THE FIRST GENERATION INTRANET WILL MAKE AN EASIER TRANSITION TO THE SECOND GENERATION IF STANDARDS GO INTO PLACE EARLY.
What makes an intranet useful as the basis for Knowledge Management (KM)? Are there hints to be gathered in organizations that depend on knowledge exchange? Does an organizational portal approach help build the sense of sharing and community to support KM? What are some of the social dynamics behind successful KM? What culture does it take to be successful with a corporate intranet?

The issues of corporate culture, learning organizations, and knowledge exchange may seem too abstract to build into technology plans for your organization, but they often determine eventual success. Each of these “soft” factors plays into intranet system evolutionary stages.

INITIAL KNOWLEDGE SHARING

Many organizations start sharing knowledge by using file servers as a repository of information. Anyone who has used this approach knows that it quickly becomes confusing. Partially because a set of shared directories on a file server lack all content management and all search features except those based on file name, this approach does not satisfy even the basic principles of document management. Potential users of a document should be able to find it in three different scenarios:

• I know it exists and I know where it is.
• I know it exists, but I don’t know where it is.
• I don’t know if it exists.

In a file server environment, only the first scenario is readily supported.

THE FIRST GENERATION INTRANET

At their most basic, intranet approaches to sharing knowledge are based on providing descriptions of documents and building a visual, Web-based interface to the underlying file structure. Instead of being located on a file server (usually Novell NetWare or NT), these files are located on a Web server. In many organizations, as the benefits of sharing files are perceived, this first generation intranet begins to grow, making the integration of a search function necessary for continued effective use.

At this point, the group notices that searching won’t work without keying in metadata describing each file, so the discussions begin about standardized ways to describe files to make the search engine’s queries return relevant documents. This is one of the most challenging aspects of a growing intranet; the need to set standards for describing documents in ways that don’t slow participation.

GROWING PAINS

The longer the integration of standards is put off, the more difficult it becomes later to put in place any discipline to standardize content descriptors. When the contributors are accustomed to participation without the added step of describing their documents with a controlled vocabulary, it may be late in the game to ask for discipline. Automating the process of defining document descriptors
benefits of intranets

through style sheets or templates gives an early win. Out-of-the-box solutions that help manage metadata can be especially helpful at this stage so that content management and eventual searches by users are successful and productive.

Many intranets evolve gradually, especially custom systems built with significant development effort. Often, when a custom development approach is in place with great reliance on internal resources, investments in commercial tools, such as search engines, are delayed. The growing pains of the first generation intranet are often related to the feeling that documents are piling up in a big document dump, but the most useful documents are not part of the repository, or they are not easy to find or identify within the repository.

While the evolutionary approach makes sense from a capabilities point of view, early contributions to the knowledge repository are valuable only if metadata is gathered. The first generation intranet will make an easier transition to the second generation if standards go into place early.

One of the downsides of the first generation intranet is that it can inspire the growth of silos of automation. These special purpose systems are put in place to meet the needs of a group or a single business process. Their implementation can even be inspired by the early success of a first generation intranet site. They often break down when any integration to broader business processes is attempted. Their useful life usually ends when a second-generation intranet is in place. Silo or special purpose intranet sites drive a difficult tradeoff. If the silos stay in place, resulting levels of redundancy drive costs up; to bring costs down by integrating their functions into a corporate intranet site drives complexity up.

THE SECOND GENERATION INTRANET

Organizations that are short on internal resources capable of building their intranet sites may falter at this point. They see their capabilities falling short of the emerging requirements. They may take a step back to consider major overhauls to their sites, initiating debate about whether to 'build or buy.' The 'buy' alternative in this instance means to purchase a Commercial Off-the-shelf (COTS) software package to provide organizational intranet features. Examples of intranet packages that use a portal approach include Autonomy, Plumtree, I-portal, Epicentric, and 2Bridge. The 'build' alternative means using a combination of programming tools, software environments, and perhaps some actually give a productivity advantage promised by KM concepts.

