A Practice Method for Studying Creative Communities

Pekka Buttler

> *"Innovation, like creativity, is an amorphous concept. It's the holy grail of business, but achieving it – even merely explaining it – is lightning-in-a-bottle difficult."*
>
> Adam Lashinsky (2017)
> Executive Editor, *Fortune*

Explaining innovation – even merely spotting it actually happening – is difficult. In this article, I introduce an industry-friendly approach that will enable practitioners and researchers alike to observe, interpret, and understand the different types of creativities – the raw materials necessary for innovation – that happen in creative communities. The Practice Method for Studying Creative Communities (PMSCC) is based on theories developed by Nonaka and Takeuchi. However, unlike mainstream practice-oriented methods, the PMSCC does not necessitate the use of theory-heavy conceptualizations; instead, it focuses on the everyday, creative micro-interactions in communities. As I describe in this article, the PMSCC offers practitioners and researchers an effective way to gain new insights into an otherwise relatively opaque process. Besides outlining the method, I also present results from a research project utilizing the PMSCC, showing how the method can produce worthwhile findings, foster new insights, and help practitioners hone their creative processes.

Introduction

In cartoons, flashes of brilliance are easy to spot – the character strikes a contemplative pose, or is jolted into an energetic position, while a bulb lights up above the character's head. In real life, there are no lightbulbs, and while contemplating or thinking hard might sometimes be conducive to creativity, there might not be a big idea or moment of innovation – merely a long, gradual progression. What makes real-life creativity and innovation even more difficult to spot, is that it mostly does not happen *within* people, but *between* people, in social interactions (Nonaka et al., 2008). Nevertheless, many still think of innovation and study innovation as if it *does* happen just like in cartoons. However, we cannot afford to oversimplify the creative process – increasingly, positive outcomes depend on a keen understanding of the origins of innovation.

Indeed, innovation holds the key for solving most major problems facing companies (see Cohendet & Simon, 2015), the future generations (e.g., European Commission, 2013), national economies (e.g., UK Government Office for Science, 2017; Prime Minister's Office of Finland, 2015), even humanity as a whole (e.g., Intergovernmental Panel on Climate Change, 2005). Thus, one would assume that we would be well-equipped to study innovation, or – if not – that we would be focusing on developing that capability.

But we are not. Even though science has long recognized the importance of innovation, most research is not geared towards helping us learn how to achieve or understand it. As Anderson, de Dreu, and Nijstad (2004) found, innovation studies published in top journals are dominated by approaches based on replication or extension, and only a small minority are driven by theory or derived from real-world problems. Moreover, they found that, in studying innovation, creativity has not received much attention.

West (2002) argues that innovation is, "a two-component, but essentially non-linear process, encompassing both creativity and innovation implementation". Creativity and innovation are thus associated but distinct (Runco, 2014): creativity is "raw material" for innovation

A Practice Method for Studying Creative Communities

Pekka Buttler

(Valgeirsdottir & Onarheim, 2017); innovation begins with creativity (Serrat, 2017); and creativity is "thinking", whereas implementation is "doing" (West, 2002), with the most promising ideas being selected for implementation (Forde & Fox, 2016). Significantly, Cummings, Bilton, and ogilvie (2015) argue for conceptualizing creativity not as normative, singular, and static, but as pluralistic ("creativities") and as dynamic ("creativitying").

Although implementation is what makes creativities both significant and visible, without creativities, there is little to implement. Aphoristically, innovation is a forest of invisible trees: we see the results of innovations around us, but creativities often stay hidden; we lionize the successful innovator, but do not see the community supporting and enabling our genius idol. Hence, to understand the origins of innovation, we need the ability to observe and understand the activities of creative communities and the ideation process (Cohendet & Simon, 2015), implying that we need to focus on creativity – not as an abstract concept, but on a very practical level: by studying the everyday activities and interactions of creative individuals and communities (e.g., Ellström, 2010; Stanley et al., 2016), in practice, as they unfold.

