

# Chapter 8

## eSF: An E–Collaboration System for Knowledge Workers

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### ABSTRACT

*The aim of our chapter is to contribute to a better understanding of E-Collaboration, especially its intimate connection with knowledge and knowledge processes. We begin by presenting a knowledge-oriented understanding of E-Collaboration and an architecture of an E-Collaboration system (people, processes and technology) based on that understanding; then we describe the eSF system (an implementation of this architecture within our team), our experiences with it and what we have learned about the success factors of E-Collaboration.*

### 1. INTRODUCTION AND BACKGROUND

Since their appearance in the 1990s, E-Collaboration technologies have continued to mature and to offer new and potentially better ways to collaborate and communicate but unfortunately adoption throughout this lengthy period has been tepid (Koplowitz et al., 2013); the trend has become even worse over the past few years and points to a rising dissatisfaction with the current systems and initiatives (Drakos, 2013). It seems that, after pausing at the peak of the hype, E-Collaboration (social collaboration, social software and collaboration, social business) is now plunging down into the trough of disillusionment (Burton & Willis 2014; Lavoy 2013).

This could be a good moment to take seriously “the necessity of attaining a balanced understanding of the strengths and challenges” (Burton & Willis, 2014) of E-Collaboration and ask questions like

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“Why is E-Collaboration not working satisfactorily and not being adopted as expected?” or “Why are organisations failing to tap into the full power of E-Collaboration?”

In this chapter we want to contribute to answering these kind of questions in the following way: first we present an understanding of the essence of E-Collaboration that we call “knowledge-oriented” because we are convinced that - like in collaborative e-learning - what matters in E-Collaboration is the construction of shared knowledge (Dillenbourg & Fischer, 2007); then we propose an architecture of what we call an E-Collaboration system - which includes people, processes and technology. This is designed according to the aforementioned knowledge-oriented understanding; and third we describe the implementation of this architecture within our team at the Research Management Unit of FFHS and our experiences with it; last but not least we conclude by proposing some insight derived from our concepts and experiences that could help others in answering the above questions and implementing their own E-Collaboration initiatives successfully.

## 2. A KNOWLEDGE-ORIENTED UNDERSTANDING OF E-COLLABORATION

Our experience with the practice of E-Collaboration suggests that knowledge processes play an essential, relevant role in it. This is in line with the considerations of other authors who claim that knowledge processes serve as the basis of any form of cooperation (Endress & Wehner, 1996; Vollmer & Wehner, 2007), that knowledge should be considered as one of the key elements of E-Collaboration (Kock, 2005) or that the construction of shared knowledge constitutes one of its key processes (Dillenbourg & Fischer, 2007). Unfortunately we do not see knowledge mentioned in most definitions of E-Collaboration and are lacking models of E-Collaboration with adequate emphasis on knowledge processes.

Kock (2005) suggested a broad definition of E-Collaboration as “collaboration using electronic technologies among different individuals to accomplish a common task”. Let us start from here and see if we can extend and adapt this definition in a way that allows to have *knowledge* explicitly mentioned in it. The first part - “collaboration using electronic technologies” - explains simply what the “E-” means; the second part - “among different individuals to accomplish a common task” tells something more about “collaboration”: that different individuals are involved and that they work together on a task. In this way, it is not possible to distinguish between “collaboration” and “cooperation” and the two terms are interpreted and defined (also in theory and dictionaries, for example Merriam Webster) as if they were synonyms. But practice demonstrates that collaboration and cooperation are not synonyms; for example, the term E-Cooperation is used much less than E-Collaboration and the discipline of CSCW (Computer Supported Cooperative Work) has not evolved into E-Cooperation and only includes some of the E-Collaboration research. The distinction that we make between “collaboration” and “cooperation” focuses on the relationship between work and people: cooperative work is accomplished by a division of labour among participants in which work is split into pieces and each person is responsible for a portion of the work (Roschelle & Teasley, 1995:70); in collaboration, instead work and responsibility remain a unit. How?

In order to clarify this, our approach is to focus on the *process* of collaboration and ask for example: how does collaboration actually proceed? This approach can be found in the seminal work by Roschelle & Teasley (1995) that investigates collaborative problem solving. There we find three complementary characterisations of collaboration pointing to 4 essential aspects: “single task”, “coordination”, “shared construction” and “mutual engagement”:

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