SOCIAL RELATIONSHIPS BETWEEN MEMBERS OF VIRTUAL TEAMS

Harri Virolainen

Mikkeli university of applied sciences

Finland

harri.virolainen@mamk.fi

Abstract

The number of virtual teams has been increasing as work is no longer as dependent on physical location as it used to be. In virtual teams people communicate mostly by use of electronic communication tools. This sets challenges for building social relationships between co-workers. The goal of this article is to analyze social relationships between the members of virtual teams. The study data was collected from 10 different virtual teams and the main data gathering method was the thematic interview. A questionnaire collected secondary data. The results show that a virtual working environment decreases informal personal communication and communication between team members as discussion is mainly work related, which affects social relationships between co-workers. Social relationships between virtual co-workers are mainly work-related relationships but it was found possible to build close relationships and even friendships. Furthermore, the depth of those social relationships affects virtual team members' communication and work.

Keywords: social relationships, virtual team, electronic communication

Topic group: organisational behaviour, Organizational information and communication systems, Human resource management

1 INTRODUCTION

Scholars have been interested in social relationships in the workplace since Elton Mayo (see Mayo 1945). Social relationships in a workplace affect employees' communication, collaboration, work climate and work satisfaction. Prior studies concerning social relationships in the team context have mainly been done on co-located teams. In the extant review studies on virtual teams (for example, Hertel, Geister & Konradt 2005; Martins, Gilrold & Maynard 2004; Powell, Piccoli & Ives 2004) the social relationships of employees have not been mentioned. The co-located office offers good opportunities to build close relationships between co-workers because face-to-face communication occurs almost every day - as do spontaneous and informal discussions. However, the development of ICT has changed communication between co-workers. Virtual team literature suggests that, because team members seldom see each other face-to-face and they mainly use electronic communication tools, the social relationships between employees in virtual teams are often work-related and personally becoming acquainted is difficult (see e.g. McDonough, Kahn & Barczak 2001).

This article deals with social relationships between members of virtual teams. The goal of this study is to analyze the social relationships of team members in virtual teams by answering the following questions: (i) What kind of social relationships do virtual team members have with each other? (ii) What factors affect social relationships in virtual teams?

Detailed information and studies on the social relationships between members of virtual teams is rare (see e.g. Hertel, Geister & Konradt 2005; Martins, Gilrold & Maynard 2004; Powell, Piccoli & Ives 2004). Based on the findings of this study, social relationships between co-workers in virtual teams were mostly work-related but close social relationships and even friendships were quite common. These results show that building close social relationships between co-workers in the virtual work context is possible.

The article begins with a background section including a presentation of some commonly used theories about communication and the building of social relationships in a team. The next section presents the research method and the sample. Then, the results are presented and discussed before the conclusion is presented.

2 BACKGROUND

Media richness theory (Daft & Lengel 1986), media naturalness theory (Kock 2005) and social presence theory (Short 1976) question the ability of computer mediated communication to build close relationships. According to those theories certain kinds of communication and communication tools better suit certain kind of communication situations. The main views of these theories are very similar; all of them emphasize the importance of face-to-face communication for building close relationships. However, the media richness and social presence theories have been criticized as inappropriate for studying virtual work methods because they were developed before modern computer mediated communication tools existed. Despite that fact, those theories have been cited many times in articles on virtual organizations (see Mitchell & Zigurs 2009).

Unlike the above mentioned theories, Walther's (1992; 1996; 1997) social information processing theory (SIP) supports the idea that computer mediated communication does not differ from face-to-face communication in its usability with regard to the exchange of social information, even though the speed of exchange is slower, which means building intimate social relationships is likely to take more time in computer-based groups than in face-to-face groups.

Furthermore, other scholars (Chidambaram 1996; Rheingold 1993) have questioned the use of the implementation of social presence theory (Short 1976) with regard to virtual teams but emphasize that it is possible to build functional and close relationships in virtual teams. Rheingold (1993) describes very intimate and even romantic relationships between people who communicate electronically. Walther (1997) goes even further and argues that people who use computer mediated communication showed more intimacy and attraction between each other than those who communicated face-to-face. Thus, Rheingold's (1993) and Walther's studies (1996; 1997) suggest that computer mediated communication itself is not a barrier to the creation of close relationships and getting to know colleagues. However, very little is known about authentic virtual team social relationships (see Hertel, Geister & Konradt 2005; Sivunen 2007). For example, Walther's (1997) data was collected from experimental students groups. In this study real work life situations are examined.

