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*"Is knowledge management the new library science?"*

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## **Knowledge management librarians: Evolving competencies in knowledge capture and dissemination in an academic environment**

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### **Abstract:**

*In this paper, we examine the roles and responsibilities of Knowledge Management (KM) librarians in a University and outline the skills and knowledge to illuminate and maximize the possibilities of the position, to provide new content in new mediums to an increasingly discerning user community. This relatively new position is being created as libraries strive to manage collaborative knowledge management technologies, upgrade the service model in reference, in particular enhancing the skills*

*of 'liaison officers' when engaging with their patrons' point-of-need preferences at their site, quality of knowledge, device choice, and their knowledge sharing and seeking behaviour. We draw upon our own experiences in implementing a virtual knowledge sharing community in the International Islamic University Malaysia (IIUM) as well as referring to the latest literature on the topic. Our three-year implementation journey encompassing unforeseen problems and discussions in building workarounds, in how best to manage tacit knowledge amongst academic and non-academic staff, provided valuable insights, focusing in particular on KM training for all librarians, the development of an 'unofficial' knowledge management implementation curriculum (KMIC) and the formation of the IIUM KM Task Force to sustain KM initiatives in the academia.*

*While many skills and experiences analyses have been conducted on other library positions, at the onset, the emerging KM librarian's roles and responsibilities remained vague, leaving librarians interested in the position, unsure of what knowledge and skills to obtain. Hence, the need of a clear and robust KMIC policy framework was first seen to be crucial to sustain an effective KM implementation. Special emphasis was made in building the skills in intra-organisational cooperation and academic engagement for meeting the challenge of 'capturing' and codifying tacit knowledge and ultimately the successful cultivation of communities of practice in promoting a new form of 'collective intelligence' in the university.*

**Keywords:** Collaborative Knowledge Management Systems, Knowledge Management Librarian, Communities of Practice, Collective Intelligence, Tacit Knowledge Management

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## 1. INTRODUCTION

Companies waste billions on knowledge management because they fail to figure out what knowledge they need, or how to manage it (Stewart, T. A., 2002). The International Data Corp. (IDC) estimated that poorly managed knowledge costs Fortune 500 companies about \$12 billion a year (Stewart, T. A., 2002). We do not need numbers from IDC's to know that the need for knowledge is critical: Just consider how much time we waste searching for information that ought to be at our fingertips, how many times we have been frustrated by having to talk to five or six people before getting the right knowledge or information, how many times a mistake could have been prevented if only we have known who to check with? These scenarios represent many organizations today that failed to identify and leverage on existing knowledge, thus leading to "reinventing the wheel", repeating mistakes and wastage of resources. From e-mails to documents, spreadsheets to presentations, pictures to multimedia content, there is valuable knowledge potentially housed in each of these files. But content without effective access and usage is worthless and an unmanaged repository can cost a bundle unless proper steps are taken to address this gap.

Most researchers and practitioners agree that a major part of knowledge in an organization is in tacit form (Buckman, 2004; Mooradian, 2005). 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 knowledge assets: filtering and 'codifying' them in a usable way and making them immediately accessible to the community.

Over the years, the International Islamic University Malaysia (IIUM), like any other organization, had built a rich bank of knowledge assets in the form of explicit and tacit knowledge. To ensure that information and knowledge experts can be accessible and made use of, an effective knowledge management system was proposed as a key strategic objective in the University. In 2014, IIUM embarked in an organizational wide knowledge

management initiative by implementing a knowledge audit, followed by the development of a virtual communities of practice (CoP), with the main focus of enhancing knowledge sharing and learning amongst their academic and non-academic staff. This case study described the challenges faced and workarounds created, by the IIUM library and its professional staff, who were given the mandate to lead the KM initiatives in the University.

In this paper, we examine the roles and responsibilities of Knowledge Management (KM) librarians in IIUM and outline the skills and knowledge to illuminate and maximize the possibilities of the position, the challenge in providing new content in new mediums to an increasingly discerning user community. This relatively new position is being created as the IIUM librarians strive to manage collaborative knowledge management technologies, upgrade their service model in reference, in particular enhancing the skills of 'liaison officers' when engaging with their patrons' point-of-need preferences at their departments, manage quality knowledge, ensure device choice, and explore their knowledge sharing and seeking behaviour.