Many social sciences have started to pay more attention to the everyday interactions of social beings – generally referred to as the "practice turn" – and using these everyday activities and interactions as a basis for theorization. Although focusing on everyday practice is attractive, the widespread adoption of practice-based research is partially inhibited by the overwhelmingly philosophical underpinnings of practice theories, relying strongly on philosophers and sociologists such as Bourdieu, Foucault, Giddens, and de Certeau (van der Hoorn & Whitty, 2017; Whittington, 2006). Such a theoretical/philosophical approach, while pleasing to editors of top management journals, is not suited to all researchers, and is especially ill-suited for busy practitioners trying to grow their understanding of their everyday challenges. Luckily, there is another way.

Pitsis and colleagues (Clegg et al., 2006; Pitsis et al., 2003) and Hällgren (2007) offer examples of another, decidedly less theory-heavy way to study practice, by strongly focusing on specific, recurring phenomena and building generalizations and theorizations starting with these kernels. Hällgren's study uses the management of deviations in power station construction to great effect, while Pitsis and colleagues unearth their subject organization's recurring use of "endgames" as a central method of making sense of their task and context. Instead of conceptualizing practice at an abstract level, these authors take practice to the micro-level. In this article, I propose a similar, micro-level approach to studying creative communities' practice.

In the next section, I present my suggestion for studying creative communities by focusing on observing and understanding the social micro-interactions which not only facilitate creativities, but also – at heart – are what communal creativity is made of. While focusing on creativities instead of those rare results of creativity, which can rightly be called innovations, we also avoid the fallacy of focusing on a "select few". Thus, the focus of study is not individuals or specific teams but the entire communities within and between organizations that participate in creativity (see Cohendet & Llerena, 2003).

The central benefits offered by the method presented in this article are twofold. First, the method offers a theoretically sound, comprehensive approach to studying social creative practice, which is based on one of the most acclaimed theories regarding creativity and organizational knowledge creation. Second, the method helps researchers and practitioners focus on those social interactions and social artefacts that play a key role in both utilizing previous creativities as well as facilitating further creativities.

Developing the Method

How can we study creative practice, especially as it is often part of a prolonged process, where most creativities happen between individuals? In order to not rely on post-facto rationalizations, we need to be able to observe creative communities in action. But access to the time and place only gets us half-way. To allow us to make pertinent observations, we need to know what to look for, know what kind of supporting data to treasure, and know how to interpret what we are observing, hearing, and reading. In short, we need to have a suitable epistemology and attendant research method. This is where the Practice Method for Studying Creative Communities (PMSCC) enters the picture.

"Epistemology" and "research method" – terms rarely used beyond academia – are valuable concepts to practitioners as well. An epistemology is an understanding of knowledge that helps to see a) what knowledge is and b) how "valid" knowledge can be obtained (Hirschheim, 1985). An epistemology (i.e., "What is creativity?"; "How can I learn about creativity?") thus informs the selection of a research method (i.e., "How do I go about trying to study creativity?"). These concepts are

A Practice Method for Studying Creative Communities

Pekka Buttler

valuable because they define our ability to be where we need to be, to zero-in on relevant events, and to interpret and understand what we are observing in a meaningful way. As a corollary, should our epistemology and method be unsuitable, we might end up with partial, skewed, or even outright erroneous conclusions. Therefore, it is important that our epistemology and method be informed by the best theories available.

While the rationale behind the PMSCC is detailed in subsequent chapters, Table 1 below summarizes all the practical aspects of implementing the PMSCC in a research project. It is designed to be straightforward and uncomplicated to use, and while I recommend examination of the original theoretical bases (Nonaka & Takeuchi, 1995; Polanyi, 1966), I will explain most relevant aspects of these aspects in the sections that follow.

An epistemology of creative communities

Although innovation and creativity are popular topics, and definitions and models abound, few offer a picture of the relationship between creativities and innovation that is more aware of social interaction and that is more longitudinal than the seminal work of Nonaka and Takeuchi. Working based on Polanyi's (1966) classification of knowledge into tacit and explicit, and using their extensive experience with Japanese industry, Nonaka and Takeuchi developed their models on knowledge conversions and innovation in organizations. First, Nonaka and Takeuchi (1995) identified four types of social "knowledge conversion" between tacit and explicit forms, then went on to note that knowledge aggregation is a cyclical, iterative process, where innovation is not the result of one individual's singular flash of brilliance, but rather the result of the creative social dynamics (see also Cummings et al., 2015).

