PRACTICES, PATTERNS AND PRAGMATICS RESEARCH: STRENGTHENING SOCIAL INNOVATION

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Abstract

Social innovation aims at changing practices to address wicked problems involving many stakeholders, but this turns out to be hard "in practice". In this paper, we first draw on the practice theory literature for a better understanding of what practices are and come up with an original conceptualization. Secondly, we investigate the relationship between practices and patterns, and argue that patterns can be a useful vehicle for practice transfer. We apply our conceptualization in a social innovation example in sustainable agriculture.

Keywords: social innovation, practices, pragmatics, spheres, patterns

1. Introduction

Social innovation is about "the relationship networks and collaboration processes around new ideas that meet unmet needs" (Murray et al, 2010). A characteristic of social innovation is that it cuts across organizational, sectorial 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, as innovations emerge in spaces of continuously evolving practices, shaped by powerful, often clashing forces (Denning and Dew, 2015). *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.

In an earlier paper (Weigand & De Moor, 2013) proposed a Pragmatic Research Framework for Social Innovation based on a revision of Habermas' Theory of Communicative Action. In the current revision, there is more recognition of embodied communication, and the boundedness of communicative action. Referring to the work of Sloterdijk (2004) and others, (Weigand, 2013) introduced the notion of "*sphere*". Communicative action is not universal, it takes place against the background of some group or sector with particular norms. The notion of sphere corresponds to the notion of *field* in Stamper's semiotics (Stamper, 2000) and in Bourdieu's practice theory. From there, we can talk about intrasphere and intersphere communication. Communication between spheres is a challenging task and requires what traditionally called *boundary spanning* (Star & Griesemer, 1989). Boundary spanning requires not only boundary spanners that are able to speak multiple languages but also boundary objects "that form the boundaries between groups through flexibility and shared structure". Examples of boundary objects are technical specifications, prototypes, and industry roadmaps. They can be abstract or material and can very well be studied with a socio-material lens (Doolin & McLeod, 2013).

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 to what we call an 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 objectification (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; for instance, IT can also build and foster online communities. Lindgren et al (2008) have noted that IT can play several roles. The same system can also be used in multiple contexts at the same time (multi-contextuality).

Inter-sphere communication is important from a social innovation perspective as social innovation often means that practices from one sphere must be transferred to another sphere. Such inter-spheres can, for instance, emerge in the conversations between various sub-communities and networks (i.e. the core community, developer network, user network, and stakeholder network) that jointly make a social innovation work (De Moor, 2013).

Sometimes it is necessary to set up a new sphere in order for a new practice to evolve, before it can be transferred to other spheres. And such a new sphere does of course not come out of the blue but draws on other spheres, e.g. the business world using results from the scientific research sphere.

Collaboration patterns can play an important role in social innovation, as they can be used to represent existing practices but also to use those representations in a generative way. The goal of this short paper is to go deeper into the relationship between practices and patterns. In section 2, we will provide a short overview of the practice research literature, and come up with a conceptualization. In section 3, we will address the question what role patterns can play in inter-sphere communication and how these patterns can be represented. Section 4 provides a case study from sustainable agriculture in which the conceptual framework is applied and evaluated.

2 Practice theory

According to (Goldkuhl, 2012), practice research is based on several assumptions. One is the notion of *contribution*: a focus on what is done and for whom. A second assumption is that the empirical field is perceived as consisting of practices in the sociological sense (Bourdieu, 1990; Giddens, 1984; Schatzki, 1997). The notion of practice has been applied in the IS field by many researchers (see e.g. Orlikowski, 2000; Jones & Karsten, 2008).

2.1 Background

We shall go back to the sociological roots first. The idea of practice, although existing already for at least 150 years, was promoted by the above-mentioned thinkers to overcome the traditional dichotomy of individual vs. totality. Practices are interwoven activities in a social domain (Schatzki, 1997). As such, practice theory puts the activity or doing at the core of human life (rather than, e.g. beliefs), and stresses the social nature of these activities. The latter implies that actions are conceived as being primarily motivated by the practices in which they are performed rather than the beliefs and intentions of the performing actor.

