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**STIMULATING KNOWLEDGE SHARING AND INFORMAL  
LEARNING : THE INFLUENCE OF SOCIAL NETWORKING TOOLS  
AND TECHNIQUES**

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**ABSTRACT**

*In today's high-velocity environment, organizations have to continually redefine their product offerings if they want to stay ahead in the competitive race. Lean budgets force organizations in particular the libraries who are cost-centres, to devise strategies that can manage change, leverage on knowledge and make the very most of the resources that are available. As globalisation facilitates collaboration, the techniques and tools of knowledge management (KM) contribute to information and knowledge sharing and delivery throughout the world. One way to do this was through cultivating communities of practice (CoPs), which are groups of people who share information, insight, experience, and tools about an area of common interest. Fostering these communities comprising of various strengths, skills and expertise to adapt the concepts of KM, knowledge workers were able to share their experiences, acquire new knowledge and know-how in enhancing operational efficacy and efficiency in delivering their library services. The paper seeks to explore the value created from implementing Kmaya ([www.kmaya.com.my](http://www.kmaya.com.my)) an online community of practice that was designed to provide an informal learning platform for knowledge-seeking professionals in the library community in Malaysia.*

**Keywords:** Communities of practice; Knowledge sharing; Collaborative relationships; Knowledge-based community; KMaya

**ABSTRAK**

*Dalam era globalisasi, organisasi perlu senantiasa mentakrif semula penawaran produk jika mereka ingin terus berada di hadapan pesaing. Belanjawan kejut memaksa organisasi terutamanya perpustakaan yang memerlukan kos untuk merangka strategi baru bagi membolehkan mereka untuk mengurus perubahan, memanfaatkan pengetahuan serta menggunakan sumber yang ada secara bijak. Globalisasi telah membolehkan kolaborasi, teknik dan alatan pengurusan*

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*pengetahuan (KM) menyumbang kepada perkongsian dan penyebaran pengetahuan ke seluruh pelusuk dunia. Salah satu cara untuk melakukan ini ialah melalui pelaksanaan komuniti amalan (CoPs), yang merujuk kepada sekumpulan individu yang berkongsi maklumat, pandangan, pengalaman, dan instrumen berkaitan minat yang sama dapat membantu dalam perkongsian pengetahuan. Dalam usaha untuk memupuk komuniti ini, adaptasi proses KM yang meliputi pelbagai kekuatan, kemahiran dan kepakaran membolehkan pekerja berpengetahuan untuk saling berkongsi pengalaman, memperoleh pengetahuan baru dan kemahiran bagi meningkatkan keberkesanan dan kecekapan operasi dalam menyediakan perkhidmatan perpustakaan kepada pengguna. Kertas kerja ini bertujuan untuk mengkaji nilai daripada pelaksanaan KMaya ([www.kmaya.com.my](http://www.kmaya.com.my)) iaitu sebuah komuniti amalan dalam talian yang direka untuk menyediakan platform pembelajaran tidak formal kepada penimba pengetahuan profesional dalam komuniti perpustakaan di Malaysia.*

**Kata kunci:** Komuniti amalan; Perkongsian pengetahuan; Perhubungan kolaboratif; , Komuniti berasaskan pengetahuan; KMaya

## **INTRODUCTION**

As globalisation facilitates collaboration, the techniques and social networking tools of knowledge management contribute to knowledge sharing and dissemination throughout the world. Having discovered that the real value in managing this knowledge is in sharing ideas and insights that are not documented and hard to articulate, which is referred to as tacit knowledge, the challenge is managing these assets: filtering and ‘codifying’ them in a usable way and making it immediately accessible to the community.

Communities of practice (CoPs) have emerged over time as a tractable strategic management tool to cultivate such assets (Duguid, 2008). Indeed, Wenger (1998), and others, have advocated the strategic adoption of CoPs in order to harness the power of workplace innovation. CoPs are proposed as a solution to all manner of organizational problems, and the term has come to signify a strategy for knowledge management and human resource development (HRD) (Hughes et al., 2007).

