7-27-2006

Developments in Practice XXII: Expertise Location and Management: Hope or Hype?

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ABSTRACT

The idea that KM can help people in large, often widely geographically dispersed organizations find out who has subject matter expertise or who knows how and where to get at important know-how is intrinsically appealing to knowledge managers. After all, helping people access the knowledge they need is fundamentally what KM is all about. Early approaches to expertise location and management (ELM) typically built skills repositories, but these have not been successful in accomplishing these objectives. As a result, expertise location and management is now on the steep downward slope of the KM "hype cycle" in most organizations.

This paper explores the question of whether ELM is an idea that is evolving and maturing and which will ultimately deliver on its promised value, or whether organizations should simply give up on the idea as being not worth the effort. To explore this issue in more detail and to better understand how organizations are conceptualizing and implementing this specific KM initiative, the authors convened a focus group of practicing KM managers from a variety of organizations.

This paper first situates the topic of expertise location -- where it fits in with other KM issues and also how our understanding of this topic has evolved over time. It next describes some of the benefits and challenges of ELM. Following this, it explores several different approaches to these types of initiatives. From these, we derive a number of principles for effective ELM implementations. Finally, we present some practical advice for managers who are considering using ELM in their organizations. The paper concludes that ELM has the potential to be a "killer app" for KM, but only if it can be focused and designed effectively to appropriately integrate technology with human facilitation.

Keywords: expertise location, expertise identification, expertise selection, social network analysis, knowledge mapping, knowledge management

I. INTRODUCTION

One of the first applications of knowledge management (KM) in organizations was a corporate "yellow pages" to enable staff seeking a particular type of knowledge to connect with an expert in that field [Davenport and Prusak, 1998]. The idea that KM can help people in large, often widely geographically dispersed organizations, find out who has subject matter expertise or who knows how and where to get at important know-how, is intrinsically appealing to knowledge managers. After all, helping people access the knowledge they need is fundamentally what KM is all about.

Early approaches to expertise location and management (ELM) typically built skills repositories. Knowledge managers expected these would be rapidly populated by staff members eager to share their qualifications, expertise and contacts. Oddly enough, staff response in most cases was usually underwhelming. Most people had neither the motivation nor the interest in self-identifying as subject matter experts. They did not *want* to be contacted by people they didn't know in the organization and asked to spend time sharing their valuable knowledge. They had their own work to do. Furthermore, no one wanted to put their contacts into a database for every Tom, Dick and Sally to access. Their knowledge was hard-earned and most didn't want to see it become the property of their firms.

As a result, expertise location and management is now on the steep downward slope of the KM "hype cycle" in most organizations [Fenn and Linden, 2005]. The question knowledge managers must now consider is whether expertise location is an idea that is evolving and maturing and which will ultimately deliver on its promised value, or whether organizations should simply give up on this idea as being not worth the effort. To explore this issue in more detail and to better understand how organizations are conceptualizing and implementing this specific KM initiative, the authors convened a focus group of practicing KM managers from a variety of organizations.

To help them prepare for this session, they were asked to consider a number of questions about how ELM is currently being used in their organizations and KM's role in developing, implementing, and maintaining this information. In particular, they were asked whether knowledge sharing is a challenge in ELM for their organizations and how ELM could be improved. We also solicited their advice and best practices in this area.

This paper reflects the results of this session. It has been supplemented by additional research into this topic from business and academic publications. The first section situates the topic of expertise location – where it fits in with other KM issues and also how our understanding of this topic has evolved over time. The next section describes some of the benefits and challenges of ELM. Following this, we explore several different approaches to these types of initiatives. From these, we derive a number of principles for effective ELM implementations. Finally, we present some practical advice for managers who are considering using ELM in their organizations.