The individual vs totality dichotomy is not only of sociological interest. In the field of institutional entrepeneurship, the dichotomy is at the basis of the so-called “paradox of embedded agency” (Battilana et al, 2009). Are actors determined by the organizational context (field conditions) or are they free rational agents who are able to deviate? How do field and individual levels interact? This is of relevance for social innovation, as innovation typically draws upon the initiatives of some actor going against the stream.

The first modern theorist of practice is the French sociologist Bourdieu. Bourdieu stresses the routine character of practices. Practices are self-perpetuating. We do it this way because we do it this way. Based on objective conditions in the field, actors develop dispositions called *habitus*. Actions selected by habitus will seem sensible and reasonable to other actors grown up and accustomed to the same practices and conditions. The actions are reasonable not only because they are conceived as reasonable by the group but also because they maximize somehow the actor’s value (Bourdieu, 1976:183).

Giddens’ notion of practice is slightly different. Also for Giddens, the self-perpetuating character of practices (space-time extension) is central. However, the structure of practices constitutes rules and resources, where rules are “ways of going on”, and should not be equated with formulated rules (which he calls interpretations of rules). Resources are important for Giddens because they are the medium through which social power is exercised and resources are needed to secure specific outcomes. Resources include not only money and goods but also capabilities and coordination resources.

Despite the remarkable success of practice theory in the social sciences (sometimes called ‘the practice turn”) and beyond, there has been criticism as well. One notable cri-

tique is from Stephen Turner (Turner, 2002). His main point is that practice theory does not provide a plausible account of how practices come to be shared in the first place. It presupposes the notion of 'shared practice", but before we accept this notion, we should have some idea of the mechanisms that explain how people come to have a common set of practices and presuppositions. We might say that practices perpetuate themselves, but this cannot be done without the practices being implanted somehow in actors, e.g. in terms of Bourdieu's habitus. One could say that they are transmitted by imitation, but imitation is directed at overt conduct, not internal tacit knowledge. For these reasons, Turner cannot accept practice theory and prefers an individualistic cognitivist one instead.

However, as Lizardo (2007) argues convincingly, there is more to say about imitation. Recent discoveries in neuroscience on so-called mirror neurons (Gallese & Lakoff, 2005) have revealed that human beings (and also some animal species to a less extent) are "hard-wired" for an unconscious bodily imitation. For instance, an observed body movement triggers similar body neurons in the observing agent, and can even arouse a similar desire for the object of the movement. An implication of these findings is that the distinction between conscious cognitive knowledge and tacit bodily knowledge gets blurred, or, perhaps better phrased, that the two are much more intertwined than we had thought before. Years before the discovery of the mirror neuron system, Bourdieu already hinted at such a process and, following René Girard, called it *mimesis*, "an overall relation of identification [having] nothing to do with an imitation that would presuppose conscious effort to reproduce a gesture, an utterance or object explicitly constituted as a model" (Bourdieu, 1990:73).

Once we accept this mimetic character of human beings, we do have a candidate for the mechanisms for shared social knowledge that Turner requested. By the way, the same mimetic character of human beings can also ground the repetitive routine- like character of human behavior (irrespective of the social aspect). And, recognizing that mimesis is always close to a strong or mild sense of rivalry, it can also explain that social practices, in spite of their routine character, are not set in stone but are constantly adapted.

Still, it must be recognized that even if practices are transferred mimetically by bodily co-presence, this cannot explain all transfer. For that, we need to generalize from the mirror neuron experiments of Gallese and accept that a similar kind of unconscious transfer can also be mediated by more indirect symbolic interactions, the "public language" of explicit instruction that Turner views as the only possible transfer mechanism but that is never explicit enough and would also not work without the mimetic base. To be more clear, we see the transfer of practice as a combination of symbolic interaction and mimesis. Mimesis alone works only in local settings and is not scalable without the help of symbolic interaction. Symbolic interaction creates degrees of freedom in interpretation and hence often creative ideas for practice evolution. Still, symbolic interaction by itself is not sufficient in most cases, and needs to be supported by mimetic processes.

2.2 Practices and spheres

In the practice literature, most attention is given to practices within a field or sphere, and the way they are transferred by bodily co-presence. From an Information and Communication System perspective, an interesting question is also how practices are transferred between spheres and how spheres are related. This is interesting because information systems are to a large extent integration systems that relate different practices within a sphere or across spheres. We will get back to this point in section 3.

