Chapter 3

Emerging Collaboration Routines in Knowledge-Intensive Work Processes:
Insights from Three Case Studies

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ABSTRACT

This article aims to identify how knowledge workers develop their own collaboration strategies and techniques for getting their work done in complex, dynamic knowledge intensive work environments. Three case studies have been conducted to explore the nature of routines in different collaborative working settings as they provide sufficient detail to better understand the actual state and problems regarding collaborative work processes among knowledge workers. Evidences from these cases show that coordination and control of projects, tasks, information, and little support by collaboration tools in all work patterns seem to be the biggest issues and there is a need for better understanding of collaboration culture as well as harmonious and integrated redesign of collaboration routines with new collaborative working environment technologies. The analysis of the cases also shows that there are considerable differences in ways of how actors communicate and coordinate their work which leads varying degrees of quality in knowledge intensive work. The results can be used to achieve a smoother collaborative working phase through innovative technical developments.

INTRODUCTION

About 50 years ago, Drucker introduced the term "knowledge work" to describe a new type of work whose value does not stem from the input of capital, land or labor, but from the productive use of knowledge (Drucker, 1969). Such knowledge work involves the exchange of information, complex problem solving, making of judgments, and the combination and alignment of different people's contributions to an innovative result (Drucker, 1999). Knowledge worker is someone who adds value in the workplace by processing existing information to create new information which can be used to define and solve problems taking place in different domains such as engineering, medical, construction, research etc (Davenport, 2005). Examples of knowledge workers include managers, salespeople, nurses, doctors, lawyers, judges, and analysts.

Knowledge workers are highly involved in tacit interactions which are high level and complex interactions usually involve activities such as making complex judgments, problem-solving and exchanging information. Through these interactions, knowledge workers combine and align their different contributions to create an innovative result. Tacit interactions in complex knowledge-oriented processes tend to be organized in distributed, heterogeneous networks rather than in functional hierarchies and encourage connections across trades, disciplines and fields (Gerwin & Ferris, 2004). These connections lead to more flexibility and collaboration within networked organizations, but also more coordination and communication problems: workers from historically separated activities suddenly must interact, collaborate, and learn enough of each others' social languages and genres to work together (Jarillo, 1988). Complexities become more difficult to manage, and everyone needs to learn a little about everyone else's work (Johnson et al., 2005). This way, interaction mechanisms as coordination and communication routines are created in self-organized networks.

Companies consider knowledge workers among their top talent and are looking for ways to improve their effectiveness. These workers rely on the ability to work collaboratively, leverage relationship capital, and deliver new solutions (Groth, 2005; Nardi et al., 2000). Understanding how they work and what their needs is a critical step toward creating tools that enable them to perform more efficiently. If we can improve technologies and work routines for knowledge workers, we may impact the knowledge work component of many jobs (Davenport, 2002).

Considering the fact that not enough importance was given as deserved by past researchers on this issue (Dyer, 1997; Zollo et al., 2002; Sullivan & Skelcher, 2003), the objective of this article is; therefore, to better understand the ways knowledge workers get their jobs done within collaborative work context and to identify the collaborative working issues and challenges within project management, media, and research domains through focusing on the concept of work routines.

Based on the case study analysis, two major theoretical implications are emerged: First, in the face of collaborative projects, considerable differences are identified in ways of how actors communicate and coordinate their work which leads varying degrees of quality in knowledge intensive work. Second, evidences from the cases show that there is a need for better understanding of collaboration culture as well as harmonious and integrated redesign of collaboration routines with new collaborative working environment technologies as there is currently little support by collaboration tools in all patterns. In addition, some considerable commonalities were observed from the cases in the operative steps of knowledge work such as creating a specific project output contradicting with the uniqueness of knowledge work.

Considering the importance the past researchers have given to collaboration routines as precursor of the outcome of a project, the authors

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