

# Knowledge management 2002-2003: the end of the beginning

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By Eric Woods

Most people in the IT industry will be glad to say goodbye to 2002, even if they are wary of what lies ahead. Yet, there have been positive elements in the year, and we will eventually view this period as the real proving ground for the ideas and technologies behind knowledge management.

The knowledge management market, in fact, has fared better than many other areas. The KM and business intelligence sector of the enterprise software market is the only one to have shown any growth in 2002. [Ovum](#) estimated that the market as a whole would be worth more than \$16 billion by the end of 2002. It will continue to be the fastest growing segment of the software market over the next five years, totaling more than \$21 billion by 2006.

The reasons for our relative optimism for the market are not hard to see. Organizations continue to see knowledge and information management as key areas for investment. However, there has been some shift in priorities. Web content management has fallen in favor, while document management vendors have been well placed to exploit the focus on enterprise content management requirements.

Business intelligence technologies—data warehousing, OLAP and data mining—are back in fashion as companies look to make the most of their customer data to maintain revenues and margins. Small portal vendors are struggling as that nascent market starts to mature, and we see the big players gaining market dominance. And, of course, vendors whose business strategy was too closely associated with the hype of the dot.com boom are desperately trying to reposition and restructure for survival. But the general demand for the core knowledge management technologies has not lessened, and in the public sector, government in particular, vendors have been able to tap into new sources of funding.

But the most significant trend in 2002 has been the level of acquisition activity. Stronger players have taken advantage of market conditions to add to their offerings or grow their customer base, while weaker ones are looking to merger or acquisition as a way out of a difficult position. While acquisitions reflect the problems that small vendors face in a difficult market, the trend has many positive aspects. It should lead to the integration of innovative knowledge management technologies into broader platform offerings. That should make knowledge management more cost-effective for many organizations, particularly companies that cannot afford best-of-breed approaches.

## Five trends to watch in 2003

While the onus in 2002 may have been on survival, the importance of innovation in the knowledge management market has not changed. Important developments are still taking place that will have a significant impact on the corporate architecture of knowledge-based companies. Further acquisitions and mergers will also characterize the market through 2003. But five other key trends have emerged in 2002 that we see dominating the knowledge management technology agenda in 2003.

## **Toward integrated knowledge management suites**

The acquisition activity of recent months has not just been about buying up weaker players. Many of the acquisitions point toward a shift in the competitive landscape as vendors—particularly of content management solutions—strive to offer a complete product that can address all the requirements for knowledge management in both a business-to-employee and business-to-business setting. In recent months alone, we have seen [Documentum](#) buy [eRoom](#) and [Vignette](#) acquire [Epicentric](#). Both targets were well-respected start-ups within proven products and real customers. Vendors such as Documentum, [Hummingbird](#), [Open Text](#) and [divine](#) are building a portfolio of tools that can address a wide range of information and knowledge management tasks.

In addition, we have seen [IBM](#), [Microsoft](#) and [Oracle](#) fill gaps in their knowledge management offerings in 2002. In 2003 we expect to see them leverage those additions more effectively. With IBM now targeting content management and Oracle attacking the collaboration market, there is plenty of opportunity for a number of titanic clashes in the knowledge management market.

In the future, therefore, users will have an interesting choice between the content management-based approaches of the specialist vendors and the application server-centric strategies favored by the industry giants.

## **Collaboration: the time has come, again**

The collaboration software market is going through a critical phase in its evolution. New business demands and new technologies are combining to transform the market. Over the next two years, we will see collaboration in the enterprise transformed as Internet and wireless technologies change the way we work together. Many of those changes have been underway for some time, but they are now reaching critical mass.

A range of new entrants and innovative solutions has risen to challenge the dominance of [IBM Lotus](#) as the default platform for enterprise collaboration. IBM itself has embarked on a significant organizational and technical transformation of its products to meet the challenges and opportunities offered. And while Microsoft casts a long shadow over the market, it faces some difficult decisions over its strategy for collaboration.

An additional factor in the development of the market will be the increasing need for collaboration capabilities to be embedded in most mainstream business applications. As a result, a wide range of software vendors must be able to offer a collaborative aspect to their product set. They will achieve that through development, acquisition or in many cases, partnering—adding further to the dynamism of this market.

The next two to three years will see a significant transformation of the collaboration software market. We will continue to witness the adoption of innovative point solutions, but there will be a growing need for a more manageable and coherent approach to handling collaboration across the enterprise. Existing platform vendors must adapt their offerings to support more flexible and better integrated collaboration services. Smaller vendors must expand their offerings, typically through acquisition or merger. All players will need to adapt quickly to changes in the overall technical environment and, in particular, the emergence of Web service-based architecture for application integration and the gradual development of the wireless enterprise.