Thus, the core of Nonaka and Takeuchi's theory of organizational knowledge creation is that all inventions are fundamentally based on social interactions between individuals, often facilitated through social artifacts (see Figure 1). Significantly, Nonaka and Takeuchi also see innovations being further refined through continuous/repeated iteration.

Table 1. Summary of the Practice Method for Studying Creative Communities, detailing data gathering methods, foci, purposes, and overarching framework

Observation	**Interviews**	**Documents**
• Longitudinally (over time) repeatedly • Make notes or record (audio/video)	• As often as possible, as soon as possible • Make notes or record (audio/video)	• Gather documents throughout research • Make notes, take copies, photograph artefacts
Observe social interactions:	*Interview participants:*	*Study documents:*
• Day-to-day work • Meetings • Workshops • Retreats • Hands-on sessions	• On all levels (designer, manager, client) • To unearth motivations and rationalizations • To gain insight into thinking	• To gain understanding of background • To track progress • To use as touchpoints in interviews and reports
Pay special attention to:		
• Use of cognitive tools (metaphors, analogies, concepts, models, etc.) • Social dynamic • Knowledge sharing, integration and particularization	• Descriptions of ideas and insights, and their origins and initiators • Individual accounts of social dynamic • Rationalizations of knowledge conversions	• Progress (over time) of plans and design artefacts (e.g., prototypes) • Formal rationalizations of choices and trade-offs made • How inputs (briefs, feedback, etc.) affect creative work
With constant triangulation (compare observations, interviews, and documents, and see if they mesh)		

