INNOVATION AS SOCIAL PRACTICE

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ABSTRACT
Knowledge is the driver of our economies today, and of our societies (Roberts, 2001; Commission, 2004; Grant, 1996). This paper looks at the development from a systems-thinking approach to knowledge (Simon, 1962; Weick and Roberts, 1993; Hedlund, 1994, Spender, 1996; Tsoukas 1996) towards a more relational view on knowledge and knowing (Cook and Brown 1999; Carlile, 2004). I argue, that we do not understand, and consequently cannot support the complex social process of innovating with others across boundaries, if we only apply a hierarchical, divisional, system approach to knowledge. In order to meaningfully transform knowledge across boundaries we cannot separate it from knowing and context. We need to adopt a multi-level relational-practice view of knowledge and knowing, embracing the complex dynamic interplay between knowledge and knowing on different levels of the social: relating individuals, group relations and organizational rules. What would a coherent conceptual framework for innovation practice look like?

INTRODUCTION
This paper aims to develop a conceptual framework for how we can understand innovation as a social practice of transforming knowledge and knowing across boundaries.
know what they are expected to do. Without relating, individuals could neither bring in new ideas, nor could they learn, nor could there emerge cognitive social capital. Without cognitive social capital neither individuals, groups or organizations could explore novelty, nor could they claim to be experts or focus to become experts in what they are doing. Thus, knowledge justification, cognitive social capital and relating are the social key-elements that need to be organized coherently in participatory innovation.

TOWARDS A CONCEPTUAL FRAMEWORK FOR SOCIAL PRACTICE IN INNOVATION

Practicing participatory innovation is a dynamic, iterative social process of what Schumpeter (2005) once called creative destruction. Rules, use and meaning are continuously applied, broken, renewed, developed, invented, modified and renegotiated in daily interactions between related individuals. Schumpeter describes this more specifically as the recombination of existing resources for the creation of new ones (Schumpeter, 1934). In line with Carlile (2004) and Cook and Brown (1999) I argue that knowledge cannot be understood without knowing, both have to be seen in an institutional set-up where they are justified (Tell, 2004). In participatory innovation there is more than one institutional set-up, and the goal is to transform knowledge and knowing existing there into something new across the different set-ups. Thus, participatory innovation is a threat to existing institutional set-ups and the knowledge that is justified there. This leads to conflicts, because institutions are social facts (Searle, 2005), that represent and embody many people’s status and feeling of belonging through existing justified knowledge, entailing much of their social capital such as identification.

Such conflicts can be resources (Buur and Larsen, 2010), and bring us back to the central questions addressing particular management challenges outlined by Buur and Matthews (2008): 1) organize participation, i.e. appreciating differences and interdependencies, 2) transform differences into creative tension instead of grid lock, 3) maintain dynamic participation and ownership, and finally 4) the paradox of organizing a process that potentially challenges the prevailing thinking and organization in a company. Approaching these challenges requires a multi-level process of sense-making and sense-giving (Hill and Levenhagen, 1995), and perspective-making and perspective-taking (Boland and Tenkasi, 1995), see Figure 1. This represents the conceptual framework of social dynamics of participatory innovation. This multi-level approach can help to grasp and address the interdependent open management challenges holistically. It can create an awareness of the interdependent dimensions of social practice in innovation settings.


Understanding and describing these dynamics might not give the single right answer to innovation, but it might help to ask better questions, to create awareness and support the social process of innovating together. Doing so, can help researchers and practitioners to develop a shared lexicon for social dynamics in their respective participatory innovation challenges, may it be interdisciplinary research, or innovation with stakeholders from other knowledge-domains within and beyond the boundaries of the organization.

I argue that social dynamics illustrate the relation between transformative and formative dynamics of innovation practice. The framework can advance our understanding of the permanently ongoing, dynamic transition of knowing through relating, knowledge and knowing in relations, and knowledge as social facts. Further, by revealing the multi-level interdependencies between individual, group and organizational knowledge and knowing, which to my knowledge have hitherto been neglected in (management) research, the concept of social dynamics of participatory innovation can advance our understanding of how knowledge and knowing can better be organized in participatory innovation in the future.

GRASPING SOCIAL DYNAMICS – A PLAYFUL APPROACH

While this paper formulates a conceptual framework for the social dynamics of innovation practice, and connects the previous findings more to management theory from the perspective of knowledge and knowing in organizations, much empirical work remains to be done.

