Chapter 3.21

Breaking the Knowledge Acquisition Bottleneck Through Conversational Knowledge Management

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ABSTRACT

Much of today’s organizational knowledge still exists outside of formal information repositories and often only in people’s heads. While organizations are eager to capture this knowledge, existing acquisition methods are not up to the task. Neither traditional artificial intelligence-based approaches nor more recent, less-structured knowledge management techniques have overcome the knowledge acquisition challenges. This article investigates knowledge acquisition bottlenecks and proposes the use of collaborative, conversational knowledge management to remove them. The article demonstrates the opportunity for more effective knowledge acquisition through the application of the principles of Bazaar style, open-source development. The article introduces wikis as software that enables this type of knowledge acquisition. It empirically analyzes the Wikipedia to produce evidence for the feasibility and effectiveness of the proposed approach.

INTRODUCTION

Ever since the development of artificial intelligence (AI) and expert systems, there has been the promise of capturing an organization’s knowledge on a large scale and making it available to the entire organization. Unfortunately, these promises did not materialize (Buchanan & Smith, 1988; Ullman, 1989). While there have been several early success stories, such as American Express’ Credit Advisor or Digital’s Expert Configurer (XCON), attempts to acquire
the broad knowledge of organizations have been less fruitful. More than a decade later, a decidedly optimistic survey by Frappaolo and Wilson (2003) found that no more than 32% of the knowledge was available in computerized form. Obviously, knowledge acquisition is a challenge. How can we extract more of the existing knowledge from organizational sources, especially from people? And how can we manage the maintenance so as to assure that the stored knowledge is accurate and up-to-date? Discovering answers to these questions is important for organizations as information work becomes knowledge work, thus requiring knowledge to support non-routine decision making (Drucker, 1993, 1999). It is similarly important for organizations whose corporate portals that were set up years ago increasingly are becoming dated and stale (Newcombe, 2000). Furthermore, it is important for organizations in the business of creating knowledge assets who are faced with increased costs of knowledge creation, shorter knowledge life cycles, and increased knowledge obsolescence.

Seeking a solution to the problems of organizational knowledge acquisition, the article makes the following argument. First, it introduces previous approaches to knowledge acquisition, identifies four limitations, and offers evidence for these limitations. The article then refers to Bazaar style (software) development (Raymond, 2001) as a potential direction for knowledge asset creation. It then explains the concept of conversational knowledge management and advocates wiki technology and the “wiki way” (Leuf & Cunningham, 2001) as a possible approach to using Bazaar-style methods in conversational knowledge management. An empirical analysis of the viability and effectiveness of the approach follows. The article ends with implications and conclusions about the future of conversational knowledge management.
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