Communications of the Association for Information Systems

Volume 12

Article 4

7-17-2003

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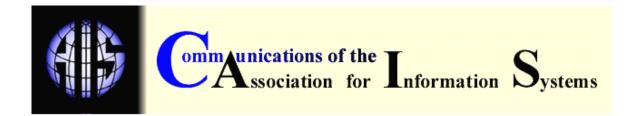
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Recommended Citation

Smith, Heather A. and McKeen, James D. (2003) "Developments in Practice IX:The Evolution of the KM Function," *Communications of the Association for Information Systems*: Vol. 12, Article 4. DOI: 10.17705/1CAIS.01204 Available at: https://aisel.aisnet.org/cais/vol12/iss1/4

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DEVELOPMENTS IN PRACTICE IX: THE EVOLUTION OF THE KM FUNCTION

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ABSTRACT

In 2000, a group of knowledge managers from twenty-five companies met to discuss the current state of knowledge management (KM) in their organizations. KM was then in a very early stage of its existence and took a wide variety of forms. Most KM groups were experiencing difficulties determining an appropriate role and function for themselves. Organizations were undertaking many different activities under the banner of KM. These activities were often fairly wide-ranging in scope with broad, general goals. To better understand how KM had matured and to explore its likely future development, the authors convened a similar focus group of knowledge managers in 2003. We found that KM's objectives are now focused into more achievable goals. Increasingly, the emphasis is on delivering immediate, measurable benefits by leveraging knowledge that is already available in an organization rather than on creating new knowledge. KM also carved out some key responsibilities for itself, such as creating and maintaining both an Internet framework and a portal to internal company information, and content acquisition, synthesis, organization, and management. Overall, the KM function became considerably more practical in focus and much less academic. The biggest challenge facing KM in the future continues to be the need to demonstrate tangible, measurable value to the organization. Disillusionment with KM tools and an inability to find useful content are seen as key threats to KM's survival. Maintaining alignment with business objectives is thus the most important means of ensuring KM's relevance. The next few years will be crucial for KM. If it can make its mark and demonstrate its value, we can expect to see knowledge management grow and prosper. If it cannot, its growth could be stunted for many years to come.

KEYWORDS: Knowledge Management, KM structure, KM governance, KM metrics, KM function

I. INTRODUCTION

In early 2000, a group of knowledge managers from twenty-five companies met to discuss the current state of knowledge management (KM) in their organizations. At the time, KM was in a very early stage of its existence. Just as Darwin found that the evolution of a new species is usually accompanied by a great deal of variation (not all of it successful), this focus group found a wide variety of KM forms from company to company. Most KM groups were experiencing difficulties determining an appropriate role and function for themselves. Because the field was rapidly developing, this study found that practitioners were "having to fly by the seat of their pants in figuring out how much money to spend on KM, where to spend it and how to …encourage KM." It concluded:

"there is as yet no real consensus about where KM belongs in the organization or how it should be organized... KM is just coming of age...Like any other adolescent, it is experiencing growing pains...[and] there is a great deal of experimentation occurring... Over the next few years, we can expect to see KM settling down [and] becoming more manageable." (Smith and McKeen, 2003).

To understand better how KM had matured in organizations since then, the authors convened a similar focus group of knowledge managers in 2003 from a variety of industries. As a starting point for this discussion, we asked them to describe KM's current position in their organizations. Members were given a list of questions and asked to characterize their function's primary attributes across a number of dimensions. Then, to anticipate KM's future trajectory in the near to medium term, they were asked to identify the challenges they face and to predict the likely future development of KM. This paper first discusses how KM activities changed in the intervening three years. It then explores how the KM function itself evolved over time from a number of perspectives and tries to project how it will develop in the future.