Assisted by the widespread growth of the internet in the late 1990, considerable interest in combining online tools with the communities of practice theory, had led to ‘virtual communities of practice’ being created. The main driver for these virtual or online communities of practice has been to connect people not located in the same place at the same time, thereby creating networks of people with common interests who are geographically dispersed. Kmaya, a virtual CoP, was

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designed to provide a learning platform for knowledge-seeking professionals in the library community in Malaysia.

Adjusting to the library's context and functions, the members of KMaya viewed themselves as a knowledge-based community, benefiting from the experiences shared and the opportunity to enhance their expertise in library practices (Yon & Albert, 2013). For librarians facing an array of problems, they may leverage on KMaya to seek for solutions or embrace new experiences that could enrich and expand their collective awareness and capabilities.

It is the 'collective learning' (and knowledge) that takes place within the 'social systems' i.e. the CoPs, that is of particular significance to an organization from a KM perspective. This, in the context of the KMaya case study, forms the prime focus of this paper.

#### **PAST STUDIES**

##### **Tacit Knowledge Sharing**

Most researchers and practitioners agree that a major part of knowledge in an organization is in tacit form (e.g. Buckman, 2004; Mooradian, 2005). According to Nonaka & Takeuchi (1994), tacit knowledge is personal, context specific and difficult to formalize and communicate. It is not easily shared through conventional instruments, such as documents, databases, systems and processes (Kreiner, 2002).

Central to knowledge exchange is the process of bringing together people with different knowledge and experience. Nonaka (1994) theorized that knowledge is created through the interaction between tacit and explicit knowledge. They have submitted a model, known as the 'SECI' model, which states that knowledge can be created in any or a combination of the following 4 ways:

- Socialization (tacit knowledge to tacit knowledge);
- Externalization (tacit knowledge to explicit knowledge);
- Combination (explicit knowledge to explicit knowledge); and
- Internalization (explicit knowledge to tacit knowledge).

In fact, the dynamic interaction between tacit-explicit and specific-general knowledge can be matched well with this mutual existence of learning and practice, or the duality of participation and reification in communities of practice (Wenger, 1998). The conversions of knowledge can be enabled in the communities of practice, which can lead to the learning of existing knowledge or the generation of new knowledge, together with the development of community and its members.

### **Communities of Practice (CoPs)**

CoPs are groups of people sharing goals, activities, and experiences in the frame of a given practice (Lave & Wenger, 1991; Wenger, 1998). Wenger (1998) defined the term “community” as “a way of talking about the social configurations in which our enterprises are defined as worth pursuing and our participation is recognizable as competence”. He defined “practice” as “a way of talking about the shared historical and social resources, frameworks, and perspectives that can sustain mutual engagement in action” (p. 5). This particular practice continues over lengthy periods of time and their termination is often neither planned nor foreseen. Numerous communities are found in schools (Bonsen & Rolff, 2006), universities (Brown, 2001; Rovai, 2002; Thompson & MacDonald, 2005), and research institutes (Kienle & Wessner, 2006).

CoPs have been suggested as forums in which members can share their mutual understanding of terminologies (Wenger et al. 2002). A community of practice is characterised by its informality – the shared interest in a practice, such as cataloguing, or a topic establishes strong ties among group participants. This is helpful for knowledge transfer (Hansen 1999, Zuccheromaglio & Talermo 2003), as the group of people within a community of practice typically develops unique domains of knowledge based on a high degree of mutual understanding. In Wenger's words: ‘We all have our own theories and ways of understanding the world, and our communities of practice are places where we develop, negotiate, and share them’ (1998).

KMaya was developed adapting to a Balance Score Model and was initially designed to be an online CRM tool facilitating instant access to digital library service oriented issues (Albert, Saad & Peng, 2013). This VCoP provides an ongoing practice including functional aspects of utilising a library system, the coordination of individual activities, and quality assurance. Participation in a CoP leads to the accumulation of experience, stimulates the social construction of knowledge and the development of expertise (Bereiter, 2002; Boylan, 2010; Engeström & Sannino, 2010; Fuller et al., 2007; Paavola et al., 2004), hence making it particularly interesting for educational research on formal learning.

### **Knowledge retrieval in virtual communities of practice**

To illuminate how virtual communities of practice might affect knowledge retrieval processes, the following fictional example is provided. A knowledge seeker reads the forum issues that are published on the knowledge hub. The purpose of reading the issues is to retrieve knowledge to be utilised in a particular domain.