We draw upon our own experiences in building a virtual knowledge sharing platform in IIUM, as well as referring to the latest literature on the topic. Our implementation journey encompasses unforeseen problems and discussions in how best to promote the use of IIUM's virtual CoP, build a robust KM training program for all librarians, the development of an 'unofficial' knowledge management implementation curriculum (KMIC) and the formation of the IIUM KM Liaison Force to connect and collaborate with the community.

## **2.0 THE IIUM COMMUNITIES OF PRACTICE (CoP)**

### **2.1 What are Communities of Practice (CoP)?**

**Communities** of Practice (CoPs) is a community of people who share a common interest in a certain area, and it provides these people, at different levels and of different backgrounds, with an opportunity to exchange knowledge, skills, experiences, and information in a particular area. Through interactions, people in the community give and get support and advice in person and virtually. CoP provides a rather informal and relaxing environment where everyone can learn and develop himself or herself professionally (Wenger, 2002).

### **2.2 Benefits of implementing CoPs in organizations**

Communities of practice (CoPs) have been described by du Plessis (2008) as one of the most significant means of fostering knowledge management in the twenty-first century. Moreover, Yon, S. and Albert, G. (2013) found that CoPs can considerably enhance the exchange of expertise, information, collaboration and resources within organisations. Wenger and Snyder (2002) listed six ways CoPs can improve organisations – through rapid problem solving, professional skill development, best practice promotion, retaining talent and by guiding strategy. Since the nineties, awareness in both public and the corporate sector of the value of communities of practice has increased. The appeal of CoPs is such that they have been assessed for their utility in a diverse range of contexts, for instance, in nursing (Andrew et al., 2008), at Rolls-Royce (Meeuwesen and Berends, 2007), for school leaders in Singapore (Hung et al., 2005), in the Norwegian electronics industry (Gausdal, 2008), in the Dutch police force (De Laat and Boer, 2004), in the Malaysian Public Services Department (Othman et al., 2015), as a source of innovation and problem solving in organizations (Bollisani, et al. (2016)), and among many others.

## 2.3 The CoP Implementation Journey at IIUM

From 2015, multiple brainstorming labs were facilitated to determine the functionalities of IIUM CoPs and to build the Implementation Road Map as presented in figure 1. To kick-start the CoP implementation program, five (5) key milestones were determined to:

1. **Explore:** Study the ‘as Is’ and envision the ‘to be’ scenarios to identify the elements in cultivating a knowledge sharing and learning environment;
2. **Strategise:** Lay out the CoP Implementation program using the community feedbacks, strategic plans, tactics and activities were drawn out;
3. **Enable:** Identify the domains, champions and task force to kick start the program;
4. **Cultivate:** Build the CoP portal for online interaction; and
5. **Evaluate:** Explore and identify critical success factors to develop the CoP Sustenance Program.



**Figure 1: Cultivating CoPs in IIUM: The Implementation Milestones**

It was envisioned that the need for the IIUM CoPs were established to address the need of people to look beyond their own departmental walls for ideas and support. IIUM had planned to develop CoPs as peer networks that support practitioners in developing a shared meaning and engaging in knowledge building among knowledge workers. In this scenario, no one person has the answers; it comes from the collective experience of people working to enhance learning via a knowledge sharing platform.

## 2.4 The IIUM CoP Implementation Pillars

In order to achieve the above, the authors in this case study will sought to explain the determinants and processes that worked best in iHIKMAH’s ‘guided’ CoP environment. These implementation pillars comprised of four fundamental dimensions namely, leadership, organization, technology and learning. The following pages explain the role of each component and how they were crucial in cultivating the CoPs in IIUM. Table 1 below presents the ‘KMIC Grid’ highlighting the dimensions, ten (10) KM positions, roles and related implementation activities that were constructed to build iHIKMAH.

