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Can KM Strategies Contribute Towards Advising in Higher Education?

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Abstract: Traditional advising is challenged in the age of the online medium. Many of the subtleties of an advising session, like eye contact, facial expressions and facial mimic, are lost in the transition to written feedback. It is possible to use media that to a certain extent includes this, like videoconferencing. Online education has become a demand in the market, but is also a cost effective way of distributing courses. Lecturers are aware of how important feedback is to students learning outcome, and that it takes time and efforts to provide feedback that will bring the students forward. At the same time, there is a demand from university management regarding cost efficiency and thus reduce the time spent on this activity. Trust is also something that is established in the physical meeting. It is sometimes essential both for the advisor and the student to establish a trust between the parties. Trust may influence the outcome of the advising session; lack of trust can contribute to mistrust from both parties. The consequences may be that the students' experience a patronizing advisor, and/or the advisor do not get their advices across. Within the area of Knowledge Management, a way of sharing knowledge is forming Communities of Practice (CoP) and when the organization either works distributed they can form Virtual CoP's . Some research is undertaken to find optimal ways of making the members of the organizations work together in a best possible way, utilizing the online medium. This paper presents a theoretical approach towards two issues; solving the issues of online advising using experiences and guidelines from KM strategies, e.g. Virtual CoP's, and is it possible at the same time to prepare the students for a work life in distributed organizations in a better way?

Keywords: advising, tacit knowledge, explicit knowledge, VCoP, online advising, adult learning, transactional distance theory

1. Introduction

With the emergence of online education, technology is used also in on-campus education. Also most universities offer courses and degrees as online education. Some of the courses require assignments and for some assignments and also for thesis writing, advising or supervision is needed. In the further we have chosen to call the academic supervision "advising". Advising is about sharing information in a way that it supports development in the receiving end (Pettersen and Løkke, 2004).

Within Knowledge Management (KM) one way of sharing knowledge is by organizing Communities of Practice (CoP's). CoP's are defined as "groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly" (Wenger-Traynor, 2016). There are three characteristics that are tied to CoP: 1) a commitment to a domain identified by a shared practice interest, 2) the community consists of members that interact and learn cooperatively, and 3) the community members are practitioners who develop (over time) a shared pool of resources (like stories, experiences) (Wenger, 1998).

With the emergence of the possibilities of working distributed organizations it has proved important to keep the common identity and shared values in order to maintain the same goal for the whole organization (Orlikowski, 2002). This is achieved by frequent and extensive communication. This communication can be undertaken using internet based tools.

Since the CoP then no longer is made up of face to face meetings, but rather *virtual* meetings, this can be described as Virtual Communities of Practice (VCoP's), as a CoP is virtual when its members use ICT as their primary source for collaboration. However, to stay virtual will not exclude face-to-face meetings. Factors such as geographic dispersion and tight working schedules, make communication through ICT more efficient. (Dubé et al., 2005).

VCoPs are thus social networks online where workers with shared interest, goals and/or practices to collaborate 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 newer definition was offered by Ergon, Vold and Nilsen (Ergon, Vold et al., 2014):

“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”.

Since VCoP's are social networks that use ICT to support communication, rather than collaboration face-to-face, some VCoP's are only existing in cyberspace. (Koh et al., 2007).

However, academic advising also need to consider a *relational aspect* (Pettersen and Løkke, 2004). In VCoP's the interaction is generally between peers, unless it is about management issues and the leader or manager need to exercise leadership using the channels of the VCoP's.

The relational aspect in the academic advising is about the relationship between the advisor and the student, and shows the formal “contract” between the parties, and also the emotional ties and the personal relationships (Pettersen and Løkke, 2004).

The questions one seeks to answer are thus:

How to utilize the “lessons learned” from using VCoP's to support academic advising? How is it possible to maintain the relationship needed to proceed with the advising using experiences from VCoP's?

2. Theoretical discussion

For this section we have chosen to look at how distributed communication can be undertaken, and have focused on how distributed organizations communicate utilizing Virtual Communities of Practice's (VCoP's). VCoP members need to communicate online as their members are mostly in different offices in different cities or even countries.

Then we have looked at distant education and issues regarding providing online courses with a special focus on the transactional distance theory by Michael G. Moore (1997).

