

Where is the Action in Virtual Communities of Practice?

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Abstract

Over the past few years, viewing social groupings as “communities of practice” has become increasingly popular in the knowledge-management literature as communities of practice have been identified as settings for effective knowledge sharing. It is tempting to use the the concept to describe and to analyze “knowledge communities” as well. In this paper, we argue that the transfer of a concept that is deeply rooted in the lived-in world to the virtual involves conceptual problems, such as the question where learning and doing, two constituents of communities of practice, are to happen in the virtual world. In particular, we discuss selected aspects of combining communities of practice and virtual worlds by example of a virtual community that is situated in the global conferencing-system Usenet news.

1 Introduction

The abstract purpose of knowledge communities is knowledge creation and knowledge communication. The concept of communities of practice has been identified as setting for effective knowledge sharing. It is tempting to use the the concept to describe and to analyze “knowledge communities” as well. As knowledge communities are located in the virtual whereas communities of practice are deeply rooted in the lived-in world, we investigate aspects of transferring the concept of communities of practice to the virtual world. In what follows, we discuss the issues by example of three different communities each disposing of its own specific characteristics.

2 Communities of Practice

The term “communities of practice” refers to a theory that builds on learning as social participation (Wenger, 1998). Social participation, in this perspective, is not just engaging in certain activities, such as working in a team, but actively participating in the practices of social communities and constructing identities in relation to these communities. Such participation does not only shape what participants do but also how they perceive themselves and how they understand what they are doing.

Originally, the term was coined by Jean Lave and Etienne Wenger based on work in the late Eighties when they investigated apprenticeship in various types of communities ranging from midwives in Mexico and tailors in Liberia to quartermasters on U.S. Navy ships and butchers in U.S. supermarkets to Alcoholics Anonymous (Lave and Wenger, 1991). In particular, Lave and Wenger identified “legitimate peripheral participation” as an important aspect of effective learning.

Legitimate peripheral participation as a term is complex and composite in character as all three components —legitimation, periphery, and participation— depend on each other. Legitimation refers to authority and power distribution within a social setting and describes that a community is willing to accept a newcomer as a new member of the community given that the newcomer meets what is expected from a member of the community. However, becoming a member is not a formal process like being appointed but a process of growing into the role of a full member along with its rights, responsibilities, and capabilities. This growing into the role is supported by starting in the periphery rather than in the center of activity. The new member is able to observe how more experienced members perform tasks and how they deal with problems but the new member is not yet expected to be able to perform on a similar level. Rather, the new member might work on simplified versions or sub-tasks of complex tasks. It is important that despite periphery and reduced responsibilities, the new member is *participating* in ongoing activities.

Davenport and Hall (2000) describe three strands of work that are relevant to the discussion of communities of practice in the context of knowledge creation: work on apprenticeship or situated learning, work on situated action, and work on infrastructures that support situated learning and situated action. They mention situated learning as the process of learning how to be a good member of a community and situated action as learning of how to proceed in the face of local difficulties. In this paper we neglect the third strand of work which is work on infrastructures and focus on exploring situated learning and situated action in the context of virtual communities of practice.

3 Distributed Communities of Practice

Hildreth et al. (2000) describe a distributed but partly co-located group of IT professionals. The group investigated was the management team of IT support in a major international company. The team was distributed over the UK, the USA and Japan; the UK team consisted of four members, the USA team consisted of five members, and one member was located in Japan. Much of the work was done in the core groups but all members met twice a year and communicated in between via electronic media, such as email, voice mail, telephone, and video conferencing. Members stated that they found physical meetings important in order to create and to maintain relationships.

Based on interviews and a one-week observation study with the UK team, Hildreth et al. describe the group as a distributed community of practice. Moreover, the group itself identified themselves as community of practice as they match the following definition of such a community: the community has a common set of interests to do something in common, is concerned with motivation, is self-generating, is self selecting, is not necessarily co-located, and has a common set of interests motivated to a pattern of work not directed to it (p. 35). Hildreth et al. conclude that a community of practice can function in distributed environments but stress the importance of face-to-face contacts as they are necessary to take the evolution of the community further more quickly.

In respect to understanding the relation of such a distributed community of practice to virtual communities of practice it is important to note that learning and doing is still situated in the real world. Although the community discussed is physically distributed and communication is partly maintained via electronic media, the members of the community are interacting with the real world and learning takes place in the real world, i.e., the overall situation is real, not virtual.

4 Virtual Communities of Practice

Hildreth et al. also touch on the question whether communities of practice can be virtual and refer to a study by Congar et al. (1999) discussing a multi-user dungeon (MUD) and referring to its members as communities of practice. At first sight, the communities seem to be truly virtual communities of practice as all actions, such as exploring rooms or communicating with other MUD visitors, take place in the virtual. Hildreth et al., however, argue that MUD communities are more similar to real communities of practice (as opposed to virtual ones) as MUDs are both the

medium where the community is situated as well as the reason for the existence of the community.

Certainly, MUD users and members of other kinds of virtual groupings may develop a strong sense of community (e.g., Wellman and Gulia, 1999). Communities of MUD users can reasonably be viewed as knowledge communities sharing knowledge about the MUD and its physical and social structure. However, in regard of virtual communities of practice it is unclear whether a MUD community qualifies as such. It remains unclear what the practice is—is there a shared endeavor to explore the MUD or are user exploring the MUD on their own?— and despite Hildreth et al.'s point, it is unclear where learning and doing as constituents of communities of practice are located. Like other virtual environments, MUDs cannot be accessed directly but through computer screens and keyboards; in a strict sense, situated actions and situated learning are located in the real world as the user is still embodied in the real world. We are aware of the fact that the point is even more difficult to make when considering embodiment in advanced virtual reality environments and we will continue to explore different aspects of this point.