(Weigand & De Moor, 2013), introduced a sphere ontology that we briefly recapitulate. A sphere *affords* social practices. Practices position human and non-human *actants*

by means of *roles*. Actants can be the subject, co-subject or the object (=reference) of *sign acts* (=signification) and also of *material acts.* Every act has one or more subjects and co-subjects, and in most cases (but not necessarily) one or more things (Giddens' resources) that act as objects and bring subjects together.

All practices within a sphere are embedded in a higher-level practice by what Taylor (2011) calls uplinking and downlinking. This corresponds to the purpose or *contribution* as distinguished in practice theory (Goldkuhl, 2012) but following Taylor and Van Every we do not take it in the cognitive sense of an intention of the actor but in terms of the social organization. The "upper" practice provides a rationale for the "lower" practice. At a certain point, the higher-level practice does not exist in the sphere itself but is assumed to exist in another sphere. For instance, performing a certain lab test can be part of a research practice in a lab sphere. The research itself can be the object of a funding practice in another sphere, e.g. the national science foundation. The funding practice contributes to the lab practice. The lab practice contributes to the knowledge building practice in the scientific community. According to Taylor (2011), the uplinking is not an objective given, but can be the cause of a priority fight: who is working for whom?

Both practices and spheres have rules or norms. More precisely, we follow Giddens in positioning *rules* as part of practices. They are procedures of action that may be based on ethical or legal rules or practical arrangements, but as procedures or observed regularities they are ethically neutral. We propose to talk about *norms* at the level of spheres. The norms are not ethical norms only, but can also be economic norms or linguistic norms, for instance. The boundary of the sphere is the boundary of the influence of its norms. For both rules and norms, there are also explicit formulations. These explicit formulations are linguistic objects (text in terms of Anderson 2004 and Taylor 2011) that play a role in the practices. They are not simply (more or less perfect) articulations of practical understanding (Schatzki 1997:301), but should be seen more as resources (in terms of Giddens) that have a coordinating role.

Spheres can *accommodate* one another (like an organizational premise accommodated by a city). The notion of accommodation is at the same time more general and more specific then the notion of containment. It is more general as it can be used for virtual environments. An example of the technical domain is a virtual memory space accommodated by physical memory and hard disk. The virtual memory cannot exist without the latter, but it creates another kind of environment. Accommodation is also more specific than containment as the relationship is not seen as a passive kind of set inclusion, but as an active facilitation in which one sphere provides what is needed to realize the other sphere (cf. Suchman, 1996). Apart from the virtual memory example one could think of the relationship between Internet and a social network running on Internet. . The social media network is accommodated by Internet, but it has its own practices.

Spheres can also be *adjacent* to another sphere. Actants, e.g. humans but also texts, can *move* from one sphere to another adjacent sphere. To describe the accessibility we draw on access models in data security and distinguish import ("read") and export ("write") moves. Import and export are also used to characterize the adjacency relationship. If there is a Import relationship between sphere X and sphere Y, it means that actants in X can move actants from Y into their sphere X. If there is an Export relationship between X and Y, it means that actants in X can move actants from X into Y. Of course, this only describes what is made possible by the adjacency; whether a certain actant A can actually move actant B depends also on the properties of A and B. *Intermediary* spheres are spheres where the main practice is one of transferring actants from one sphere to another. The streets in a city are an intermediary sphere, and so is the Internet, or a TV broadcasting network, as far as digital objects are concerned that move from one sphere

(studio) to other spheres (private homes). Note that some intermediary spheres provide export and import access (e.g. the street, the corridors in the building) and some only provide import access (the broadcasting network). By the cable connection, the private sphere of the subscriber is adjacent to this broadcasting network and the subscriber can select objects to move from one into the other (import) by switching on his TV.

To illustrate and apply the above, we can refer briefly to the context of practice research as described by Goldkuhl and his co-workers. In this picture, a distinction is made between the research community, the practice research itself (may be split up between theorizing and situational enquiry) and the general practice. In this picture, there is no clear separation between practice and sphere. In (Cronholm & Goldkuhl, 2004), the distinction is presented as difference in practices (research practice, business practice, ..). Our conceptualization suggests to make a clear difference. The research community is a sphere or field that is based on norms about scientific rigor, publishing etc. Within this sphere we can think of practices like experimenting, writing of articles, reviewing processes etc. General practices have other norms, e.g. in business there is important norm of profitability that governs all kinds of practices. Communication from one local practice to another is not just a communication between practices, but also a communication between spheres.

