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**Proceedings of the ... European conference on knowledge management**

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Referanse for den publiserte versjonen:

Ergan, M. A. , Vold, A. T. og Nilsen, E. (2014). Virtual Communities of Practice - Experiences from VCoP. *Proceedings of the 15th European conference on knowledge management*. 306-310.

## Virtual Communities of Practice – Experiences from VCoP

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**Abstract:** Online systems for sharing knowledge and for organizing communities of practice are increasing in numbers. In this paper, we claim that the system alone will not be sufficient regarding the knowledge sharing process, if fundamentals of creating and maintaining communities of practice are not attended to. This paper presents the experiences from two Norwegian organizations that have used an online system for sharing knowledge, for the purpose of building a community of practice within the organization. This is a pilot study of a larger project and the main focus has been on the role of the facilitator and on the key features of the facilitator role that supports the creation and maintenance of what is defined as Virtual Communities of Practice (VCoP). “Ordinary” Communities of Practice, as Lave and Wenger define it, are based on voluntary encounters between practitioners (Wenger, 1998a, Lave and Wenger, 1991). We investigate to what degree the *Virtual Communities of Practice* are voluntary, if at all. The research is mainly qualitative and data is collected through interviews. The respondents are users and administrators of the system. The system is called Noddlepod™ and is a Norwegian developed Knowledge Management System.

**Keywords:** Knowledge Management Systems, Virtual Communities of Practice, collaborative tool, knowledge sharing, facilitator

### 1. Introduction

Organizations today do not necessarily have all their employees under the same roof and offices are more and more scattered throughout the globe. In order for both to appear as one organization, and more importantly share information and knowledge within the scattered organization, many companies have shared databases and digital infrastructure.

This study is conducted in two distributed organizations. Most of the employees are located at different geographical areas. It is important for both organizations to share information and knowledge within the organization. The employees all share access to a common database and have a digital infrastructure supporting sharing and collecting knowledge. It is, however, not always enough to share database and implement a common digital infrastructure. One key to success may lie in the *use* of these databases and tools for cooperation and knowledge sharing. Providers of solutions for inter-organizational cooperation and knowledge sharing are increasing in numbers, all claiming to offer the master key.

Also the way of sharing knowledge and managing the knowledge sharing has been a center of attention. Lave and Wenger described how practitioners came together on a voluntary basis to discuss and learn from each other in a Community of Practice (Lave and Wenger, 1991, Wenger, 1998b). This is, however somewhat difficult to obtain in an organization where the practitioners are not co-located. Recognizing this challenge, many organizations choose to invest in digital and online solutions and preparing the grounds for *Virtual Communities of Practice* (hereafter called VCoP). This possibility of coming together digitally and online should provide the practitioners with many of the same advantages as the not only *real-time* but also *real place* Communities of Practice (hereafter called CoP) appear to have. A VCoP will make it possible for employees that are not co-located, to develop links and relationships with each other. By this it will be possible to develop social capital in the

organization. Social capital is positive impact for an organization to develop value and to increase organizational performance (Lesser and Storck, 2001)

## 2. What is a VCoP?

A CoP is virtual when its members use ICT as their primary source for collaboration. To stay virtual will not exclude face-to-face meetings, but a number of factors such as geographic dispersion and busy working schedules, will do communication through ICT more efficient. (Dubé et al., 2005)

VCoPs are social networks online where people with common interest, goal or practices to collaborate to share information and knowledge and engage in social interactions. It is the content of the social interaction and the resources in the network that maintain the VCoP. (Chiu et al., 2006)

A VCoP is to be seen as a group of people that is gathered around a shared purpose, interest or goal. To support collaboration between members that is not physically co-located, most of it is depending on electronic communication. Since a VCoP is a social network that uses ICT for support communication, rather than collaboration face-to-face, some VCoP just exist in cyberspace. (Koh et al., 2007)

A VCoP can use a wide range of traditional media such as telephone, teleconferences, fax etc., or more or less advanced technical tools such as email, videoconferences, newsgroups, shared databases, websites, intranet etc., to support the collaboration between members. (Dubé et al., 2005).

Different systems have different features. The options of audio (voice) and image (real-time video) differ from system to system. However, all systems supporting the possibility of conducting meetings between practitioners also *require* initiative and some pre-meeting coordination.

Face-to-face meetings also require initiative, but may be more spontaneous. With distributed offices, there are still possibilities of spontaneous meetings as multi way video conference. We claim, however, that in order to successfully meet up with fellow practitioners, a minimum of planning and coordination is required, and that this planning and coordination takes more time and effort than meeting up with fellow practitioners that work in the same workplace. The face-to-face meetings are important to get closer relationships between the members in VCoP. (Bourhis and Dubé, 2010, Ardichvili, 2008, Monteiro et al., 2008, Koh et al., 2007).