II. KM ACTIVITIES IN ORGANIZATIONS

Knowledge management is less than a decade old. Throughout the early 1990s, the importance of the knowledge-based economy and the value of companies' intellectual assets became increasingly apparent (Stewart, 1997). In the mid-1990s, prominent thinkers like Peter Drucker (1995) and Nonaka and Takeuchi (1995) published influential articles about how knowledge would become a significant basis of competition in the future. Leading-edge firms, like IBM, Skandia and Ernst & Young, appointed chief knowledge officers (CKOs) to oversee the knowledge resources of their firms (Davenport and Prusak, 1998). Other companies followed suit. By 2000, KM had gained a toehold in many large firms and was well-established in the major consulting firms (Smith and McKeen, 2003).

One of the major challenges facing these new KM groups was bringing together the bits and pieces of knowledge work that were already being done in the firm into a single coherent function. Most organizations already had libraries, corporate data bases, and training and education programs in their HR and IT departments. Knowledge managers needed to sell senior management on the need for a separate function to develop, integrate and extend knowledge work. Thus, in 2000 we found that, "[KM] is seeking to demonstrate the power of knowledge in all aspects of the organization. The main job of KM is to communicate, educate and promote the use and sharing of knowledge." At the time, how KM was to accomplish these task was uncertain. Companies were taking a wide range of approaches and meeting varying degrees of success.

In 2000, organizations were undertaking seven different types of activities under the KM banner (Table 1). These were often fairly wide-ranging in scope and had broad, general goals. For example, some firms were trying to document all their best practices or integrate all customer touch points into a single data base. Others were trying to facilitate a number of special interest groups so these could become the locus of expertise and knowledge sharing in a particular area. Still others were looking for ways to embed knowledge in their products and services. KM groups were also busy implementing a large number of tools and methods to enable these activities to

take place. And knowledge managers were seeking new measures to demonstrate the value of a firm's knowledge, which they agreed was not adequately captured by existing business metrics.

KM Activities 2000 ¹	KM Activities 2003		
Building customer-centered knowledge (e.g., CRM data base)	Aligning KM projects with business plans		
Improving processes with knowledge (e.g., best practices date base)	Leveraging existing knowledge		
Facilitating collaboration and sharing (e.g., communities of practice, expertise data base)	Developing a KM mindset		
Developing new measures of knowledge value	Demonstrating how knowledge affects business metrics		
Establishing KM processes (e.g., knowledge collection and dissemination)	Building a KM infrastructure; providing KM services		
Implementing new KM tools and methodologies	Leveraging existing KM tools and methodologies		
Embedding knowledge into products and services			
	Providing content and information management services		
	Developing portal management services		

Table 1. Knowledge Management Activities 2000 and 2003

¹Source: Smith and McKeen [2003]

In 2003, while most of these same high level interests remain for knowledge managers, it is clear that they had been refined and focused into more achievable goals for the near and medium terms. Knowledge managers are now biting off more manageable chunks of work that involve more specific business objectives. As one manager put it,

"In the past KM has often been accused of being a solution looking for a problem. Today, we want to make proposals to business based on our awareness of their problems."

Thus, a major focus of KM groups these days is aligning their activities with business plans and looking for ways that knowledge can enhance business value. There is an increasing emphasis too on delivering immediate, measurable benefits by leveraging the knowledge that is already available in an organization. Therefore, today's knowledge managers see providing improved access to existing knowledge as more immediately important than creating new knowledge. Similarly, while developing a general culture of collaboration and sharing is something all knowledge managers want to do, in the near term they are focusing on the more basic goal of ensuring that the organization's mindset recognizes the importance of knowledge and doesn't prevent people from finding and using knowledge effectively.

With the information explosion that accompanied the development of the Internet and company intranets, KM carved out some key responsibilities for itself. Chief among these are the development of core KM services, such as creating and maintaining both an Internet framework and a portal to internal company information, and content acquisition, synthesis, organization and management. While technology underpins much of what KM does, knowledge managers today believe they already own most of the technology they need to do their job. Their current interest is therefore to use the IT they have more effectively and to rationalize and integrate it better so that it will deliver more value.

