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Can enterprises use Web 2.0 technologies to improve the output of knowledge workers? A study of four knowledge-intensive firms offers insight into their use of social networking for knowledge management and the challenges it presents.

Knowledge management systems help create, store, retrieve, transfer, and apply knowledge. They can also enable collaboration and communication among knowledge workers within and across various domains. Traditionally, such systems have helped document explicit knowledge—that is, knowledge that’s easily codified and articulated, such as what you’d see in a user manual.

However, organizations are starting to include social networking features in their knowledge management infrastructure to capture tacit, social, and individual knowledge as well. Tacit knowledge is difficult to codify because it’s “rooted in action, experience, and involvement in a specific context.” An example might be knowing how to deal with a particular customer. Social knowledge is created by group actions and includes social norms for these interactions, and individual knowledge comes from an individual gaining insight after completing a project.

Research shows that employees who frequently interact transfer knowledge more effectively, supporting the notion that community networking is an important part of knowledge management—especially for tacit knowledge. Integrating social networking into knowledge management systems can increase interactions between employees, which can in turn increase their level of trust and encourage more effective collaboration and communication. Many organizations are thus incorporating tools such as Microsoft SharePoint (see the related sidebar) into their knowledge management infrastructure to set up websites accessible through intranets or the Internet and to help employees create, store, and retrieve documents in various formats.

To gain insight into this use of social networking for knowledge management and the challenges it presents, we interviewed professionals from four different knowledge-intensive firms in the legal, pharmaceutical, insurance, and software development industries.
Social Networking in Firms

We refer to the four case-study sites as LegalCo, PharmaCo, InsurCo, and SoftCo (based on their industry). We selected these particular firms because they had an extensive need for knowledge workers and had implemented a social networking system for knowledge management. (For more information on our study, see the “Study Methodology” sidebar.)

Two of the organizations (LegalCo and PharmaCo) are large, global firms with operations in many different countries. InsurCo is also a large firm, but its operations and customers are predominately located in the northeastern US. SoftCo is a small organization but has employees located in the US and China.

We observed some diversity in how and why the companies used technologies for knowledge management, collaboration, and social networking (summarized in Table 1).

LegalCo

After using various knowledge management platforms for over a decade, the legal firm decided to convert its infrastructure to a new platform centered on SharePoint.

LegalCo uses its knowledge management tools primarily to store legal documents, including works in progress, which the staff frequently research for use in other cases. The legal documents also include research of specific cases involving corporate clients, such as legal opinions and lawsuits based on specific actions of the clients. The firm also stores procedural information, such as state requirements and rules for filing specific forms and documents with regulatory agencies and courts.

Microsoft SharePoint has over 100 million users and offers social networking system capabilities, including the ability to selectively establish relationships between contacts and to grant permission to view selective information posted by users. Users can create a profile page that includes their job location, experience, and contact information.

SharePoint can be used as a collaboration tool in a single organization as well as across organizations. It also integrates with other commonly used Microsoft tools such as Microsoft Outlook, thus supporting communication and collaboration between employees.

Three of the organizations we studied used SharePoint as an integral part of their social networking and knowledge management systems, but it’s just one example of the type of tools available to organizations for collaboration, knowledge management, and social networking. Similar tools that can foster social networking include Socialtext and Jive Software.

**Reference**


**Study Methodology**

We collected the data through semistructured interviews. We selected our study’s participants using snowball sampling—that is, we initially asked contacts in the selected organizations to participate and then asked them to suggest additional participants. We asked participants about their role in the organization, their use of social networking systems (both at work and for personal use), the challenges their organization faced in implementing social networking systems for knowledge management, and the outcomes of such implementations. We asked subsequent questions based on their responses to generate an understanding of each participant’s individual experiences. We recorded each interview and took notes throughout.

We analyzed the data hermeneutically—that is, we used an iterative process to examine and interpret the data. In our process, analysis of respondents’ individual statements represented the parts, while the development of interpretations based on theory represented the whole.

Participants reviewed initial reports based on our data analysis and provided feedback. This ensured the validity of the researchers’ interpretations.

**Reference**

These two types of documents exemplify the difference between tacit and explicit knowledge. Legal documents are based on a specific situational context and thus contain tacit knowledge, while procedures are easily codified and thus exemplify explicit knowledge.

LegalCo has an intranet for all employees that includes both work and personal information. For example, one employee found a rental apartment in Rome for a family vacation using the intranet. This form of social networking is considered an important intranet function because it develops a sense of community despite the high-pressure environment, long work hours, and high turnover rates.

LegalCo restricts access to the intranet—clients don’t have direct access to the system—and only a few employees can enter information into the platform. However, this small set of employees has a high turnover rate, so metadata tagging has been inconsistent.

A key reason for migrating to SharePoint was to restructure the metadata associated with each document to improve search capabilities. Creating the metadata structure was time-consuming and required extensive discussions between project participants, but it helped LegalCo develop specific contextual descriptions for each document in the SharePoint data repository.

PharmaCo
The pharmaceutical company also uses various knowledge management platforms including SharePoint, wikis, and a company portal for collaboration and social networking to help teams work together across different time zones and geographic locations while performing extensive research and development tasks. Teams also use the tools for sales, marketing, human resources, and training.