2.1 Virtual communities of practice (VCoP)

Hildreth and Kimble argue that KM is about people and that using Communities of Practice (Wenger, 1998) will provide a way of utilizing the knowledge (Hildreth and Kimble, 2002). Interaction within the Community of Practice can provide an environment where “knowledge is created, nurtured and sustained” (Hildreth and Kimble, 2002). Communities of Practice (CoP) is a term coined by Jean Lave and Etienne Wenger (Lave and Wenger, 1991) and is associated with sharing and transferring knowledge, also across organizational boundaries. CoP can contribute towards making tacit knowledge (Polanyi, 1966) into explicit, such as experiences that are context-dependent (Davenport and Prusak, 1998). This is according to Thomas, Kellogg and Erickson a rich potential source of best practices (Thomas, Kellogg et al., 2001).

Knowing that the face-to-face meetings are important to get closer relationships between the members in VCoP's (Bourhis and Dubé, 2010, Ardichvili, 2008, Monteiro et al., 2008, Koh et al., 2007), which is needed to keep the same goals and thus keep the workers loyal towards the common goal (Orlikowski, 2002), it will present a challenge regarding transferring the success factors to an advising session where there is no possibilities of a face-to-face meeting.

Academic advising is defined by Sidsel Tveiten as “..a formal, relational and pedagogical process that enables (and empowers), and that aims to strengthen the personal mastery competence through a dialogue based on knowledge and humanistic values” (translated from Tveiten (2006) in Kaare Skagen (2011)).

The advising session consist of different phases; the beginner phase (introduction), the personal phase, and the equality phase (Pettersen and Løkke, 2004). In the beginner phase the role of the advisor is more of an instructor, as the advisor in this phase will be the one that has the knowledge to be shared. However, it is important to avoid telling the student what he or she should do, as this must be the choice of the student. As David Ausubel is quoted in Pettersen and Løkke (2004): “...the most important single factor influencing learning is what the learner already knows. Ascertain this and teach him accordingly”.

The second phase is about developing a learning alliance between what we now can call “the partners” to symbolize the more symmetrical relationship that now has developed (Pettersen and Løkke, 2004). The advisor explores what the student presents, and challenges the opinions and perceptions of the student.

The third phase is the closing phase where the relationship with the student is more consultative as the student now has acquired knowledge and is empowered with regards to one’s own work.

The students today are, according to Waldner et al., mostly online and it is thus a need for engaging in online advising(Waldner, McDaniel et al., 2011). Also there is a potential of saving for example travel time and copy money.

Gilly Salmon has written about online learning(Salmon, 2011) and uses a five stage model for learning.

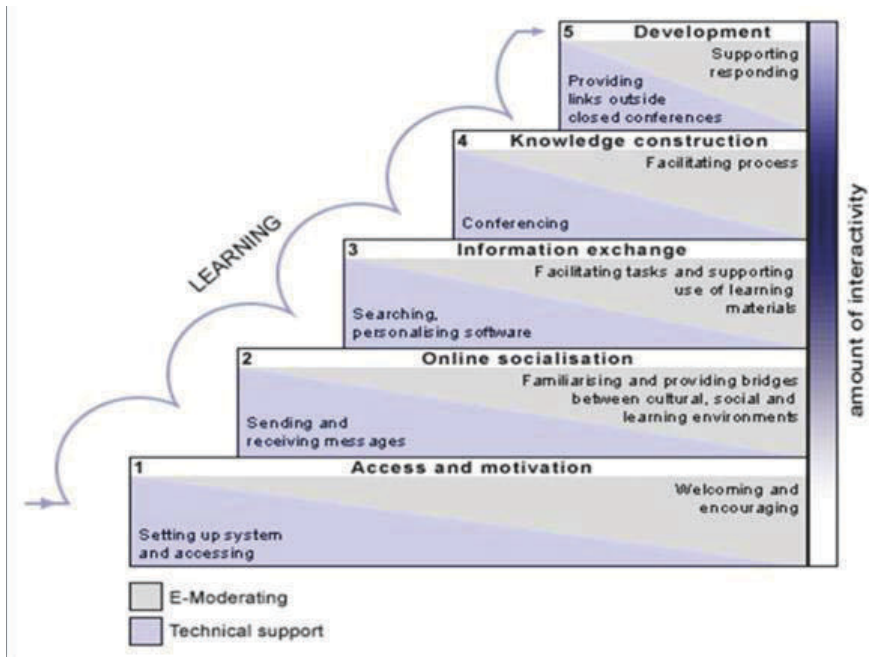


Figure 1: The five stage model of online learning (Salmon, 2011)

The figure shows the five stages of online learning as described by Salmon. The initial state is access and motivation, similar to the first phase as described above. The second stage is about socializing to bridge the different possible obstacles. The third stage is when the knowledge transfer and sharing takes place, and in the fourth stage is where the knowledge construction is facilitated. The development is the fifth stage and resembles the third phase as described above.