II. UNDERSTANDING ELM

ELM is an attempt to solve a problem that largely didn't exist in organizations a few decades ago when the key members of a firm were located in a single building. Then, they had ample opportunity to connect serendipitously with each other in the hallways and at the water cooler and learn who knew about what. Unfortunately, as organizations have become more virtual and global, the social networks which drove the innovative ideas of the past, are largely disintegrating, and companies now need ways to "reinvent the water cooler" [Caldwell, 2004]. This problem is serious business for organizations. Most of today's new discoveries and advances are being made outside of traditional business silos and the individual specializations of the last century. Now, they are happening at their intersections, making access to a much more diverse group of experts essential to innovation and problem solving [Dagostino, 2004]. Similarly, important knowledge of clients, products or processes could be located anywhere in the world. "We consider connecting people to be strategic," said one focus group manager from a consulting firm. "At least 50% of our connections are between people at different sites," stated another in pharmaceuticals. "Our ELM system speeds up R&D and encourages reuse of knowledge."

As is often the case with different issues in KM, the concept of expertise location and management is confusing and fuzzy and tends to overlap with other KM initiatives. At the most fundamental level ELM is "a method for identifying experts and their expertise and making these people and their knowledge more easily and broadly accessible" [Anecdote, 2004]. Most recently, it has become associated with a class of technologies that claim to make it "simple and easy" to do this in an organization. Yet, as the focus group found out, and as with so much else in KM, in reality ELM is neither simple nor easy. In this paper, we take the position that ELM is an

application of KM principles, **not** a specific technology or system, and therefore refers to *any* corporate initiative designed to connect experts with those who need their expertise. Thus, while ELM includes technologies designed to enable expertise location, it also includes the people and processes needed to make it a success.

ELM has two major components [McDonald and Ackerman, 1998]:

- *Expertise identification,* i.e., knowing what information or special skills others have.

- *Expertise selection*, i.e., appropriately choosing among people with the required expertise.

Whereas earlier ELM initiatives merely pointed to expertise, today's more sophisticated approaches to ELM now take both of these components into consideration.

The first component, expertise identification, is actually one form of knowledge mapping. This is a method for identifying and cataloging an organization's knowledge assets, especially the intangible ones [Helstrom and Husted, 2004]. It uses a taxonomy (i.e., a framework) to structure or map expertise, enabling individuals to identify the location of the knowledge that they need. In short, a good knowledge map should answer the question of who has what knowledge and where is it [Helstrom and Husted, 2004]. The most basic implementation of this form of knowledge mapping is the "expertise yellow pages," which are simply a directory of experts in an organization, by specialty. More advanced implementations scan individuals' personal documents to create expertise profiles that can be stored and accessed online. This is often what software vendors call ELM.

However, the second component, expertise selection, is also critical to ensuring a successful utilization of expertise. It has its roots in social network analysis [Lamont, 2003; Ackerman et al., 2003]. Expertise networks can be seen as subsets of social networks, and like social networks there are many social factors that influence how and why an interpersonal connection is made. While yellow pages or databases merely provide a list of experts, studies of collaborative problem solving show that people differentiate *who* they ask for expertise with "great nuance" [McDonald and Ackerman, 1998]. The complexities of our social world greatly influence who people will approach to help them and why. For example, the context of the problem, the nature of the expertise needed, the location of the expert (i.e., the business division), how well individual experts share, and perceptions of an expert's workload all factor in to who is approached [McDonald and Ackerman, 1998].

Altogether, like so much else in KM, ELM is not as straightforward as it first appears. While technology may assist and support this work, the intangible and complex nature of expertise, combined with the wide variety of social issues implicit in expertise selection, mean that a great deal of thought must be given to how and where it is used. In short, ELM must be proactively designed by a knowledge manager to ensure it will achieve the desired benefits and overcome the many challenges involved.

III. THE BENEFITS AND CHALLENGES OF ELM

ELM has many *theoretical* benefits for an organization. Some of these include:

- Reducing the time spent locating people with specific skills, thereby reducing the time spent solving problems, making decisions or moving projects forward [Orlov, 2004].

- Helping companies uncover their own hidden expertise so it can be better utilized and managed (Anecdote, 2005).

