A Swap of Perspectives: Data Migration and Knowledge Management as Mutually Interrelated Disciplines

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Abstract

Development of business environment is strongly influenced by quick penetration of information technologies (IT) into all organizational processes. This process generates several problems, which single organizations need to cope with. A specific problem is closely related to vast amount of data which is produced every day, processed to valuable information and consequently applied during decision-making processes. There are several reasons, such as progress in business informatics and the IT industry in general, that lead to necessity to change the used IT system completely. This change is accompanied by the requirement of data migration. This process is performed only occasionally, therefore the lack of experience can cause troubles such as lost data or its low usability in the new system. On the other hand, knowledge management offers tools and methods how to preserve experience and lessons learned and hence avoid several pitfalls of the data migration process. The paper investigates mutual interrelationship of two distinct areas, Data Migration processes and Knowledge Management programs. Basic facts together with various definitions and characteristics of both research topics are presented. The paper reveals that these are closely connected in terms of how data, information and knowledge should be created, enhanced and managed. Therefore, similarities and mutual features of both disciplines are outlined.

Keywords: Interrelationship, Data Migration, Knowledge Management, Perspectives.

Introduction

The pursuit of higher competitiveness makes companies continuously try to apply various types of business concepts and methodologies, or information technology tools, techniques, and methods. One of the business concepts widely implemented in companies is Knowledge Management. Its scope or form is determined by the objectives of organization and the personal objectives and needs of people inside it. Generally, desired implications of Knowledge Management implementation are cost reduction, customer or employee satisfaction and quality (Spek and Kingma, 1999).

Knowledge Management principles are usually applied to business activities, which are knowledge intensive or demanding (Bureš and Čech, 2007). In the business informatics domain there are projects which companies have to execute and are unavoidable due to penetration rate of information technologies into the contemporary business environment. Information technology (IT) migration in general or Data Migration in particular can serve as an example of such knowledge intensive projects (Kantawala, 2008). On the other hand, Data Migration projects rely on quite significant body of knowledge, which is usually not managed due to low frequency of Data Migration projects occurrence. Therefore, these projects become often more complicated and expensive than previously anticipated (Haller, 2009). Hence, interconnection of both disciplines can be very fruitful and beneficial.

Search for described experience with both Knowledge Management and Data Migration in scientific databases (e.g. Springer, or Elsevier) returns only journal papers or book chapters focused on each discipline separately. However, few studies implicitly tie Knowledge Management and particular aspects
of Data Migration. For instance, general frameworks of the Data Migration projects can be considered as outputs based on certain volume of knowledge (Jing et al, 1998; Aboulsamh and Davies, 2011). Nevertheless, this connection is not explicitly stated. Therefore, there is a necessity for mutual interrelation of both domains and explicit identification of mutual features. This endeavor can be contributive to development of both theory and practice of Knowledge Management and Data Migration.

This paper is divided into three sections. First section provides the basic overview of Data Migration issues, including definition, or methodology of its execution. The second section describes Knowledge Management, its characteristics, features and the basics of its implementation. In the third section the relationship between Knowledge Management and Data Migration is issued. It contains a discussion on relationship between both projects, how they can help each other during implementation and comparison of project’s methodologies and best practices from both areas of expertise.

Acknowledgement

This paper was created with the support of the Czech Science Foundation project SMEW, project number 403/10/1310.

References