A Practice Method for Studying Creative Communities

Pekka Buttler

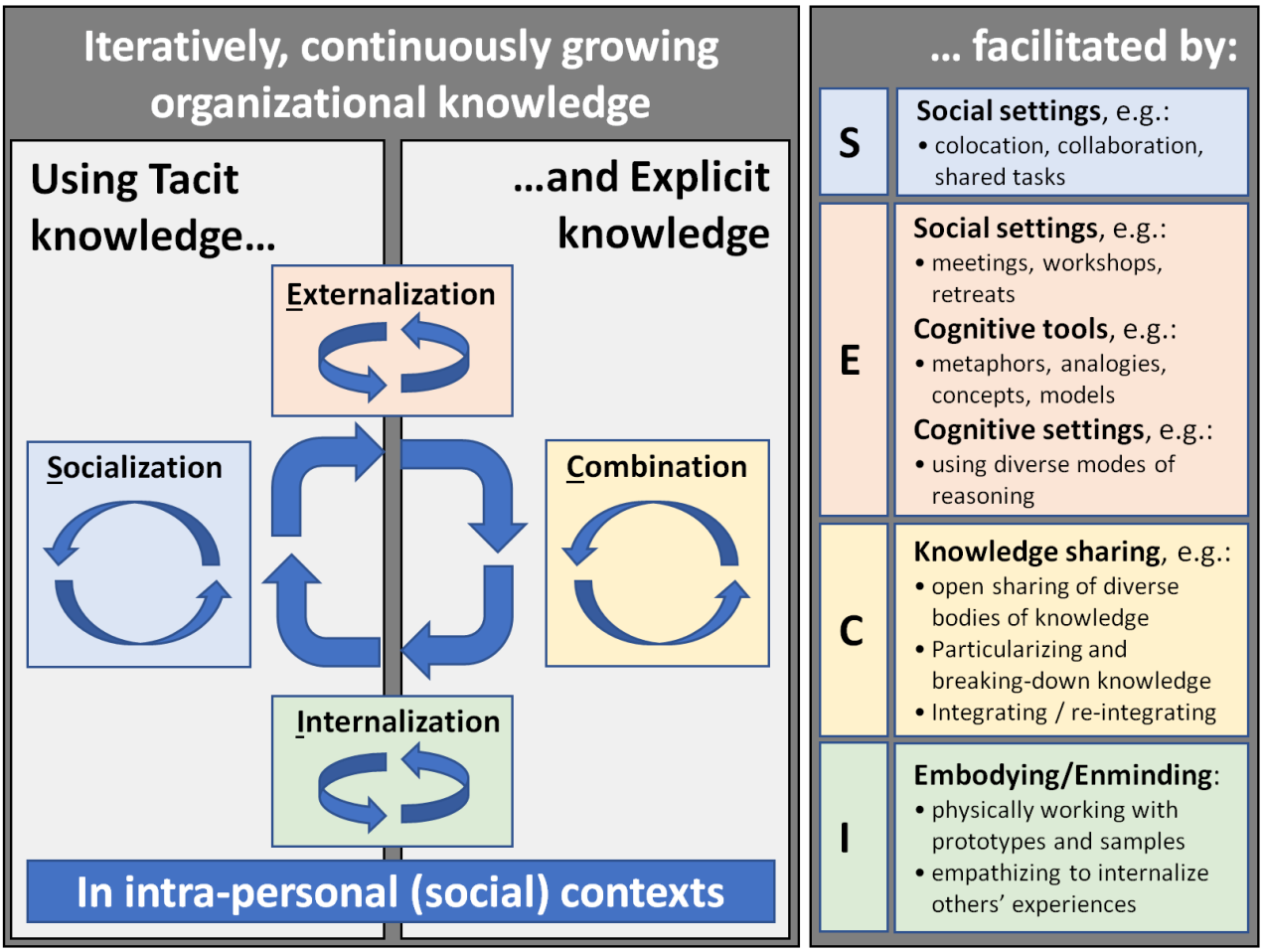

Figure 1. Core interactions and facilitators of organizational knowledge creation (based on Nonaka & Takeuchi, 1995)

A theory – such as the one offered by Nonaka and Takeuchi – is "a coherent group of general propositions used as principles of explanation for a class of phenomena" (Webster's, 1996). In essence, it is a prediction saying "A and B, in a situation like C, results in D". Interestingly, specific theories are not one-way relationships – they can also be turned around, creating a specific epistemology.

In this article, I therefore propose that these social activities and the facilitating social artefacts are the everyday micro-interactions that are the initial building blocks of all innovations and are thus "what you need to be looking at" in order to understand creative teamwork and to find the origins of innovations.

Gathering data on creative communities

Table 2 summarizes the terminologies used by Nonaka and Takeuchi, gives a short description of the entities (knowledges and interactions) involved. It also states potential facilitators, details researchers' central challenges regarding the entity, and proposes workable data gathering methods. Table 2 provides the theoretical foundation of the PMSCC, but additional points should be considered before actually applying the method in practice:

1. The multimodal data-gathering approach consisting of interviews, observations, and study of documents – while demanding to the outside researcher – is easily doable for the inquisitive insider, who naturally can observe their colleagues, has access to relevant records, and can always chat with colleagues. A multimodal approach also facilitates constant triangulation.

2. Although knowledge on an entity might theoretically be attainable, no guarantees exist: you may ask – and you should – but you may not get answers.

A Practice Method for Studying Creative Communities

Pekka Buttler

3. Nonaka and Takeuchi (1995) use the term "conversion", but conversion does not imply full translation (see also Nonaka & von Krogh, 2009; Tsoukas, 2005), meaning that the part that can successfully be "converted" is always less than the entirety.

4. The model is inherently social: knowledge conversions take place between people, not within people.

5. Inside teams are often utterly dependent on inputs from the community, such as client needs and user feedback (see also Pellikka & Ali-Vehmas, 2016). Thus, researchers should not focus too strongly on the team; instead, they should acknowledge the significance of the wider communities.

6. Finally, some of the method's targets are more salient (e.g., visible social artifacts, explicit knowledge), while others may be harder to observe. Although it certainly would be understandable if a researcher were to focus on these salient targets, such an implementation is risky: researchers might still be able to describe "what" but be none the wiser as to "why" or "how".

In summary, by focusing on two knowledge entities, four knowledge conversions, as well as the social facilitators (see Table 1 and Table 2), longitudinally (over time), researchers and practitioners can use the PMSCC to gain a wealth of knowledge about interactions in creative communities, how these help fuel creativities, and how these interactions over time aggregate into things we might call inventions, or even innovations.