There is yet no method or theory that has proven to be able to capture the social dynamics of participatory innovation in practice. However, I believe there is good reason take a look at this from the perspective of play. Let me briefly sketch out why play, understood as ""... a
bounded space created from within, by the nature and structure of the game and by the conduct of the players themselves who are responsible for ordering and shaping the game.” (Kolb and Kolb 2010 referring to (Gadamer, 2010), could be a promising approach to methodologically grasp social dynamics of participatory innovation in practice. In order to avoid confusion of terms: Play and games are seen here as aspects of practiced, and exploratory social interaction, cognition, and relating, and they have to be distinguished from the mathematical theory of games here. Play focuses on interaction processes, while game theory focuses on results for decision-making. In game theory the underlying key-assumptions of players as economic agents seeking to optimize fitness, perfect information and rational behavior (see Ross (2011) for a more detailed overview) are in fact in several ways contradicting to the concept of play. In play it is possible (and sometimes even the meaning) to explore the unknown and test communicative and social processes of interaction through rules, roles and turn-taking, and through cycles of experimentation and reflection (Iversen and Buur, 2002). In contrast to games in game theory, play also allows to explore breaking rules, roles and turn-taking – not unimportant in the context of innovation. Sutton-Smith (2001) defines play as adaptive variability with two dimensions: the biological (its function is to reinforce the organism’s variability in the face of rigidifications of successful adaptation), and the psychological (…a virtual simulation characterized by staged contingencies of variation, with opportunities for control engendered by either mastery or further chaos) (Sutton-Smith, 2001). Both match the challenges of social dynamics of participatory innovation by addressing the tension between a) exploring novelty, and b) psychological aspects of existing contingencies, control and uncertainty. Play is also dialectical between rational and irrational, playful and serious, and arbitrary and rule bound. And these rules are internalized through repetition and practice (Kolb and Kolb, 2010). Further, the inherent tension of contest and play foster a deep learning process by allowing investigation of novelty and applying new knowledge. This process of ludic behavior is, in contrast to game theory, concentrating on the means rather than the ends of the process (Ibid.).

We assume that social dynamics of participatory innovation can be simulated and approached holistically through playing games, because games provide ludic space (Kolb and Kolb, 2010), a space where play can thrive. It has been shown before that games can be conducive to learning (Brandt and Messeter, 2004; Habraken et al., 1988; Iversen and Buur, 2002). We believe games can serve as boundary objects (Star and Griesemer, 1989) that can be a suitable tool to create situated learning experiences (Brown et al., 1989), for researching and practically dealing with the social dynamics of participatory innovation. First exploratory studies in this direction have been done (Sproedt and Boer, 2011; Bogers and Sproedt, 2011) and delivered encouraging results. In case one, we let the participants of the previous PINC conference play the game during the conference. We found that playing games allows a multi-level observation of how institutions (rules and norms) influence knowledge justification, cognitive social capital (a shared meaning) and relating (negotiation of meaning) mutually influence each other when novelty (a game, new to the people playing without knowing each other) forces to transform knowledge and knowing across boundaries to be able to act together (Sproedt and Boer, 2011). In the second case, we used the game to teach open innovation concepts to master students in a course setting. We found that games and play can help students to understand complex, abstract concepts of open innovation. Through simulation games allow students to experience, for example, dilemmas of open innovation. These experiences add the dimension of knowing to the student’s knowledge and enable more reflective discussions and deeper learning (Bogers and Sproedt, 2011).

CONCLUSION

I sketched out the conceptual framework of social dynamics of participatory innovation as an appropriate approach to holistically grasp how knowledge and knowing are transformed (or not) across boundaries.

I argued that this multi-level approach can help to address management challenges when organizing participation, e.g.: 1) organize participation, i.e. appreciating differences and interdependencies, 2) transform differences into creative tension instead of grid lock, 3) maintain dynamic participation and ownership, and finally 4) the paradox of organizing a process that potentially challenges the prevailing thinking and organization in a company. I propose, that the presented framework creates awareness of the interdependent multi-level process of sense-making and sense-giving (Hill and Levenhagen, 1995), and perspective-making and perspective-taking (Boland and Tenkasi, 1995). Building on two previous exploratory studies, I finally propose play and games as a promising path for empirical future research on social dynamics of participatory innovation in practice. Regarding social interaction and game design, I believe, that this concept would strongly benefit from involving interaction design. In Sproedt and Boer (2011), we experienced that the possibilities of interaction design to create artifacts that provoke creative conflict enables us to focus certain social dynamics as well as discover unexpected ones. Efforts in collaborating across disciplinary borders seem vital to understand better. A key-limitation is clearly that, apart from the mentioned exploratory studies, no empirical work has been done yet, which supports the presented framework. Also this could probably be mitigated through interaction design artifacts, which would make it easier to go out in the field and to engage people practically.
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REFERENCES


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