5 Newsgroups and Virtual Communities of Practice

In order to further illustrate our concerns with the location of learning and doing, we move on to a community that is located in the virtual world of Usenet newsgroups. The example differs from both previous community examples. Contrary to the MUD community, a significant part of relevant actions takes place in the real world. Moreover, most of the knowledge shared in the community is only relevant in respect to the real world. Contrary to the distributed community of IT professionals discussed earlier, there are hardly any co-located members and no shared work practice in the newsgroup example.

Usenet newsgroups being specific incarnations of virtual groupings have been investigated as well and it seems to be the case that members of newsgroups may develop a sense of community (Roberts, 1998). Other indicators for a sense of community are, for example, shared terms of good conduct as described in the so-called netiquette, shared humor, and organized real-world meetings in selected newsgroups.

Most empirical investigations of Usenet newsgroups, such as Roberts (1998), Smith (1999), and Whittaker et al. (1998), have focused on Usenet's publicly accessible part that consists of newsgroups and the messages posted to these newsgroups although reading is by far the most frequent activity of overall Usenet participation

(Lueg, 2000). One of the reasons for neglecting hidden activities is probably that investigating messages posted to the public is much easier to accomplish compared to analyzing reading behavior which requires significant technical effort. In addition, “lurking” was widely viewed as less valuable than active participation in terms of posting new messages (e.g., Wellman and Gulia, 1999). A recent study, however, suggests that lurking is a frequent and important part of online communication (Nonnecke and Preece, 2000).

Moreover, from a communities-of-practice perspective, lurking may be regarded as peripheral participation and posting own articles resembles participation and is indeed constituent for becoming a full member of a newsgroup. This point holds for newsgroups in general and in fact reading-before-posting is widely viewed as the most appropriate way to learn about Usenet newsgroups and their specific practices. Participation in terms of contributing own articles is essential as users remain invisible otherwise and contributing valuable articles are the only way to gain social status.

In what follows, we look in detail at the newsgroup `de.rec.bodyart` which is German-language newsgroup discussing all aspects of bodyart from taking care of fresh piercings to the design of tattoos. The members of the group are physically distributed all over Germany and Switzerland. Some members are living in the same cities, such as Munich which is commonly referred to as freak-town, but most members are living in different cities.

5.1 Similarities

The newsgroup `de.rec.bodyart` has similarities with communities of practice in that learning how to behave, developing a kind of `derb` attitude (`derb` is both an abbreviation of the newsgroup’s name and a pun), and knowing about specific aspects of the newsgroup are important aspects of being a full member of the newsgroup. Examples for such aspects are knowing shared anecdotes, such as pierced and inked persons being claimed to be “sozialethisch desorientiert” by German government. Even stronger community effects can be observed in the American counterpart `rec.arts.bodyart` where full members call themselves “rabbits” (the abbreviated version of the newsgroup name is `rab`).

In addition, `de.rec.bodyart` develops and maintains shared knowledge, such as a particular approach to healing piercings which is a non-standard way to address this particular issue, knowledge about suitable piercing jewelery, recommendations for bodyart studios, and knowledge about problems in the context of so-called bio-tattoos which are advertised as temporary tattoos.

Apart from newsgroup-specific activities, members of the group maintain a web site where the physical location and the specific bodyart of individual members is shown. Access to the gallery is only granted to members of the newsgroup who have contributed to the collection. In addition, so-called munches or minks (acronyms for “meet and lunch” or “meet and drink”, respectively) are organized where members of the group meet physically to discuss mostly bodyart-related topics. Occasionally, munches are combined with joint visits to bodyart studios for shared piercing experiences.

`de.rec.bodyart` also seems to qualify as a community of practice according to the definition by Hildreth et al. (2000) cited earlier as the group has a common set of interests to do something in common, is concerned with motivation, is self-generating, is self selecting, is not necessarily co-located, and has a common set of interests motivated to a pattern of work not directed to it. Certainly, participation in the newsgroup does not only influence what participants do (in terms of bodyart) but also how they perceive themselves and how they understand what they are doing. Last but not least, the group would be a virtual community of practice rather than a distributed one as the medium of the `de.rec.bodyart` is a virtual Usenet newsgroup and not the real world as in the case of the IT professionals in Hildreth et al. (2000)’s example.

5.2 Differences

The point made in conjunction with the MUD example holds for the newsgroup example as well. It is unclear, where learning and doing are taking place, in particular, as the bodily experience of piercings and tattoos is crucial for the very existence of the group.

It is also unclear what makes the shared practice as body-piercing happens in the real world and not in the virtual. There is hardly any shared practice apart from munches and Usenet activities. Moreover, the knowledge acquired in Usenet discussions is mainly applicable outside the newsgroup, i.e., the knowledge is acquired in the virtual but can only manifest in the real world. In the real world, the knowledge is extremely helpful as it helps learning how to behave and what to look for in bodyart studios, such as cleanness and hygiene, and thus to distinguish good from bad studios, assessing jewelery quality, jewelery sizes, piercing techniques, and healing recommendations.

6 Conclusions

In this paper, we have discussed various aspects of transferring the communities-of-practice concept which is deeply rooted in the lived-in world to the virtual. By example of three different communities, we have motivated that careful investigation is required when interpreting virtual communities as communities of practice. Future research will address the question where learning and doing are located in the virtual and what shared activities qualify as shared practice in the sense of communities of practice.

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