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## **Enabling virtual communities of practice: a Case-study of Swedish-Indian collaboration in IT development**

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**Abstract:** This paper uses the ‘communities of practice’ and ‘situated learning’ (Wenger, 1998) approach to understand what kind of prerequisites need to be in place for an on-site team of ‘old-timers’ to be willing to integrate offshore ‘newcomers’, and what kind of problems can be encountered in this process.

The study is based on 103 interviews undertaken in a multinational company where offshoring of qualified IT work from Sweden to India is done in virtual teams. Most research on IT offshoring has been conducted on US–Indian and UK–Indian cooperations, this study complements this existing research by exploring IT offshoring in the context of the less hierarchical and more consensus-oriented Swedish organizational culture.

A community of practice cannot be created, but needs to evolve, and this only happens when old-timers accept newcomers as members of the community. In offshoring relations this is often disturbed by the resistance of the onshore employees to offshoring as a phenomenon.

The life of the community of practice evolves through two processes: participation and reification. Reification in the form of documents is crucial in all outsourcing processes. This study is interested in the conditions necessary for participation, which are recognized as being more difficult to achieve in virtual teams. In particular, in such teams, access to and use of communication technology is crucial for enabling the participation of all members of the team. Cultural differences can appear in different modes of participation, and these have to be reconciled, while language problems can obstruct participation, especially among members who do not have English as their native language. The possibility of some, but not all, team members having access to the customer may cause status differences which can hamper the community building.

The evidence from some of the teams in the case study company, however, shows that, given a certain organizational culture, these problems can to a large degree be overcome.

**Keywords:** organizational culture, organizational learning, communities of practice, ICT offshoring, India, Sweden

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## **1. Introduction**

This article looks at the cooperation between Swedish and Indian teams in one multinational IT company in the light of social learning theory; more precisely, Wenger's theory of learning in communities of practice.

Communities of practice can be defined as 'groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis' (Wenger and McDermott and Snyder 2002, p. 4). Or, to cite Li et al. (2009):

*CoP is loosely defined as people from the same discipline improving their skills by working alongside experts and being involved in increasingly complicated tasks. The journey from being a newcomer to becoming an expert is captured in the concept of 'legitimate peripheral learning, in which newcomers are given opportunities to learn by engaging in simple tasks. Those who eventually master the skills become experts and subsequently assume the responsibility of mentoring other newcomers.*

This article concerns virtual teams in which the on-site Swedish personnel are the old-timers, and the offshore Indian staff are the newcomers.

Along with the knowledge management perspective, the community approach forms one of the two strands of research in organizational knowledge (Duguid, 2005; McIver et al., 2012). According to this approach, communities are the environments where organizational knowledge is created, maintained and transformed, and therefore fostering learning communities is crucial for a knowledge-based organization. Two distinct perspectives on communities of practice have emerged in the literature. One is based on Wenger's original idea of communities of practice as naturally emerging in organizational life, whereas the other is interested in how learning communities are constituted in organizations, defining them more narrowly as 'organizational communities of practice', or OCoPs (Kirkman et al, 2013). This article is allied to the first perspective, in that it studies naturally emerging communities in organizational environments where the prevailing view on knowledge management may, in some instances, actually obstruct their functioning.

Social learning models have not often been used in research into knowledge flows in multinational enterprises (Noorderhaven and Harzing, 2009). One of the reasons for this might be because it is difficult to find true communities of practice which are geographically dispersed. Instead, case studies of learning and knowledge transfer in IT offshoring relations deal predominantly with teams where cooperation is problematic (Biró and Fehér, 2005; Cohen and El-Sawad, 2007; Hirschfeld, 2004; Kotlarsky, 2008; Sahay, Nicholson and Krishna, 2003). Many studies, for example, deal with problems that have their origins in power and cultural differences between a Western client and a provider in a country which, from a Western perspective, has been seen, at least until recently, as 'third' world. The practical conclusion is often that offshoring requires a clear division of tasks which should be defined and standardized in such a way that they cannot be dependent on tacit

knowledge (EU Foundation, 2004). In contrast, this article agrees with the observation of Sahay, Nicholson and Krishna (2003) that such standardization tends to create problems in the different local contexts and does not work without extensive communication and participation.