- Supporting collaboration, advanced customer care, HR, training and professional development [Agretsi, 2003; XpertShare, 2005].

- Assisting with a wide variety of company initiatives, including mergers and acquisitions, research, and product development [Tsui, 2003].

It is interesting to note however, there are few actual cases where such benefits have been achieved. While several members of the focus group believe that they are getting value from the connections made in their ELM initiatives, none could quantify it. In fact, the "hardest" benefit achieved by a focus group member came in a highly unusual way. This company used expertise knowledge mapping to identify "single points of knowledge" (SPOKs), where considerable expertise resides in only one person in the organization. It is now implementing programs to ensure that additional expertise is developed in these areas, thus reducing the risk SPOKs represent to the organization.

Two case studies have documented significant benefits from ELM:

- **British Petroleum** has used it to generate "breakthrough thinking" in its oil and gas exploration division thus saving large amounts of money. CEO John Browne stated, "We have had great success in fostering the personal interactions you need to mine knowledge" [Prokesch, 1997].

- **LendLease.** A more recent example of the benefits of ELM comes from Australia. While the manager in charge notes that it is extremely hard to quantify the precise value of ELM "because in a service based business there are too many inputs that go into creating an output," he also states there is no doubt in management's mind that this initiative is adding value because it keeps receiving budget increases. The manager also cites several stories where ELM has been a differentiating factor in making a sale because it enables connections with LendLease's global group of experts and thereby speeds up problem solving [Cullen and Rumizen, 2005].

The fact remains that companies are not rushing to adopt ELM systems, and many believe that ELM is, in fact, a fad that will soon pass [Dagostino, 2004]. There are a significant number of challenges facing ELM initiatives. Many of these are common to other KM projects, although some are unique. It is crucial that a knowledge manager understand and address these challenges as part of an ELM project, or it will likely end up a failure.

- **Mapping Expertise.** The lack of a standard taxonomy for classifying expertise/skills is a major limitation for ELM and means that organizations typically have to invent their own categorizations. This effort is further complicated by the fact that information about expertise is highly unstructured and dispersed in most organizations. This adds both complexity and integration issues to this already significant challenge [Tsui, 2003].

- **Knowledge Framework Limitations.** Much ELM software has a naïve view of expertise, often assuming a single level of expertise and only using structured information (e.g., documents, email) to identify experts [McDonald and Ackerman, 1998; Cullen and Rumizen, 2005]. Categorizations of experts that are too narrow can limit the set of experts that might be helpful in solving a problem. Those that are too broad can create a set of resources that is too large and that could include persons without the proper expertise [McDonald and Ackerman, 1998]. Furthermore, existing knowledge frameworks can inhibit the innovative thinking needed to solve new classes of problem [Hellstrom and Husted, 2004]. Unfortunately, there are still "few very good methods for helping organizations decide what are good maps for guiding them into the future" [Hellstrom and Husted, 2004].

- **Lack of Usage.** Most focus group members found that their ELM systems were poorly used to document expertise. Few people take the time to self-identify as experts or to manage their computer-generated profiles. Often, for privacy purposes, ELM software enables people to opt out of having their expertise in certain areas made available to others in the organization. In one company, only 30% of people had signed up as

experts. One member noted, "Our system can find people world wide but we don't have too much information about them because of privacy concerns." Limited information about experts and their skills then leads to limited value for a knowledge seeker. "If the ELM process doesn't deliver, people will revert to their own networks," explained a focus group member.

- **Maintaining Expertise Information.** A related challenge involves maintaining expert information once it has been collected. Expertise is highly dynamic and often varies according to the context of the problem to be solved [Dagostino, 2004]. Keeping expertise information current is a major challenge for most organizations and typically requires feedback from a knowledge seeker, as well as updating expertise profiles as skills change. At BP, the company has found that "keeping a record of the people who have the know-how to solve a problem" is a major challenge. "The problem is [that it is] boring." [Prokesch, 1997].