## **Expertise location: a litmus test for KM**

Expertise location could be one of the most important growth areas for the knowledge management market in coming years. If it proves to be attractive, expertise location will not only create a whole new

market opportunity, it will also act as a lever for other intelligent software solutions within the enterprise. However, it also remains one of the most challenging areas of the knowledge management market and so far has been restricted to a few early adopters.

One reason for the slow take has been concern over user privacy, but that worry may be exaggerated. More importantly, the idea of sharing expertise through technology remains alien to most organizations. Expertise is a closely guarded asset and one that is only shared fully in trusted and usually face-to-face environments. It has been difficult, therefore, to build the critical mass of contributed knowledge needed to make most of those products effective.

But there are signs that the expertise management tools may be ready for the big time. For the first time, we are seeing a real user interest in expertise identification as users look to extend the knowledge management infrastructure. And expertise location is no longer the sole preserve of small start-ups, such as [Tacit](#), which have been trying to boot-strap a market that requires considerable customer education. IBM Lotus's entry, with its Knowledge Discovery System, has given the market greater validation, even if it is not yet clear how many customers are serious about implementing that aspect of KDS. 2002 has also seen a further push into this market from the likes of [Verity](#) with its support for social networks and [Autonomy](#) with its recently released collaboration and enterprise networks offering.

We expect to see more portal, collaboration and content management vendors acquiring or licensing expertise location technology for use in their products in 2003. That will lead the way for expertise location to become an extension of existing knowledge management capabilities, rather than an esoteric, stand-alone technology.

### **How real is real time?**

One of the key themes of 2002 has been the need for real-time business information if companies are to respond quickly to turbulent market conditions. We will see this theme developed further and also placed under much more scrutiny in 2003. The need to provide information to decision-makers in real time is already spurring renewed interest in business intelligence tools for the analysis of structured data, particularly advanced analytics and data mining.

In the future, we will see greater integration of disparate technologies into a corporate infrastructure that can close the loop between operational systems and decision support tools. Those developments will enhance the role of the enterprise portal as the default information delivery platform and hasten the integration of the portal with core infrastructure technologies such as application servers and application integration tools. It will also drive information delivery to wireless devices and real-time messaging and collaboration.

A real-time, closed-loop decision support system should be seen as an ambitious goal, not a short-term fix for current information systems. 2003 will see a backlash against some of the overselling of so called real-time solutions, but the basic drive toward more integrated and more intelligent reporting and monitoring of business will not slow down.

### **The rise of the semantic enterprise**

The failure of companies to respond quickly enough to changing conditions is also prompting many of them to take a more holistic view of their information architecture. In the next 12 months, we will see more organizations questioning some of the established limits on information flow in the organization--between front and back office, between operational and reporting and analysis systems, and between structured and unstructured information.

The growing prominence of knowledge management technologies across all organizations is spurring a

need to develop a more holistic view of how information is managed and accessed. We recognize the need to breakdown existing silos of information; in the past, that has been one of the goals of collaboration tools, content management repositories, data warehouses and CRM systems. Those initiatives have attempted to address the problems of information islands, but in the end they have often raised as many problems and barriers as they solved.

The rising interest in taxonomies and information classification suggests that we are becoming more sophisticated in how we view and manage information assets across our organizations. In addition, the emergence of common, and more importantly, workable standards for information exchange and application integration holds out the possibility that we can finally start to overcome recurrent barriers to developing a unified approach to managing information and knowledge across an organization.

Web services standards will provide the technical basis of such integration. And the increasing use of XML as a standard for information description provides the hope of developing semantically rich infrastructures in which new forms of information publishing, information discovery and information sharing will be possible.

### **Communication and connection**

These five trends all evolve from and reinforce some of the key themes of knowledge management over the last five years. The revolution we have seen in business in that time leads to new opportunities for communication, information exchange and collaboration. The Internet, the Web, intranets and wireless technologies have all created a new sense of interconnectedness that spans traditional boundaries of time, geography and organization. We cannot back away from the quest to understand these changes and their impact on our businesses. We have to continue the task of engineering our organizations to be efficient at and open to all forms of communication and collaboration. Only then can we really make use of the human assets we have in our work force and also the relationships we have with partners, suppliers and customers. Rather than simply argue that these innovations are of value in themselves, in 2003 we have the opportunity to show how they can change the way we work and improve our ability to meet the current challenges.

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