It seems obvious that the virtual working team context is a challenging environment in which to get to know colleagues and create close relationships. This is because team members seldom meet face-to-face and do not have a common physical place to meet in. Therefore, they lack an unofficial place like a cafeteria where they can talk to each other in a relaxed atmosphere. Another challenge is the communication climate; a virtual team's communication climate is highly work-related and task-oriented, and work- and task-related discussions on-line do not provide the same amount of opportunities to get to know other workers personally (Armstrong & Cole 1996; Sivunen 2007). Another challenge for virtual teams is the often short period of shared working time spent on a project, which usually means that after a project has finished team members start working in new teams (Johnson, Berrett, Suriya, Yoon & La Fleur 2000). According to Kokko & Vartiainen (2005), some people in virtual teams were not interested in getting to know new team members because they found the continuous adaptation to new protocols and getting to know new team members stressful.

3 METHOD AND SAMPLE

The data was gathered from five different Finnish organizations and ten different virtual teams. In this study the criteria for a virtual team was that at least one of the team members had to work in another city. The team members also had to have common goals and had to co-operate with each other(see for example Grosse 2002). The teams represent expert teams and were so called long-term teams, which meant that they had already existed for a long period and the turnover of workers within them was quite small. The teams represented different fields of business. While most of the teams (8) represented the IT-sector, one team was a sales team and one was a sales support team. All of the teams mainly used the phone and emails to communicate with each other. The teams' sizes varied from 5 to 28 people.

The data was gathered by using both qualitative and quantitative method. The main data gathering method was a themed interview. In total, 45 virtual team members were interviewed by the same researcher. The interviews lasted from 39 to 132 minutes with the average length being about 90 minutes. All the interviews were recorded and transcribed. The secondary data gathering method was a quantitative questionnaire (QPS-Nordic 2000), which was sent to all of the teams' members (n=190) and 118 replies were received; a 62% response rate. Quantitative data was analyzed with the SPSS for Windows program. The qualitative method was the main method of analysis and the quantitative information and analysis provided by the questionnaire further supported the qualitative analysis.

4 RESULTS

Many previous studies (e.g. Hollingshead, McGrath & O'Connor 1993; Kraut 1998; McGrath & Hollingshead 1994; Nunamaker, Reinig & Briggs 2009, 115−116; Rice & Love 1987; Sproull & Kiesler 1986) emphasized virtual team members' impersonality and anonymity. This study's results were quite the opposite. In this study almost every team member (89 %) knew each other's face and name and most of the members (74%) knew each other's work tasks. The communication style was not anonymous, in fact, they preferred this personal communication style for getting to know each other. In many cases, even work related emails included a "personal touch".

In this study 44% of the respondents knew all or most of the team members personally. They knew each other's hobbies, family life and personal interests. Despite that, the virtual working

context and the task oriented communication meant that it was challenging to get to know other team members personally. Furthermore, teams did not take full advantage of all the computer mediated communication possibilities to get to know each other. For example, there were no personal introductions of the team members on the intranet. In addition, team members did not have unofficial events, such as shared chat meetings or chess matches during coffee breaks, thus communication was very work-related. Nevertheless, they did create unofficial and personal meetings possibilities using computer mediated communication. This often felt unnatural at first, but once team members became used to it, it became natural and enjoyable. However, one team member describes his feelings about shared virtual coffee breaks as follows:

There haven't been any arranged or shared online coffee break discussions where team members would come and chat with each other. In fact, during such coffee breaks I'd prefer to be somewhere else than at a computer or desk, somewhere more stimulating.

Despite modern electronic communication possibilities the best way to get to know other team members was considered to be face-to-face meetings; both official and especially unofficial. Typically, team members personally knew a few colleagues better than others and talked with those colleagues also about non-work issues. Knowing each other's family background, hobbies and other interests had a positive impact on a team's fellowship and atmosphere.

Other studies have also emphasized the importance of knowing team members. According to Kokko and Vartiainen (2005), the planning of co-operation, developing camaraderie and sharing responsibilities and roles requires knowing each team member. According to Sivunen (2007), familiarity between team members positively affects communication and co-operation; the better the team members knew each other the better the communication was felt to be.

A work place's unofficial social communication has an important role in developing human relationships (Kosonen 2008, 112; Kraus & Fussell 1990). In this study personal issues were discussed on the phone and in emails while discussing work related issues, although the main reason for contacting a team member was work-related issues. Team members did not phone or call each other for personal reasons. The use of email also meant it was very challenging to get to know other team members on a deeper personal level, although the phone allowed more interaction and the possibility to communicate in real-time.

