Towards a Knowledge-based Framework for Enterprise Content Management

Thang Le Dinh
Université du Québec à Trois-Rivières
thang.ledinh@uqtr.ca

Tim A. Rickenberg
Leibniz Universität Hannover
rickenberg@iwi.uni-hannover.de

Hans-Georg Fill
University of Vienna
hans-georg.fill@univie.ac.at

Michael H. Breitner
Leibniz Universität Hannover
breitner@iwi.uni-hannover.de

Abstract

Nowadays, critical information that is contained in mostly unstructured documents is increasingly becoming a key business resource. Accordingly, enterprises need a foundation for managing content to understand its value and transform it into information and organizational knowledge. Enterprise Content Management (ECM) is an integrated approach to Information Management. There is a need for enhancing this approach to support the transformation from business information into organizational knowledge. However, assessing, organizing, sharing, and using content based on knowledge perspectives are crucial, especially for knowledge-intensive enterprises. Those enterprises provide knowledge-intensive products and services that require a robust foundation for knowledge management and innovation capacity. We present the KBCM (Knowledge-Based Content Management) framework for ECM based on the perspective of knowledge components. This paper seeks to create more business value by transforming content into valuable information assets and then from information into organizational knowledge. To demonstrate the framework, an illustrative example is constructed and evaluated.

1. Introduction

Today, enterprise content is growing at a rapid speed and is covering the majority of business information. Since unstructured content makes up 80% of the total data [35], it still presents a challenge to companies for managing and using this content. Huge amounts of content are produced every year and need to be captured, managed, stored, preserved, and delivered efficiently on an enterprise-wide scale [2]. However, content is usually only means to an end: it contains business information. For companies, especially knowledge-intensive enterprises, information is a driver of business in general and innovation in particular. One step further, the accumulation and the application of information lead to organizational knowledge. Companies want to make use of business-critical information, which often resides scattered across several repositories and systems. To be able to perform efficiently and to make good decisions, employees need to have access to organizational knowledge and to the right information at the right time. As a matter of fact, employees cannot make good decisions when they are time-stressed and overloaded with information [18].

Enterprise Content Management (ECM) has evolved as an integrated approach to Information Management (IM) [38]. It enables the management of content on an enterprise-wide scale. Nowadays, more and more companies adopt commercial ECM solutions, which are becoming more mature and sophisticated. While ECM received a lot of attention from practitioners [57], it only received little attention from academic research [42]. Since ECM is still an emerging field in Information Systems (IS) research, more research needs to be carried out in order to add more value to this approach [42][57].

In the case of knowledge-intensive enterprises, an integration of ECM and Knowledge Management (KM) is indispensable. Knowledge-intensive enterprises, as opposed to labor-intensive or capital-intensive enterprises, can be preliminary defined as organizations that offer the use of fairly sophisticated knowledge or knowledge-based products and services to the market [4][36]. Effective knowledge flows and KM can drive innovation; therefore, managing knowledge inside ECM systems, within and between enterprises, has become a vital factor.

Within this paper, we investigate how enterprise content can be assessed and classified based on the perspectives of knowledge components. The remainder of this paper is organized as follows: Following the introduction, the paper begins with research design and literature review. Then, a framework called KBCM (Knowledge-Based Content Management) for enterprise content classification based on knowledge components is introduced. Within an illustrative example, the research artifacts are checked. The paper ends with a short discussion and conclusion with implications.