While reading some of the issues, the reader becomes aware that some passages are hard to understand because of contextual distances. These passages seem to

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be relevant for the knowledge donor's tagging policies. In addition, the professional terminology and the use of abbreviations confuse the reader.

In a community of practice in a proximate environment, the contextual differences would be sorted out through informal face-to-face sessions between the donor and the seeker, and the seeker is likely to obtain the needed additional information. The question is whether the likelihood of such feedback loops is as high in a virtual setting. We find a number of reasons to believe the likelihood is just as high in a virtual setting. First, designing the knowledge hub to include communities of practice makes it easier for the reader to manoeuvre in the system and either find the needed additional information or obtain the necessary contact information. In some cases, blogs and chat rooms provide forums in which a receiver can make his or her request, and where the likelihood of receiving an answer is high, which improves the coordination and retrievability of knowledge. What differs is the greater likelihood of replicating effects from communities in a proximate environment, as the shared practice or passion creates a feeling of belonging.

The knowledge donor, being directly approached by the receiver, is expected to be more open-minded and concerned about the situation of the reader. In terms of knowledge-sharing practices, knowledge donors are likely to view even unknown colleagues as reliable (Mishra 1996) when they ask for additional information.

#### **Success Factors of CoP**

Researchers have tried to investigate the success factors of a CoP. In business organizations, a CoP's success is usually defined as related to the help it provides to companies to compete in competitive environments (Iaquinto et al., 2010). Thus, a CoP's value is based on its ability to help an organization to achieve its goals (McDermott, 2000; Wenger & Snyder, 2000; Wenger et al., 2002). Probst & Borzillo (2008) suggest that it is important for CoPs to deliver measurable performance in order for top management to maintain its investment in them. Scarso & Bolisani (2008) proposed that the success of a CoP depends primarily on the economic dimensions, as CoPs must create value for business. It is also important to ensure that a CoP reflects and is aligned with an organization's core business in order to assess that it is worth the expense (Scarso et al., 2009; Iaquinto et al., 2010). If tangible benefits justify the investment in a CoP, then the intangible benefits of a CoP can be considered as a bonus (Wenger et al., 2002).

Although the tangible value created by a CoP is a very important factor in an organization's consideration of its success; to date, there has been limited empirical evidence on how to identify, filter, codify the knowledge created in the

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Virtual CoP and disseminate across the community. This research's primary goal is to determine what form of knowledge assets that can be created in KMaya and the effectiveness of these knowledge assets in enhancing the community's productivity.

## **RESEARCH METHODOLOGY**

### **Research Methodology**

We had decided to adopt a qualitative case the constant comparative approach for this study. We believe that such an approach was appropriate for us as it provides an exploratory and inductive stand that is the foundation for the study; where we are able to seek to gain a holistic understanding and a deep view of the case in hand.

### **Participants**

The participants in this study were 124 cataloguing library officers from 16 libraries who had volunteered to join and are registered members of KMaya. These officers had attended the face-to-face Cataloguing CoPs and had utilised KMaya as a knowledge capturing tool.

### **Methods**

#### **Online observation**

One of the strengths of observation is that it allowed us to obtain information about human behaviour directly without having to rely on recorded interviews or surveys which are retrospective in nature. In the present study, we were able amongst the librarians during the communities of practice workshops where they utilise KMaya to 'capture' experiences that they had discussed and wished to share with the community. Queries were posted in the forums and the responses were provided by the KMaya community. Domain experts were consulted to 'validate' these feedbacks in form of 'expert' opinions.

#### **Interviews**

Interviews were chosen as an alternative source because the librarians' experience of starting with the online community of practice was now in the past, and also because their perceptions and opinions could not be observed. We use the semi-structure interview format, where interviews were focussed and guided by issues pertinent to the study.

#### **Data analysis**

In order to explore what form of 'conversations' take place in KMaya, we used the content analysis approach to identify and categorize types of messages and knowledge that participants share with one another online. We first identified exemplary postings that seemed to clearly illustrate the different types of messages and knowledge. These examples were then used as initial codes to

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guide the continued analysis exercise. We continued to refine the definitions of these codes during the data analysis process using the constant-comparison method. This involved moving back and forth among data sets to discover new codes and categories until each category was saturated – that is, until new data began to confirm rather than shed new light on the categories.