The usual way to get to know other team members was work-related communication. In many cases, when team members discussed work-related topics they also revealed details of their personal life. However, if team members did not regularly co-operate with each other it was very rare that people got to know those team members who worked in different locations. People felt that getting to know team members personally was time consuming. In co-located teams the situation is different as people can interact with each other, even if they do not collaborate, by meeting at lunch, coffee breaks, etc.

One of a virtual team's challenges is creating close social relationships (Nunamaker, Reinig & Briggs 2009). A virtual team's relationships are typically less tight than those of a co-located team (Burke & Chidambaram 1996; McDonough et. al. 2001; Warkentin et. al. 1997). Although computer mediated communication decreases intimacy (Burke & Chidambaram

1995; Chidambaram 1996) and weakens the possibility to build social relationships (Gattiker, Perlusz, Bohmann & Sorensen 2001; Hinds & Bailey 2003, 619), it is possible to develop close social relationships between virtual team members by developing social-emotional communication over a longer period of time (Ishaya & Macaulay 1999). However, as Burke et. al. (1995) and Chidambaram (1996) point out social relations will most likely diminish, unless relationships are consciously built by using formal and informal meetings and negotiations.

Nevertheless, despite the challenging virtual context, most of the teams' members had close social and even friendship relationships with two or three co-workers. Close social relationships most often developed between co-located team members, but in some cases close relationships also developed between team members who worked in different locations and did not see each other regularly. The team members who were the only representatives of the team at a particular location, or who had only one team member working in the same building had approximately as many close relationships as the employees who worked with several team members in the same location. The physical distance between workers did not significantly affect the building of close relationships. Instead "personal chemistry" was felt to be one of the key factors in forming close friendship relationships between co-workers, though it was felt that "personal chemistry" either existed or did not and affecting it was not possible, except by meeting more frequently.

Discussions between co-workers who had close social ties with each other were deeper than with other work colleagues. In close relationships the physical distance between colleagues had only a marginal affect on their communication. Some team members called each other from their car as they were driving and discussed work issues as well as other issues. This kind of communication was spontaneous and not systematically managed or promoted. However, many team members felt that such spontaneous and unofficial communication was lacking. This can be seen as negative factor as they perceive such unofficial communication as rewarding on a professional level and as positively affecting their personal well-being.

Despite that lack of spontaneity, the virtual teams' communication climate was open. People freely communicated about work-related topics. They also felt that it was easy to contact colleagues and ask them for help. Team members asked for help primarily from colleagues who were skilled in a subject area, no matter where he or she was physically located. Knowing a person beforehand was not important when asking for help on work-related issues. In contrast, asking for help with personal issues, and discussing them in a virtual environment was found to be different to discussing them with a co-located colleague. Thus, being co-located and knowing a person to talk to when discussing personal issues was emphasized. Team members often wanted to know a colleague personally before they discussed personal issues. They were also more likely to discuss their personal issues with co-located people who worked in different teams than with team members who worked in a different location.

5 DISCUSSION

This study's results support media richness theory (Daft & Lengel 1986), media naturalness theory (Kock 2005) and social presence theory (Short 1976) to the extent that all of them emphasize the importance of face-to-face communication for building close relationships. When getting to know other team members it still seems that not even modern communication technology possibilities can replace face-to-face communication. Human beings are used to

face-to-face communication and making perceptions based on non-verbal communication and our ability to read teleinformatics messages has not yet developed to the same level it has with face-to-face communication. However, this study's results also show that it is possible to build close social relationships and trust, express warmth and display other sensitive emotions by using electronic communication tools (see also Chidambaram 1996; Walther 1992; 1996), which the above mentioned theories (Daft et. al. 1986; Kock 2005; Short 1976) and Nohria's (1992) study do not emphasize.

According to Kosonen's (2008) study, a virtual team is not emotionally communal, but instead it is professionally communal. The results of this study do not exactly match that conclusion because although professional communality was emphasized, there were also clear signs of emotional community between the virtual team members who had developed close relationships and emotional bonds.

It seems that leisure time virtual communities and virtual work teams vary in their construction. Wather's (1997) study seems to give somewhat too optimistic view in its view of the possibilities of electronic communication for building social relationships, especially when talking about authentic work contexts. According to Heinonen's (2008) study, within leisure time virtual communities people asked for help, even on very intimate personal issues, from total strangers. Such discussion of personal issues and asking for help with them was conducted anonymously, which resulted in the fact that it was easy to discuss personal issues as the computer mediated communication was independent of the physical location. Thus, it seems that in leisure time virtual communities anonymity helps communication, while in virtual work teams the situation is not anonymous and thus prevents or restricts such personal discussions. In virtual work teams knowing people personally affects communication and co-operation positively, with the downside being that if there is a lack of face-to-face meetings, the impersonality of computer mediated communication makes building social relationships and communication and co-operation more difficult.