In short, in three years, the KM function became considerably more practical in focus and much less academic. Its place in organizations is surer and is better-recognized as providing a

necessary service. Most of the knowledge managers in the focus group believe that KM is here to stay, at least in the immediate future. As one manager commented,

"A year or two ago, we might have said that KM will 'morph' into everyone's job and disappear off the organization chart. The reality is that people don't have time to do knowledge management. In today's competitive environment, we need KM to support the business and get the right information to employees and customers in a timely fashion."

Focus group members agreed that the biggest challenge facing KM in the future continues to be the need to demonstrate tangible, measurable value to the organization. Disillusionment with KM tools or an inability to find useful content are seen as key threats to KM's survival. Maintaining alignment with business objectives is thus the most important means of ensuring KM's relevance.

III. THE KM FUNCTION: PAST, PRESENT AND FUTURE

The American Productivity and Quality Center (<u>www.apqc.org/km</u>) identifies five stages of KM development:

- 1. **Getting started** creating a high-level rationale and vision for pursuing KM.
- 2. **Developing strategy** establishing a KM exploratory group and/or steering committee and identifying pilots.
- 3. **Designing and launching KM initiatives** delivering value from knowledge through pilot projects and establishing KM processes.
- 4. **Expanding** marketing KM and expanding it to meet demand.
- Institutionalizing knowledge management KM initiatives are widely deployed in the organization. KM work is directly linked to the business model and support and rewards structures are in place.

Whereas in 2000, many members of the focus group were clearly at Stage 1, by 2003 they were all at Stage 2 or higher. Most were at Stage 3. Knowledge management is now clearly recognized as being important in some way in organizations, although the function itself is still evolving rapidly. While firms are continuing to experiment with almost all dimensions of the KM function, such as structure, governance, mandate, and resources, they are now getting down to doing business with knowledge. Table 2 summarizes the key trends that are observable in the organization of KM past and present and suggests how the function will likely evolve in the future. The remainder of this paper will discuss each of these characteristics in more detail.

	KM in 2000	KM in 2003	KM in the Future
KM Mission	Awareness	Project delivery	Strategy development
KM Function	Broker	Steward	Integrator
KM Structure	Distributed	Federal	Centralized
KM Governance	Informal	Formal	Structured
KM Scope	Vague	Mixed	Enterprise
KM Self-Image	Evangelist	Service provider	Trusted advisor
KM Resources	Limited	Committed	Specialized
KM Culture	Academic	Pragmatic	Institutionalized
KM Metrics	Stories	Short-term return	Long-term value
KM Technology	Piecemeal	Leveraged	Continuous improvement

Table 2. The KM Function is Rapidly Evolving in Organization	Table 2.	The KM	Function	is Rapidly	Evolving in	Organizations
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KM Mission. In 2000, the focus group agreed that KM's primary goal was to promote awareness of the importance of knowledge management. At the time, few executives "got it". It was still very unclear what a separate KM function could do for an organization. Most knowledge managers were therefore looking for ways they could demonstrate the benefits of KM and avoid being considered "overhead". As a function, KM was fighting for existence in all but the most enlightened firms.

By the time of the 2003 focus group, KM's mandate from the organization was much clearer. While awareness is still important, the KM function is now established in most organizations represented and a number of KM projects are underway. Many of these are initiatives to define KM's core services further, e.g., developing a portal strategy or a content management strategy; packaging and delivering knowledge to front-line employees on a just-in-time basis. Thus, their over-riding mission today is project delivery. Unlike earlier, bolder KM initiatives that were largely unsuccessful in realizing massive cultural transformation, these projects have more specific objectives with deliverables and target dates. As one manager stated,

"We are still dealing the baggage from our past failures. We have learned never to commit or promise anything unless we can deliver it."