In this context Wenger's (1998) concepts of participation and reification become relevant. According to him, these are the two aspects of community life which move the community forward and tie its members together. Whereas participation is the process of engaging with the community's processes and practices, reification refers to the process of codifying organizational practices, such as documentation, routines and practices of all kinds, and even the particular jargon and vocabulary that the community develops when the members interact. When Sahay, Nicholson and Krishna (2003) observe that standardization creates problems, the understanding in Wenger's terms would be that standardization is reification without participation, such that reifications from one local practice are moved to another local practice without the receivers having the possibility to participate in the reifying process. On the other hand, clear reification is certainly necessary if work tasks are to be transferred across long geographical distances and cultural boundaries, and this, in turn, can cause problems for those organizational cultures, such as the Swedish one, where work to a large extent relies on participation and studious documentation is not always the first priority.

Although Wenger's ideas have been widely used, they have also been criticized, not least because they neither take into account power aspects and the organizational politics connected to them, nor the conflict of interests between the organization and individual employees (Contu and Wilmott, 2003; Li et al., 2011). This debate about the detail of the relationships within CoPs is not directly the focus of this article, however. Instead, the study reported here explores how this particular kind of virtual CoP can appear and what basic conditions underpin the daily interactions within such a CoP.

While the results of earlier research mostly emphasised the reification process, therefore, the aim of this paper is to broaden the body of research on knowledge flows in multinational enterprises by focusing on teams which perform successful IT offshoring by relying, to different degrees, on transcontinental participation and the associated transfer of tacit knowledge. The question to be answered is: how can transnational communities of practice emerge and be sustained in daily environments working with IT systems development in both Sweden and India?

### *1.1. Swedish and Indian company cultures*

The cultures of Swedish and Indian company are vastly different. Swedish company culture is characterized by equality, qualitative assessment of performance, an orientation towards consensus, conflict avoidance, teamwork, 'soft' management (which means not giving orders but trusting the employees to act according to their own sense of responsibility) and control that is more implicit than explicit (Gustavsson, 1995; Wieland, 2011). Wieland finds 'lagom' (moderation) to be an important characteristic of Swedish company culture, with the concept implying that employees take care of each other's well-being and resist managerial pressures by conforming to this cultural norm. Styhre, Börjesson and Wickenberg (2006) illustrate the special characteristics of Swedish

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company culture by describing the reactions of the Swedish employees in two cases where Swedish companies merged with Anglo-American ones. The main concerns of the employees were the perceived emphasis on control by top management, the perceived lack of trust by management towards employees, the inequality of co-workers, the short-term financial focus and the individualist culture, each of which were seen as being in opposition to the collectivist Swedish organizational culture. In these circumstances the Swedish employees strived to preserve their personal responsibility, their pride in their work and their cooperative working methods.

In contrast, Indian company culture is described as hierarchical and paternalistic. Upadhaya (2009), Mathew, Ogbonna and Harris (2012) and Gertsen and Zølner (2012) all describe how multinational companies working in India do not openly adhere to traditional hierarchical company models, but still, in fact, work in a controlling and paternalistic way. In particular, Gertsen and Zølner describe how the company value of employee empowerment in a Danish headquarters was interpreted in the Indian office: while the Danish vision was of independent employees acting according to their own responsibility, in the Indian context the vision was translated into managers fostering, nurturing and empowering their employees in a clearly hierarchical relationship. Mathew, Ogbonna and Harris maintain that organizational rhetoric and even organizational values in software companies are a mixture of modern Western management techniques and traditional Indian company cultures of hierarchy, paternalism and rigidity. Upadhaya, however, takes a more critical stance and asserts that, in spite of an empowerment rhetoric and concerns for employee welfare, employees believe that ““traditional Indian” organizational culture persists in the form of hierarchical structures, bureaucratic mentality and “feudal” relationships’ (p. 7).

## **2. The case: Capsicom teams**

Capsicom (a pseudonym) is a multinational IT company with headquarters in Europe and with thousands of employees around the globe. Capsicom entered the Swedish market by acquiring a previously Swedish-owned company, and now has several local offices. Following the acquisition, Capsicom offshored a proportion of the work of its Swedish employees, almost exclusively to its offices in India.