At this stage, with a set of tools in place within the second-generation intranet, the focus should shift to understanding the productivity advantages gained from sharing knowledge within the particular organization. Additional capabilities should be added on a modular basis where the business value points the way.

FROM DOCUMENT DUMP TO KNOWLEDGE REPOSITORY

The underlying reason to put an intranet in place is to provide a fabric for sharing and collaboration based on a central repository that acts as an authoritative source of organizational knowledge. There are clearly productivity benefits to be gained from giving employees a way to share information about a project that is underway. More broadly, there are productivity advantages to empowering employees to serve themselves where it makes sense to do so. For example, making HR forms available online and providing a Frequently Asked Questions guide to compensation and benefits can give employees faster service and make the hands-on work of HR professionals higher in value. Many, if not all, organizations can get some productivity gains from using an intranet to enable more effective administrative processes. But the most profound productivity advantages to be gained from an intranet approach focus more particularly on knowledge management and its aspects that are unique to the business model of an organization.

At this stage, the intranet is a repository for information, as well as providing a set of associated services. Yet, information is not knowledge, and bridging the gap to knowledge requires an understanding of the processes that create value within an organization. The evolution of a site from a document dump to a tool acting as the basis for knowledge transfer is complex.
Knowledge transfer provides the effect of wisdom without requiring the underlying experience. We all know how a person can gain experience and become more effective within an organization. The exchange of knowledge can make it possible to have an institutional experience effect, where one individual’s experience can be transferable to another via a knowledge object. The first examples of knowledge transfer that occur in an organization can also provide clues to where knowledge transfer has the most leverage.

Proposal development in a consulting organization provides an example of the evolution from information access to knowledge transfer in its early stages. Based on Pareto’s Law (the 80/20 rule), an early KM approach would be to collect a few of the most effective recent sales proposals and other documents from each service area into an intranet structure. Think of this as a David Letterman Top 10 list approach to gathering great content to be leveraged. An inexperienced individual writing a proposal can use a highly effective and similar proposal as a starting point. As she works through the process of explaining the business value of a particular service, and takes to heart earlier ways of making that point, she may be able to develop a more persuasive case than if she had started from scratch. Because of this additive effect of building on earlier work, she may be able to develop some text, a metaphor, or a diagram that explains the ethereal concept even more effectively than her original starting point. The entire process, and the act of making the newer proposal widely available, is the fundamental basis of organizational learning.

Remarkably, the first most apparent impact from this scenario is speed. A high quality proposal can be developed more quickly than usually possible on the part of an inexperienced proposal writer. A closer look indicates that productivity advantages are broader than speed alone.

Additional advantages result in the form of higher quality results and more effective use of resources, especially since the more experienced proposal writer can work in a review capacity instead of carrying out all the original creation.

The same concept applies to the library environment through the use of boilerplate or template documents to facilitate service agreements, policies, and licensing agreements. This works especially well for documents that are highly structured, such as a licensing agreement. The practice of re-using documents is especially helpful with a licensing agreement, since this gives a standard approach to meeting the library’s requirements; it ensures that vital contract details are provided in the licensing agreement.

Knowledge management can emerge from document management with a deep knowledge of the mental pathways that guide those successful searches that match useful content to an eager patron.

Most organizations don’t have such great alignment between their missions and knowledge sharing as an organizational practice. In a way, it is a selfless act to take a knowledge object in your possession and make it available to others in your organization. Regardless of the format or specific content of the knowledge object, the acts of describing it with a controlled vocabulary so that it can be easily found, and posting it in a shared repository, have no inherent value to the one person who can do that work.

There is also a sense of trust required. Posting a knowledge object means giving away control and a sense of ownership to some unknown future user of the document or object. You must feel sufficiently linked to your colleagues and tied to the success of your larger workgroup to use your time to make a document available in the hope that it might be useful in the future. While you might not reflect on this social contract as you post your newest presentation or report, you do your part for the greater good with the expectation that others will do their parts.