Applying the Method in Practice

In this section, I will briefly describe the results of a research project that utilized the PMSCC. I present two vignettes showing how the different components of the method interact to facilitate new insights. Finally, I will summarize the central benefits offered by the PMSCC in the research project.

The vignettes offer brief glimpses of real-life cases I have been studying as part of a larger research project into the use of conceptual thinking in information technology projects. During this research, I have been working alongside teams in several Nordic organizations. In all cases, I have had the privilege of unencumbered access to both documents and people and have been observing interesting and revealing everyday creative and problem-solving activities. In order to gain such a deep level of access, I have committed to keeping all personal and corporate data confidential. Thus, details on inventions have been omitted and all names mentioned in the vignettes have been fictionalized.

Vignette 1: ExtenLibri

I observed TechniGrafis – an IT consultancy participating in a project aimed at developing products and services for LibriGulo, a company offering literature to people with various disabilities. The project encompassed multiple parts, with one subproject, "ExtenLibri", aiming at coming up with new types of services to increase the potential reach of digital literature. Although TechniGrafis has extensive know-how in literature-related technologies, the company knew that service development and ideation – especially for audiences with disabilities – was not its forte.

Using its client base, TechniGrafis set up an ad-hoc workgroup containing both in-house resources (mostly technologists) and outside consultants to offer industry insights (especially with regards to usage patterns of literature). The project functioned on three levels – the in-house team shared an office and met every day, the workgroup had meetings about once a week, and TechniGrafis met with LibriGulo roughly twice a month. Initially, the plan was for the outside consultants to offer inputs and potential ideas, which the in-house team would then "process" before being presented to LibriGulo for comments. In all, the ExtenLibri project ran for slightly over three months.

After an uninspiring beginning, the project began churning out a wealth of suggestions, comprising both incremental improvements as well as some genuinely novel concepts, with several of these being fed back into the other projects for further study. All parties agreed the ExtenLibri project had been successful – even surprisingly so.

Although a study of the project's inputs (initial briefs) and outputs (documented suggestions) would have easily shown the apparent success of the project, the actual mechanisms behind that success would have remained elusive. Being able to observe the various workshops and meetings enabled me to elucidate a critical component of the creative process – the combining of different bodies of explicit knowledge (Nonaka & Takeuchi, 1995). In particular, this combination was obvious in the intrapersonal interactions of TechniGrafis employees (i.e., technologists, some of which admitted to not regularly reading anything but technical manuals); their outside consultants, who were able to describe psychological and social effects related to

A Practice Method for Studying Creative Communities

Pekka Buttler

Table 2. Knowledge entities, their nature, their knowledges, and a practical approach to gaining data