If KM can successfully build credibility in organizations through the delivery of effective knowledge projects, it will then be much more likely to be given a mandate to participate in business strategy development. While some knowledge managers are trying to do this now, knowledge is still very much an afterthought in most business plans. To get to the point where KM is actually in demand in the organization (Stage 5 and beyond), KM will need to build a track record of success with smaller, more targeted projects.

KM Function. In the first round of KM activities, companies tried to capture important knowledge assets and put them in one place so they could be accessed (Davenport, 1999). Building knowledge repositories was thus one of the main jobs of KM. Whether it was best practices, expertise, customer information, or telephone numbers, KM functioned primarily as a knowledge broker. It captured and disseminated key information across the firm. There were two problems with this approach. First, it took time to update repositories, so frequently it was not done (Davenport and Glaser, 2002). Second, much of the information companies must deal with doesn't fit into a repository (Weinberger, 2001).

More recently therefore, KM organizations are taking a different and more proactive approach to managing the information and knowledge of an enterprise. Firms now recognize that information, like products or systems development, has a lifecycle. The stewardship of knowledge (i.e., not only its collection and creation but also its organization, processing, and maintenance) is thus emerging as a key organizational capability. Information management encompasses a firm's Internet and intranet portals, document and database management functions, and its business intelligence activities.

The focus group saw knowledge stewardship as a stepping stone for knowledge management functions in the future. "You can build off an information management role", explained one manager. Successful stewardship will likely lead to further opportunities for integrating knowledge into everyday work. Some companies are already pre-analyzing and consolidating massive amounts of material available in a particular subject area. The next wave of knowledge management will likely extend these activities in a number of ways.

- 1. Knowledge will be more effectively integrated into work processes (Davenport, 1999).
- 2. Knowledge will be used to improve decision-making at all levels of the organization, not necessarily to make decisions but to ensure that decision-makers are fully-aware of all relevant information (Davenport and Glaser, 2002).
- 3. KM will provide increased support and analysis for turning available information into useful knowledge.
- 4. Efforts will be made to better consolidate and integrate enterprise-wide databases and data sources to improve the consistency and integrity of information.

5. KM will capture knowledge passively (i.e., without extra effort) obtaining knowledge at the same time as work is done.

KM Structure. In 2000, KM was an extremely small function, with the exception of some consulting firms. As we noted at the time, "Most companies have only had a separate KM function for the past one or two years" (Smith and McKeen, 2003). Most of what could be deemed knowledge management was distributed within the lines of business, sometimes influenced by a centralized KM manager. It was active in those parts of the business that saw its value and relatively dormant in those that did not.

By 2003, KM structure had evolved into a more federal model. That is, a central KM organization was in place to deal with enterprise-wide KM functions, such as creating standards, setting policies, and selecting tools and methodologies. KM practitioners also worked within the lines of business to lead or participate in knowledge projects. This structure reflects a key concern of the focus group -- that KM maintain close alignment with business units so that it won't lose focus on solving business problems and delivering tangible value.

However, a challenge KM managers will face increasingly in the future is that as soon as KM activities begin to cross lines of business, it is difficult for business leaders to agree on what to do and to design effective knowledge projects. As KM becomes more and more enterprise-focused, it is therefore likely a strong, centralized KM function will be needed. While some "micro-KM" activities will likely continue in the lines of business, especially in those organizations that are strongly decentralized, obvious cross-functional synergies and the need for KM leadership at the executive level will drive KM into a largely centralized structure over the next few years.

KM Governance. In 2000, we found a great deal of variability in KM governance. "In some organizations, KM is a senior function, reporting directly to the president or a senior vice president; in others it appears to be a more subordinate function... Often KM is designed as a matrix organization with multiple tiers reporting to many different parts of the organization" (Smith and McKeen, 2003). Knowledge managers frequently answered to many different bosses and this informal, ad hoc governance structure made it difficult to accomplish much.