3. Patterns

Humans use patterns to order the world and make sense of things in complex situations (Kurtz & Snowdon, 2003). An influential definition of patterns in architecture, also useful for information systems, was given by Christopher Alexander: “A pattern is a careful description of a perennial solution to a recurring problem within a building context, describing one of the configurations which brings life to a building (Alexander, et al., 1977). The idea of the use of patterns was introduced in software design by (Gamma et al, 1995) and has received a wide adoption since

3.1 Patterns and practices

Patterns can be described in a formal or semi-formal language. According to (Ali et al, 2009) patterns and pattern languages help developers communicate architectural knowledge and help new developers ignore traps and pitfalls that have traditionally been learned only by costly experience. The same authors also propose a Collaboration Language for e-participation where (drawing from Alexander) a pattern has five sections:

- Pattern name and brief description
- Participation and IT drivers
- Context
- Solution (in the form of an interaction)
- Example

Important in the definition of Alexander is to focus on the words ”recurring problem” and ”perennial solutions”. According to De Moor (2005) this indicates that ”the pattern definition of problems and solutions must be generic enough to cover a range of problem situations which in reality are always subtly different from the ideal, while being specific enough to offer useful solutions for the particular problem at hand”. In the light of practice theory, this can be sharpened a bit. Patterns act not just as solutions to problems, but can in fact be powerful social objects, for instance fostering the emergence of civic

intelligence (Schuler, 2009). It is not just that the pattern is an abstraction of a multitude of specific situations. First of all, we must recognize that the problem situations do have a practice character. For instance, developing an interactive web site as a programmer's practice. or milking cows as a farmer's practice. Although each situation is different indeed, the actions will have a routine character, and this routine is moreless stable. The routine is not an abstraction, it is present *in* the specific situations. We take it that the pattern context should describe is the practice in which the problem occurs. Secondly, the solution that is offered by the pattern must be another practice, or part of a practice. It is a practice in the sense that it is suggested to be used perennially. It is something that makes sense, from the perspective of the actors (programmers, farmers) and therefore is applied repeatedly without further thinking.

In section 2, we distinguished implicit rules in a practice and rule formulations as linguistic artefacts. Patterns that are developed in software engineering or any other discipline are linguistic artefacts. To apply such a pattern is not the same as instantiating a type, but is like following a rule in terms of Wittgenstein.The patterns are resources (Giddens). Finally, pattern development must be seen as a practice as well, for which a pattern composition language, method and what De Moor calls meta-patterns formulate the rules.

Based on this discussion, we see a pattern as consisting of

- *Context*: the sphere in which the pattern is applicable
- *Situation*: the pattern as it is, explored by situational inquiry. This involves the description of actions, of resources and rules, as well as the contribution relationships with other practices.
- *Norms*: the norms of the sphere that put pressure on the situation. Situation and Norms together comprise the "problem"
- *Solution*: a new pattern that consists of an adaptation of the situation. The new pattern may include new resources, new rules, new formulated rules.

3.2 Pattern-based Practice research

How to develop and apply patterns in practice research is another question. The already mentioned framework of Goldkuhl (2012) is quite useful here. It highlights the role of the researcher as contributing both to the research (following scientific norms) and to practice (solving a problem). In the light of our discussion in this paper, we would like to make some remarks on the role of the IS researcher.

- The IS researcher can have a mere facilitating role. The solutions in terms of practices are generated by the team of practitiners itself. This facilitation may be a form of scientific research when the researcher makes the effort to describe, generalize and validate the patterns, making lessons learnt reusable across use cases.
- The IS researcher can also actively bring in abstract knowledge in the forms of relevant patterns from an existing pattern language to a problem situation and by doing so contribute to actual solutions. If we require a solution to be a changed practice (Denning, 2004) then effectively, what the IS researcher does in this case is the development of a new pattern. The pattern can be described in different ways, depending on whether it is for professional or academic transfer. The abstract knowledge that the IS researcher brings in is his knowledge about IT or Information Management, just like an ecologist would bring in knowledge about animals and ecosystems. The corrolary would be that the *practitioner* brings in

knowledge from practice to make such a priori abstract patterns situated and solution-oriented.