Four different teams were studied in depth, and interviews were conducted in Sweden and in India, both with managers and with a number of employees with different levels of experience. To get more breadth in the sample, Swedish and Indian leaders from four other teams were also included. In total, 36 people in Swedish teams and 49 people in Indian teams were interviewed. Five locations in Sweden and two locations in India were visited. In addition, people in high administrative

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positions in India, in particular in HR (14 persons), and people in Sweden with particular responsibilities for the offshoring relations (4 persons) were interviewed, amounting to a total of 103 interviews. Three researchers were involved in the interviews: one in India, one in Sweden and one in both locations. The interviews in the teams were based on two different interview guides: one for the ordinary employees and one for team leaders. The questions were the same in both locations, though the interviews in Sweden were done in Swedish. The interviews of senior managers in India and offshoring champions in Sweden did not strictly follow a guide, but were adapted to gain relevant information from the interviewees' areas of expertise.

During the interviewing process, frequent discussions between the researchers, two with a Swedish and one with an Indian background, provided insights into interesting issues and different perspectives. The interviews were transcribed verbatim and coded using Atlas.ti software. For this paper, a relevant selection of the codes and citations were used.

The eight teams followed different offshoring models. This paper focuses on an integrated model where the Swedish and Indian teams form a common virtual team. This model was found in different forms in Capsicom, in particular in three teams, and it seems to have its roots in the culture of the Swedish teams before the acquisition by Capsicom and the initiation of offshoring on a large scale. These geographically dispersed teams not only worked together by means of communication technology, but they also strived to do it as if they were located at the same site. The overall offshoring ideology at Capsicom was to have virtually cooperating teams, but the virtual teams in this study learnt that this way of working was not really supported, and in some instances the Capsicom practices did not address the needs of virtual teams.

In this study, Capsicom teams, which exhibited typical characteristics of communities of practice in spite of being geographically dispersed, are called virtual communities of practice, or virtual CoPs.

This article is written from a Swedish perspective, concentrating on the old-timers in the virtual CoPs. It should be remembered that the issues look different from the Indian newcomers' perspective.

### **3. Aspects which were helpful in creating and maintaining communities of practice**

The emergence of communities of practice can be related to the Swedish organizational culture, which in general is non-hierarchical and based on self-directing individuals and teams. There are also other cultural features which may have facilitated the emergence of virtual communities of practice.

#### ***3.1. No colonial past***

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Sweden is a small country in the northern corner of Europe. The Swedish team members, many of whom were middle-aged, had grown up in a social democratic society where Sweden in the international arena was known as a defender of human rights. In regard to offshoring to India, this situation is different from that of the UK, with its long colonial relationship to India, and to the USA, with its pre-eminent position of power in all kinds of aspects of international cooperation. The societal difference may have influenced the general attitude towards offshoring among the Swedish Capsicom virtual CoP members. There were several interviewees who viewed the global distribution of wealth from the Indian point of view, saying that Indians also had the right to sell their competence, and that it is good that there are money flows to countries which have been disadvantaged. In the virtual CoPs, many interviewees commented on how enriching it was to work with people living in such a different environment as India. The relationship could be described in terms of ordinary trading, rather than exploiting one of the parties:

*In general I would say that we should give people jobs here in Sweden, and not send jobs somewhere else, but I also think that we have always done this. Throughout history, and, well, it's not the next village we engage now, or the next country, but now it is a country far away, ok. I would also say that, in some way, I mean, they provide their services and they also need something to live from and this is their possibility to grow, so then it's kind of ok. [...]. In a way it's much more fun to work with them than with somebody sitting in another city in Sweden. Because you learn, it's another reality.*

Many of the virtual CoP members were not sure that the company gained anything from offshoring, because of the difficulty of working in distributed projects in general, but they reported that they had been personally enriched. It was striking, therefore, how the common attitude that offshoring is good for the company but bad for the employees was reversed.

#### *3.2. No immediate threat to one's own employment*

According to Gupta and Govindarajan (2000), motivation to share knowledge between offshoring partners is often affected by the level of anxiety among the onshore staff about losing their jobs. Thus, an important condition for creating virtual CoPs was that generally the employees were not concerned about their own jobs. Capsicom had made a number of layoffs during the years, but, according to a trade union representative, these were only partly due to offshoring. In the virtual CoPs, losing jobs to India was discussed in more general terms, and not as something that affected the team in question. The virtual CoPs, however, were teams where most of the Swedish team members had extensive experience and established customer relations and were therefore secure in their competence. In particular, in one of the other teams at Capsicom where the work was somewhat less qualified, the anxiety of more work being moved to India was obvious, and in this context it was important for the Swedish team members to seek to maintain the boundaries between Sweden and India.

