Chapter 7.13
The Desire for Cohesion in Virtual Teams:
Be Careful What You Wish For

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ABSTRACT

Cohesion is regarded as something to strive for in virtual teams yet difficult to attain. What happens, though, when cohesion is achieved; does cohesion, as assumed, enhance the virtual team? During a longitudinal participant observation study of a virtual software development team, a strange paradox was noted. A new software development methodology was introduced to the project, and the developers were initially committed to its use. Over time, the commitment gradually decreased to the stage where aspects of the new methodology were practically ignored. As the team was a virtual team, with group members rarely congregating as a whole for any length of time, it was hard to explain why this diminishing of commitment occurred. The remoteness and part-time participation of group members meant that the team deciding themselves to ignore aspects of the methodology was not a likely possibility. A review of existing research suggested that the concepts behind the diffusion of innovations (specifically software process innovations) may have a bearing. Although pertinent to the area of introducing new software development methodologies, diffusion theories did not provide a complete explanation for the decrease in commitment that was observed. The theory of competing commitments was applied, and it was discovered that one cause of the decreased commitment among team members was groupthink. Groupthink should not be a problem with virtual teams as there should be less cohesion: a lack of contact between members dictating the low level of cohesion. Further analysis showed that

traditional peer groupthink was not the issue, but hierarchical groupthink influenced by the project manager had a large influence. These findings are in contrast to most expectations concerning cohesion and virtual teams, including the project management of virtual teams.

INTRODUCTION

Researchers have noted the differences between virtual and face-to-face teams. One of the major differences is in the area of team cohesion. While Mark (1998) found the importance of building relationships and trust for members of virtual teams, Casey and Richardson (2005) provide an example where the use of virtual teams leads to conflict: An us-vs.-them mentality arose. A team that had originally been colocated and worked well together became hostile when working in different locations. De Pillis and Furumo (2006) found cohesion to be lower in virtual teams (although this problem is not necessarily universal). Powell, Picolli, and Ives (2004), in a review of existing research, note that the debate continues as to whether virtual teams achieve cohesion levels similar to traditional teams. Whether virtual teams achieve this or not, it is noticeable from the research described by Powell et al. that cohesion is something to be strived for.

Discussions on change management and the introduction of change in virtual teams should therefore take the differences between virtual and face-to-face teams into account. The focus of this chapter is specifically an examination of why the change to a new software development process, although initially supported by a virtual development team, never materialises. Authors have referred to the escalation of commitment to a failing course of action (Beynon-Davies, 1995; Keil, Mann, & Rai, 2000; Newman & Sabherwal, 1996). This chapter describes the de-escalation of commitment to a succeeding course of action in a virtual team. It does this by concentrating on the social environment surrounding the individuals in the team: one of the six key conceptual elements of electronic collaboration as described in Koch (2005b).

Change within software development projects is an area of importance to the success of the project as projects, by their very nature, are about change. Although Cushway and Lodge (1999) emphasise the importance of managing change, their description of change management is a restrictive one. For them, the concern is in developing strategies and structures. No mention is made of the teams and individuals who will effect, and be affected by, change. The sole mention of employees is a list of expectations, or required behaviours, such as roles must be carried out in a dependable fashion, and there must be innovation in achieving organisational objectives. In the context of a virtual team, there are further considerations regarding change that need to be addressed.

This chapter describes a case study, undertaken by the authors, that examined the change involved in introducing a software development methodology. The case study is based on a software development project to develop a knowledge management system (KMS) for a European government. A longitudinal study of the development project was undertaken using participant observation as its primary method. The study concentrates solely on the software project team—a virtual team—as opposed to involving the various high-level project sponsors. One aspect of agile software development employed in the project to develop a KMS is the use of user stories. Rather than relying on complex design documents, agile methods espouse the writing of customer requirements in simple language. The stories should describe what is required of a part of the final software project. The longitudinal research into the software development project highlighted a problem with the change to this new process. The developers in the virtual team were initially committed to its use. Over time, the commitment gradually decreased to the stage where aspects of the new methodology were practically ignored. As the team was a virtual team, with

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