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Chapter VI

Knowledge Exchange in Organizations is a Potential, Not a Given: Methodologies for Assessment and Management of a Knowledge-Sharing Culture

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ABSTRACT

Team collaborations generate rich collections of information that are valuable inputs to the knowledge management (KM) process. But such effectiveness is not guaranteed. Team members may possess considerable knowledge, but their tendency and ability to contribute that knowledge — and transform it from a personal tacit resource that has value only to them to an explicit resource that can have value to the team or organization — is only a potential. This chapter provides readers with an understanding of the human dynamics of expert knowledge exchange in the realm of virtual teams who

interact via computer-controlled communication (CMC). We present the research, theory and the methodologies now in professional use to assess information exchange potential for KM-related activities at the team level as well as from the perspective of organizational culture.

INTRODUCTION

Data mining is an important part of KM for competitive advantage, and perhaps currently the most powerful technology available for extracting useful information and ultimately competitive knowledge from organizational data. But the power of data mining to achieve this end is naturally constrained by the availability and suitability of the data resources to which it is applied. A number of authors (e.g., Nonaka, 1994; Teece, 1998; Spender, 1996) have stressed that competitive advantage through KM is realized by identifying the valuable tacit knowledge possessed by organizational members and making that knowledge explicit. Once made explicit, the knowledge can be mined, organized, stored and, perhaps most importantly, shared throughout the organization to spur innovation.

Data mining is typically done once the tacit knowledge has been made explicit in some form, for example as text files generated by a team of people collaborating on a project (Leonard & Sensiper, 1998). Here, the root source of the data to be mined is in the minds of the people who are interacting. Given the tremendous popularity of team-based work in organizations as well as the rise of virtual teams, these teams are an increasingly common organizational unit and can be viewed as a source of competitive advantage through their ability to quickly form with often a diverse group of experts all collaborating and sharing knowledge to solve organizational problems. When effective, their collaborations represent rich collections of information that through exchange have achieved a level of unique synergy and problem-solving effectiveness (Cooke & Szumal, 1994; Potter, Balthazard & Cooke, 2000). Accordingly, such interactions are valuable inputs to the KM process.

But effectiveness is not guaranteed. Although the amount (and value) of knowledge that any of the team member possesses may be considerable, their tendency and ability to contribute that knowledge — and transform it from a personal tacit resource that has value only to them to an explicit resource that can have value to the team and the organization — is best understood as a potential. When viewed in this way, the success of data mining and other aspects of KM is, by extension, also only a potential, and not a given.

This chapter provides readers with an understanding of the human dynamics of expert knowledge exchange. First we describe how groups and teams exhibit interaction styles — patterns of communication behavior that have profound effects on knowledge exchange, group problem-solving and decision-making performance, and process outcomes, such as solution acceptance and team cohesiveness. Second, we present an overview of research that extends this area into the realm of virtual teams who interact via CMC. We provide an introduction to our methodologies and tools, as well as results that detail (a) how interaction styles affect knowledge exchange and performance in both media; (b) how expert knowledge is linked to performance via the interaction style; (c) how individual team members' personalities can drive the formation of constructive or

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