Maintaining the relationship of the advisor and the student, acknowledging the different phases **and** the five stages of the online learning, is thus important. Drawing on the communication and how it is facilitated in a VCoP, can thus be of interest.

Ergan et al.(2014) suggest to use a facilitator regarding getting the members of an organization to participate in the communication process. The facilitator will have the role as a role model by engaging in the VCoP by participating and being involved in the communication process. The facilitator must be active in the sharing process and encourage the members to join in the communication process. Koh et al. states the importance of the leader of a VCoP itself shows engagement in both participation and involvement in the posts (the communications) in the VCoP’s technical tool for communicating to get the members of the VCoP to participate (Koh, Kim et al., 2007).

If the advisor takes on the role of a facilitator or even manager, it will be regarding keeping up the communication with the student. To use the LMS or the chosen communication channel frequently and be consequent is important.

Light (2003) claim that it is important to have a meetings on a regular basis as this: "... provide the positive growth experiences for students that enable them to identify their goals and talents and learn how to put them to use. The caring attitude of college personnel is viewed as the most potent retention force on a campus."

According to Michael Herbert (2006) this also applies to online education. Close and frequent contact with faculty staff and their attentiveness to students needs were rated high as to contribute to student retention and student satisfaction.

With regards to the subtleties of the communication, like body language or the use of voice, to support the different phases in the advising process, the theory on VCoP does not offer any clear recommendations. It is possible to use video communication and voice communication in the advising, but still some of the subtleties will get lost.

2.2 Theory of transactional distance

The theory of Transactional Distance is interesting to the topic of advising in an online medium only as this theory points out some important factors that are interesting when a "face-to-face" meeting is not possible.

According to Moore (1997) the concept of transaction stems from Dewey and Bentley (1949) as they in their work "Knowing and the Known" presents an in depth analysis of the word and the meaning of "transaction". For instance they claim that: "Transaction is the procedure which observes men talking and writing, with their word-behaviors and other representational activities connected with their thing-perceivings and manipulations, and which permits a full treatment, descriptive and functional, of the whole process, inclusive of all its "contents," whether called "inners" or "outers," in whatever way the advancing techniques of inquiry require" (Dewey and Bentley, 1949).

They also present some examples of the interrelations that need to exist for a transaction: "Borrower can not borrow without lender to lend, nor lender lend without borrower to borrow, the loan being a transaction that is identifiable only in the wider transaction of the full legal-commercial system in which it is present as occurrence. In ordinary everyday behavior, in what sense can we examine a talking unless we bring a hearing along with it into account? Or a writing without a reading? Or a buying without a selling? Or a supply without a demand? How can we have a principal without an agent or an agent without a principal?"(Dewey and Bentley, 1949). Regarding our work at our University, this means that in order to have a transaction, it is also important to see the interconnectedness with actually having someone to receive advising/tutoring, not only someone to provide it, and also that there is the *relationship* of student<->advisor. We cannot perform tutoring if we have no one to tutor, or to receive the tutoring.

Moore (1997) states: "The transaction that we call distance education occurs between teachers and learners in an environment having the special characteristic of separation of teachers from learners. This separation leads to special patterns of learner and teacher behaviours. It is the separation of learners and teachers that profoundly affects both teaching and learning. With separation there is a psychological and communications space to be crossed, a space of potential misunderstanding between the inputs of instructor and those of the learner. It is this psychological and communications space that is the transactional distance." The transactional distance will thus vary as the psychological and the communications space will vary from relationship to relationship – taking into account that we here mean relationship as in "teacher/tutor/advisor <-> learner/student" – relationship. Often one experiences that one communicates better with some students than others.

This "transactional distance" will vary with a number of different aspects; the number of students will indicate the time limitations for advising, the amount of self-instruction – items made available online may also affect the ratio of advising, and, technical issues, such as internet connections may interfere and create a wider distance.

Moore (1997) further states that "... The extent of transactional distance in an educational programme is a function of these three sets of variables. These are not technological or communications variables, but variables in teaching and in learning and in the interaction of teaching and learning. These clusters of variables are named Dialogue, Structure, and Learner Autonomy." The "structure" provide interesting factors regarding distance

education and the organizing of for example material. However, as an advising session alone follows a somewhat separate structure and Moore here refers to the structure of an education, not so much an advising session separately. Moore (1997) claims that: "...A dialogue is purposeful, constructive and valued by each party. Each party in a dialogue is a respectful and active listener; each is a contributor, and builds on the contributions of the other party or parties. There can be negative or neutral interactions; the term 'dialogue' is reserved for positive interactions, with value placed on the synergistic nature of the relationship of the parties involved. The direction of the dialogue in an educational relationship is towards the improved understanding of the student." This is also the case for the advising as the whole point of the advising is to provide the student with a richer understanding of a topic of interest to the student.

