Identifying Innovation with *Group StoryTelling*

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Abstract:

Innovation is the fundamental source of value creation in organizations. Despite its importance, many companies fail to systematize the process of innovation. The innovation process depends on a complex combination of factors related to organizational culture, which are not easily identified. This paper proposes a collaborative approach to identify such factors through group storytelling.

1 Introduction

The dynamics of environment's changes, which can lead organizations to technological obsolescence and motivate the emergence of new competitors able to threaten the market positions of established corporations, makes the search for new business opportunities a matter of survival. In this context, organizations have focused interest on innovation. Innovation has been helpful in improving the quality of products and services, pointing to new practices and business opportunities. It is certainly an important enabler of competitive advantage.

Despite the urgency to keep innovating, few companies have gotten to systematize the process of innovation making it replicable. This is because the innovation process depends on many facets and provides an environment to deal with those issues. Among such issues, we note the organization's cultural knowledge, which governs the way in which the company operates and its collaborators interact with each other.

Thus, a key challenge for the definition of innovation is to understand how the innovation process happens within the organization considering its complexity and dependency of the people involved.

As a way to resolve the difficulties found in identifying the activities that comprise the innovation process, we propose a collaborative approach to recall attitudes and situations where innovation has played a relevant role. The approach is based on group storytelling. The idea is to capture reports of experience of innovations that occurred in an organization, so that this knowledge could be used to promote innovation in future projects of an organization.

This paper is structured as follows. Section 2 presents an overview of related work in innovation and group storytelling. Section 3 shows our approach. Finally, Section 4 presents the conclusions and suggests future work.

2 Innovation

The competitive forces that drive organizations' development have brought great interest to innovation, as the information content of products, processes, and means of production has become the great differentiator among companies. In this context, innovation is being used as a form of expanding horizons and creating differential, because the economic success of an organization

increases or decreases depending on the introduction of innovations in their products and processes [Dosi, 1988; Tidd, Bessant and Pavitt, 1997]. According to Schulze (2001), most companies are aware of the need to innovate in order to follow the changes of this new economy.

By definition, innovation is a set of practices, obtained from empirical testing, or the simple combination of existing techniques carried out in order to improve processes that serve to achieve some advantage for the organization [Tigre, 2006]. Knowledge, an important element for developing innovations, is diffuse and permeates the various skills involved in the work of the organizations making it dependent on good communication between interdisciplinary teams [Coutinho, 2005].

A generic representation of innovation can be achieved when one considers the set of ideas, implementations, and outcomes. Innovation will occur only if none of those elements is missed. Results occur when the ideas find business opportunities, for example: something that when processed into a product or improvement of a process and offered to market, will result in profits [Rimoli, 2007]. This flow of events and/or decisions to transform ideas into business opportunities requires coordination of appropriate technical knowledge and proper trial of the market to meet simultaneously all restrictions on these economic and technological transformations [Kameoka, Ito and Kobayashi, 2001].

The innovation process can be considered a complex combination of creativity – the development of new products, processes, systems, and services; innovation and entrepreneurship – knowledge, skills and capacities which are essential to get succeed on the execution of the process.

Dosi (1988) emphasizes that the innovation process is cumulative, once it is based on past experiences and is strongly influenced by the characteristics of technologies. This learning with past episodes is approached by Araújo (1998) as an extension of individual learning outcome of consensus building and shared cognition through collaborative work in contemporary organizations.

2.1 Modeling the Innovation Process

One of the challenges of the innovation process is the regulation of various sources of ideas, information, and knowledge. If properly organized this information becomes an important means generate innovations [Lemos, 1999]. This complex combination of principles has motivated different innovation process models [Kline and Rosenberg, 1986; Ito and Kameoka, 2001]. These models try to systematize the creation of innovation, making it replicable.

According to Salomo and Mensel (2001), and Cropley (2006), the innovation process can be modeled as a series of activities that starts from the generation of ideas, crossing the opportunity recognition, following a flow of idea evaluation, development and commercialization, as shown in Figure 1.