- **Lack of Social Context.** As has been noted above, the social nuances of who people approach for their expertise are colored by many different social factors. For example, people naturally want to approach someone who understands the contextual aspects of their problem, and some experts are better than others at sharing their knowledge [McDonald and Ackerman, 1998]. A focus group manager complained that organizational politics often gets involved, too. "Once organizational boundaries are crossed, our managers want to control the interactions. Management approvals are needed to even contact 'their' experts."

These challenges are significant barriers to overcome before benefits can be achieved. As with other KM initiatives, success will come from resisting the temptation to throw technology at the problem. ELM programs must be carefully designed to integrate specific company needs with a clear understanding of the social and cognitive factors involved. Only *then* can these be combined with appropriate tools.

IV. THREE APPROACHES TO ELM

While these challenges should alert KM mangers that ELM is not as straightforward as software vendors would like to have them believe, when the challenges are taken into consideration in the design of an ELM initiative, companies can achieve the desired value. Three approaches to ELM appear to be meeting some success in organizations. While all use technology to some degree or another, *how* that technology is implemented and how social and contextual concerns are addressed in the solution are key differentiators of each approach.

Community of Practice-Oriented. Probably the simplest approach to ELM is to create communities of practice (COPs) or communities of experts (COEs) who can be contacted when a problem needs to be solved. These communities can then route a seeker to an expert with the appropriate skills to address the need. COPs/COEs address three important ELM needs for an organization. First, they nurture a skills base and make critical skills visible so that they will not disappear [Agretsi, 2003]. Second, they create an important fabric of social relationships among experts. Through this, COP/COE members can use a variety of tacit approaches to categorizing skills and capabilities within the broader group of experts [Agretsi, 2003]. Third, it is much easier to maintain and update new types of expertise either within a community or by creating new communities [Ackerman et al., 2005].

Taking a COP approach is probably a good first step for any organization with an interest in ELM. It is helpful to identify the expertise an organization really needs and cares about. COPs/COEs are useful because they can do this at a more general level, leaving the experts themselves to sort out the nuances of particular aspects of their expertise. By mapping and grouping expertise in such a way, knowledge managers can begin to put a knowledge strategy in place [Smith and McKeen, 2005] as well as learning where knowledge resides. Several focus group organizations are using a COP approach successfully, although with different emphases.

One focus group member stated, "We use COPs for our ELM. We believe they are the subject matter experts and that expertise should reside in a community." Another organization has found that its ELM strategy has evolved. "We started out using ELM to support our COPs but we now have found that ELM is really about connecting people who don't know each other. Therefore, our approach has changed." A third noted that one central ELM initiative didn't make sense in his organization because its different divisions need very different types of expertise. This company has therefore mapped expertise by division and then by community. Its primary goal in identifying communities has been to tap their expertise and embed as much as possible into each division's processes and systems.

Technology-centric.   In this approach to ELM, an organization purchases and implements packaged software to help create a database of experts who can then be contacted by a seeker when a problem arises. It is unfortunate, but true, that many of these implementations have been failures or yielded poor results [Cullen and Rumizen, 2005]. While there are many reasons for this, they can be summed up by saying such software is typically too generic in nature and doesn't meet the particular needs of the people or the organization [Cullen and Rumizen, 2005]. This assessment was supported by many members of the focus group who have found that utilization of these systems in their organizations is poor. It is also supported by the slow growth in sales of these systems [Anecdote, 2004]. In fact, a recent study found that most successful technical implementations of ELM are custom-built prototypes because they address the specific requirements of an organization [Tsui, 2003].