By 2003, knowledge managers had learned to be wary of dotted line reporting structures, although they recognize that some will always be needed. As a result, KM governance became more formal and accountability and responsibilities are clearer. Most members of the focus group now report to a Senior Vice President. Most have Steering Committees to endorse and prioritize their work. Many also use Advisory Committees for particular KM initiatives, e.g., the company's intranet. An effective governance structure is now seen as being crucial to delivering on the promise of KM. Ideally, the focus group agreed, the knowledge manager's boss acts as KM's champion in the organization. In this role, he or she opens doors, provides introductions, shepherds projects, prevents politics from side-tracking the KM agenda, and generally buys time for knowledge management to prove itself. A steering committee's job is to provide "balanced support" for KM. It offers visible and shared commitment for the KM plan, takes an enterprise point of view, contributes strategic insights and sets priorities. While a steering committee does not take accountability for executing the KM plan, it does help to provide resources, assist in setting scope, and commits not to undertake other projects that might undercut or detract from the plan.

The knowledge managers in the focus group expressed a strong desire for even more visible executive support and leadership for KM in the future. Such support will likely lead to more structured KM governance with processes for making difficult cross-functional decisions, establishing priorities, and better integrating KM planning with IT and HR plans. Furthermore, knowledge managers will probably make greater use of advisory committees to help them set policies and standards and assess risks in different areas.

KM Scope. One of the most striking aspects of knowledge management in 2000 was that it was all over the map. While knowledge managers wanted an enterprise vision for KM, the reality was that the scope of KM activities was extremely vague. Only one organization had what would be considered an active, enterprise-wide KM function today. Most managers were looking for any

opportunity to apply KM in their organizations. Sometimes, this was an application within a line of business or a process; sometimes it was developing communities of practice among specialists (e.g., project leaders, engineers). Most KM groups were simply struggling with how they could best begin to approach KM and developing knowledge processes that could be applied wherever they would be accepted.

Today, much more KM is actually happening in organizations. Knowledge managers continue to have an enterprise vision for KM. Many now report to senior vice presidents, which helps give them enterprise-wide credibility. KM processes are being developed with the enterprise in mind. However, with some exceptions, KM applications are still focused more locally, often because it is the lines of business that provide the resources for all but the most core KM activities. Thus, at present, KM has a dual or mixed scope – enterprise for core KM processes and local or line of business for KM applications.

In the future, as more executives recognize the opportunities inherent in enterprise knowledge management, the reality will likely catch up with the vision. Increasingly, KM applications will focus on the enterprise because organizations cannot afford not to do this. Already, with firms implementing enterprise-wide information systems (e.g., ERPs) business leaders are gaining an appreciation for the value and synergies that can be found from cross-functional information. Information management (possibly in conjunction with IT) will likely be the first KM activity that will be truly enterprise-wide, simply because the proliferation and duplication of information across most organizations is now glaringly obvious. While small local or line of business knowledge applications will continue to exist, over the next few years most KM groups will operate either cross-functionally or at a true enterprise level.

KM Self-Image. The 2000 focus group generally agreed that knowledge managers needed to be "knowledge evangelists". That is, their job was to communicate, educate, and promote the use and sharing of knowledge. They took this job seriously and it clearly bore fruit in an increasing acceptance of the importance and value of knowledge at senior management levels.

While promoting KM remains important, today there is a growing recognition that "too much evangelizing can turn people off." As one manager explained, "Now our job is to make KM routine." To this end, today most KM groups are trying to develop useful knowledge services for their organizations. Knowledge practitioners hope to be able to offer solutions that can be leveraged and learnings that can be widely shared with others across their organization. Thus, they want to become service providers addressing practical business problems around content acquisition and synthesis, information management, connecting with others, and the effective utilization of knowledge.