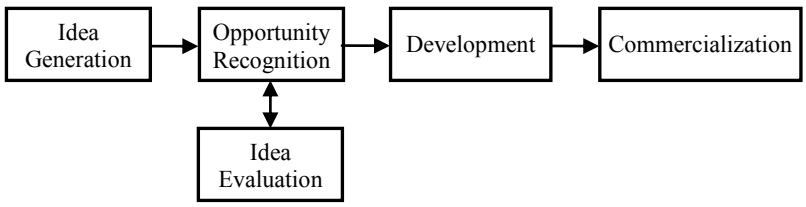

Figure 1 Innovation Process [Cropley, 2006]

However this model is not sufficient to explain all details inherent to the process. Organizations have values, principles, norms, unwritten rules, and procedures comprising their cultural knowledge resources. An organization's cultural knowledge resources impacts collaborators' behaviors

[Holsapple and Joshi, 2001], and, consequently, the innovation process. Thus, it is important to note how the organization works and treats its knowledge to understand how innovation occurs.

The recalling of relevant knowledge must rely on the people, rarely a single individual, who witnessed the events or participated in them. However, this is not a straightforward task. Incomplete information caused by lapses in memory and the lack of key facts are commonplace in the recalling process [Carminatti, Borges and Gomes, 2006]. This work approaches the use a technique called group storytelling to reconstruct events occurred that composed the flow of innovation process in past innovations.

2.2 Group StoryTelling

A story can be defined as a narration of a chain of events that is told to pass some kind of knowledge [Valle *et al* 2003]. A story must be assembled so it can serve as knowledge transfer. The structure of a story is a process of recalling knowledge from past events that have occurred. So this can involve an individual or groups depending on whether the story fragments are remembered by one or more individuals.

Group Storytelling means that more than one person is contributing to create a story, synchronously or not, geographically distributed or not. It allows the recovery of collective knowledge through the meeting of individual reports, which may raise different perspectives about a single event. Thus, we obtain a recovery of episodes richer than other conventional approaches [Carminatti, Borges and Gomes, 2006].

We have applied the group storytelling approach in several attempts to recall episodes from the past. In n experience similar to the one proposed here, we used the stories reported by participants of an event to identify resilient actions [Reis, Borges and Gomes, 2008]. In another work we used the approach for identifying user's needs and generate system requirements from stories [Laporti, Borges and Braganholo, 2007].

3 Finding Innovative Activities

To overcome the limitations of the models presented in Section 2.1, and considering that the innovation process relies on organization's cultural knowledge, we propose an approach to identify the activities which comprise the process through the analysis of an innovative experience using group storytelling. In this approach, users – here called tellers – should be able to make explicit their activities and related difficulties when executing them, their needs, and the organizational context that imposes additional constraints to their work. The proposed solution applies the contributions and comments to compose story fragments from previous innovative projects. Because the stories are built collaboratively, they don't state a single view of the project. These fragments can be combined with fragments from others tellers by the moderator (responsible for coordinating actions on the story) assembling a chain of events.

The metaphor we employ is based on stories about projects, told by users who have information that can contribute to the understanding and identification of innovative actions. For this, we plan to confront stories of projects that resulted in innovations with other (non-innovative) stories to identify actions according to its innovative aspects of creativity, innovation, and entrepreneurship.

An important feature of our approach is the decoupling of innovative actions, allowing the use of one or more of these activities to encourage the development of new innovations in new projects, increasing the flexibility of the implementation of the innovation process.

4 Concluding Remarks

The innovation process is complex and highly dependent on people's initiative. Thus, any process aimed to capture innovation must focus on people. We believe group storytelling is a good solution because it's people-centered. We are currently working on the specification of the stories structure that will help users to tell about innovation. It is necessary to specify what information will be captured in the storytelling process. We have already used this approach in other scenarios, with very good results. As an example, we have used group storytelling to capture requirements in software development.

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