- A special case occurs when the IS researcher brings in methods and tools for practice description and transfer. Communication is at the heart of IS and is more and more supported by IT tools. These tools support the dissemination of a practice within or across spheres, or (the other side of the coin) the incorporation of practices from other spheres. These tasks are practices themselves (innovation practices). The IS researcher can, for instance, bring in IT knowledge in the form of community support systems, web sites and of course pattern composition languages (cf. De Moor, 2013.

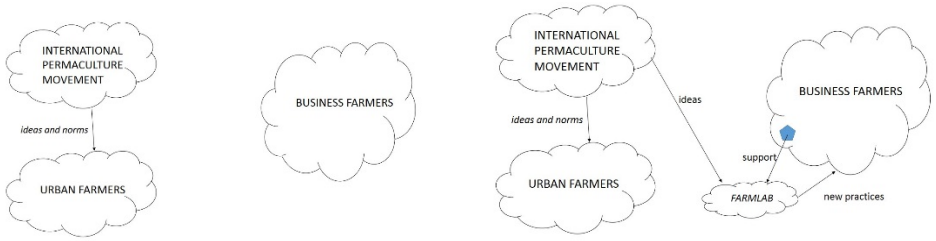
4. Case: Farmlab

We are currently involved in a social innovation project in the area of sustainable farming. The primary stakeholder is a local farmer who is trying to move from a more traditional form of farming, based on economies of scale and cost reduction, to a form that is more ecologically and sustainable. A necessary condition for the farmer to succeed is to involve the larger stakeholder network around his farm to find new ways to create value. For instance, he has experimented with giving less fodder to his milk cows. This resulted in less milk production, and so lower revenues. However, this loss was compensated by lower costs for food and the increased well-being of the cows and the farmer himself. Another way was to allow a local group of ”urban villagers” to use some of his land as a community garden. This also makes the farm more visible to the outside world, potentially leading to new busines in the future.

The farmer would like to see innovations like these to be extended and applied more broadly. This is not simple. On the one hand, there is a worldwide school of thought around the ideas of ”permaculture”, which develops practices based on developing agricultural ecosystems that are sustainable and self-sufficient. This school of thought inspires local communities all of the globe of so-called ”urban farmers” – often amateurs - that are lead by ideological motivations and experiment with more locally-based forms of permaculture farming. However, these initiatives are often small, not economically sustainable so far and simply do not have enough clout yet to change the farming world. On the other hand, there is the majority of traditional farmers that, for instance, produce milk in a way imposed upon them by the economic rationalities of the cooperations and governments. For these ”business” farmers, ecological innovations are hard to implement. When innovations are developed by urban farmers, they are looked upon with suspicion by the business farmers. Vice versa, many urban farmers think traditional farmers to be stuck in their ways and not willing to fundamentally change their practices. The green farmer in our case is a small business farmer who would like to break through these barriers, and build bridges between these different farming worlds, but how?

When adopting the pattern sphere approach, we can easily identify a couple of spheres. One is the economic sphere in which the business farmers operate. Another one is the (local) urban farmer sphere. Where in the first sphere economic objectives of production and profit dominate, ecological sustainability norms determine the second one. A third sphere that we distinguished is the sphere of the international ”permaculture” movement, with e.g. the international permaculture conferences. The norms in the urban farmer sphere are typically stemming from this permaculture sphere, but they are not the same, because in the global permaculture sphere, the norms are the objects of discussion, research, and evolution whereas they have normative force in the local urban farmer

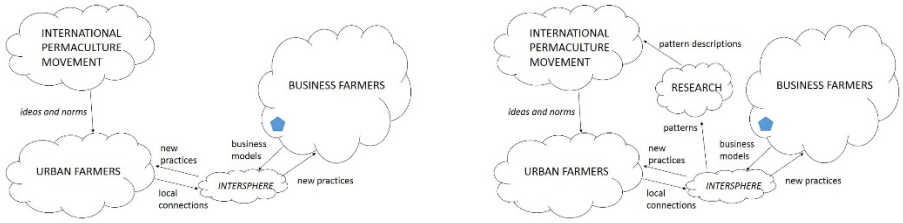
sphere. Fig. 1(a) describes the situation as it appeared a few years ago. For a case study in the urban farmer community, see (De Moor, 2015).



