

# Chapter 11

## Managing “Virtuality”: An Integrated Model for the Implementation and Management of Virtual Teams

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### ABSTRACT

*A wealth of research is associated with virtual teams and collaboration technologies; however, no integrated model is available to guide decision-makers at large organisations in the strategic implementation and management of “virtuality.” Whilst collaboration through technology has become commonplace in modern teams, it is not yet clear if Enterprise 2.0 organisations have made changes to accommodate and support this new mode of work. In other words, managing “virtuality” requires supporting tools and research in order to maximise the benefits and diminish the challenges inherent in it. This chapter presents findings of research relating to managing “virtuality” that culminates in the development and evaluation of a management model that guides large organisations in implementing and managing virtual teams. The findings demonstrate that there are benefits associated with virtual teamwork; however, a structured approach is essential to realise and maximise such benefits. The authors uncover several critical success factors in managing virtual teams, and they also learned that the implementation of enabling technologies must be carefully planned to ensure successful adoption by the intended audience. This chapter provides practitioners with a structured approach to implementing and managing virtual teams in an Enterprise 2.0 environment. Essential conditions for success are identified, specific organisational level tasks are presented, a process to ensure the introduction of new technologies is documented, and the critical success factors to create and manage virtual teams are synthesised and presented.*

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## INTRODUCTION

Developments in communications technologies have changed the way we work. Organisations are no longer bound within physical confines, but have become more fluid, encompassing dynamic work groups and strategic alliances. These developments facilitate the co-ordination of knowledge work, making the ability to tap into knowledge workers wherever they are a competitive necessity (Bradley and Nolan, 1998). The need for collaboration beyond the physical margins of the traditional workplace has become critical for organisations. Virtual teaming has developed in response to the requirement for inter-organisational co-operation. In the past, organisations sought to maintain direct control of all processes from the acquisition of raw materials to the manufacture of finished goods, which often proved unmanageable. To counteract this, firms have begun to focus on their core, value-added processes, and divest peripheral businesses. Together, these factors have left organisations facing increased challenges to coordinate work activities across time zones, geographical locations and organisational boundaries. “Consequently, the virtual team has begun to emerge as a new form of structure, supported by enabling information and communication technologies, able to meet the challenges of this new work context” (Kayworth and Leidner, 2001).

“Virtual teams” can be defined as “groups of geographically and/or organizationally dispersed co-workers that are assembled using a combination of telecommunications and information technologies to accomplish an organizational task” (Townsend et al., 1998, p. 18), while “collaboration technologies” can be defined as information and communication technology applications that “support communication, co-ordination, co-operation, learning, and/or social encounters through facilities such as information exchange, shared repositories, discussion forums and messaging” (Andriessen, 2003, p. 10). Because of the ubiquity of some technologies, such as e-mail, most teams find that at least some of their work and a large number of their interactions with other team members are carried out electronically. This means that most teams can be considered ‘virtual’ to some degree. This increased use of the virtual team structure has developed gradually, as a result of the increased availability of technologies to facilitate collaboration.

Because of the natural evolution of this form of group work, most Enterprise 2.0 organisations have failed to implement the necessary structure to support teams working virtually. Studies have shown that investing in technologies while important is not sufficient. Benson-Armer and Hsieh (1997) report that many corporations have invested millions of dollars in technology, only to be disappointed when there is no commensurate improvement in performance. Consequently a number of management oriented problems have emerged, which centre around: the formalising of work processes and strategies (Lee-Kelley and Sankey, 2008; Lee, 2009; Gluesing and Riopelle, 2010); the composition and interaction of virtual team members (Rusman et al., 2010; Fan et al., 2011); virtual team building and reward structures (Rezgui, 2007; Shachaf, 2008; Bryant et al., 2009); virtual team leadership (Lee, 2009; Purvanova and Bono, 2009; Huang et al., 2010) and the role of technology in a virtual team environment (Harvey et al., 2004; Bryant et al., 2009). Clearly these problems must be addressed.

The goal of our research is to provide practitioners with a structured approach to the introduction and on-going management of virtual teams and associated technologies. It aims to provide managers with the necessary tools to help them manage cross-site virtual teams more efficiently and effectively. The objectives of this study are as follows:

- To examine the different types of technologies used by virtual teams to communicate and share information.

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