Nevertheless, some focus group organizations are using technology-centric approaches to ELM with varying degrees of success. Software "mines" the contents of people's email, contact lists, and documents to create a profile of each person's expertise. Individuals are then given the opportunity to edit this profile, either by adding new skills or by opting out of declaring their expertise in a particular area. This approach to ELM appears to work best in organizations where the culture supports it. "We are a consulting firm," explained one focus group member. "Asking questions and seeking help from others is very normal in our organization. ELM is a natural extension of this culture." While technology is a clear focus of this firm's ELM implementation, a group of KM managers and specialists is used to filter the system's selected "experts" and to identify appropriate people to consult for pre-defined business issues, solutions, and services. "We find the system's content is crucial. We do not want or expect self-population," said the manager. "While we pull as much as we can from repositories, we need people to maintain the accuracy of the content."

Another focus group company also uses human mediation to supplement technology in its ELM initiative. "We started out with a broad, general implementation of some well-known ELM software, but it wasn't a success," said the manager involved. In this organization, ELM was initially used not to contact an expert but to post a question to which a seeker needed an answer. A coordinator then routed the questions to an expert who would be assigned the job of answering it. This approach was a failure because the questions asked were too broad and lacked context. Recently, the company narrowed its approach to ELM using it only with its salespeople, and this has been a success. By focusing on issue resolution in this one area, it has been easier to ask better questions and pull together an appropriate group of experts.

Facilitated. Clearly technology-centric approaches are having only limited success in organizations. One company therefore looked for an alternative and came up with a different, but very practical, approach to ELM. LendLease believed that what it needed was not a database of expertise, but a *service* that facilitates connections between a seeker and an expert [Cullen and Rumizen, 2005]. Its implementation, developed through experimentation, uses a group of facilitators as expertise "matchmakers." The process starts with a question to the facilitator, who then works with the seeker to refine and better understand what expertise is really needed, thereby avoiding the problem identified above of questions being too broad. This approach encourages one-to-one communication with the facilitator from the start. LendLease has found that often the actual question that needs to be asked is very different from the one first asked.

Once the context is better understood, the question can nearly always be made broader or narrower to meet the seeker's real needs.

With the question properly defined, the facilitator's job is then to find the right sharer. Facilitators use both their personal knowledge as well as standard repositories (e.g., phone lists, organization charts, and databases) to guide their search. They make the "cold calls" to the experts, beginning locally and then branching out globally if needed. If an appropriate expert is identified, facilitators speak with him/her first to validate that he/she does indeed have the experience and knowledge needed to solve the problem. Finally, the facilitator arranges the connection after first passing on any insights about the seeker and the sharer. The seeker can then make an informed call which will be received by an expectant and informed expert. The maximum time between question and connection is seven days.

To complete each interaction, the facilitator then gathers insights on the connection and its resolution. If the case is a good story, he/she publishes it on the company intranet for others to learn from it. In addition, if it is difficult to identify expertise on a subject, the facilitator can send out a "Request for Knowledge" to all company employees. If no expertise is available within the company, external consulting is recommended.

This approach has been hugely successful [Cullen and Rumizen, 2005]. To date, the service has successfully answered 12,000 questions. All questions and answers are logged by facilitators so that service can be improved in the future. Finally, data is collected on usage and satisfaction. As people learn about the service, utilization has increased, and as facilitators become more skilled, satisfaction has increased as well. The service is now at a point where it is being included in sales presentations to clients as one way the company can provide value-added customer support.

This low-tech facilitated approach appears to address both expert identification and expert selection more effectively than other approaches. Furthermore, it also appears to overcome the privacy concerns and many of the maintenance issues that plague database approaches. By using facilitators to capture problem resolutions, it also addresses the need of organizations to turn tacit expert knowledge into explicit knowledge so that it can be reused. Finally, by taking different approaches to identifying the expertise needed, it enables different forms of problem-solving – structured, where possible, and innovative, where needed – without overly taxing the company's valuable base of expertise.