**Table 1: iHIKMAH’s Knowledge Management Implementation Curriculum (KMIC) Grid**

Roles & Responsibilities				
Dimension	No	Position	Role	Activities to perform
<b>Leadership</b>	1	CoP Leader (Normally the Chief Librarian)	Provide the overall guidance and management needed to build and maintain the community, its relevance and strategic importance on the organization and level of visibility	Validate and empower the CoP team
			Nurture and provide top-level recognition for the community while ensuring its exposure, support and strategic importance in the organization	Launch and drive the promotion of the IIUM CoPs
				Support CoP recognition programmes
				Allocate resources for the sustenance of the IIUM CoPs
	2	Mentors	Act as community elders, who take a personal stake in helping new members, navigate the community, its norms, policies and their place in the organization.	Promote the usage of the CoPs to the Top Level
				Be available for the face-to-face knowledge sharing sessions and provide support to the community
	3	Project Director	Nurture and provide top-level recognition for the community while ensuring its exposure, support and strategic importance in the organization	Establish CoP Roles & Identify experts for each Domain that are need to support the CoP
				Establish CoP Structures (Domain, communities and practice)
				Establish recognition system for knowledge contributors
				Plan out the job scope of CoP roles
Identify training needs of CoP roles				

				Plan and develop CoP training modules	
				Organise Training of CoP Administrators	
				Identify tactics to organize knowledge	
				Budget for resources and promote to the Management	
<b>Organisational</b>	4	CoP Administrators	Cultivate a facilitating environment to sustain the CoPs	Organise regular face-to-face knowledge sharing sessions with the Domain Manager	
				Coordinate, organize and plan community events or activities which include awareness programs, road-tours, announcements during Univ. Assembly etc.	
				Collaborate with knowledge promoters to design marketing collaterals and medium of presentation	
				Collaborate with Domain Managers to identify key knowledge contributors	
					Develop CoP Implementation Guidelines
					Recommend to Management recognition for key knowledge contributors
	5	Domain Managers	Network with community members by encouraging participation, facilitating and seeding discussion, keeping community engagements engaging and vibrant	Liaise with CoP Administrators to facilitate face-to-face knowledge sharing sessions with the community	
				Ensure all enquiries in the IHIKMAH are addressed	
				Liaise with SMEs to validate community postings	
				View postings by the community and direct request to the person who is able to provide relevant	

				<p>feedbacks</p> <p>Identify the knowledge contributors and recommend to the management for due recognition.</p> <p>Identify issues that are 'important' to be explored further and can be published as 'Hot Topics'. Liaise with the knowledge promoters for publishing.</p>
	6	iHIKMAH Knowledge Promoters	Responsible for identifying, capturing and editing relevant knowledge, best practices, new approaches and lessons learned into documents, presentations and reports	<p>Collaborate with Domain Manager to identify 'valuable' issues that can be explored</p> <p>Organise and index the issues</p> <p>Develop a taxonomy that can provide quick links to these hot issues</p> <p>Prepare quarterly newsletter to publish 'hot issues' and top contributors</p>
	7	Subject Matter Experts	Keepers of the community's knowledge domain who serve as centres of specialised knowledge for the community	Validate the domain issues and provide opinions of the feedbacks by the community
	8	Knowledge Contributors	Take active ownership in the community by participating in its events and activities and driving the level of commitment and growth of the community	<p>Direct or coordinate requests by the community to right source of knowledge and ensure relevant responses are made.</p> <p>Target knowledge seekers (lurkers ) to encourage them to share ideas</p> <p>Provide domain management workshops</p>
<b>Technology</b>	9	Technical Team Members	Oversee and maintain the community's	Enhance the system functionalities and maintain the

			collaborative technology and help members navigate their domain	infrastructure.
<b>Learning</b>	10	Training Consultants	Build and manage CoP transfer of skills programs	Facilitate training session with Knowledge Promoters on how to cultivate CoP Awareness
				Provide Infographics sessions to create CoP Newsletter
				Provide marketing technique and domain management workshops

### 3.0 DEVELOPING THE IUM CoP PORTAL

In 2016, a CoP portal (iHIKMAH) was developed to capture and codify conversations via social networking tools. iHIKMAH was structured as an online collaborative environment targeting two major groups: knowledge donors – who are experienced practitioners, and knowledge seekers – those who wish to browse through the issues in the forums.