In the future, knowledge managers hope to become trusted advisors to business, providing it with thought-leadership and raising issues before they become problems. As knowledge increasingly becomes both an asset and a competitive advantage for organizations, knowledge managers will be valued more and more for their understanding of the specialized issues surrounding its effective management. Already, one knowledge manager in the focus group is being asked to provide advice on the risks associated with global knowledge work. Privacy, security, and retaining intellectual capital are each key organizational concerns these days. As laws become more stringent regarding privacy, as threats to information security rise, and as the legal environment surrounding intellectual property (e.g., patents) becomes more complex, KM groups will become places where these issues are addressed and problems are resolved.

KM Resources. In 2000, most companies (again with the exception of some consulting firms) assigned few, if any, full-time staff to KM work. Gaining access to people's time and money was a continual struggle. The prevailing wisdom was that knowledge management was really everyone's job and that a separate function was needed only to act as a catalyst or to raise consciousness about its importance. The actual work would be accomplished in the lines of business as part of their ongoing work. Needless to say, these severely limited resources meant that little KM work got done.

Resources are a sign of true organizational commitment, according to the focus group. KM's improving status in the organization is reflected in the growing numbers of staff (both full and parttime) and the budget dollars allocated to it in 2003. In non-consulting firms, KM groups now tend to range between 8 and 30 assigned staff, with budgets ranging from four hundred thousand to three million dollars (U.S.). Consulting firms range between 200 and 400 staff, and budgets in the tens of millions.

Few knowledge managers suggest that KM is going to build an empire. However, the demands on knowledge management are clearly growing and developing. In the future, it is likely that these demands will translate into specialized skills and competencies among KM staff. Already, some KM practitioners are becoming content specialists, knowledge consultants, and subject matter experts. In the future, these trends will continue with specialized expertise developing in the use of KM tools, learning, information management, and taxonomies, and specialist KM staff working on project teams in conjunction with IT, business, and HR personnel.

KM Culture. Knowledge managers were struggling with four cultural challenges in 2000:

- 1. designing technology for people to use,
- 2. building social communities,
- 3. developing a knowledge-friendly managerial environment and
- 4. motivating people to collaborate and share (Smith and McKeen, 2003).

Developing sharing communities was seen as especially important. However, much of what was known about how to do this was purely academic. Managers knew that people should be rewarded for sharing and that sharing could be inhibited by disincentives, but in most organizations little serious work had been done beyond raising awareness about the importance of these behaviors.

Today, knowledge managers still agree that developing a knowledge-friendly culture is important to organizational success and this is being born out by research that links information behaviors and values closely to organizational success (Marchand et. al. 2000). However, they are a little more pragmatic about how these changes will come about. As one manager noted,

"We found that announcing 'I'm from knowledge management and I'm here to change your behavior' led to a great deal of resistance!"

Instead, they are finding that a better way to stimulate behavior change in the short-run is to focus on making it easy for people to use knowledge and to find what they are looking for.

As knowledge works its way into organizational life, companies will increasingly recognize the value of instilling and promoting sharing behaviors and values. It is only when this point is reached that serious efforts will be made to institutionalize a knowledge-positive culture, remove barriers to knowledge-sharing (e.g., HR practices, incentive programs) and replace them with practices that reward and encourage new ways of working. Knowledge use and sharing will also be proactively embedded into business processes so they will not require extra effort to accomplish.

KM Metrics. Being able to measure and value knowledge is the holy grail of knowledge management. In 2000, we noted that although efforts were made to identify new business metrics of knowledge value, almost all companies still used traditional financial measures to monitor their performance (Smith and McKeen, 2003). Knowledge managers were struggling to justify the value of their work to business because it was unclear how knowledge related to conventional metrics. Some focus group members suggested that stories of KM success were almost as effective as traditional measures at demonstrating KM's value and that they could "put a face on the soft benefits of KM." (Smith and McKeen, 2003).

