3) where results are advertised (e.g. using YouTube). An example of a closed inter-sphere between the core community and users (C4) could be a private section in the community portal where users can ask for assistance and give feedback. For the communication within user groups, stakeholders, and developers, it was found that it is often more efficient to draw upon existing channels such as professional society websites, rather than developing and populating new channels ex novo. This implies a responsibility for stakeholder representatives in, for instance, the developer network to translate and distribute the information between the

development team and their own peer groups, and vice versa. These representatives can act as “ambassadors” or “consuls”. A comprehensive account of inter-sphere roles is left for future research.

4 A pragmatic research framework

On the basis of TCA 2.0 and the example of Social Innovation Collaboration, we now introduce a general pragmatic research framework (Fig. 2).

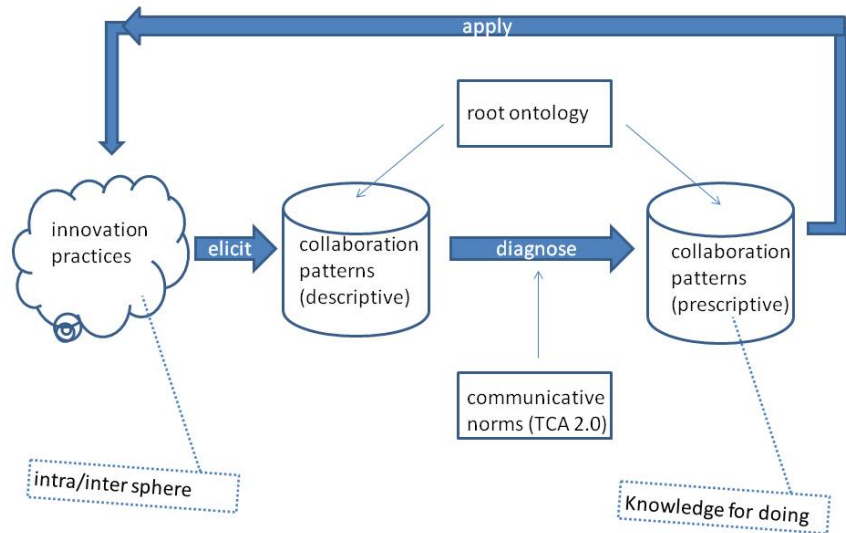


Figure 2 Pragmatic Research Framework for Social Innovation.

In this framework, collaboration patterns are key artifacts. Patterns are a way of recognizing and describing routines and habitual actions in a social practice. As such, patterns define relatively stable solutions to recurring problems at the right level of abstraction. They must be concrete enough to be useful in a particular case, while also sufficiently abstract to be reusable across cases (De Moor, 2009).

In Fig. 2, the starting point are the practices of some community in some sphere *Elicitation* is needed to derive descriptive collaboration patterns, described in terms of a root ontology (based on the Language/Action Perspective) consisting of Goals, Results, Roles, Workflows, and Tools (De Moor, 2012). *Diagnosis* is the confrontation of these patterns with communicative norms. The result is a set of prescriptive collaboration patterns that can be published and applied as good or even best practices to improve the communication, and by that means, the collaboration.

Fig. 3 depicts a pattern that was elicited from the case studies in (De Moor, 2012). The problem it addresses is that enough conversational “buzz” must be generated while simultaneously reducing the risk of fragmentation. The solution is to make use of deep links from one sphere to another, in this case from the Stakeholders’ public sphere (supported by social media) to the Developers’ private sphere. The rationale behind this pattern is that central control of all conversations in the network is impossible and the effort counter-productive. However, sharing content should be facilitated in order to reduce fragmentation and this is what the deep link mechanism can do.

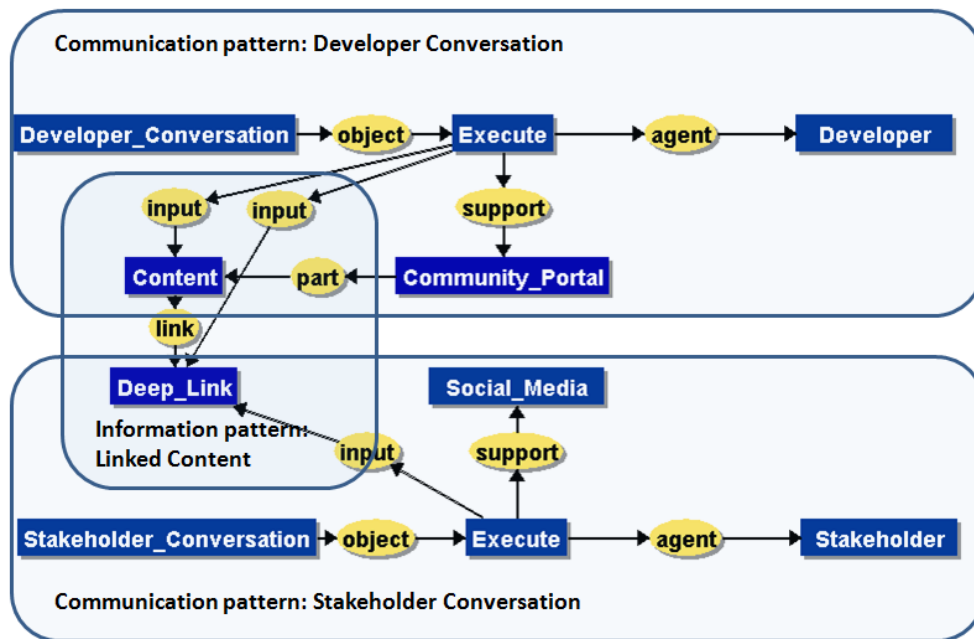


Figure 3 An elicited collaboration pattern (De Moor, 2012).

A diagnosis of this pattern analyzes it using communicative norms. In Section 2, we have introduced a few (still informal) norms for boundary spanning. In the light of these norms, the deep link pattern can be seen as a light-weight way of exchanging boundary objects (light-weight because there is no transformation). The URL's used in the deep links correspond to the global object identity which is exactly what an inter-sphere should provide. We note that the pattern description can be expanded: it talks about an information pattern but does not specify to which inter-sphere it belongs, and so does not say who is responsible for the definition and maintenance of this pattern. There is an apparent dependency of this inter-sphere to the public Internet inter-sphere with its technical standards and standard bodies, however, more in-depth analysis could show that there are additional constraints on the deep links, for example set by some association active in the domain of this particular type of social innovation. For example, there could be specifications of domain-specific meaning definitions to be used, such as the health schemas listed in <http://schema.org/docs/schemas.html>.

5 Conclusion

The success of innovation projects is critically dependent on trust between the participants, and therefore on the quality of the communication. In addition, innovation projects are complex, bringing together different stakeholder groups in different settings. Communication happens both inside groups and between groups. In this paper we have outlined a localized Theory of Communicative Action that provides us with a concrete set of concepts and communication norms for diagnosing the communicative action quality of descriptive collaboration patterns. In addition, we have sketched a research framework for developing prescriptive collaboration patterns. We are currently applying this framework in several projects, including the ICD project (Innovative Contract Design) currently running at Tilburg University's Social Innovation Lab (TiSIL).

Another research topic is to see whether a localized TCA 2.0 can be the basis of a better architecture for the Internet. Currently, it is typically presented and used as one giant global graph without borders. The challenge we see is how the Internet can be reclaimed as *Inter-net*.

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