Entity (Knowledge / knowledge conversion)	Nature of Entity	Facilitators (for conversions)	Entity's Research-Relevant Characteristics	Data-Gathering Methods for Capturing Knowledge of Entity
Tacit knowledge (Nonaka & Takeuchi, 1995; Polanyi, 1966)	Personal and contextual knowledge embedded in the individual's body (embodied) or corpus of knowledge	N/A	No direct way of capturing others' tacit knowledge. Indirectly accessible through socialization or as externalized explicit knowledge.	• Directly: None. • Indirectly: Limited. Through *observation* (via socialization) or *interviews* (via externalization).
Socialization (Nonaka & Takeuchi, 1995)	Social knowledge conversion from tacit to tacit knowledge through observation, imitation, and practice (experience) – often without use of formal language	Social settings, e.g.: • colocation • collaboration • shared tasks	Whether socialization happens is not observable (even though the social setting for it might be). Indirectly, a researcher may gain information on socialization via interviews or through (preferably) close observation.	• Directly: None. • Indirectly: Primarily through *interviews* (via externalization) and secondarily through *observation* (via socialization).
Externalization (Nonaka & Takeuchi, 1995)	Social knowledge conversion from tacit to explicit knowledge, mostly indirectly, through "metaphors, analogies, concepts hypotheses, or models"	Social settings, e.g.: • Meetings • Workshops • Retreats Cognitive tools, e.g.: • metaphors • analogies • concepts • models, etc. ...while using several modes of reasoning (cognitive setting)	Externalization is both a social activity and part of it (expressed explicit knowledge) is clearly visible. Also, aspects of the social dynamic are observable. What happens before the expression of externalized knowledge is not observable, however, and can only be reached through interviews.	• Directly: Through *observation* of social dynamic and expressed explicit knowledge during social events. • Indirectly: Through *interviews* to gain understanding of individual mental dynamic (metaphors, analogies, conceptual work).
Explicit knowledge (Nonaka & Takeuchi, 1995)	Knowledge of a separate, disembodied, particular, and detailed nature, but still owned by a subject. When converted into information, easy to copy and transmit.	N/A	Explicit knowledge (as such) is, in theory, perfectly accessible through interviews. Information, especially when in the form of documents can be studied directly.	• Directly: As information, through direct *study of documents* (records, plans, drawings, sketches etc.) • Indirectly: As explicit knowledge through *interviews*.
Combination (Nonaka & Takeuchi, 1995)	Social knowledge conversion from explicit to explicit, combining different corpora of explicit knowledge creating new knowledge compounds (and particulars)	• Bringing different corpora of explicit knowledge together and sharing • Breaking down or operationalizing concepts • Particularizing knowledge • Integrating (or re-integrating) knowledge	Combination is a candid, social activity, where both the activity and knowledge (explicit, expressed) are openly presented. Information on background processes can be gained through interviews.	• Directly: Through *observation* of social dynamic and expressed explicit knowledge during events of combination. • Indirectly: Through *interviews* to gain understanding of individual's mental dynamic.
Internalization (Nonaka & Takeuchi, 1995)	Social knowledge conversion from explicit to tacit, embedding explicit knowledge into individual's body or corpus of knowledge, using bodily experience, simulations and empathy	• Embodying: Through physical experience (manipulation, trying) with mock-ups, prototypes, samples. • Enminding: Through empathy	Internalization is not observable. Although internalization is socially enabled and often conscious, the result (new tacit knowledge) is personal.	• Directly: None • Indirectly: Through *observation* (via socialization) and *interviews* (via subject's externalization).

A Practice Method for Studying Creative Communities

Pekka Buttler

perusal of literature in general; and the representatives of LibriGulo, who were able to both illustrate the typical limitations encumbering users with various types of disability as well as the motivations driving such readers.

Thereafter, I focused on trying to unearth the origins of (what we deemed to be) the 10 most significant novel insights. Thanks to the full access provided to me, I was able to backtrack these novel ideas to when they were first voiced, thus allowing me to subsequently focus my interviews on trying to further trace back these insights to their origins. While I am unable to fully account for all the origins, I was able to unearth several interesting and fortuitous chains of events. In one case, a TechniGrafis employee told me how they had come to visit their mother at the retirement home and, finding her in the library with a heavy magnifying device in her hand (i.e., one that is not easily carried), came to "the realization that elderly can go to great lengths in order to read". In another case, a TechniGrafis project manager recounted how they had – after reading their kids a bedtime story – come to the dual realizations that, children and the elderly suffer many of the same limitations as readers – albeit due to different mechanisms. They also reflected on how the social activity of reading to children might translate to the elderly – an idea which resulted in a campaign for people to visit retirement homes as "readers". Besides these kinds of situations where individuals have not been aware of actively thinking about the project, there were also accounts of "sudden, surprising flashes of brilliance", which could be plausibly traced back to recent subconscious priming events. For example, the technologist who surprised themself by suggesting the idea of using speech synthesis to facilitate an on-demand audiobook service only later recalled recently witnessing a situation where their children were playing with an online speech synthesis tool.

Finally, I was also able to identify practices that seem to have been conducive to furthering the team's creativity. First, in addition to the daily meetings at the office, the TechniGrafis team instigated a "project lunch" – a weekly lunch meeting during which the team went to a restaurant (instead of the office cafeteria). Although the lunch was initially intended purely for team building, it quickly morphed into a "meeting without paper". Several team members said that they – feeling in many ways out of their depth, and thus apprehensive in regular meetings – felt freer to explore options. In effect, the project lunches lowered thresholds for participation. Subsequently, an analysis showed a disproportionate percentage of contributions being first aired during these lunches.