Interestingly, by 2003, knowledge managers had largely abandoned these newer and fuzzier approaches to KM value. Instead, they are now concentrating on demonstrating how knowledge can be directly linked to business models and problems. They believe that designing knowledge

into work and work flows can lead to immediate and tangible benefits, such as worker satisfaction, improved customer service, better decisions, and increased professionalism. To this end, most KM groups adopted a principle of focusing their efforts on those staff and processes that have direct contact with customers. One KM organization even turned itself into a partial profit center by charging for its knowledge consultants on customer-facing projects. Thus, today considerable emphasis is placed on the ability of KM to affect traditional value measures in the short-term.

In the future, it is likely that the longer-term benefits of KM will be recognized, although they may still not be easily quantifiable. The "value-issue" could therefore be a perennial problem for KM, much as it still is for IT. With both IT and KM, it is extremely difficult to separate the contribution of these functions from that of the rest of the business. Many organizations no longer even try to do this for IT, simply developing business strategy and assessing its total cost and benefits. If KM can carve out a key role for itself in the organization that makes it indispensable to achieving business success in both the short and longer-terms, much as IT did, then it will be unlikely that serious efforts will have to be made to isolate measures of KM's contribution to business value.

KM Technology. Technology is both a blessing and a curse on KM. While much KM work is highly dependent on technology, knowledge managers are adamant that IT is just a tool and not an end in itself. Nevertheless, many KM groups find they must continually fight against a strong bias in their organizations towards using technology to accomplish KM goals over more humanistic approaches. As a result, most organizations do not lack for KM technology. The challenge for knowledge managers is how to use it effectively.

In 2000, organizations already used most of the technologies available today. Data bases, the Internet, email, and collaboration software all existed and were used for knowledge management wherever they were needed. Unfortunately, this piecemeal approach resulted in a proliferation of data bases and knowledge "items", duplications of information and technology that didn't work well together.

Today, knowledge managers are trying hard to make their organizations realize that technology is not a "silver bullet" for effective KM. In fact, no one in the focus group expressed a desire for more technology. Instead, they now want to leverage their current technology more effectively. Therefore, they are working on ways to reduce the number of data bases, eliminate duplicate information, improve searching and navigation, and integrate their various technology pieces more effectively.

Once this consolidation is accomplished, knowledge managers hope to be able to use technology without it dominating their work. New technologies will be continually introduced and KM will be able to benefit from many of these. However, knowledge managers would like to see technology as part of a continuous improvement effort within KM as a whole, rather than as the solution to the "KM problem" once and for all.

IV. CONCLUSION

Knowledge management is in a time of transition, from an intellectual concept to a fundamental part of organizational life in the twenty-first century. This article documents the birth and early years of this new function and looks ahead to how we can expect it to evolve in the near future. In almost every aspect of its development, between 2000 and 2003 KM made progress in becoming an effective part of the organization. However, while KM is considerably more attuned to the needs and interests of organizations today than it was in 2000, knowledge practitioners are still moving into unknown territory and need to learn as they go. As a result, not all of their efforts will bear fruit. Like any child, KM will need to be allowed to experiment and make mistakes. It will need to be nurtured and protected while it carves out its place in the organization. The next few years will be crucial for KM. If it can make its mark and demonstrate its value, we can expect to see knowledge management grow and prosper. If it cannot, its growth could be stunted for many years to come.

ACKNOWLEDGEMENT

We are indebted to the Queen's Centre for Knowledge-Based Enterprises (<u>http://business.queensu.ca/kbe</u>) for its generous support of this project.

Editor's Note: This article was received on June 18, 2003 and was published on July17, 2003.

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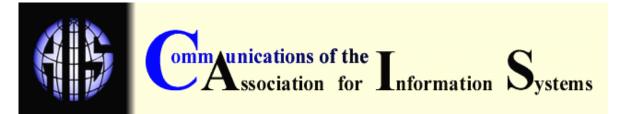
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ISSN: 1529-3181

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