The iHIKMAH portal was developed by using Drupal 7.4.1, database MySQL and PHP as web services. The Drupal system was selected as it was utilised by the IT Department in the university who were proficient in the forum technology. Figure 2 below presents the iHIKMAH CoP portal with a brief description of its functions.

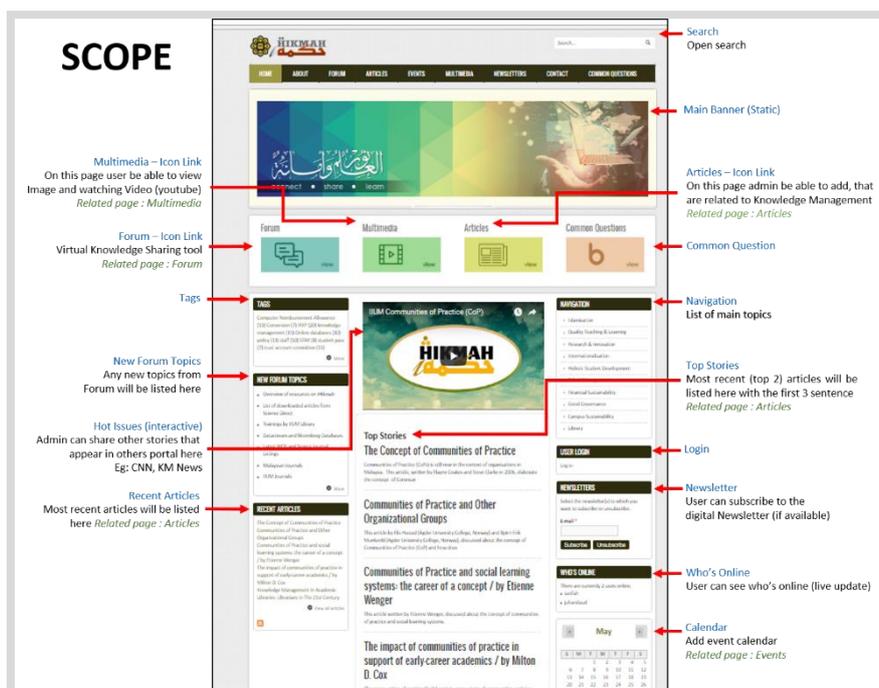


Figure 2: The iHIKMAH CoP Portal

### **3.1 Eight (8) domains of knowledge were identified as discussion points in iHIKMAH**

To be in line with the University's strategic planning initiatives, eight domains of knowledge were selected in iHIKMAH as areas where teaching and learning development was most needed; quality teaching and learning, research and innovation, internationalization, holistic student development, talent management, financial sustainability, good governance, Islamization, human resource management, project management, technical and contract management, stakeholder management and asset and facilities.

In a span of twelve (12) months, the KM task force facilitated a series of eight content creation labs and fifteen (15) iHIKMAH awareness programs. As at May 2018, there are 287 registered members (15% of IIUM's academic and non-academic community), with 2,276 postings or 'captured' conversations that can be easily accessed on a 24x7 paradigm. It is envisaged that IHIKMAH will be able build the network of practitioners within IIUM who can eventually help each other to perform better by sharing their knowledge and experience. These domains are managed by moderators who oversee the running of IHIKMAH. The moderator serves three functions.

First, by acting as an SME, posting feedbacks to queries made by the community, the moderator helps keep communication focused on professional issues pertinent to the domain. Second, by acting as a 'guide' to ensure that the communication is kept civil. Third, the moderator helps to monitor the postings and routes any issues raised by the community to other Subject Matter Experts (SMEs) for immediate feedbacks. iHIKMAH thus provided an online forum for academic and non-academic staff who seek for information, share experiences and opinions and network with their community. Members who share their knowledge are not anonymous as the names are visible in their postings. Membership is voluntary but currently only open to the organization. Future plans to open iHIKMAH to selected student population are currently being discussed and deliberated upon. In order to sustain this KM Initiative, the CoP Governance was scrutinized and re-aligned to address implementation gaps. The next sections discuss possible barriers in implementing virtual CoPs and key success factors in sustaining this knowledge sharing platform.