The digital systems also provide opportunities of shared knowledge by offering structured ways of leaving posts, documents, letters, reports, minutes, templates, best practices and all other types of written material that may be of interest to co-workers and can be uploaded and shared.

The facilitator role is important for a VCoP's success (Barnett et al., 2012, Dubé et al., 2005). The role of the facilitator can for instance be to structure information, to encourage and motivate to participate and to organize both virtual and face-to-face meetings and to moderate discussions.

There are, however, some concerns; there may be an overflow of information, so how to sort out what is important to your own work situation? And what if you have questions regarding something that has been uploaded? What are the consequences of missing potentially vital information? And what are the consequences regarding failing to upload information that are important to co-workers?

Based on all of this, our questions regarding the use of digital online systems crystallize into:

- Under what conditions do the practitioners join in (in the VCoP)? It may be voluntary – as in the definition of CoP's, but what contributes to their participation?
- How does the facilitator affect engagement and knowledge sharing in a VCoP?

### 3. Method of Inquiry

The study was conducted as a case study (Stake, 2005, Yin, 1981). We have interviewed (Dalen, 2011, Guba and Lincoln, 1989) facilitators and practitioner in order to seek answers to our questions. An interview guide was developed (Postholm, 2010, Dalen, 2011), that would provide us with answers that could be analyzed and discussed. This qualitative approach allows follow up questions and can provide us with a broader picture.

The interviews have been transcribed and coded into different keywords, variables in Nvivo. Using Nvivo was helpful to get the data more structured and to get an overview of the variables too seek for answers to our questions. The analysis has been conducted by searching for answers to the different research questions in the data of the different variables. The keywords being used in the analysis for this pilot project are participation and engagement, amount of information, motivation, and facilitator role.

This study is conducted by an embedded multiple case design and will make the study more robust, will strengthen and convince of any findings of the study. (Yin, 2009). Two cases will increase the understandings of the study's phenomena. It is two VCoP that will represent each case in this study. The two VCoP are studied at the same time, but separately. This is to see if there is any likable pattern that can give some answers to the topic of the study that might derive or develop theories. (Yin, 2009).

Since this study is a part of a pilot/research project of Noddlepod™ the cases was chosen a bit random by what participants/customers that was available at the time in the project.

It will be necessary to study both the role of the facilitator and the role as a member of VCoP in both of the cases to search for answers to the research questions. Two facilitators, one of each VCoP, and three members of each VCoP are interviewed, a total of eight respondents. The members have been chosen by the criteria of active, medium active and less active members in each VCoP and this will represent the variety of the study.

To choose members in each VCoP that is as similar as possible will make the selection of respondents' homogeneity. Similar in the sense of the members to have the same information and training when implementing the Knowledge Management System Noddlepod™, and to have the same equipment available, no matter of what VCoP they are members of. In other words, the members are supposed to have the same pre-condition to participate in VCoP.

### 4. Analysis and discussion

From our analysis we sought answers to our principal questions:

- What contributes to voluntary participation in a VCoP?
- How does the facilitator affect engagement and knowledge sharing in a VCoP?

We found the voluntariness to be based on genuine desires to contribute to the organizations greater good, as well as to actively seek information that would contribute positively for the practitioners own work practice. As one respondent puts it (translated from Norwegian):

*“Through this sharing, I will get a lot of inspiration and access to a lot of things my colleges have made, which makes my use of time much more efficient by using parts of what the others have made, to make it my own.”*

However, it was also based on a communicated desire from the managers in the organizations. The managers are often the facilitators of the VCoP, and this is also the case of this study (Li et al., 2009). The results of this study show that when the manager has the facilitator role, the members seem to be positive, because it gives the facilitator an authority and therefor the members' expectation to participate becomes more visible.

One participant responded:

*"We are working in such a way that everyone must participate"*

*" And the items posted is expected to be reviewed before we gather for meetings and mean something."*

*"It is not mandatory, but it is expected, it is a precondition to be there [in the system] to get it to function as it is meant to function."*

*"It is expected that we are up to date, updated, and that we add items that we want to share with the others in Noddlepod."*

Although there were to be no reprimand or other negative consequences regarding lack of posts or engagement, there was a common understanding that this was expected of them and that this contributed heavily towards their own engagement.

We interpret these statements to indicate a form of *gently forced* attendance and use. This suggests that the original idea of VCoP defined by the attendance to be voluntarily and initiated by the practitioners is no longer supported.