(a) (b)

Fig. 1 (a) separated business and innovation spheres **(b)** experimental sphere outside business sphere (Farmlab)

Distinguishing these spheres and their different norms, even if only superficially, already explains the problems that our green farmer is confronted with. The problem is not only that an existing practice, e.g. milking, resists changes because of the way it functions (its routine character, its fixed current resources, like machines, and milk prices), but also because it makes sense in the given sphere. Therefore a change requires a change in the norms of the sphere as well, or at least a reinterpretation. Transfer of practices from one sphere to the other is not simple. One solution direction is to set up experimental spaces where business farmers can explore new practices. Activities that can be organized in such a collaboration space are site visits where farmers and other stakeholders interested in permaculture can meet in person. Our farmer has even declared his farm an ”open source farm”, organizing ”FarmLabs” and ”agricultural hackathons”, which seem prototypical methods for promoting agricultural intersphere collaboration.



(a) (b)

Fig. 2 (a) Farmlab growing into an intersphere **(b)** pattern development

Fig.2(a) depicts the Farmlab as currently evolving into an even more networked intersphere by also extending the contacts with the urban farmers. Urban farmers and business farmers can learn from each other. For instance, urban farmers can bring in local city connections (e.g. customer base) and how to build alliances with them. An example could be an urban farming shop in the city scouting for new ”product hypes” that the business farmers can then produce ecologically at scale, covering their additional expenses with the premium prices they can charge. We expect that in this way new practices can be transfered to both domains, while the overall norms in the core of the domains do not need to change immediately. Only when the new practices gain momentum, the norms

will change (tipping point). In Fig.2(b) we model a potential role of research (participatory action research within the domain and/or by academic partners) in the elicitation and transfer of patterns. For instance, researchers can develop a more generic pattern capturing the local milking innovation practices that our green farmer has made. Particular attention is given to the norms, as we see the conflicting norms as a major obstacle and this can only be solved by making them explicit and the subject of discussion. Also the contribution relationships between practices are described, because the practice is not isolated but part of a network. Typically, analyzing the complexities of interacting norms and practices in the larger sphere goes beyond the scope and capability of the local stakeholders involved. Addressing these issues is a natural role for (academic) researchers to play.To illustrate, in our first practice research actions, we have used value encounter modeling (Weigand, 2009) for identifying and generalizing the local patterns occuring in Farmlab stakeholder network. The advantage of value encounter modeling is that it focuses on the value contributions, rather than the process details. The explicit value contributions and exchanges identified should convince sceptic stakeholders to consider the pattern, and invest in in-person meetings to get acquainted with it and possibly adopt it in their own practices.

The description of the patterns, using value encounter modeling, supports the symbolic transfer of the pattern. Still, that form of transfer does not replace the bodily mimesis but must be complementary. Although the source of the patterns elicited is local, their transfer may be global, yet their adoption and appropriation needs to be local again, including physical sensemaking practices, such as hackatons and Farmlab meetings. This conclusion is in line with the results of Schuler's *Liberating Voices* social innovation project (Schuler et al, 2012). In the course of many years, more than 136 useful patterns for promoting "civic intelligence" were developed and published on the Public Sphere website[1]. However, "capturing knowledge is not the same as acting appropriately upon that knowledge". Therefore, the authors explore online, in-person and hybrid approaches. The in-person meetings are supported by means of a card game where each card presents a pattern in an expressive way, including a relevant picture. Meeting participants select relevant cards from the deck, then use them as group discussion starters to make sense of often very complex webs of civic intelligence practices needed to address local wicked problems. A variant of the game was also developed for Facebook.

4. Conclusion

The goal of this paper was to contribute to practice research. In particular, we aimed to better understand its role in addressing wicked problems, such as prevalent in social innovation. Collaboration on these issues implies the intersection of often many spheres of communication, with complex entanglements of practices and the norms that govern them. The contribution consists basically of two parts. First, we offer a conceptualization of practices based on a critical review of the practice theory literature. Second, we argue for the use of patterns in practice research and discuss key elements of these patterns. The relevance of practices-meeting-patterns was illustrated in a social innovation approach to sustainable farming case.

[1] http://www.publicsphereproject.org/patterns/

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