### **4.0 ISSUES AND CHALLENGES**

Like all knowledge sharing initiatives, there were multiple challenges faced by the iHIKMAH Task Force. Probst & Borzillo (2008) determined that there are five major reasons for failure of the community of practice activities. First, lack of a core group. These CoPs lack a group of core members actively engaged in its activities, such as regular participation in meetings, the inflow of fresh ideas, and support provided to other members on problem solving. This may be due to the work load pressures, not permitting members of the CoP time to regularly meet and discuss any critical issue. Second, low level of one-to-one interaction between members (face-to-face, telephone, e-mail, etc.). Members rarely contact one another regarding practices that they use in their respective units, or to help one another solve common problems. This, resulted in the members showing no enthusiasm to maintain their collaboration in the CoP. Third is the rigidity of competences. Members tend to primarily trust their own competences, and are therefore less willing to integrate practices originating from other CoP members into their daily work. The reluctance to learn from others impedes members' capacity to absorb new competences. Practice transfers between members of the CoP are therefore rare. Fourth, is the lack of identification with CoP. Members do not view participation in their CoP as meaningful for their daily work. They thus do not perceive other

members as peers who can assist them with useful knowledge and practices. Finally, the fifth is practice intangibility which occurs when members fail to engage with one another in a way that allows them to illustrate the practice to make it concrete enough for other members to understand and visualize its function.

Further research by Othman et al (2015), emphasized a facilitating environment comprising of quality content, structured and regulated CoP awareness programs and the allocation of time, which were some of the major discussion points that was revealed in their study of cultivating virtual CoPs in the public services department of Malaysia. It was observed that the community had realized the potential value of virtual CoPs in connecting to the right resource or enhancing existing practices and are willing to use the online platform, provided that a 'correct' environment is sustained.

Having embarked in this KM project for the past three years, we realized the need to constantly on the look-out for best practices in this field and un-learn and re-learn, in how best to 'sell' the need for iHIKMAH to our IIUM community. In a nutshell, we can construe that the iHIKMAH task-force's major hurdle will be to regulate the face-to-face workshops, promote the use of iHIKMAH and to create an environment to build quality content that are relevant to the community. The current training offered by Library and Information schools in Malaysia do not emphasize knowledge sharing and learning techniques and technologies as part of their curriculum. It is of no surprise that our liaisons librarians who have been selected as part of the iHIKMAH Task Force or IIUM KM Librarians were not equipped with iHIKMAH's value and initially reluctant to participate in the training workshops, as they were more concerned about the need to curate the existing content to ensure relevancy, as well as the lack of resources (time) to manage the extra workload in their existing job-scope. To address this gap, monthly meetings are held to re-align strategies and actions plans to address their concerns, discuss barriers and possible workarounds and motivate them to encourage the academic staff to adopt iHIKMAH as a strategic knowledge sharing tool in IIUM.

Regular facilitation of iHIKMAH content creation workshops, validating the existing iHIKMAH content and the construction of an implementer's guide for KM Managers are some of the areas that are currently being 'spruced' up to be able to connect with the community and convince them to participate in iHIKMAH.

## **5.0 CONCLUSION**

While many skills and experiences analyses have been conducted on other library positions, at the onset, the emerging KM librarian's roles and responsibilities remained vague, leaving librarians interested in the position, unsure of what knowledge and skills to obtain. Hence regular in-house training have been proven vital to ensure our Library liaison officers, who are experienced researchers and constantly in contact with the Academic staff, to become well-versed in promoting iHIKMAH and its content. The KM Task Force had looked at all aspects of tacit knowledge capture and reification mechanisms that are currently not included in our normal cataloguing training curriculum – encompassing knowledge domain creation guidance in a social networking platform. It is vital to build a clear and robust KMIC policy framework, which will be first seen to be crucial to sustain an effective KM implementation. Special emphasis will need to be made in building the skills in intra-organisational cooperation and academic engagement for meeting the challenge of 'capturing' and codifying tacit knowledge and ultimately the 'embedded' librarians being involved in the successful

cultivation of communities of practice in promoting a new form of ‘collective intelligence’ in the university.

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