Regarding the interest of the student, it is also important to consider the "Learner Autonomy" as the focus has been towards a knowledge creation. Some students are more self-directed than others, and some students will also make use of peers (fellow students), to seek the knowledge creation needed to complete an assignment.

With the current day's online access, both with video conferencing (such as e.g. Face Time on iPhone's, etc., and video function on e.g. Skype) it is possible to enhance the richness of communication as facial expressions and physical movements can aid in the process of underlining and clarifying important issues in the advising sessions. With two-way video, it is also easier for the lecturer/advisor/tutor to see if the messages have come across. Also if one is uncertain as the video picture suggests that the student is not apprehending, it is easier to follow up and clarify if it has not been apprehended, and then support with additional information or other input. Within this scope it is still important to support the idea of the "learner autonomy". It is easy to provide a lot of information, it is not so easy to point the directions only and support the learner in finding the information and create the knowledge themselves.

Socratic dialogues (Bjørke, 1996) may be easier to conduct with two way video rather than only speech, as this provide some challenges with regards to the fine balance of discouraging and encouraging the students. The learners autonomy as Moore (1997) refers to, also says something about the different learners. In Moore (1997) it is referred to Boyd, R (1966) where it is stated: "A description was given of an ideal, fully autonomous learner (in gender specific terms that would be avoided if the description was written today). This ideal was a-person who was emotionally independent of an instructor, a person who in the words of educational psychologist Robert Boyd, 'Can approach subject matter directly without having an adult in a set of intervening roles between the learner and the subject matter' (Boyd, 1966)". Most students (with very few exceptions) are adults. According to Malcolm Knowles (Knowles, 1970, Knowles, 1984, Knowles, 1990, Knowles, Holton et al., 2005) adults should be autonomous, but some are still not. This may be due to the learned dependency of the school system. Moore (1997) suggests: "While only a minority of adults might be practising as fully autonomous learners, the obligation on teachers is to assist them to acquire these skills." The advising sessions will thus also have to have a focus on teaching the students to acquire the skills of being independent and thus moving towards being more autonomous as learners. For adult students that is about to enter worklife after ended education, learning about how to organize education for self-direction may aid the process of becoming actively involved and better understand the co-creation processes regarding knowledge development in organizations.

3. Discussion

Both the theories on VCoP's and Transactional Distance provide valuable advice on how to establish fruitful relationships between students and advisors. Theory on VCoP's do state the importance of an occasional face to face meeting in order to establish a relationship between the parties that prepare for the later online communication. When this is not possible, it is useful to look towards Salmon's five stage model in order to seek the familiarization and support the encouraging and socializing needed to establish a best possible relationship. This relationship is amongst the factors that will determine the transactional distance that should be sought to be reduced as much as possible in order to obtain the needed situation; the possibility of supporting knowledge creation and learner autonomy.

Both the theories on VCoP's and transactional distance present many possible obstacles that may occur in the online advising situation. The transactional distance theory, although mostly aiming on distance education as a whole, points out issues like: technical issues, learner autonomy issues, and communication issues. The technical side provide for communication not only between teacher and student, but also between student peers. Through advising on group assignments it is possible for the teacher to aid in the process of connecting with

peers, also when the education or course is purely online. By experience, however, some students will remain solo, and thus not connect with peers, even with encouragements from the teacher/advisor. The ideas from VCoP's regarding peers connecting, sharing knowledge, discussing and co-producing knowledge will thus not apply for these students. To some extent, the teacher may provide some of the same experiences. However, it is also important to establish the "teacher/advisor <-> student/learner"-relationship where the teacher/advisor serves as the "enabler" and "emancipator" of the student's/learner's autonomy and self-direction as described by Knowles (Knowles, 1970, Knowles, 1984, Knowles, 1990, Knowles, Holton et al., 2005). This autonomy and self-direction can also be tied to how employees (workers) in organizations develop knowledge, as employees are a resource when developing learning organizations. Being a part of the development in an organization is in many cases of great importance to employees as adults urge to be involved and included in development processes in their workplace (Filstad and Blåka, 2007). By being involved and included often lead to ownership to the solutions (Brown and Duguid, 1991, Filstad and Blåka, 2007, Irgens, 2011, Mumford, 1983, Pedler, Burgoyne et al., 1991). To establish an ownership to the learning development process with the student, will support the development of the student/learner as an autonomic learner and support the student in later worklife to contribute towards learning and knowledge creation in their future organizations.