So, do most organizations depend on a sense of volunteerism? The paradox of knowledge sharing is that one individual must be able to create a particular knowledge object, and who possesses it, gains no direct benefit from the act of sharing it. Some organizations have chosen to focus on the process of knowledge sharing by creating jobs aimed at gathering intellectual capital and making it available. This often fails as it hits the same bottleneck. A minority of individuals often creates the majority of intellectual capital in an organization. The engagement and
enthusiastic participation of these subject matter experts is usually the key to gaining productivity from a broader use of their expertise in a KM structure. Their motivation may come from performance objectives that specifically call out and target knowledge sharing behaviors, or the idea that their intellectual contributions have greater leverage and influence.

SEEKING PRODUCTIVITY IMPACTS

Within a group of practitioners with common needs and a sense of community, knowledge sharing with intranet tools can have significantly lower barriers to success because of the motivation of each individual to serve the interests of the group. The most productive environment for KM is one where the usual way of doing business results in documents that capture lessons learned in one situation that are often applicable to future situations. For practice groups with this learning environment and where business models make it possible to look at profitability on a project-by-project basis, productivity benefits from KM are easily apparent.

Technology consulting is an example of such an environment. For fixed price projects, leveraging knowledge across similar situations or clients reduces risk and increases quality and profit directly. Clients can benefit, since speed and quality increases. A Web development company may reuse a module of Java code that does a sophisticated calculation related to pipeline flow by revising it to make it applicable to oil pipelines, flows within a cosmetics factory, or the fluid dynamics of water systems. The particular piece of code may be improved with each reuse, but only if easy-to-use tools make sharing the newly tweaked code a fast step for developers.

Many libraries share a common disadvantage in that they are not structured in ways that make the productivity advantages of KM easy to observe. KM impacts are most easily observed in project-focused business processes, like those of consulting projects or litigation activities. An ongoing flow of quick-hit projects with similarities to preceding projects creates an environment where even minimal sharing of knowledge objects can visibly and profoundly accelerate work.

Different industries have adapted KM to particular needs. Each different industry or organization business model has a unique point of leverage where KM is best applied to give productivity gains.

MANAGEMENT BUY-IN AND WALKING THE TALK

Leadership can have a critical impact on the ability of an organization to bring into place an intranet solution that gives knowledge management benefits across the organization. The organizational architecture implication of KM is that, often, the most profound benefits are across organizational groups or divisions, not within them. So leadership at the highest level is often required.

A successful implementation of an intranet solution with KM capabilities is often characterized by these leadership actions:

- Funding: Sufficient funding is provided to make the intranet viable.
- Aligning with business value: Management focuses on identifying ways to get more use out of intellectual capital, and bases intranet systems requirements on business processes that drive business value.
- Drive to short-term results: Project leadership for intranet systems with KM capabilities usually deploy capabilities in waves in order to maintain momentum. The value of such systems is rarely tangible before they are in place, so projects that don’t deliver some results within a couple of quarters can suffer problems with sponsorship. Successful projects put basic tools in place, drive participation, measure the results, and expand capabilities where the greatest business value leads them.
- Participation: Individuals in leadership show an active interest in intranet project planning and contribute in visible ways to the content of the site when it comes into existence.

- Measurement: Performance objectives and metrics for divisions and individuals are adjusted to include goals related to knowledge sharing.
- Recognition and Rewards: Recognition and rewards, such as compensation or bonuses, are tied to objectives related to knowledge sharing at the group and individual levels.
- Evangelizing: Top management and group or divisional leadership identify and highlight specific instances where knowledge sharing, or better leveraging of intellectual capital, gave the organization a direct benefit.

Organizations that don’t have a history of effective knowledge sharing make deployment of intranet tools and KM concepts difficult and risky. Tight compartmentalization of information is one sign of such an organization, as though the default condition for handling of information is to deny access. When information is shared on a need-to-know basis, the serendipity and creativity that drives unexpected results from KM never happens, so business value is limited.

Regardless of the specific industry or organizational history, leadership and cultural change are often coupled to successful implementation of KM concepts into an intranet approach.

Intranets are powerful tools that can unify access to an organization’s processes and intellectual capital with a common approach. They can be part of the glue that pulls successful organizations together in teamwork.

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