#### *3.3. Belief that CoP is the only method to do good quality work*

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Offshoring at Capsicom came about as a result of a direct order from above, causing anxiety and confusion. Management literature tends to recommend initial marketing of the idea by upper levels of the organization so as to overcome resistance (Carmel & Tjia, 2005), but this did not exist at Capsicom. Initially, therefore, offshoring was not received favourably by most teams at Capsicom. In the virtual CoPs, however, this situation had been tackled by the team members: after the initial confusion, there had been a discussion including most, if not all, team members as to how to handle the situation as well as possible. The solution that was agreed on was to include the new members in India in the team as equal members:

*I think the whole team was somewhat doubtful, wondering how this would end, how it would be, because we had been working so tightly together [...]. But, finally, we came up with these ideas, if we do it this way, so ... I think that first we were asking ourselves, how will we solve this, for it was never a question, how can we avoid this, but we accepted it, after the surprise, and we said, yes, but then we have to do it so it will be really good. And there was this stubbornness and engagement, and now we have to set up communications, and we have to get them here, and we have to ... it must not be some people who sit there far away and write code for us, and we don't know what we get, and maybe they don't know how, no, we must have very tight communication here.*

Most of the Swedish teams in the study had been working together for a long time, and were relatively 'tight' groups. In such situations, there is a considerable risk that the group will want to continue to be the tight group and to keep the new part of the team at a distance. One explanation for the development at Capsicom can be found in the quotation above: in general, these teams had the impression that working tightly together was crucial for the quality of the product, and having people far away would jeopardize that quality. The teams adhered to the particular Swedish informal and consensus-based organizational culture and saw teamwork as the natural and only way to conduct successful work, in particular in IT development. The decision to work in a manner that extended the team and integrated the newcomers was a solution to the problem created by the order from above to offshore.

#### **3.4. Solid experience of working in a CoP**

In the interviews, the creation of the pure virtual CoP teams was not described as something that emanated from a team leader, but something that 'we' figured out. The most successful teams had obviously been functioning well before offshoring. Setting up routines, acquiring communication technology and inviting, educating and entertaining Indian colleagues seems in some cases to have become something of a team project:

*It was very well planned before they came first time, and I think it was a very good model. Everybody in our team contributed, like 'I know this and this and this, this is what we can inform them about', and each of us got two, three days when we told them and they got tasks to do and then they would summarize what they had learnt. The day after, we ran through what they had learnt, so we could correct them if they had misunderstood, and at the same time we got a small documentation of what they had done. Jacob was our team leader at that*

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*time. He made the introduction plan. But each of us got to decide what we would talk about and how we would go about the task.*

The team leader at that time obviously very consciously avoided the 'straddler' role (Nicholson and Sahay, 2004), where he himself would have interacted with the Indian team members, instead allowing the interaction to flow mainly from the rest of the on-site team. The introduction of the new team members combined peripheral participation with the different on-site members with some reification as to what the newcomers were expected to do. Aspects such as good personal relationships and trust seem to have been crucial for both knowledge transfer and governance. In management recommendations, relationships and trust, even if mentioned, are often overshadowed by knowledge transfer and governance models (see, for example, Carmel and Tjia, 2005). The governance and knowledge transfer, which satisfied both Swedish and Indian members in Capsicom's virtual teams was reached mainly through personal relationships, however.

#### **4. Problems with creating and maintaining communities of practice**

Some of the problems in transnational cooperation are general and appear in many such collaborations. In a virtual community of practice they are often accentuated, however. Most of the problems were general, though the Swedish organizational context added a particular twist to them. The solutions were also shaped though by the Swedish organizational context.

##### *4.1. Different modes of participation and reification*

In the Swedish and Indian organizational cultures, the modes of participation are very different. In Sweden you participate by taking responsibility for your part of the whole and helping others, discussing together and agreeing on what should be done and how. In India you participate by performing the work that is assigned to you to the best of your ability, while concurrently receiving guidance, control and evaluation from your superiors. Adapting to the Swedish mode of participation is even more difficult if you have learnt to avoid loss of face. Out of all the Swedish interviewees at Capsicom, the characteristic that was mentioned most often when describing their Indian colleagues was what was said to be their passivity, especially when it came to mentioning or discussing problems.

