Information Influence in Mediated Knowledge Transfer: An Experimental Test of Elaboration Likelihood

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ABSTRACT

Understanding knowledge transfer in computer mediated contexts is becoming essential given that organizations are spread more and more globally. In this article, the authors adopt elaboration likelihood theory to investigate knowledge transfer processes in a Knowledge Management System (KMS). They report the results of an exploratory experiment conducted to examine the impact of argument quality, source credibility and validation on knowledge usefulness of a document in a KMS. Their findings indicate that while validation of knowledge in KMS positively affects perceptions of knowledge usefulness, higher argument quality was associated with lower usefulness ratings. Surprisingly, source credibility has no effect on perceptions of knowledge usefulness. The implications of these results for both researchers and practitioners are discussed.

Keywords: Knowledge-Based Systems, Knowledge Management, Knowledge Transfer, Information Processing, Information Structure, IT Influence, Source of Information

INTRODUCTION

In an effort to improve the productivity and efficiency of an entire organization, many companies are devoting great effort to managing their knowledge capital through centralized knowledge management systems (KMS). The role of KMS has become increasingly important as knowledge capital stored in the repository is no longer limited to the traditional customer and product data, but now includes valuable “best practices” that can be adopted and reused by individual employees through a meaningful knowledge transfer process. KMS can potentially support and enhance knowledge transfer by providing ready access to knowledge across personal, departmental, and organizational boundaries. However, implementing KMS alone does not ensure that successful knowledge transfer will occur. Rather, this outcome is realized only to the extent that the knowledge KMS provide is effectively processed, adopted,
and utilized by individual knowledge users (Markus, 2001).

Researchers have recognized that KMS success depends on the quality of KMS (Jennex, 2008). However, research investigating the mechanisms that govern how individuals adopt and internalize KMS knowledge is scant; thus, little guidance is available for KM practitioners seeking to establish or enhance KMS-enabled knowledge transfer processes within their organizations. This article addresses this void by presenting the results of an exploratory research study that investigates how individuals in an organization process and perceive the usefulness of knowledge retrieved from a knowledge repository. A survey was conducted in an experimental setting where subjects were asked to use a mock KMS to recommend a solution to a given IT authentication problem. We build and test hypotheses based on theories of information influence (Petty & Cacioppo, 1986; Petty, Cacioppo, & Goldman, 1981) and organizational knowledge transfer in mediated contexts (Sussman & Siegal, 2003) to better understand the process by which knowledge in a KMS is evaluated and used by individuals. The results of our experiment offer actionable insights for KM practitioners and point to several directions for future research in KMS-enabled knowledge transfer.

THEORETICAL BACKGROUND & HYPOTHESES

KMS and Knowledge Transfer

Knowledge is a justified belief that increases an entity’s capacity for effective action, and is embodied in both tacit (e.g. insights, intuitions, assumptions) and explicit (e.g. documents, recorded solutions, formal analyses) forms (Alavi & Leidner, 2001). Organizational knowledge transfer involves the conveyance of knowledge from a source to where it is needed in the organization, and has been identified as a critical component of successful knowledge management practice (Alavi & Leidner, 2001; Huber, 2001). Knowledge transfer can occur between and among individuals, departments, teams, and organizations themselves (Alavi & Leidner, 2001; Sussman & Siegal, 2003). In many cases, transfer transpires at the direct interface between two knowledge-bearing entities, such as one individual verbally imparting knowledge to another. However, in today’s distributed work environment, transfer increasingly takes place across mediated channels of communication in which the knowledge source and knowledge recipient are geographically and temporally disconnected. In such cases, the role of the intervening knowledge medium becomes a key enabler of the knowledge transfer process.

In many ways, information technology is an ideal vehicle for supporting mediated knowledge transfer. Knowledge from a source can be stored within an information system for later retrieval and use by one or many knowledge consumers. This function constitutes the essence of KMS, defined herein as information technology based systems designed and implemented to facilitate storage, retrieval, transfer, and application of organizational knowledge (Gray & Meister, 2004; Majchrzak, Cooper, & Neece, 2004). KMS enable and enhance these practices by providing a centralized and accessible knowledge repository from which knowledge consumers can draw, invoking internalization of explicit codified knowledge from an external source to an individual’s personal consciousness (Nonaka, 1994). However, while KMS can facilitate the transfer process, access to knowledge in a KMS does not guarantee that transfer will take place. After it is retrieved, knowledge must be processed and evaluated in such a way that it can be applied to the problem at hand. Not all knowledge retrieved from a KMS will undergo equal processing—some may be carefully analyzed, some briefly examined, and some completely disregarded. Understanding the mechanisms underlying this processing is thus critical to enabling and sustaining KMS-supported knowledge transfer.

Relatively few IS studies have focused on the individual information processing underlying knowledge transfer. One notable exception
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