V. PRINCIPLES OF EFFECTIVE ELM

While focus group members, other practitioners, and academic researchers approach ELM in a wide variety of ways, there are some fundamental principles on which there appear to be general agreement:

1. **ELM should have a defined purpose.** All focus group members noted that it is simply not effective to implement a generic ELM initiative without thinking through what it would be used for, which in turn would direct how it might be designed. "It is critically important to figure out what problem you're trying to solve," stated one. Another commented, "You have to understand what knowledge you will need and have a strategy for trying to get it."
2. **ELM begins with a question or a problem.** As many practitioners have discovered, the question or problem may not be framed well or even be the real issue that must be addressed. Nevertheless, a key principle of ELM is that a seeker should have a question/problem which he/she needs to have solved [Wexler, 2001; Cullen and Rumizen, 2005]. While this seems obvious, most software approaches ELM by first identifying generic expertise and then trying to match issues to it. This leads directly to the problem of poorly matched seekers and experts and frustration with inadequate results. As LendLease and others have found, clarity about a problem leads to a much greater likelihood of successful problem resolution [Cullen and Rumizen, 2005; Prokesch, 1997]. Support in problem clarification should therefore be a key capability of any ELM initiative.

3.   **Both situated and generalized inquiries should be supported.** Once a question or problem has been clarified, it could require one of two approaches. If it is a generic problem, then database style expertise should be made available to the seeker. This is an area where structured expert knowledge can be extremely useful. Ideally an ELM process should "learn" as more questions are asked of it. This is a good point at which to capture tacit knowledge and make it available to others. Clearly, this is also an area where technology can play a significant role. However, when a question is "situated" in context, more targeted expertise will be needed. This is where expertise selection is extremely important. Some way of screening expertise is needed, according to the focus group. While most current software enables self-screening, it appears that the truly useful ELM implementations use other mechanisms to narrow down the field of experts to the best one(s) for a specific context.

4.   **Human facilitation is essential.** Identifying and selecting appropriate expertise is an inexact science. None of the focus group initiatives were implemented successfully without some form of human facilitation. Sometimes it was a coordinator who clarified questions; sometimes it was a group who determined who the experts were; sometimes it was a facilitator who acted as matchmaker. How and where humans should be involved in ELM will greatly depend on how an organization designs its initiative to address the first three principles. Nevertheless, even if a technology-centric approach is selected, an organization should expect to incorporate people at some point in the ELM process.

5.   **Both the expertise selection and identification processes should be explicitly designed.** As noted above, expertise selection and identification are two distinct processes that may be separated in time. Each of these processes must be separately designed to meet the needs of the organization and to incorporate human and technical facilitation appropriately. For example, technology could help *narrow* expertise selection, and a facilitator could make the final selection. Or, the process of clarifying what expertise is needed could be facilitated, while technology could then be used to identify the particular expertise needed. Processes for finding "everyday" expertise could be different from finding more unique information. Research shows that it is unlikely that all forms of expertise selection can be automated. There are too many important social cues about who would be best to ask (e.g., workload) that are missing from these systems [McDonald and Ackerman, 1998]. Once these processes have been designed, they also need to be tested. Small scale, experimental implementations will help designers modify processes in order to optimize them for their purposes.

VI. ADVICE FOR MANAGERS

It is clear that ELM is an application of knowledge management that requires a sophisticated combination of technology *plus* human expertise. As such, it is in many ways an ideal initiative for KM, in that if done well, it should be clear how and where KM is adding value. KM managers in the focus group had some advice for others undertaking new ELM projects about how to make them successful:

- **Allow the initiative to mature.** No ELM system will be fully utilized at first. One focus group manager said, "Changes in behavior won't occur initially. You need time to reach a critical mass of use." LendLease's approach of doing an experimental pilot to work out problems with their approach is ideal [Cullen and Rumizen, 2005]. Others recommend incorporating self-correcting action and learning over time [Wexler, 2001]. Tools for feedback and modification in both the short-term and long-term should also be incorporated into ELM [McDonald and Ackerman, 1998].