This difference in modes of participation also made it necessary for the Swedish managers to learn new ways of leading their team. The initial approach of the Swedish managers had been to give their Indian team members the same freedom as their Swedish team members enjoyed. As time went on, however, they learnt to be more specific in their requirements, asking the Indian team members such direct questions about the progress of the work that might have been interpreted as offensive in a Swedish context. The need to be detailed and explicit with the Indian team members was described as problematic but also as a learning experience:

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*You know, when you are in Sweden, there is consensus in the conference room, and you have talked for an hour and everybody gets up and somehow everybody understands what they are supposed to do. Of course that doesn't work if you are working with a group who are sitting very far away and are working in a totally different manner, so I have learnt to be much more explicit. I have learnt to order people around. To say: do this, and be very clear about it. I had never done that before offshoring came up, and it was a bit difficult in the beginning, though now I think it feels quite good. I just say, 'do this', and that's it.*

The non-hierarchical interaction pattern and the Swedish way of expressing criticism in a soft and sometimes concealed manner were approaches that the Indian team members appreciated from the start. They embraced the model where they could directly contact their Swedish colleagues, instead of getting only single tasks from an Indian team leader. They did not perceive any problems with the Swedish approach. It took some time before they understood these practices, however, and could react to them in an appropriate way. There was a mutual process, therefore, in which the Swedes learnt to be more explicit and detailed in their requirements and somewhat more open with their criticism, and the Indians learnt to take greater responsibility for their work tasks and, to some extent, to discern the edge that could be concealed in the Swedes' 'soft' criticism.

Still another way of confronting the problem was trying to employ people in India who were more similar to Swedes. In the most successful CoP teams, the Swedes had been able to take part in the selection of the key members of the Indian team. Later, however, hiring was often left for the Indian team leader to manage, once they and their selection criteria had been influenced by the Swedish experience. These team leaders did not always follow the standard staffing procedures of the HR department, but identified people they thought would best suit the team.

*Right, the first thing was what I felt and then realized in Sweden is even if you don't know the technology much, what they really look out for is someone who can go and get things done. [...] So I was mainly looking for people who had the attitude to do things by themselves. And then the technology in terms of what we're supposed to do, and trust me when I say that I took people from different technical backgrounds by just looking at them and the way they're performing in Capsicom earlier in different projects. And I know they're performing very well in this project so technology is second to me than the person and the attitude.*

In this way, while the virtual team felt that the new employees were recruited according to the team's needs, the Indian HR department was not confronted with direct interference from on-site.

Including newcomers who have a different way of participating can also be quite stressful for a team. Not everybody in the virtual CoPs was happy about the development. Transnational working is more stressful, especially if it is to be done in a foreign language. In a virtual CoP, where there is a consensus about the importance of being one team over a distance, this aspect may not be fully acknowledged. In addition, tolerance of stress varies between individuals; when people who are sensitive to the particular kind of stress caused by offshoring form a larger part of a team, they can support each other to obstruct the offshoring cooperation so that the problem becomes organizational. When the team at large is engaged and positive about offshoring, this kind of stress may hurt the individual more strongly. In the Capsicom CoPs, on at least one occasion, one of the

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team members was allowed to work with tasks that did not require interaction with the Indian colleagues, after having shown clear stress symptoms.

The different modes of reification were also potential problems, since documentation in general is not a high priority in a culture which relies a lot on participation. These problems seemed largely to be solved by intensive participation, however.

#### *4.2. Space, time and communication*

The cultures of the virtual teams, including both Swedish and Indian employees, were built on the Swedish team culture which had existed before offshoring and which had typically relied heavily on informal communication. For example, being present at the workplace had previously been encouraged by managers and appreciated by the employees in several teams, in spite of headquarter's policy to encourage homeworking. The geographical distance inherent in the new virtual teams was a constant problem for this culture, in particular for the Swedes, who compared this experience to the previous state of affairs, where the team could interact directly at the office. The Swedish managers and team members indicated that the problem was not that part of the work was in India, but that the work was outside the office; Swedish homeworkers or team members sitting in other offices in Sweden were cited as examples of similar problems.

