



WHITE PAPER

WHATEVER HAPPENED TO THE KNOWLEDGE MANAGEMENT
REVOLUTION?

And, What Should You Be Doing About Knowledge Management
Now?

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I seem to remember that back in the mid 1990's everyone in the IT industry was getting hot and bothered about the coming knowledge management revolution. The New York Times was writing articles about how the top 500 were all hiring knowledge managers and the major consulting companies were all beginning to run senior management seminars on knowledge management to prepare them for the coming revolution.

My first paper on this topic was published in IDM in 1995, where I called this new approach IDEA (for the "It Does Everything Application"), see below, and we were all excited about the acceptance of knowledge management as an application.

<http://www.knowledgeonecorp.com/news/pdfs/It%20Does%20Everything%20Application.pdf>

I produced a second paper in 1996 called "Knowledge Management – The Next Challenge" (see below) following up on this same theme.

<http://www.knowledgeonecorp.com/news/pdfs/Knowledge%20Management%20-%20The%20Next%20Challenge.pdf>

So, what happened? Why aren't all major corporates and government agencies now running enterprise knowledge management systems? Did the vendors (like us) fail to deliver the goods? Was the concept over hyped (we do it all the time in the IT industry)? Or, did we all get too excited way too early (another common failing of the IT industry)?

Certainly one of the problems besetting the knowledge management revolution was the plethora of definitions about just what knowledge management actually was.

Our simple definition at the time was:

"A Knowledge Management System is one that provides the user with the explicit information required, in exactly the form required, at precisely the time the user needs it."

Our view was that computer applications couldn't produce knowledge; they were limited to producing information out of data. Our belief was that knowledge could only be produced as the result of the human cognitive process. Ergo, our definition (above) about the importance of providing the precise information required to feed this cognitive process.

Connecting To All Sources Of Knowledge

In addition, we also identified the need for a knowledge management system to be able to connect to all sources of knowledge. It wasn't enough to connect to just the KM system's own database, it needed to connect to other sources of knowledge (information) including other corporate databases, emails, the Internet (URLs), faxes (though faxes are far less relevant than they were say 10 years ago because most people now use email instead of faxing), voice (a difficult one because of legislation governing the recording of phone calls), SMS (also difficult because of the proliferation of different instant messaging systems and rapidly changing technology) and tacit knowledge (the knowledge held by your human capital).

Other organizations tried to define knowledge management much more narrowly around the need to capture and utilize tacit knowledge. Some vendors reinvented/recycled existing applications as knowledge management systems and produced appropriate definition that met this model.

Many universities around the world began developing knowledge management curriculums and, predictably, the standards industry began developing knowledge management standards. As an example, see the following link to the new SAI knowledge management standard, AS 5037-2005.

<http://www.saiglobal.com/shop/script/Details.asp?DocN=AS0733769306AT>

A New Genre Of Product Was Required

For our part, we began the design of a totally new knowledge management system, Knowledgeone (K1). This was to be a totally new genre of product and unrelated to our existing 'typical' records management, document management, imaging and workflow application RecFind-Corporate (now referred to as our legacy product). We began this new application because we couldn't see how reinventing RecFind-Corporate could produce a 'real' knowledge management product; we wanted to start from a clean slate with a totally fresh view of what was required.

Interestingly, it took us five elapsed years and two attempts to produce the version of K1 now in use at our customers. The first attempt was developed using Microsoft Visual Development Studio 6 and the COM model and the final product fell short of our design objectives simply because the technology wasn't up to the task (or, depending upon your viewpoint, our objectives were too advanced for the technology).

We made the decision to scrap version one in 2004 and started from scratch again with Microsoft .NET 2003 as the development environment. We obviously benefited greatly from the earlier research and development efforts and were able to produce the current production version of K1 based on .NET 2003 for first customer deliveries in October 2005.

I say interestingly above because my assumption is that our experiences mirrored what was happening elsewhere as others also struggled with the changing definition of what a knowledge management should be and should be able to achieve. Also interesting because I assume others have also struggled with overly optimistic objectives and limiting technologies.

The objectives of K1 also changed significantly during the five years of development because of many discussions with our customers around the world about what they believed they needed as opposed to what we believed they needed.

The Integration Problem

To our surprise the capturing and access to tacit knowledge was a low priority despite the hype in the industry about this requirement. Not a surprise, because we had been aware of the problem for many years, was the overwhelming requirement for a solution to the high cost and complexity of corporate information management. Especially the perceived problem of having to employ and roll out multiple, disparate systems from multiple vendors all with different IT environment and training requirements. This was often stated as the 'integration problem' but the need for a massive and ongoing investment in integration was really only a symptom of the underlying problem of having to support too many disparate systems in order to meet the organization's total information management needs.

This last issue became the focus of the second iteration of K1 as we modified the description of K1 from a knowledge management system to a knowledge management system and generic application solution, (a GAS). The evolution of K1 into a generic application solution was in direct response to our customers' stated need for a solution to what they called the 'integration problem', that is, the need to try and make 20 or more disparate applications systems communicate with each

other and share data. They wanted a single system they could use to solve multiple application needs.

A Thin-Client Solution

Another need incorporated into the design of K1 was mainly from the IT, IS Manager or CIO community and was for all user functions to be thin-client, running in a browser. This was seen as a way of reducing the huge ongoing maintenance cost of conventional client-server systems, "Please don't give me a system that I have to install and maintain on every desktop!"