One thing which affects anonymity and getting to know team members is the lifespan of a team. It seems that impersonality and anonymity are mostly related to short-term virtual teams and in long-term teams the workers' personalities are revealed, which helps build social relationships. In long-term virtual teams the possibilities for building close social relationships are better than in short-term project teams. This is because, especially in the virtual team context, building close social relationships usually takes time. In short-term projects a team's personnel do not have enough possibilities to build close social relationships because they don't have the required time to get to know each other before the project ends and the next project, with new team members, begins.

6 CONCLUSIONS

The virtual team context eliminated many possibilities to get to know each other and build close relationships. As the teams' members did not meet each other very often, the communication was mostly work-related and the computer mediated communication eliminated many non-verbal cues. In spite of this, the virtual team members knew each other and often had close and even friendship relationships with each other. Knowing team members positively affected the functioning of the teams and increased trust between colleagues and had a positive impact on its fellowship and co-operation

The team members themselves had responsibility for building relationships with their colleagues. The forming of virtual teams was not managed systematically. The computer programs and facilities used were designed for the purpose of working only and, for example, shared virtual coffee breaks were not organized. However, as in leisure time virtual communities people do share very intimate personal experiences with each other, thus computer mediated communication itself cannot be the barrier which prevents the building of close relationships. However, it seems that despite the improved high technology and our increased familiarity with electronic communication modes, people still miss face-to-face communication. In virtual work teams the promoting of social activities could significantly help to build relationships. Therefore, unofficial meetings after official team meetings and, once or twice a year, larger unofficial meetings could also be beneficial in building social relationships between virtual team members. Additionally, allowing chatting via the computer, virtual coffee break discussions, et cetera could help to build closer social relationships.

Personal chemistry was found to influence relationship building, although the personnel felt that it was hard to affect personal chemistry. However, in many cases it was felt that getting to know each other personally could also improve personal chemistry.

In virtual teams people are expected to cooperate with each other. The workers do not necessarily have to have a close relationship or be friends with each other in order to cooperate, even though that certainly helps cooperation. When people do have close relationships they are usually more communicative with each other and there is more trust.

REFERENCES

Armstrong, D. & Cole, P. (1996). Managing distances and differences in geographically distributed work groups. In S., Jackson & M. Ruderman (Eds.) Diversity in work teams. Research paradigms for changing workplace. Washington: American Psychological Association, 187−215.

Burke, K. & Chidambaram, L. (1994). Development in electronically supported groups: A preliminary longitudinal study of distributed and fact-to-fact meeting. Proceedings of the 28th annual Hawaii international conference on system science, III, 104−113

Burke, K. & Chidambaram, L. (1995). Developmental differences between distributed and face-to-face groups in electronically supported meeting environments: An exploratory investigation. Group decision and negotiation, 3, 213−233.

Chidambaram, L. (1996). Relational development in computer-supported groups. MIS quaterly, 2, 143−165.

Culnan, M. & Marcus, M. (1987). Information technologies. In Jablin, F, Putnam, L., Roberts, K. & Porter, L. (Eds.) Handbook of organizational communications: An interdisciplinary perspective, Sage, Newbury Park CA, 420−443.

Daft, R. & Lengel, R. (1986). Organizational information requirements, media richness and structural design. Management science, 32, 554−571.

Gattiker, U., Perlusz, S., Bohmann, K. & Sorensen, C. (2001). The virtual community: building on social structure, relations and trust to achieve value, in L. Chidambaram & I. Zigurs (eds) Our virtual world: the transformation of work, play and life via technolog. Hershey, PA: Idea Group Publishing, 166–190.

Grosse, C. (2002). Managing communication within virtual intercultural teams. Business Communication Quarterly, 4, 22−39

Hinds, P. & Bailey, D. (2003). Out of sight out of sync: Understanding conflict in distributed teams. Organization science, 6, 615−632.

Heinonen, U. (2008). Electronic communities and sense of community experience of social, professional, and educational communities on the internet. [An English summary of a doctoral dissertation published in Finnish.] Turku University, Pori: University press. Turun yliopisto. Pori.

Hertel, G., Geister, S., Konradt, U. (2005). Managing virtual teams: A review of current empirical research Human resource management review, 1, 69−95.