*It requires another way of working from us, something we're not used to. We are used to sitting here and talking, and 'what are we going to do about this'. That's how we work all the time, and you can't do it when somebody is on the other side of the globe. It's difficult, there's one person in my group who works from home quite a lot, teleworking, and that's also difficult.*

The Swedish teams customarily adapted their schedules so that meetings were scheduled before noon, during Indian office hours, but several Swedish team members missed the possibility in the afternoons of asking a quick question or having more casual discussions with their Indian colleagues. For Capsicom's Indian offices, working conditions, such as a lack of encouragement for working overtime, were a feature of employer branding, and the Swedish team members also did not expect their Indian colleagues to work late hours. In management literature the time difference can be described as advantageous – with shifts operating in such a way that one part of the team takes over when the other part leaves for the day (Treinen and Miller-Frost, 2006). For communities of practice which rely on participation, however, this kind of disjunction between working hours is problematic.

Even in virtual teams, it is of foremost importance to meet each other even physically (Maznevski and Chudoba, 2000; Kotlarsky, 2008). This was also acknowledged by those Swedish Capsicom employees who had long experience of offshoring. Many Capsicom teams, however, did not have the funds to travel. In this, the virtual CoPs were relatively well off, even if not all Swedish team members had been able to travel to India. In those teams which managed to get permission to allow all new Indian team members to visit Sweden, both the Indians' understanding of Swedish organizational culture and the Swedes' understanding of English language was greatly facilitated.

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These visits also facilitated the subsequent building of relationships and the ease of working together over distances.

Adequate communication technology is also of foremost importance for creating and keeping up good working relationships and community life (Maznevski and Chudoba, 2000; O'Leary and Cummings, 2007). Although the precise needs may vary according to the tasks to be completed and the preferences of the team members, in order to create a virtual community, rich media, such as video conferences, are important. The technology provided by the organization was not always adequate, however. Sometimes the Swedish team leaders had to assert themselves to gain access to scarce resources or to get approval for certain types of media which were not standard for the organization. The true virtual CoPs were able to solve these problems more or less satisfactorily.

#### *4.3. Language*

Language problems are one of the major stumbling blocks in daily offshoring cooperations, even when the client representatives are native English speakers. Cohen and El-Sawad (2007) found that the 'language barrier' encountered by the British employees in their case study for the most part did not concern language at all, however, but cultural positioning and a form of resistance to offshoring.

In Capsicom, language was seen as a problem by the Swedish employees. While the problem could be attributed partly to the resistance found by Cohen and El-Sawad (2007), real problems of understanding were also experienced by the Swedes. Although the corporate language of Capsicom was English, many of the employees worked mainly in Swedish with Swedish customers, so daily interaction in English was a problem in itself. Even those employees who felt confident about their skills in English found that the Indian pronunciation sometimes made it difficult for them to understand their new colleagues.

Those teams at Capsicom which did not aspire to be communities of practice solved the language problem by interacting mainly through e-mail. The Indian colleagues were not entirely happy with this form of communication, but had learnt that this was the mode the Swedes preferred. In other teams, however, many people stated that they were happy to have a reason to refresh their English skills, and asserted that if one was interested enough, the language problems were manageable.

*I have learnt that if you have the will, it will work. [...] We had some people in our group who said 'I don't understand what they say', and they said that in the beginning and still after six months they said the same, 'I still don't understand what they are saying' when we had meetings. And if you attend the meetings, you learn to understand what they say. Or if you are interested enough, you listen and you understand a little. So in a project like this you have to be open and have the will to understand, I think.*

Most of the Swedish team members in virtual CoPs said that it was more difficult and strenuous to speak English, but the most common statement was that it was 'okay', with variation from appreciating the challenge to accepting the fact and trying to cope as best one could. In recruiting new Indian team members the Swedish team wanted to have interviews with the applicants to

ensure that their English was understandable for the team. This was not, however, always viewed positively by the Indian HR.

#### *4.4. Staff turnover*

Although among the Swedish team members some of the old-timers had worked at their offices for up to twenty years (having experienced several mergers), the staff turnover rate in India was high with many young employees only staying a year or two. Stable communities of practice are impeded by staff turnover. While this was not seen as an issue in the Indian offices, which viewed themselves as supplying explicit and definable competences, it was a major problem for the maintenance of virtual CoPs.

