

Enabling Search-Driven Knowledge Management

Human knowledge is oftentimes identified as an organization's most valuable asset. However, much of this knowledge is never shared or truly re-used. Capturing and re-distributing this knowledge not only improves knowledge workers' productivity, but it can also have a measurable impact on the top-line. Information discovery solutions powered by an enterprise search platform can greatly simplify information access and reduce the amount of time knowledge workers must spend searching for information

A FAST white paper

Knowledge management has been a persistent, high-priority item on the business and IT development agendas for the past 8-10 years. Most large organizations have implemented knowledge management in an attempt to organize and disseminate corporate knowledge and achieve the elusive “learning organization” nirvana. They were hoping to achieve specific outcomes, such as improved performance, shared intelligence, competitive advantage, and higher levels of innovation. But for the most part, these efforts have been futile.

Two major issues have been plaguing these projects: first, the knowledge management initiatives have had too much of a production focus. They do not adequately take into account the need for information to be consumed in a manner that knowledge workers want, which is often serendipitous. Lateral and unexpected information discovery is far more valuable than structured knowledge management. Second, the organizational efforts that facilitate dissemination and encourage participation have been limited. It is just too hard to contribute and there is often little incentive.

During the next five years, organizations will shift their investments away from legacy knowledge management and towards Enterprise 2.0, enterprise search, information discovery, and other tools, technologies, practices, and processes that allow for emergent work patterns to form in a vibrant “learning organization”.

Is knowledge management the big brother of information management?

Knowledge management is quite an overused term. There are a number of definitions for it. In many cases, knowledge management is still interpreted and defined as simply improved information management. This happened even more frequently at the early stages of knowledge management. Typically, this kind of thinking is driven by the “So what is actually new here?” types of questions, which often represent the key challenge to knowledge management sponsors that are typically found in existing departmental functions (the Human Resource or IT department) or completely new functions (the Knowledge Management Office).

It is important to note that information management is increasingly critical to use and make sense of the proliferation of digital content. However, even though information management (enabled by knowledge bases, expert systems, content management, document management, etc.) and information access and discovery (enabled by enterprise search) are some of the key enablers of knowledge management and do play a pivotal role in this context, they represent only a part of the overall knowledge management program.

Knowledge and information management are the core elements of scaling knowledge-centered organizations. As businesses grow, they often experience a set of challenges, common to many organizations across a number of different industries. Through a common charter and a set of objectives, standards, practices, and processes around both knowledge management and information management, organizations can significantly increase their ability to manage and control their intellectual capital and knowledge, addressing some of their growth pains and directly increasing the reusability and sharing of their key information assets.

Collaboration is the marriage between knowledge management and information management. Creating, storing, tagging, ranking, and otherwise adding value to information assets is a core activity in the knowledge practice. These deliver significant value even to individual users. However, they are of a significantly higher benefit for the immediate workgroup, also delivering ultimate value to the enterprise as a whole. Enterprise search and information access and discovery technologies will bring significant value to an overall knowledge management solution, even though they cannot replace collaboration elements.

Addressing knowledge management needs

Knowledge management is not a pure technology issue, even though technologies, which enhance knowledge sharing and growth, do play a role. It is also about the content, and it is definitely about creating an environment where learning takes place. Instead of having an excessive focus on only having a content repository or knowledge base in place, stimulating collaboration is of critical importance. The fundamental issue to consider

here is how the organization needs to be designed to facilitate knowledge processes.

As discussed above, compelling technology is necessary to a good knowledge management program. Further, new technology is always emerging that advances the state of the art of knowledge management, making things possible that were not possible before.

Knowledge management is not a single class of technology. In fact, it uses several categories of technology that enable the creation, capture, and sharing of information for use in knowledge-intensive processes. Enterprise content management systems, for example, are used by many organizations to capture explicit knowledge. With the addition of metadata, taxonomies, and search capabilities, document-centric information can be widely used to share the knowledge of a few with many people in an organization or outside to partners and customers. Other examples include enterprise search and information access platforms, which include sophisticated categorization and classification engines that enable users to encode rules about how particular information management processes should be run. Lighter-weight Web 2.0 tools, such as discussion databases, wikis, and blogs, also offer important ways to capture knowledge. These systems are already in wide use in many organizations, either in the context of knowledge management programs or for other purposes. From an emerging technologies standpoint, it is also becoming more important to be able to capture and use non-text-based data formats, such as audio and video.

Enterprise search helps knowledge management metamorphose into information discovery

Enterprise search helps organizations maximize the value of their information assets for both the creator and the consumer by consolidating a wide variety of structured, unstructured, and rich media sources into a virtual, immediately accessible knowledge repository, and to make access to them both channel-agnostic and channel-optimized. It is possible for the user to get to the information regardless of the channel she chooses, and it will be accessible in the way that takes best advantage of any given channel.

Earlier, knowledge management was defined as the process of identifying, capturing, organizing, accessing, using, and sharing the organization's knowledge which, in turn, enables people to personally and collectively become more productive, collaborative, and innovative. Enterprise search addresses all of these six areas. It helps capitalize on internal and external knowledge, increase the circulation and sharing of information across teams and organizational functions, and improve knowledge workers' productivity. It enables timely gathering of relevant information from any source, deep analytics on large volumes of information, constant monitoring for topics of interest, alerting and notification based on targeted events and user-defined criteria, and extreme personalization.