Non ERP-Like Model (Enterprise Resource Planning)

This same highly IT literate user group also mandated other requirements for an enterprise knowledge management system that I grouped under the 'non ERP-like' category. That is, "Don't give me something that is complex, difficult and expensive to modify and difficult, time-consuming and expensive to roll out and support." We translated this need as a mandatory requirement for the customer to be able to easily and quickly modify both the data model and any process with impunity, (and at low cost and in an acceptably short timeframe). The phrase "with impunity" meaning that the customer could easily modify both the data model and any process and still receive and install the standard product updates with no requirement for special and expensive maintenance agreements.

The Weakness Of The Client-Centric Model

Another factor in the design of K1 was the world-wide failure of traditional client-focused EDRMS systems to capture more than a small percentage of desktops in each organization where they were rolled out. In most cases, the roll out didn't get past the initial pilot as the weaknesses of client-centric systems became apparent.

Simply, the end users didn't welcome the extra work involved (the systems added work and were therefore seen as productivity losses, not productivity gains) and didn't produce the results required as they relied on the end user to decide which documents to capture and how to capture them. Because each individual made decisions based on his or her interpretation of the 'rules' and procedures the results were inconsistent and decidedly incomplete (especially with emails). With the traditional client-centric paradigm, we ended up with most systems doing a fair job of capturing paper but an abysmal job of capturing electronic documents and emails.

Server-Centric, Rules-Driven, Totally Automatic Model

We therefore designed K1 as a server-centric and totally automatic, rules-driven model as the only solution to the productivity drag of traditional client-centric EDRMS systems. Surprisingly, this model, through popular with senior IT people, was not readily accepted by the traditional applications owners like records managers who favored the client-centric, labor intensive model. And, based on my recent conversations with a variety of records managers, they still do.

However, as a designer I do not see an alternative to the server-centric, fully automatic and rules-driven model. It is the only way I can see that will allow us to ensure a one hundred-percent consistent solution to enterprise information management. It is the only way to ensure that every item of information that should be captured is captured and that every item so captured is indexed consistently across the enterprise.

The Myth Of Compliance

Without being able to guarantee that:

- Every item has been analyzed;
- Every item that should have been captured has been captured; and
- Every item that has been captured has been indexed according to the same set of rules.

Then no organization can rightfully claim to comply with any standard or legislation.

At the present time, the probably unpalatable truth is that most organizations that claim to comply with a particular standard or piece of legislation do not because they rely on a client-centric model whereby individual workers actually determine what the rules are and more importantly, determine when to apply the rules and when not to apply the rules. Compliance therefore in most organizations is a myth.

Conclusions

We didn't experience a knowledge management revolution, it simply did not happen. Instead, what we experienced and are still experiencing, is an information management evolution as opposed to a revolution. As the tools and methodologies improve so we are able to make incremental changes to the information management model. More specifically, we have been able to move away from the client-centric, client-server model to the server-centric, thin-client model. In doing so we have also been able to evolve from the imperfect individual decision model to the more focused, more complete and more consistent fully automatic, rules-driven model.

The previous market for information management software applications was characterized by high cost, complexity, extended and costly roll-outs and an ongoing maintenance and support nightmare together with end-user animosity and resistance. The software has also generally been complex and difficult to use as well as extremely difficult and expensive and time consuming to modify to each organization's specific requirements as well as intrusive and inflexible. Consequently, the much heralded knowledge management revolution never happened; the products and tools were not available to facilitate such a revolution.

But, we have been experiencing a quieter but much more important information management evolution that in the end is much more important because the value of knowledge management depends absolutely upon the quality of information management. Knowledge depends upon information and information depends upon data. Without the ability to completely and consistently convert data to information there can be no question of knowledge management. The human cognitive process necessary to convert information to knowledge can't function because we will not have the necessary information required to produce knowledge. Our decision making processes will be flawed and impaired because we will not have the precise information required at the exact time required to make the correct decision. Without accurate and sufficient information there can be no knowledge generation.

So, What Should You Do About The Knowledge Management Revolution?

That's easy; take a good hard look at your current information management regime because that is the source of all knowledge. Work towards improving the quality of information and improving access to information and then enjoy greater knowledge as a direct consequence of an information management evolution.

In our opinion, (and we have backed this with twenty man years of R&D developing K1), the market is tired of having to buy and integrate multiple products to meet common business objectives. For example, most large corporates and government agencies run an average of 20 to 30 different software applications across the enterprise. The battle to maintain both compatibility and communications (i.e., exchange data) is never ending, difficult and expensive both in direct and indirect costs. The dangers of duplicate data in multiple application tables is an enormous risk, far greater than most corporates and government agencies realize or acknowledge.

The market is tired of the old paradigm and is aggressively looking for a new solution. It tried ERP and that generally failed because of huge costs, huge ongoing modification and maintenance fees and extended rollouts. It wants a new way to solve the exponentially growing information management problem. We believe that the market wants a single software system that handles multiple applications 'out-of-the-box' and one which can also be easily and inexpensively extended by the customer or systems integrator at low cost and in acceptable timeframes. We believe that system should be based on the generic application solution, server centric, thin-client, rules-driven and fully automatic model. That is certainly the system we have developed in K1 and will continue to develop to meet the ever changing needs of the business enterprise.

Frank McKenna, CEO Knowledgeone Corporation
www.knowledgeonecorp.com

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