Overall, therefore, recruitment and attrition issues were often a clear source of conflict between on-site and offshore offices, with respect to power and ownership. In a hierarchical organizational culture, personal characteristics are not that important, as long as the work gets done, while in a virtual team, personal characteristics such as taking responsibility and being proactive, helpful and communicative are important along with the technical skills. The fact that virtual teams consist of persons rather than competencies was often not taken into account in the recruitment and staffing practices of the Indian offices. There were also problems on the reification side. The general attitude among the Indian HR managers was that on-site personnel should stipulate skill specifications and that HR would supply the team with a qualified person from the Indian job market. For Swedish on-site managers, listing detailed qualifications was not only a new exercise, but the Swedish terminology was not always understood by the Indian HR managers. This process did not work well. The reification models, as well as the balance between participation and reification in respect to dealing with competencies in recruitment were far too different between Sweden and India.

The Indian attitude towards attrition was also a cause of conflict. Again, it was an issue of power and ownership.

*Some of the managers in Sweden feel that X, Y, Z resources belong to me in India. If they do not do the work or if they leave and go then my quality suffers. My point is, you offshore some work to us. Now, whether X, Y, Z, is doing it or A, B, C is doing it, it is none of your concern. If the quality is bad talk about it, ... we will set right the quality, but don't assign it to a person saying if the person is gone, my job is not happening. That is not the right way of positioning things.*

The Swedish managers of virtual CoPs viewed this matter differently. They were not simply offshoring some work to India; they had Indian subordinates with whom they had frequent contact and who were socialized into participating in this particular team. As a result of this attitude, they felt a responsibility for and an ownership of the team members. For them it was of foremost importance whether the work was done by X, Y, Z or by A, B, C.

The Indian managers asserted that the quality of the products delivered did not suffer from attrition, that they had learnt to handle attrition in relation to production and that they had back-ups and structured knowledge transfer. This was not the opinion of the Swedish managers working in virtual CoPs, where the reified and codified knowledge was only part of all the knowledge that the team

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used, while the rest was acquired by participation in daily interactions. Losing a person meant that another person had to be introduced by 'working alongside experts and being involved in increasingly complicated tasks' (Li et al., 2011). There were also practical aspects to the problem. For example, an on-site manager would be happy to pay for a sizeable salary increase to prevent a key person from leaving the team, while the Indian office had a salary and promotion system and diverging too much from this would be problematic for the organization. The Indian office also had a practice of encouraging rotation between teams so as to provide professional development opportunities for, in particular, their junior employees. This, in turn, led the Swedish team leaders to believe that the attrition rate for the company was much higher than it actually was—a low 13%, which the Indian managers proudly mentioned in the interviews.

#### *4.5. Access to customer*

The customer can have different positions in relation to a provider community of practice. A representative of a customer can be a peripheral member of the community, or just an environmental aspect towards which the activity of the community is directed. In either case, having access to the customer gives the on-site team a position of power in teams which design and develop customer products, and this, in turn, easily hampers the sharing of knowledge (Mattarelli and Gupta, 2000). Having access to a customer gives domain knowledge, it facilitates liaisons with client representatives, it makes the team members more visible in the eyes of the customer, it gives the on-site staff an impetus to take on a task-leading and delegating role rather than an equal role, and it facilitates and speeds up the work of the on-site group. According to Mattarelli and Gupta, an explicit interest from the side of the customer in respect to both on-site and offshore employees helps to mitigate these status differences.

When it comes to collaboration between Swedish and Indian teams, close customer contacts were difficult to create and maintain. Many customers were not interested in interaction with the Indian team. The general attitude to offshoring was not as positive among Swedish IT professionals as it was in the virtual CoPs, and language was also a significant obstacle. Only a few team members in Sweden had reflected on their advantageous position, but some of them evidenced that it probably existed:

*It's easy for me who has the customer on my knee to forget to explain everything that I kind of understand, about where the customer is going and how they think. And I can think 'but you must understand that I need the answer now', [...] because the customer wants to know it now. But maybe I've never said anything about it, it's just a feeling I've got when I've met the customer. And I can forget sometimes that it actually does matter that they don't meet the customer in person.*

The few members who commented on the customer advantage, wished it to be minimised. In addition to feeling that they themselves should do something, as in the quote above, the Swedes thought that the customer could have afforded to visit India, to create trust and help to create a way of working that could be shared across the distance.