**Filtering, Codifying and Disseminating**

Once the type of issues was derived, we approached ‘Industry Experts’ again who had more than 30 years in field experience to ‘rank’ the issues. ‘1’ for Least Valued and ‘5’ for ‘Very Valuable’. Issues that were ranked ‘4’ and ‘5’ were selected, studied and ‘keywords’ were derived for these ‘captured’ conversations. ‘Knowledge Nuggets’ were developed based on a cluster of ‘filtered’ conversations which were disseminated via KMaya for the community to build their best practices.

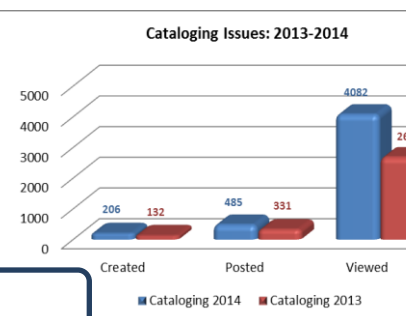
**FINDINGS**

Our objective was to demonstrate and analyse the processes that KM managers who create CoPs should adopt in order to deliver tangible outcomes for improving organizational performance. Our first initiative was to ascertain KMaya’s relevance as a learning tool for knowledge seekers in the library profession.

**To what extent KMaya is being utilised as an engagement tool for acquiring and sharing of knowledge?**

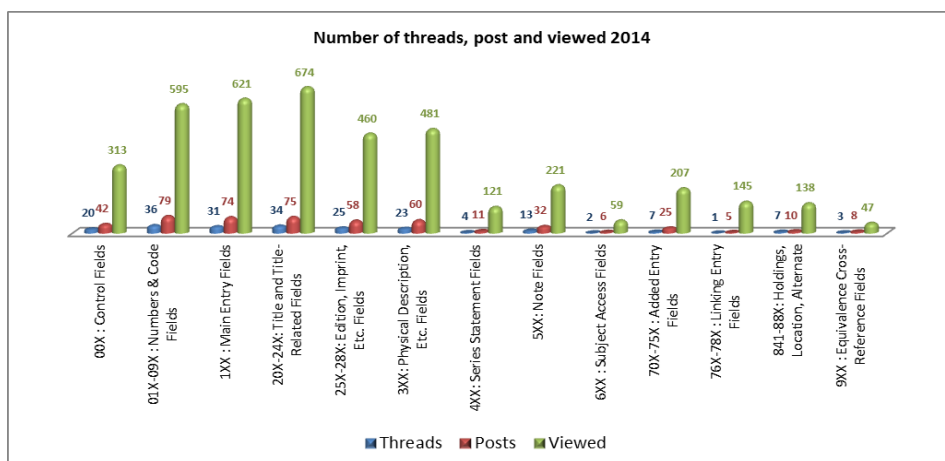
The KMaya cataloguing domain was developed in Feb 2013, commencing with a face-to-face CoP at one of the library sites. During the two-day workshop around 80 issues were discussed and logged into the repository. In order to build the domain, three other Cataloguing workshops were held in a similar manner throughout the country namely Penang in June 2014, Sabah in September 2013 and Perlis in May 2014. To date, a total number of 691 cataloguing issues was ‘captured’ in the form of enquiries, clarifications and sharing of experiences.

Year	Created	Posted	Vi
Cataloging 2014 (till end 28/08/14)	206	485	
Cataloging 2013	132	331	
<b>Increment (n)</b>	<b>74</b>	<b>154</b>	
<b>% of increment</b>	<b>56.1</b>	<b>46.5</b>	

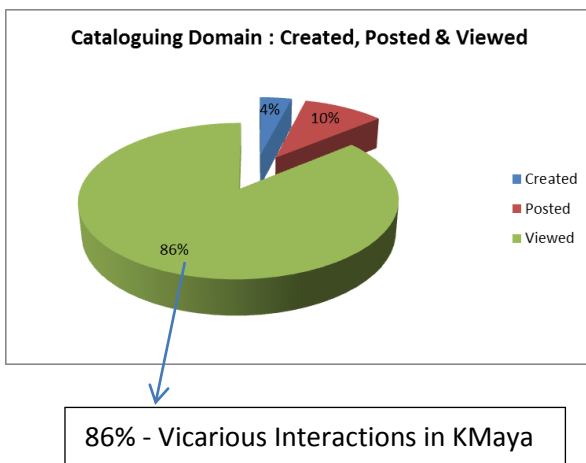


From January to August 2014, within a span of eight months, it was observed that there was an increment of over 50% in issues being created, posted (providing of feedbacks) and views by the community.