Information discovery solutions powered by an enterprise search platform increase knowledge workers' productivity by simplifying information access and reducing the amount of time they must spend searching for information – leading to the situation, where they can spend their time in customer-facing or other tasks that deliver more tangible business results. Improving everyday knowledge worker productivity is a very critical thing in a number of industries – for example, it has been estimated that 30% of knowledge workers' time at pharmaceutical companies is spent searching for information. An IDC study (IDC Update: The Hidden Costs of Information Work, April 2006), in turn, found out that searching for and analyzing information both consume 24% of the typical information worker's time, and each task costs the organization more than \$14,000 per worker per year. So, even the most risk-averse company can benefit from an enterprise search platform that provides a federated information access solution that not only saves knowledge workers' time but also improves IT efficiency through consolidation.

The ability to improve collaboration across various organizational functions by bringing people, ideas, and information together in powerful, yet friendly, ways is typically an outright requirement in any innovation-based business. This convergence enables employees to make connections and gain new insights that will benefit projects and profits. In effect, this unlocks and allows the sharing of knowledge, removes associated depend-

encies, and avoids reinvention through fact and relationship mapping between data silos.

Information workers need more than a traditional search box. They want to leverage personalized search capabilities that help them effectively and securely access relevant data. They want actionable results, not just lists of links. They want to gain an insight, which helps them answer their questions. They want to get both the contextual results with extreme precision and the contextual navigation for further investigation of related information, where facts, relationships, and answers contained inside documents can be effectively visualized in the information discovery interaction. Conventionally, the scope in the knowledge discovery or enterprise search interaction is the document, database record or Web page, but these are oftentimes too ambiguously large. In many real-life interactions, the scope must be a sentence, paragraph or, in general, any XML or structural element. It is the enterprise search platform that must deliver this kind of precise granularity and enable the system to suggest contextually relevant answers to the users' questions.

Expertise location and management – the next enterprise 2.0 killer application?

Today's virtualized and geographically distributed organizations have faced formidable difficulties in locating experts in given subject areas. This is typically both an expertise capture problem and an expertise profiling problem - the problem of not being able to access a knowledge base or an organization's information assets with specific queries and the problem of not knowing who the experts are, respectively. Both of these challenges act as serious impediments for efficient collaboration and true reuse of expertise and knowledge.

Expert and expertise capture and location provide high-value functions when they are correctly implemented on the enterprise search platform. In this context, enterprise search and information access and discovery solutions provide a number of interesting opportunities:

- 1) Enterprise search helps capture explicit knowledge contributed directly into the

peer group. Many organizations use e-mail as a means for users to post requests for information on a certain topic in the hope their colleagues will respond. The goal is to enable more efficient knowledge and information sharing within a wider group. In this context, enterprise search acts as the focal point for the information needs of all users.

- 2) Enterprise search can help capture implicit and explicit expertise derived from monitoring the use of the search application, with which users interact. Through their use of the search box, users transparently and implicitly convey their areas of interest and expertise. The enterprise search system can track searches, viewed results, and stored searches.
- 3) Enterprise search helps capture implicit expertise that is stored within produced content and completed tasks and business processes. The enterprise search system can also help draw associations between people and the context.

Many organizations have come to realize that sometimes finding the right piece of information is not as good as finding the right expert. Therefore, it is reasonable to expect expertise location and management to be one of the next potential Enterprise 2.0 killer applications inside the organization.

The Bottom Line

Information discovery and knowledge management fits into an exciting new trend called Enterprise 2.0, which suggests that enabling social networking in the enterprise can help new patterns of work and information sharing emerge and can give organizations the edge they need. The enterprise search and information access and discovery solution is increasingly the foundation for an organization's move towards Enterprise 2.0. This also positions enterprise search as one of the critical components in the back-end infrastructure for organizations with large knowledge-based workforces. It helps organizations better understand their oftentimes complex internal and external environments by constantly monitoring their topics of interest and gathering relevant, timely information from any data source, enabling them to reap the real benefits of knowledge management.

About FAST

FAST is the leading developer of enterprise search technologies and solutions that are behind the scenes at the world's best known companies with the most demanding search problems. FAST's solutions are installed in more than 3500 locations.

FAST is headquartered in Oslo, Norway and Needham, Massachusetts and is publicly traded under the ticker symbol 'FAST' on the Oslo Stock Exchange. The FAST Group operates globally with presence in Europe, North America, the Asia/Pacific region, South America, the Middle East and Africa. For further information about FAST, please visit www.fastsearch.com.

For any feedback or questions related to this paper, please contact us at feedback@fastsearch.com.

FAST™

www.fastsearch.com
info@fastsearch.com

Regional Headquarters

The Americas

+1 781 304 2400

Europe, Middle East & Africa (EMEA)

+47 23 01 12 00

Japan

+81 3 5511 4343

Asia Pacific

+612 9929 7725

© 2007 Fast Search & Transfer ASA. All rights reserved.

Fast Search & Transfer, FAST, FAST ESP, and all other related logos and product names are either registered trademarks or trademarks of Fast Search & Transfer ASA in Norway, the United States and/or other countries. All other company, product, and service names are the property of their respective holders and may be registered trademarks or trademarks in the United States and/or other countries.

FST-1000319-01