## **5. Conclusions**

Although most of the distributed teams at Capsicom did not develop into virtual communities of practice comprising members across geographical distances, some did. In such instances their development was in spite of rather than with any facilitation by the overarching management, since the Capsicom management did not consciously try to create such communities.

As communities of practice, the Capsicom teams reflected the characteristics laid out by Wenger (1998): mutual engagement, joint enterprise and shared repertoire, and by Li et al. (2011): 'the support for formal and informal interaction between novices and experts, the emphasis on learning and sharing knowledge, and the investment to foster the sense of belonging among members' (p. 7). Indeed, the Swedish teams can be viewed as communities of practice where old-timers were suddenly confronted with a number of newcomers, and the Indian team members' increasing familiarity with both the work concepts and the social interaction patterns of the group broadly accorded to the normal (according to Wenger) trajectory of newcomers in a community of practice. The Capsicom teams also seem to be a model case in the sense that there appeared to have been few power issues, and in some teams the old-timers had collectively made explicit decisions to integrate the newcomers into the team. Even in these communities of practice, members working at the same site unavoidably interacted with each other more than members working at different sites, and created repertoires which were not shared by members on the other site. These teams still had enough common practices and common identity, however, to still conform to the definition of a community of practice.

The emergence of virtual communities of practice seems to have depended on the presence of a few conditions. The basic condition was an existing, and relatively well-functioning, community of practice and, secondly, a firm belief that dividing the work between two separate entities would result in inferior quality. That is, both a motivation to integrate the Swedish and Indian teams and a well-grounded ability to work in teams was required. It is probably not a coincidence that such teams existed in Capsicom Sweden, due to the non-hierarchical Swedish organizational culture. It was also important that offshoring was not regarded as a threat to one's personal employment security, or that of one's colleagues. The geographical distance did, however, in particular hamper informal interaction and the creation of a shared repertoire, not only because the distance necessarily curtailed both formal and informal interaction, but also because the contexts in which the team members acted were somewhat different in the two locations, providing different frameworks in creating repertoires. Differences in organizational contexts were especially reflected in recruitment practices and in the Swedes' proximity to the customer (due to most customers' preference for interacting in Swedish). Differences in cultural contexts were reflected in a higher turnover in the Indian labour market and in a younger work force. Language problems disturbed the formal and informal interactions, the sharing of knowledge and the creation of a shared repertoire. The effects of these differences varied, however, and the difficulties could, to a certain extent, be overcome by mutual engagement and, in particular, the Swedish investment in fostering a sense of belonging in the newcomers.

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Much of the facilitation of transnational CoPs has to do with status or power differences between offshore and on-site locations. In this respect, for the Swedish-Indian partnerships, the lack of previous colonial relations and the relatively modest position of Sweden in the global economic order, compared to the big actors in the Indian market, seemed to be an advantage.

The point of departure, and also the conclusion of this study is that communities of practice in Wenger's original meaning of the word cannot be created by organizational orders or management practices only.

The basic condition – a well-functioning on-site team with a conviction that integrating newcomers, rather than simply outsourcing work to them – cannot be easily created by management and, indeed, probably can likely only emerge in a non-hierarchical environment. It should be noted also that this condition enabling virtual CoPs may not continue to exist, even in Capsicom, after the present employee generation, many of whom have been maintaining the culture of the original local company, has retired. Thus, virtual CoPs can be expected to remain a marginal phenomenon, in particular in large MNCs. It may be possible, however, for management to facilitate possibly emerging communities of practice; and clients also may have a role in this regard since, in the end, it is arguably they who benefit most from the learning and knowledge generation produced by the transnational collaboration of these communities of practice.

As to future research about creating transnational communities of practice, or well-functioning transnational virtual teams overall, this article shows the importance of broadening the scope when it comes to taking cultural issues into account. What is often true in US - Indian or UK - Indian collaborations, where most of the research has been done, may not be quite as true in collaborations where the Indian organizational culture meets cultures which are more different from it. Furthermore, the view, previously taken for granted, that the power relations between the parties was one in which the Indian provider was almost totally subordinated to the Western client, is gradually changing as Indian companies have become prominent in the IT outsourcing market. Much research still remains to be done, however, to modify this view to comprise different kinds of relations, in different kinds of national and organizational cultures and, in particular, in regard to the consequences in the everyday working relationships of employees.

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