Regarding technology, theory from VCoP suggests a limitation of channels with regards to communication. However, different channels or media may support different issues regarding the advising. Whilst the opportunities are multiple with regards to different types of communication, it may be equally important to be clear when establishing expectations regarding what type of communication will occur where or in what media. For example; in an advising session, it is possible to do advising both via email and video conferencing. During the session (or before or after) it is also possible to make other material available in order to support a learning process. If, for example, an article will be very useful for a student, it can be either sent by email, the video conferencing system (if it allows sharing files) or be made available in a Learning Management System (LMS). As the article (or link or similar) may be useful for several students, it may be a better solution to only use the LMS for making material available. It is, however, important to establish a level of expectancy with regards to what will be provided in which media. This is also suggested in the transactional distance theory with regards to "structure" (Moore, 1997), although referring to the structure of an education. Being clear about what will be available where will always provide for an improved situation for the student as confusion as to where to find material or information will be reduced. Confusion followed by irritation may hinder learning (Kember, Jones et al., 1999), and it is desired to be avoided.

Technology of today may improve the communication as it is now possible to do two way video conferencing. This allows subtleties to reappear and eases the possibilities of reducing "interferences" in the advising setting. It is possible for the teacher/advisor to notice features that may indicate understanding or lack of such, and in that way support the learning process by being able to obtain whether this understanding is present or not, and act accordingly. By utilizing technology for educational purposes it is also possible to make the students require this type of technology and adapt this for their future worklife if they have had positive experiences with this in their education.

4. Conclusion

KM and particularly theory on VCoP's and transactional distance offer guidelines for the advising sessions. Although an occasional personal meeting is preferred, it is with the technology on the market today, possible to maintain some of the advantages of face-to-face meetings between the teacher/advisor and student/learner. Determining and communicating which media are for what (what is for communication and what is for providing learning material) may prove important in order to avoid confusion and disturbances regarding the advising setting.

Enabling and empowering the students in order to become self-directed and obtain "learner autonomy" is important as this supports the learning process and enhances the learning outcome. Adult learners are supposed to be self-directed. However, even if some of them may be actively involved in learning processes in a workplace (like in CoP's or even VCoP's), and involved and engaged in development processes, they may still fall into a role of being dependent on a school system, as they were a subject of a previous paradigm regarding their education. Hence, it is up to the teacher/advisor to find ways of supporting their process of being self-directed and "take charge" of their own learning process. To "teach" them to "translate" their knowledge management processes and strategies from their workplace into a learning situation can be supported through advising sessions. This

may then also reduce the transactional distances, and this will contribute towards an enhanced learning outcome.

Making students/learners self-directed does however not mean to reduce contact with the students. It is important to keep close contact with the students and being attentive to the student's needs is important for the student satisfaction and will contribute positively with regards to retention. It will also contribute to sustain a relationship that will enable the empowerment process. This is supported in the VCoP theory as few virtual meetings (as well as even fewer physical meetings) will increase the distance between the participants and reduce the opportunities of co-creation of knowledge and development.

VCoP's seem to be pools of resources and facilitated for a number of people, and for e.g. tasks, production process negotiations or similar. They are more about sharing information between a number of, and that apart from the facilitator and the manager, the workers are peers and equals. The relationship that need to be built between the advisor and the student need to a larger extent than what it seems like in a VCoP to be built on trust to achieve the empowerment needed to enable the student to produce an academic assignment. However, to facilitate for communication and knowledge sharing and co-creation of knowledge between student peers can prove to be important for the learning process and for later worklife.

4.1 Further research

It is important to keep looking for ways to communicate in an online medium seeking to combat the issues of the subtle language to be maintained for optimal advising. Reducing transactional distance and utilize technology for enhancing communication should always be on the agenda. Technology that is now available – such as Virtual Reality technology, can be interesting to test out with regards to obtaining advising sessions that resemble face-to-face communication with regards to mimicking, body language and voice issues. An interesting issue will be to investigate if VR technology can reintroduce more features from face-to-face communication (which still is the most preferred when possible), and to see if it is possible that VCoP's in distributed organizations can also benefit from this technology.

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