As Hara & Hew (2006) had mentioned in their research findings, an online collaborative environment represented a valuable learning resource for those who do not actively contribute through posting, but who just ‘lurked’ in the background and read what was being discussed in the community.



As displayed in the table above, this phenomenon was similarly observed in KMaya. As at August 2014, there were 4082 views in the cataloguing forums, which is an increment of 52% within a span of eight months. These engagements formed 86% of KMaya’s online activities.



It can be construed that the KMaya community was in fact, engaged in ‘vicarious interactions’. Sutton (2001) defined vicarious interaction as what takes place when a participant actively processes both sides of a direct interaction between two other participants.



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Sutton found that those who interacted vicariously had read, appreciated and learned from the interactions of others, but they felt no desire to interact themselves. The previous studies by Gray (2004) and Hara & Hew (2006) on an online community of practice designed to support informal workplace learning, had observed that participants ‘learned by lurking’ and ‘picked up ideas’ even when they only read the online postings but did not contribute themselves.

Findings in this study suggest that the KMaya with its face-to-face workshops as a whole did function as a platform that inculcates learning in a social perspective, where online participation not only served as an avenue for knowledge sharing situated in the actual context of librarians’ everyday work experience, but also that participation (from the domain expert) helped to reinforce identity of the library practice itself, Noh & Albert (2013).

**What were the KMaya processes that can be adopted to deliver tangible outcomes for improving organizational performance?**

KMaya knowledge sharing initiatives had adapted Nonaka’s SECI (1994) model of ‘socializing’ when the face-to-face workshops bring library professionals who regularly convene to discuss issues pertaining to a particular domain. The elements of ‘externalization’ and ‘combination’ subsequently take place when KMaya’s ‘captured’ experiences are discussed amongst the practitioners. At these knowledge sharing labs, rules and policies are referred to and practices are formed and ‘internalised’ for further reference.

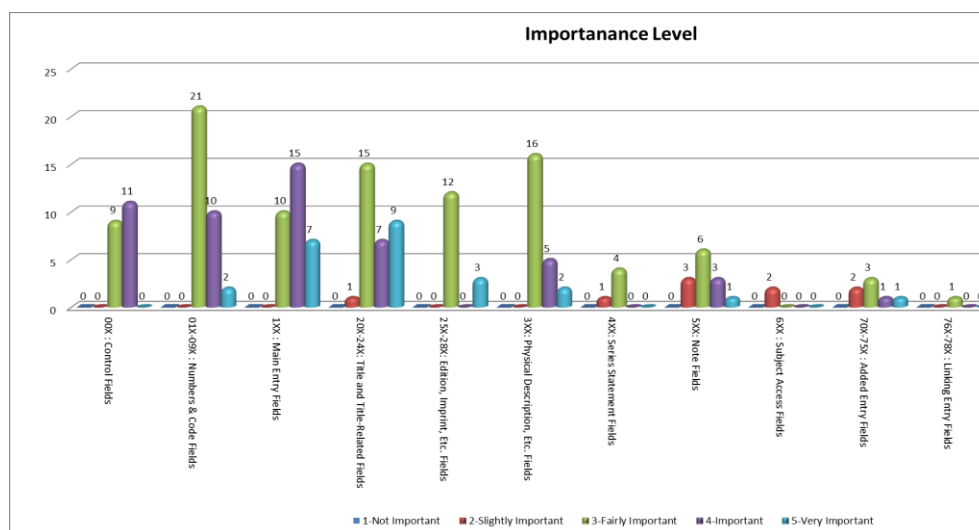


*Example of ‘capturing’ experiences & building the Knowledge Assets in KMaya*

KMaya processes involved convening regularly to discuss new scenarios, capturing, analysing and filtering, building the knowledge assets and disseminating to the community for further views. Feedbacks are either captured online via the forums or at another face-to-face CoP session

