Chapter 8.11

Could Web 2.0 Technologies Support Knowledge Management in Organizations?

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ABSTRACT

This chapter investigates whether information technology tools typical of Web 2.0 can support Knowledge Management (KM) practices in organizations. An investigation on the Web is conducted and the appropriate literature examined. The information technology tools employed in organizations nowadays are discussed with the help of three guidelines which each present two opposing ideas: knowledge creation versus knowledge sharing, tacit knowledge versus explicit knowledge and hierarchical KM versus organic KM. It is argued that these tools reveal an innate contradiction: they are based on a centralized conception and production but aim to deal with informal, fluid processes, which resist structuring. The term Enterprise 2.0 is defined and examined, since it brings out a critical view of traditional KM technology. In this context, the prevailing technologies on the Web are described as well as the associated use practices. The technologies and practices highlighted are those that enhance the collective creation of information and knowledge-intensive products and the active, rich user participation which influences the development of own technologies. Subsequently, many Web 2.0 tools and services that are, or could be, used in KM practices are described and the sites that provide them are indicated. It is noted that these new technologies are inducing cooperative and decentralized work processes that lead to emerging products of high quality and complexity. Furthermore, they are characterized by net effects, simplicity, ease of use, low cost and rastreability. Nevertheless, there are some difficulties in the application of Web 2.0 technologies, among them, the attainment of performance requisites, privacy and security, the possible emergence of counterproductive results and the need to motivate people to create content. The challenges and opportunities in the organizational use of Web 2.0 technologies are remarked. Finally, the managerial interventions appropriate to enable the success of KM projects based on Web 2.0 technologies are discussed.

INTRODUCTION

There is no doubt that Knowledge Management (KM) has a human, social and political nature that goes far beyond the application of technological tools. In some cases, too much emphasis on the technological aspects can impair the implementation of KM projects. Taking into account, however, the pervasiveness of information and communication technologies in all human activities, especially those related to the Internet, one cannot talk about KM without commenting on the technologies that support and enhance it.

At the same time, these technologies (understood here mainly as Information Technology – IT – tools and systems based on computers) do not satisfy those who utilize them (Davenport, 2005). Knowledge workers are unsatisfied with the communication channels that are presently employed, especially e-mails, considering that they are overloaded and overused. It is debatable whether KM technological tools are effective in improving the creation and sharing of knowledge; they are, however, hardly used (McAfee, 2006). These tools aim to deal with dynamic and unstructured knowledge, but are themselves rather formal and grounded on a centralized conception and production.

Recently, an intense discussion on the new social, economic and technological trends related to Web 2.0 has been going on (O'Reilly, 2005; Nass & Levitt, 2006, 2007; Ragsdale, 2007). The flexible, cooperative and pervasive nature of Web 2.0 has been highlighted. Works that ask if and in what terms Web 2.0 practices and technologies are adequate to KM are starting to appear (McAfee, 2006).

In this context, this chapter intends to inquiry whether information technology tools typical of Web 2.0 can support Knowledge Management (KM) practices in organizations. For accomplishing this, an investigation on the Web is conducted and the appropriate literature examined.

The first section of the chapter (Knowledge Management and Information Technologies) questions the information technology tools employed in organizations nowadays. They are discussed with the help of three guidelines which each present two opposing ideas: knowledge creation versus knowledge sharing, tacit knowledge versus explicit knowledge and hierarchical KM versus organic KM. Some main categories of technological tools that support KM are briefly examined, which supports the conclusion that very structured tools are employed to deal with inherently unstructured organizational knowledge. Therefore, it is claimed that these tools reveal an innate contradiction: they are based on a centralized conception and production but aim to deal with informal, dynamic processes, which resist structuring.

The prevailing technologies on the Web are described in the next section (Web 2.0) as well as the associated use practices. The technologies and practices highlighted are those that enhance the collective creation of information and knowledge-intensive products and the rich user participation. The section is divided in four subsections (The Conception of Web as a Platform, Fostering Collective Intelligence, Innovation in Assembly: Users as Co-builders of Technologies and Rich User Experiences.)

Since it brings out a critical view of traditional KM technology, the term Enterprise 2.0 is defined and examined in a separate section (Enterprise 2.0: A Critique of the Technologies that Support KM). The expression, created by McAfee (2006), represents exactly the application of Web 2.0 concepts to the creation of KM technologies in organizations.

In the subsequent section (Web 2.0 Technologies Used in KM), many Web 2.0 tools and services that are, or could be, used in KM practices are described and the sites that provide them are indicated. A table illustrates the relations between the tools, KM functionalities and given examples. The approach does not mean to be comprehensive but exemplificative.

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