Second, one technologist had suggested a "utopia box" – a cardboard box in the office kitchenette where team members were encouraged to anonymously deposit outlandish dreams related to the project's remit, with the only precondition being that each utopian suggestion must start with "Wouldn't it be splendid if…". Although all of the 46 utopians suggestions logged (and subsequently posted on the team "HQ" wall and discussed during regular meetings) were considered outlandish, many contributed in some way to subsequent, more practical ideas.

Interviews with staff revealed interesting insights about both cases (i.e., project lunches and the utopia box). Although many felt that such threshold-lowering initiatives had improved their willingness to share ideas and insights and applauded the measures, several others felt that the initiatives had failed in making people feel safe to share. One architect recounted a team recreation event, where some team members had been openly discussing the faults of some proposals and speculating derisively on who might be the ideas' progenitor. Thus, it would seem to be important to not only create structures that support creativities, but to also engender a culture supportive of creativities.

Although the ExtenLibri project produced many ideas, and a significant number of them were deemed as having economic potential, only time will tell whether these will amount to viable services.

Vignette 2: Online Content Service Modernization

I also observed the cooperation of VenefiSoft – a mid-size software company – and CogniVenda – a publishing company. CogniVenda had been at the vanguard of using information technology to capitalize on their intellectual property, moving into online publishing at an early stage. From 2017–18, CogniVenda's online service for subscribers accessing their intellectual property was rapidly becoming technologically outdated. CogniVenda contacted VenefiSoft (the creators of the original online service) to thoroughly modernize the online service, a project hereafter referred to as Online Content Service Modernization (OCSM).

From the beginning of OCSM, VenefiSoft and CogniVenda decided on an agile, incremental development process, allowing the service's modules to be implemented and rolled-out sequentially. Also, with CogniVenda's help, VenefiSoft enrolled a handful of the online service's corporate clients (referred to as "key users") to act as test users for newly implemented modules. As CogniVenda demanded the right to "ok" each

A Practice Method for Studying Creative Communities

Pekka Buttler

module for release to key users, I was also able to observe the dynamics between the three tiers of involved parties: contractor, client, and users.

Again, even a quick comparison between initial project objectives and the result would have shown the project to be a resounding success but being able to unearth how that came to be necessitated being able to observe the seemingly mundane day-to-day activities. Although my observation of the project uncovered many interesting findings, this vignette focuses on two elements: the benefits of an iterative, participative design process and the potential of true outsider viewpoints.

As VenefiSoft had both the requisite technological know-how and a detailed knowledge of the intellectual property in question, most of the initial implementations of modernized modules met with direct approval from CogniVenda. However, once these modules were made available to key users, they overwhelmingly proposed not only corrections, but also further improvements (e.g., user-interface improvements, new features). As the modules varied greatly in size and significance, quantitative metrics would not tell the whole story. Suffice it to say that: a) key users were more demanding and constructive than CogniVenda; b) CogniVenda was generally impressed by the quality and quantity of feedback key users produced; c) subsequent revised implementations of some modules generated a spate of new suggestions for improvements. Thus, thanks to the iterative approach, modules kept improving with each iteration and each new iteration was likely to engender new suggestions.

This process of incremental improvements indicated two key aspects. First, the process exemplified what Nonaka and Takeuchi (1995) propose to be typical of externalization and internalization: that externalization (finding ways to express what is tacitly known) is far from simple and often succeeds only after time, and that internalization often necessitates working with samples (e.g., testing, prototypes). Second, the prolonged iterative process – working through the cycle of externalization, combination, internalization, and socialization – has great potential to lead to growing organizational knowledges as manifested through improved solutions.

Also, it is quite obvious that including the key users in the project from the beginning was highly beneficial through the addition of a third knowledge base: besides the technical know-how provided by VenefiSoft and the economic know-how provided by CogniVenda, key users were able to contribute with hands-on knowledge of actual real-life needs.