We will need to redefine the term VCoP and rather than promoting the voluntariness, look at how other factors, such as the facilitators role, the role of the managerial support and engagement, as indeed is discussed by other authors such as Hydle et al, Gammelgaard, Bourhis and Dubé and Murillo who claim that by adapting for a formal structure for cooperation and spontaneity for instance by the use of ICT, it is possible to maintain the original characteristics of a CoP (Hydle et al., 2013, Gammelgaard, 2010, Bourhis and Dubé, 2010, Murillo, 2008).

These authors do, however, still claim that the voluntariness of participation defines the VCoP. We claim this must change. We no longer rely on members of VCoP voluntariness, but need to look more closely into factors such as the facilitator's role and behavior i VCoP, and the ownership of the management regarding establishment of VCoP.

Regarding engagement, the most prominent answer indicated the necessity of finding and reading important documents, such as minutes, reports or other documents for upcoming meetings. The documents were only accessible via the system and in order to be prepared for e.g. board meetings, this was the only opportunity to download and read the documents. Also any files that you as employee were asked to contribute with, being reports, or other types of documents, were to be uploaded in the system rather than being distributed by email.

To get the members to participate in a VCoP this study finds the facilitator to be very important. The facilitator has to be a role model by engaging in the VCoP by participating and get involved in the posts in VCoP. It is important that the facilitator uploads documents and information, write comments and encourage its members to participate in VCoP. The study of Koh et al, 2007 says that it is important that the leader of a VCoP itself shows engagement in both participation and involvement in the posts in VCoP to get the members to participate (Koh et al., 2007).The results also shows that it is important for the facilitator to be a good role model by just use the VCoP to communicate, with the employees through and not use email as a communication channel. If it is ok for the facilitator to use email, the employees will probably do it too.

The results of this study show that the amount of information is an element that is important for the members to participate in VCoP. It will be important to get the posts and uploaded document in a good structure to get it easier to find for the members. The facilitator has an important role to make this structure in the VCoP, and not by itself but together with the members. By get the members more involved in moments to establish a VCoP, will make them more motivated to participate in it. The respondents explains overload of information to be a problem in the VCoP in the future. By this the comments of postings where tried to stay at a minimum to avoid the experience of spam

Statements like:

*“We try to not comment more than necessary. It should not be a chat/ forum thing. It is just the information that we need that should be there. Everything else that could be great to have should NOT be there. This should be somewhere else”*

Clearly show that the members do not want the VCoP to be a chat or comment every post that is made in the VCoP.

The facilitator has to be active by making relevant posts in VCoP to make attention to the members and focus at the VCoP. The facilitator has to remind the members to participate in VCoP, if not the VCoP will probably get lack of engagement of members and the intension of VCoP will not be fulfilled, and the VCoP will lose its function.

The cooperation by members in VCoP will most likely increase by having an engaged facilitator (Barnett et al., 2012). Having an engaged facilitator will most likely contribute to VCoP success. (Dubé et al., 2005).

The results of this study show the importance of having a leader of VCoP, a facilitator, and that this role is important to get engagement in VCoP by the member's participation.

Engagement and knowledge sharing will follow from the engagement and ownership of the management. The leaders' willingness to support the very idea of the system and their communicated desire to have the practitioners fully engaged in using the system actively. At the very least, it is a database and place all practitioners have access and can download and upload important documents and where to make comments, but only if necessarily.

## **5. In conclusion**

Our conclusion is that the focus of a VCoP should be on how to form the facilitator's role to remind and encourage participation in the VCoP (upload and download of a variety of relevant documents). The voluntary part of the definition should be toned down and maybe even replaced with the need of managerial engagement and encouragement.

The facts that the facilitators in both VCoP where the case study was conducted, were determined to participate in VCoP and were active regarding contributing with documents and discussions, highly contributed towards the participation by the members in VCoP. Also their communicated expectations and encouragements with regards to be engaged in VCoP, contributed to active participation by its members. This attitude from the facilitator we also claim to be an important factor regarding what we may refer to as active and successful use.

We strongly suggest that a deeper study is conducted aiming to look at the different aspects regarding the facilitators' role.

We also suggest a close study on the role of the management. How dependent is the practitioners' use of the system of the engagement and expectations of the managers?

Our suggestion for a preliminary new definition of a VCoP would be:

A VCoP is to be seen as a group of people who share a common interest, goal or practice, and who collaborate to share information and knowledge, mostly through ICT. Participation in the VCoP is expected from both management and the rest of the members of the VCoP.

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