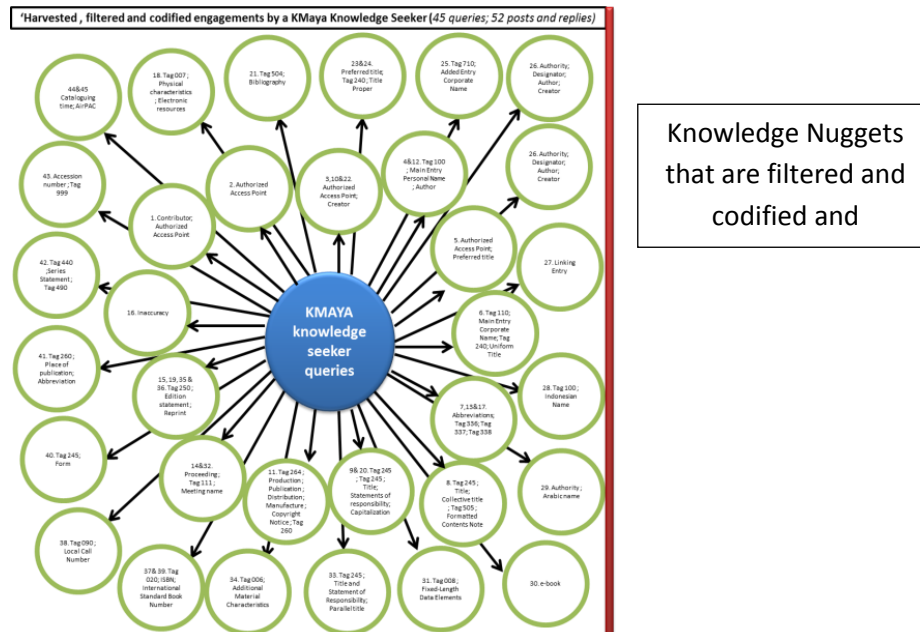
**Amplifying KMaya’s knowledge nuggets and delivering the tangible outcomes that can be re-utilised to enhance decision making.**

The domain experts and core members were interviewed on how to rank KMaya’s issues in the forums. It was agreed to rank the importance of the issues between 1 to 5 with 5 being the most valued to the domain of knowledge. These ‘captured’ experiences were analysed, filtered and catalogued by KMaya’s Subject Matter Experts and Administrators. Keywords were created to denote the ‘essence’ of the issue being discussed.



One year of analysing and filtering revealed the existence of ‘valued scenarios’ by the various ‘tag’ domains of which are ranked at ‘4’ and ‘5’. These scenarios were catalogued and were transformed to ‘knowledge nuggets’ that are distributed to the community to support further interpretations of the existing rules and policies. Convening, filtering, building and amplifying of valued scenarios is an on-going process which involves the domain experts, the practitioners and the KMaya administrators

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It can be further ascertained that the knowledge acquisitions offered in KMaya provide practitioners, a platform to utilise these knowledge nuggets as references to enhance decision making and ease their operational activities.

## CONCLUSION

The findings in this study suggest that the KMaya environment (the online community of practice tool and the face-to-face workshops) foster joint learning that involves tacit knowledge sharing and access to codified knowledge. The existence of common knowledge and a shared system of values make sharing of knowledge easier in KMaya as the community members have insights into the implicit assumptions and values embedded in each other's knowledge.

Having extracted, validated and catalogued in a manner that can be easily viewed, created a legitimate platform to foster a shared repertoire of experiences and work stories for the professional development of the information professionals in the community.

The tangible and intangible values from the collective contributions of the KMaya communities of practice were found to provide valuable insights of 'know-how', current practices and validated practitioners feedbacks to the knowledge worker and to the libraries that KMaya is associated with.

In conclusion, with a review of literatures, this paper makes an important contribution to the field of knowledge management. Further research could also explore the knowledge networks that are built during the engagements and to identify new trends of reaching out to them to cultivate a 'richer' knowledge sharing environment spanning across expertise from multiple libraries in the region.

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