Chapter 2.8
# Conceptual Confusions in Knowledge Management and Knowledge Management Systems:
## Clarifications for Better KMS Development

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## ABSTRACT

*Knowledge Management and Knowledge Management Systems are slowly but surely capturing the attention of many organisations in a quest for competitive advantage. Like many other computing fads before them, there is no shortage of recipes by its proponents. This chapter discusses the emerging discipline of Knowledge Management in computing and explains the concepts underlying Knowledge Management Systems that will lead to a better development and implementation of these systems. In particular, it tackles the conceptual confusion about data, information, and knowledge, which appears to be finding its way into the Knowledge Management literature. The terms, 'capta' (Checkland, Howell, 1998) and 'constructed data' (Flood, 1999), are used in analysing these concepts to clear some of the confusion surrounding them. The use of these terms also highlights our (the IT community) taking for granted assumptions about the hierarchical relationship and the more insightful emergent relationships.*

## INTRODUCTION

Every few years, the IT community comes up with a promised panacea to cure all ills. There

was once the push for office automation, artificial intelligence, decision support, groupware, reverse engineering, MIS, B2B, B2C and now, it is KM - Knowledge Management. These are often brilliant concepts and while they all find their level of utility, usually more modest than their proponents' claims, they have by and large been misunderstood and misapplied, to the disadvantage of some stakeholders and, ultimately, investors. This misunderstanding is often characterised by a lack of foundational concepts about the development and management of information systems, of which knowledge management systems are now a particular type.

Knowledge Management Systems (KMS) are now being touted as yet another silver bullet. How can a would-be investor in a KMS realise its anticipated benefits and how would an implementor know they are on the right path, thereby avoiding this characteristic confusion that may inevitably snuff out the promise shown by this idea? The urgency for such a conceptual cleansing is echoed by White and Sutton (2001, p. 180) who note that, "the kinds of rationalist assumptions about knowledge creation and use, which characterise Knowledge Management, are inadequate." They suggest the need for a broader approach to, and definition of, knowledge as an essential pre-requisite to attempts to harness and exploit it: otherwise, the emerging discipline may also be consigned to the ranks of yet another 'management fad'.

This chapter looks at some concepts underlying Knowledge Management and suggests some ways of bringing the concepts to bear on Knowledge Management Systems. Following this introduction, the chapter first highlights the current state of affairs and then some of the conceptual confusion in the area of Knowledge Management. This is followed by a brief overview of a target environment, which Knowledge Management Systems are supposed to serve (i.e., help organise and manage). The chapter then continues by presenting a critical analysis of some

terms which KMS thrives on. The chapter then presents a conceptual cleansing that will lead to the realisation of a better KMS.

Our analysis follows a systemic account that draws heavily on concepts and insights originating from the works of Hirschheim et al. (1995) concerning information systems development methodologies, Checkland's (1998) work concerning the nature of information systems and Flood (1999) and Senge's (1995) work concerning the organisation and management of complex systems.

## Current State of Affairs

The implementation of Knowledge Management Systems has generally focused on the technological capabilities of data representation and access, to the detriment of foundational concepts about the generation of data itself. As noted by Yen (2001), of the many vital issues in knowledge management, knowledge representation has been studied more thoroughly than others. However, without a foundationally coherent and consistent understanding of data, information, knowledge and the organisation and the management of complexity within the target environment (Boahene, Ditsa, 2001), all the technological sophistication is unlikely to guarantee the realisation of any anticipated benefits.

By far, the literature on KMS has focused on the categorisation, classification and processing of invariances, assuming some relationship between data, information and knowledge. Hence, we have categorisations such as tacit and explicit knowledge, objective and subjective knowledge, certain and uncertain knowledge and so on. These categorisations—while interesting—are, however, of little value in providing insights into the conception and development of Knowledge Management Systems. The problem is that such categorisations do not distinguish between data originating from observations in the target environment, on one hand, and the 'knowledge-base'

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