

## Chapter 2.13

# Designing Open-Source OMIS Environment for Virtual Teams to Support Inter- Enterprise Collaboration

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### **ABSTRACT**

Today companies large and small have taken to open source as a way to increase collaboration, reduce development costs, provide a friendly platform for their products and services. Underlying this movement is a set of concerns related to the initiative to allow knowledge workers across different enterprises to participate in joint project work, resulting in some inter-organizational processes of knowledge sharing, to be modeled and followed by other enterprises of interest. This formulation, in terms of discovering business mutual benefits, could be considered as the open source philosophy behind an enterprise's cooperation with other counterparts. In the specific context of establishing enterprise

information systems (EIS) to enable organizations (especially small and medium enterprises) to integrate and coordinate their business processes, the stakes can be high in light of maintaining a company's competitive advantages. Whether open source will work at any company depends on both the capabilities of the company and the maturity of the open source processes and hence the software to support them. This article investigates the context of knowledge networks among virtual teams of professionals as the case-in-point discussion on a specific type of open source knowledge environment based on the Wiki technology, called organizational memory information system (OMIS) to support people working within and across organizational boundaries with technology. The issues of trust and shared understanding among organizations using the relevant OMIS environment is also deliber-

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ated in the discussion alongside the technology alignment and process adaptation for managing the OMIS-based collaboration among members of the knowledge networks.

## **INTRODUCTION**

Today, the scope of open source has grown beyond basic development tools (Fogel, 2006) to become a top-to-bottom infrastructure for computing of all stripes, including development environments, databases, operating systems, web servers, application servers, and utilities for all types of data center management. By open source (Woods & Guliani, 2005; Golden, 2005), we are referring to software that has source code available to its users. It can be downloaded at will and used or modified as desired, as long as its license requirements are observed. Typically, commercial software licenses reflect the rights of the creator to control how the software is distributed. They protect the intellectual property of the creator(s). Yet, open source licenses differ significantly from commercial software licenses. Commercial licenses restrict the use of the software as much as possible, to enhance the possibility of selling many licenses. In contrast, open source licenses are written with the aim of encouraging widespread use, with very few restrictions placed on the use of the software. Also, open source software is often distributed at no cost. This makes sense because it reflects the reality of source code availability. Thereby, a clear model of how open source for the enterprise (Woods & Guliani, 2005) comes to life is crucial to understand the life cycle of open source development for enterprise information systems (EIS) (Dunn, Cherrington, & Hollander, 2005) and its attendant processes, which have incrementally become essential in the process of organization development in the Internet age. Of critical concern here is the electronic medium (such as the Web) to support knowledge sharing (Vat, 2006) referring mainly to the activities that define

expectations, enable empowerment, or verify performance of the people or units involved. In the specific context of competitive advantages, the transformative impact of an open source effort on the intellectual and social capital of an enterprise is not to be ignored (Stewart, 1997). Our discussion centers on conceiving specific EIS whose open source design relates to the practical rendering of IS (information systems) support for virtual teams within and across enterprises, for such purposeful organizational activities as collaborative project work and knowledge sharing for given areas of responsibilities (Vat, 2005, 2002). The framework of analysis employed should accommodate the configuration of an organization's value profile in cyberspace as exemplified in today's digital economy (Tapscott, 1997). This framework puts in perspective many an enterprise's efforts to nurture intra- and inter-organizational knowledge environments to support the value shop model of organizational memory (OM), mostly known as the OMIS, the organizational memory information system (Vat, 2008, 2001), in which value is created by configuring and applying specific knowledge to problems of interest to customers. The chapter concludes by elaborating on the issues behind open source for the enterprise OMIS, providing a sense-making perspective on the challenge to overcome barriers to knowledge sharing among virtual teams distributed throughout any network of business collaboration.

## **THE CONTEXT OF ENTERPRISE INFORMATION SYSTEMS**

The idea of an enterprise information system (EIS) could be understood from the context of the two terms: enterprise and information system. The former could be defined as an organization (Hall, 2002) established to achieve a particular undertaking involving industrious, systematic activity. Today, whether the undertaking of an enterprise is profit driven or charity motivated, the enterprise

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