Finally, it also turned out that there was a fourth significant "knowledge base". Although each of the three parties (CogniVenda, VenefiSoft, and key users) made clear contributions to the process, they were also restricted by their knowledge of the existing system: an overwhelming majority of changes and suggestions were incremental in nature, while very few of the initiatives can be characterized as radical. Subsequent detailed study and interviews showed that all radical suggestions came from only three people – all without detailed prior knowledge of the existing system. Not surprisingly, these radical suggestions were not all met with approval, but those that were have subsequently been seen as highly successful. Thus, it would seem that, although knowledge and experience are valuable, ignorance also may be beneficial. A significant question would thus be whether the parties could have benefited from canvassing true outsider viewpoints more systematically.

The previous technological implementation of CogniVenda's online service was live for nine years. Whether the modernized service will outlast its predecessor is uncertain, but all parties agree that the potential exists.

Practical Benefits of the Method

Besides unencumbered access to subjects, the project has also benefited from a method that enables the researcher to focus on the fundamental micro-interactions and to conceptualize and make sense of what is perceived, while simultaneously also showing where to dig deeper. As such, the data gathering portrayed in the vignettes indicate interesting areas for further study: the significance of including various, diverging bodies of knowledge; the potential offered by an extended, iterative ideation process; and several ways to foster social creativity through lowering individuals' thresholds and offering multiple ways of giving input.

The data gathering has also shown that not all ideas make it. I witnessed numerous creativities that were not incorporated into the final result. Some of these ideas were outright impractical, whereas other were superseded by ideas felt to be superior, and some ideas themselves engendered new ideas superseded them. Based on these observations, I feel it important to note that ideas should not be judged by whether they "make it", but by how they contribute to the community's creative culture.

A Practice Method for Studying Creative Communities

Pekka Buttler

Although the vignettes reproduce only a small portion of the data gathering thus far, and as such do not offer nearly enough data to allow one to draw any generalizable conclusions, they nevertheless attest to the potential power of a practice-based research approach, through a combination of a) allowing the researcher to focus on the all-important micro-interactions; b) allowing the researcher to fit otherwise unconnected observations into a conceptual model connecting micro-level creativities with macro-level results (potential innovations); c) discover cognitive discontinuities through being able to constantly triangulate between what the researcher perceives (observations), how the participants explain themselves (interviews), and how things are codified (records), thus also highlighting areas of special interest; and d) working back-and-forth between nascent theorizations and real-life data. Thereby, the research method allows researchers to act in a continuous cycle of theorization and theory-testing.

Conclusion

The PMSCC offers researchers a valuable tool: not only does it show where one needs to be, but it also helps one focus on interactions that would otherwise easily remain unseen. Furthermore, as the PMSCC conceptualizes these interactions in a wider framework, one is not blinded by the abundance of details. Instead, one can clearly see the myriad creativities interact, foster new creativities, and help fuel the entire creative process. It is my opinion that the PMSCC has allowed me to gain greater insights and understanding of these creative processes than any unimodal research method would have allowed. Also, having had the pleasure to see these creativities unfold in front of my eyes, I feel privileged compared to researchers having to try to reconstruct chains of events in hindsight.

The novelty of the PMSCC is not in the actual data gathering methods it employs, but in how they are focused and integrated. The PMSCC differs from conventional, general research methods through the synergistic interplay between a multimodal data gathering setup, a needle-sharp focus on the micro-interactions through which organizations generate ideas and (hopefully) innovations, while simultaneously seeing creative instances as part of a prolonged process of incremental development. The power of the PMSCC to explain otherwise opaque processes through real-time access to creativities also indicates its main weakness: the PMSCC is strictly a real-time method and cannot be used retroactively.

The PMSCC also is a very practitioner-friendly method. As an external researcher, I had to work hard and long to gain the level of access I enjoyed. The inquisitive practitioner, on the other hand, has a much easier task: they start where it took me weeks – even months – to reach. What the practitioner then needs, in order to make worthwhile observations and gain new insights, is a suitable and powerful research method – something I hope to have hereby contributed to.

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A Practice Method for Studying Creative Communities

Pekka Buttler

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