- **Recognize that others may believe their personal networks to be adequate.** "It's a fallacy that you know what everyone else knows," said one focus group manager. One of the toughest nuts to crack with ELM is the fact that many people in an organization believe that they have the contacts needed to solve a problem. Overcoming this is a much bigger challenge than may be apparent at first. At BP, there was initially considerable reluctance to use ELM to reach out to strangers. "You have to recognize that others may actually know more than you do about something and that you can learn from them," said CEO John Browne [Prokesch, 1997]. Senior employees and managers

often don't realize that there are significant differences between their networks and those of junior or non-management staff. Junior people usually don't have the same implicit understanding of who knows what [McDonald and Ackerman, 1998]. As a result, it is important for knowledge managers to recognize and manage these perceptions appropriately. For example, LendLease uses a training exercise for all new staff to help people understand the limitations of their own networks. The exercise compares their personal networks with those that are possible with their Ikonnect service to highlight gaps [Cullen and Rumizen, 2005].

- **Keep ELM simple and easy to use.** All the focus group managers found that complexity was the kiss of death for ELM. "If it's easy for people to connect and share knowledge, they will do it. If it isn't, they won't," said one. Another noted, "If the people you need to help maintain the content, aren't happy, then the project won't work." Interestingly, with properly designed ELM processes, organizations have found that experts are extremely willing to share their knowledge and to help. What doesn't work well is asking people to update their own expertise profiles or document their problems and/or expertise. BP found that its challenge was "getting people to systematically capture the information the company needs in order to be able to use … knowledge repeatedly…. [and] figuring out how to make [this] exciting and enjoyable " [Prokesch, 1997]. This is why the facilitated approach to ELM appears to be so effective. By making all elements of expertise documentation someone's job, and combining them with the more interesting and challenging components of problem clarification, expertise identification, and expertise selection, LendLease has succeeded in developing an ELM process where unstructured expertise can be captured in a structured form and where there is value to the employee (i.e., the facilitator) in doing so. In addition, this approach takes considerable effort and complexity off the shoulders of both the seeker and the expert [Cullen and Rumizen, 2005].

- **Expect evaluation to be a challenge.** All members of the focus group found it difficult to quantify the value of their ELM systems. "We have lost support for our ELM because there is no demonstrable ROI," said one. Understanding how to measure expertise initiatives is a critical bottleneck to their adoption [Ackerman et al., 2005] and is a major reason for their low adoption rate in organizations [Anecdote, 2004]. Because of this, two member firms had refocused their ELM initiatives more narrowly to enable a better understanding of their business impact. Most organizations track utilization or participation trends for ELM projects. Demand for the service is thus a key metric to collect. LendLease also undertakes surveys and collects and publishes success stories [Cullen and Rumizen, 2005]. BP used no formal metrics at all [Prokesch, 1997]. The most important means of evaluating ELM initiatives at present appears to be perceptions. In all the cases where an ELM project has prospered, there is a strong belief that it adds value. In others, management has not seen value and has limited or eliminated it. It is therefore strongly recommended that any ELM initiative include actions to proactively manage perceptions, especially at senior levels.

VII. CONCLUSION

The jury is still out as to whether or not ELM has staying power in organizations. On one hand, there are some very powerful *theoretical* benefits that can be achieved by formalizing the process whereby experts are identified and selected. Innovation, cost savings, and customer satisfaction are just a few of these benefits. On the other hand, ELM is a complex process requiring large doses of human facilitation to be effective. Many organizations are not convinced that the costs involved will outweigh the benefits. Recent advances in technology are enabling organizations to better understand their distribution of expertise and how their social networks operate. However, *all* experience to date shows that technology should not be used as a replacement for many aspects of the ELM process. While it can be a useful *support* for traditional ways of approaching problem solving, technology is not sophisticated enough in its understanding of expertise to be

used exclusive of human facilitation. ELM has the *potential* to be a "killer app" for KM. If it can be focused appropriately and designed effectively, ELM can clearly show how KM can add value at the intersection of technology and human knowledge. It will be up to KM managers to ensure that these provisos are addressed successfully. Otherwise, ELM will end up rapidly disappearing from corporate radar screens.

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