Hollingshead, A., McGrath, J. & O'Connor, K. (1993). Group task performance and communication technology: A longitudinal study of computer-mediated versus face-to-face work groups. Small group research, 3, 307−333

Ishaya, T. & Macaulay, L. (1999). The role of trust in virtual teams. Organizational virtualness and electronic commerce. Ejov-the journal for the domain. Retrieved 2009-10-26 from http://www.ve-forum.org.

Johnson, S., Berrett, J., Suriya, C., Yoon, S. & La Fleur, J. (2002). Virtual teams. Team development and group processes of virtual learning teams. Computers & Education, 4, 379−393.

Kock. N. (2005). Media richness or media naturalness? The evolution of our biological communication apparatus and its influence on our behavior toward E-communication tools. IEEE transaction on professional communication, 2, 117−130.

Kokko, N. & Vartiainen, M. (2005). Hajautetun työskentelyn vaatimukset ja kuormitustekijät. Työsuojelurahasto tutkimusprojektin loppuraportti. Teknillinen korkeakoulu.

Kosonen, M. (2008). Knowledge sharing in virtual communities. Academic doctoral dissertation. Lappeenrata: Lappeenranta University.

Krauss, R. & Fussell, S. (1990). Mutual knowledge and communication effectiveness. In J. Galegher, R. Kraut & C. Edigo (Eds.) Intellectual teamwork. Hilldale, Nj: Lawrence Erlbaum associates, 111−148.

Kraut, R., Patterson, M., Lundmark, V. Kiesler, S., Mukopadhyay, T. & Scherlis, W. (1998). Internet paradox: A social technology that reduces social involvement and psychological well-being? American Pychologist, 9, 1017−31.

Martins, L., Gilson, L. & Maynard, M. (2004). Virtual teams: What do we know and where do we go from here? Journal of management, 6, 805−835.

Mayo, E. (1945). The social problems of industrial civilization. Boston: Harward University Press.

McDonough, E., Kahn, K. & Barczak, G. (2001). An investigation of the use of global, virtual, and collocated new product development teams. The journal of product innovation management, 2, 110−120.

McGrath, J. & Hollingshead, A. (1994). Groups interacting with technology. Newbury Park, CA: Sage.

Nohria, N. & Eccles, R. (1992). Face-to-face: Making network organizations work. In N.

Nohria & R. Eccles (Eds.) Networks and organizations, Boston, MA: Harward business school press, 288−308.

Nunamaker jr, J., Reinig, B. & Briggs, R. (2009). Principles for effective virtual teamwork.Communications of the acm, 4, 113−117. Retrieved 2009-5-8 from http://delivery.acm.org/10.1145/1500000/1498797/p11nunamaker.pdf?key1= 1498797&key2=1292771421&coll=portal&dl=ACM&FID=33716872&CFTKN822767 85.

Powell, A., Piccoli, G. & Ives, B. (2004). Virtual teams a review of current literature and directions for future research. The database for advances in information system, 1, 6−36.

QPS -Nordic - General Nordic Questionnaire for Psychological and Social Factors at Work. (2000). Århus: Aka-print.

Rheingold, H. (1993). The virtual community. Reading, Massachusetts: Addison-Wesley publishing company.

Rice, R. & Love, G. (1987). Electronic emotion: Socioemotional content in a computer Mediated communication network. Communication research, 1, 85−108

Short, J., Williams, E. & Christie, B. (1976). The Social Psychology of Tele-communications. Bath: Pitman Press.

Sivunen, A. (2007). Social interaction, communication technology and identification in virtual teams. [An English summary of a doctoral dissertation published in Finnish.] Jyväskylä: Jyväskylä University Press.

Sproull, L. & Kiesler, S. (1986). Reducing social context cues: Electronic mail in organization communication. Management Science, 11, 1482−1512.

Walther, J. (1992). Interpersonal effect in computer-mediated interaction. A relational perspective. Communication research, 1, 52−90.

Walther, J. (1996). Computer-mediated communication: Inpersonal, interpersonal, and hyperpersonal interaction. Communication research, 1, 1−43.

Walther, J. & Burgoon, J. (1992). Relational communication in computer-mediated interaction. Human communication research, 1, 50−88.

Walther, J. (1997). Group and interpersonal effects in international computer mediated collaboration. Human communication research, 3, 342−369.

Warkentin M., Sayeed, L. & Hightower R. (1997). Virtual teams versus face-to-face teams: An exploratory study of a web-based conference system, Decision Sciences, 4, 975−996