PharmaCo’s information storage must comply with federal regulations, so the firm restricts access to the information—it doesn’t provide access to nonemployees or contractors. In addition, employees can’t post information about the firm’s products on public social networking sites because of concerns about product liability, regulatory compliance, and protection of the firm’s intellectual property.

InsurCo
The insurance company uses knowledge management and social networking systems the least of the four companies. Its technology is outdated with few plans for upgrading the architecture or capabilities.

InsurCo recently went through a merger that caused a great deal of internal turmoil. As part of the merger, the IT staff had to review all systems supporting the two companies to determine which systems to combine to reduce costs. As part of this process, the IT staff developed the company’s first wiki to create a repository of the systems and applications.

Initially, senior management didn’t back use of the wiki. However, this changed when a consultant told a senior leader that the wiki was a valuable tool and could significantly help in gathering information about the firm. After the
initial implementation, the wiki’s contents grew to include a significant amount of data about the IT infrastructure—but it wasn’t expanded to include other departments or vendors.

**SoftCo**
The software company uses knowledge management and social networking tools extensively. SoftCo uses SharePoint to collaborate both internally between staff members and externally with clients. The SharePoint site is a repository of information regarding SoftCo’s projects and is a key component of the project management process. It’s also an important collaboration tool—both clients and employees frequently post information to SharePoint. Clients can only access data about their own projects, but SoftCo employees can access all of the information and frequently search projects across clients because of the similarity in the work performed.

In addition to SharePoint, SoftCo uses Yammer, a social networking site designed specifically for internal use in an organization. As a small company with employees scattered throughout the US and China, SoftCo uses Yammer to help employees keep in touch and to foster a sense of community. Some of the posts on Yammer are personal in nature, but the vast majority are specific to work projects. Programmers frequently use Yammer to get assistance and ideas on how to improve their projects.

**Finding Information**
LegalCo, PharmaCo, and SoftCo have all had difficulty finding required information, and all four companies have assigned owners to different sections of the systems environment. Each owner is responsible for inputting and updating information related to their part of the system. When employees want to locate specific information, they often ask the owner of the data to find it for them. LegalCo, in particular, uses selected staff members to both input and retrieve data on behalf of others, and the new metadata requirements have simplified these tasks.

**Maintaining Leadership**
With the smaller organization, the leader who decided to implement social networking with Yammer was instrumental in getting the others involved. However, in such organizations, when the leader drops out of the process, others also quickly drop out.

In InsurCo, when the initial advocate for using the wiki left the organization, others stopped using the wiki as well, even though it had useful information.

**Benefits**
Using social networking systems for knowledge management had the following positive outcomes.

**Documenting Tacit Knowledge**
Each firm uses social networking systems to share both explicit and tacit knowledge. Past research in knowledge management has highlighted the challenges that organizations face in sharing tacit knowledge in particular. For example, by diligently working on their metadata structure, LegalCo was able to better locate and share tacit knowledge stored in SharePoint.

**Building a Sense of Community**
Apart from viewing social networking systems as a means to document, analyze, and disseminate knowledge, some of the sites used such systems to develop a sense of community among the employees. Particularly in LegalCo and SoftCo, employees used social networking systems to share both social and individual knowledge. At LegalCo, this led to an increased sense of community within the firm. In addition, at InsurCo, using a wiki helped create a better sense of community within the small IT team during the merger.
Recommendations
Drawing from our case study, we have three recommendations for organizations planning to implement social networking systems for knowledge management.

Balance Privacy and Flexibility
Social networking systems pose conflicting challenges by pitting privacy concerns against the ease of managing knowledge. Although such systems might motivate employees to contribute knowledge by developing a sense of community, the inherent complexity of setting security policies and controlling the visibility of knowledge managed through these systems poses a significant challenge to organizational adoption.

Organizations need mechanisms to protect information without prohibitive restrictions that could dissuade use. The more democratic characteristics of social networking systems must be balanced with organizational hierarchies and access control. For example, restricting the user base for the social networking system—as done by LegalCo—might be an easy mechanism to protect data privacy, but it could inhibit wider adoption and open contribution. Assigning ownership of specific sections to key stakeholders might help balance open access and data privacy.

Structure Socially Driven Knowledge Management
Although social networking systems can help gather and document knowledge, if companies leave the data unstructured, it could evolve into masses of knowledge that don’t add value because they’re not retrievable for future use.

Organizations must develop suitable knowledge management structures on social networking systems to enable information retrieval and reuse. They also need to balance a centrally defined structure (through metadata) and a socially driven structure that empowers users to develop innovative approaches for documenting relevant knowledge.

Enable Continued Leadership
Recognizing the crests and troughs in a project champion’s use of social networking systems, organizations should identify both nominated champions and champions-in-practice. A nominated champion is a person who’s appointed as a leader in contributing to the social networking environment and who encourages others to participate.

A champion-in-practice is a person who, without being appointed, takes on a leadership role. Despite the loss of a nominated champion, continued use by champions-in-practice will sustain interest in using the social networking system for knowledge management.

The importance of leadership in enabling the effective use of social networking for knowledge management was greater in the smaller firm. Perhaps the larger organizations had multiple advocates pushing for system use, so no one leader could reduce overall use. Also, a smaller organization might find it relatively easier to develop communities without relying on social networking systems, thereby obviating the need for implementing such systems. We hope to conduct further studies to better understand the role leadership plays in social networking for knowledge management.

References

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