Chapter 5.1
Managing Organizational Knowledge in the Age of Social Computing

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INTRODUCTION

Technology, since the days of the Industrial Revolution, has been used by large corporations, such as factories and the railways, to great advantage. Starting around the end of the 19th century, technology began to be used directly by the consumer, but remained essentially a means of satisfying a *personal* need, such as lighting or listening to music. In the past decade, as technologies such as e-mail, Web, Weblogs (blogs), Wikis, and instant messaging have become pervasive, the way technology is used by individuals has changed—it has increasingly been put to use to meet *social* needs, such as interaction, sharing, and networking. This new paradigm of technology use, and the technologies that have enabled it, may be termed social computing.

By its very nature, social computing facilitates the sharing and leveraging of knowledge residing within a community of people. In this article, we discuss how social computing can act as the primary mechanism that enables the management of knowledge within an organization.

BACKGROUND: THE DISCIPLINE OF KNOWLEDGE MANAGEMENT

There are several ingredients that go into organizational success, and leveraging assets well is one of these. As intangible assets represent a rising proportion of total assets, they have come to represent an important area of management focus. The discipline of *knowledge management* (KM) thus encompasses the organizational activities directed toward the assimilation, dissemination, harvest, and reuse of knowledge. In simpler terms, KM is the answer to the question, "How can the organization update and use its knowledge more effectively?" (Kochikar, 2000).

Some of the world's most successful organizations, be they corporate, academic, or government, invest considerably in KM, and substantial benefits have been reported across industries (Berkman, 2001; Frappaolo, 2006; Kochikar & Suresh, 2005).

Knowledge Management Review magazine's survey of 400 global corporations revealed that the following are key objectives of KM programs (KM Review, 2002):

a. Increasing organizational communication
b. Gaining competitive advantage
c. Increasing collaboration among employees
d. Improving customer relationships
e. Raising efficiency
f. Innovating
g. Learning from mistakes and successes
h. Capturing and retaining tacit knowledge

Using the framework of Nahapiet and Ghoshal (1998), these objectives can be classified as improving *financial capital* (b, e); improving *social capital* (a, c, d); and improving *intellectual capital* (f, g, h).

Each organization must fashion a KM strategy that takes cognizance of its unique competencies, aspirations, and business context. Mechanisms for organizational KM typically take the form of setting up strongly engineered governance mechanisms, focusing on four key aspects: people, processes, technology, and content (see, e.g., Kochikar, Mahesh, and Mahind, 2002).

As an exemplar, Infosys Technologies (*NASDAQ: INFY*) has had a KM program since 1999, which aims to *empower every employee with the knowledge of every other employee*. Key elements of the KM architecture include the *Knowledge Currency Unit* scheme, a comprehensive mechanism for reward, recognition, and measurement of KM benefits; *KShop*, the corporate knowledge portal built in-house; and the *knowledge hierarchy*, a four-level taxonomy of over 2000 subject areas that constitute knowledge in the Infosys context (Kochikar et al., 2002).

For more on KM and its organizational uses, see work by Davenport and Prusak (1998), Drucker, Garvin, andLeonard (1998), Nonaka and Ichijo (2006), and Nonaka and Takeuchi (1995).

BACKGROUND: SOCIAL COMPUTING COMES OF AGE

Social computing is the name given to a slew of technologies that collectively allow people to pool their knowledge, keep in touch with, and interact better with others who belong to their community.

The stellar rise in the popularity of e-mail in the 1990s (the number of users skyrocketed from a few thousand at the beginning of that decade, to several hundred million at the end of it) clearly provides a pointer to the potential that social computing has—people are eager to take up technologies that will help them meet their social needs better. For example, there are as of May 2006 a total of 39 million blogs worldwide, with 75,000 being added each day (Klein, 2006). In an academic/research sense, social computing is a relatively new field—a fact reflected in the relative paucity of books and research papers in the reference section of this article.

What has spurred this gain in the importance of social computing? While there are several reasons, two in particular stand out:

- The steady march of advances in computing that have put more computing power in the hands of the users, allowing them to use it to achieve ends that they truly consider useful;
- Network effects as encapsulated in Metcalfe's Law: As the number of users of a particular technology that supports interaction or networking increases, the benefits perceived by all users accelerate significantly, causing even more users to adopt the technology.