

EMBEDDED LIBRARIAN IN HIGHER EDUCATION INSTITUTIONS

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ABSTRACT

The roles of librarians in this modern and ubiquitous digital information era have been changed. The new environment of abundant and ubiquitous information offers librarians to provide a new mode of librarianship. This paper intends to discuss on the concept of embedded librarianship particularly in higher education institutions. The driving factors and attributes of embedded librarianship will be also discussed. The role of embedded librarians in higher institutions will be also explained. Sustaining embedded librarian in organisation and embedded librarian in distance education environment will be also discussed. Finally, a practice of embedded librarian in Dar al-Hikmah Library in International Islamic University of Malaysia (IIUM) will be briefly highlighted in this paper.

KEYWORDS: *Embedded librarian, Embedded instruction, Traditional library services, Higher education institutions, Distance education*

INTRODUCTION

The term and concept of ‘embedded librarian’ or ‘embedded librarianship’ is relatively new, especially in Malaysia. Embedded librarian is a new wave in information profession. It is a distinctive innovation and moves librarian out of libraries and creates a new model of library and information work (Shumaker, 2012). When librarians ‘moves out of libraries’, the embedded librarians will have to form a strong working relationship between him and people who need his information expertise. Embedded librarians deliberately build relationship. In higher education institutions (HEIs) context, relationship between embedded librarian, faculty members and students is very essential. As the professional relationship growing, naturally it will lead to the librarian assuming the role of team member, rather than traditional stand-alone service provider (Shumaker, 2012). The embedded librarian and the team will have a common objectives and goals, thus share a common responsibilities. In the end, embedded librarian will provide a highly-customised and value-added contribution to the team.

According to Barbara Dewey, the metaphor of the embedded librarian “inspired by the recent phenomenon of embedding journalism into various military sectors during the Iraq war and its aftermath” (Dewey, 2005). In a comment posted on April 2005 in the *Embedded Librarians Blog*, Hedreen (2005) clarified the comparison, writing that while an embedded journalist has “better access to story, an embedded librarian provides better access for students to him/herself and the library’s resources.”

Embedded librarianship also makes librarian more directly involve in clinical environment. In medical librarianship, pioneered by Gertrude Lamb in the early 1970s, he takes clinical librarians on medical teams to supply information to physicians as they made ward rounds (Eriksson, Michener & Foxlee, 2009).

EMBEDDED LIBRARIANSHIP

This modern and ubiquitous digital information era has altered the roles of librarians in many ways. New rigorous services, proliferation of information and communication

devices, and continuous growth of online and blended learning now demand librarians engage with users in innumerable forms. Embedded librarianship is to move from traditionally library setting of merely answering research questions towards developing a distinctive understanding of what users information need and delivering proactive results. Embedded librarian approach is more focus towards individual group by fully engaged in their work, although the work itself is different from librarianship. As embedded librarian develops stronger relationship with user, they actually moving towards a more integrated, analytical approach, highly focused and specialised research and information results (Riccio, 2012).

Embedded librarianship is one step forward towards modern librarianship, whose transformation in the role of librarian from mere custodian of information sources and services to embedded librarian. Thus, redefine roles of librarian by reactively answering research requests, developing a unique understanding of user needs and delivering proactive results (Talwar, 2014). Embedded librarianship also emphasises on the importance of forming a strong working relationship between a librarian and a group or team of people who need the librarian's information expertise. Vassilakaki & Moniarou-Papaconstantinou, (2014) analyses specific roles of information professionals for the past 14 years using a systematic review from 600 papers. They found that the embedded librarian is the top three for newly evolved role especially in the context of academic library.

THE DRIVING FORCES

There is a combination of 'push' and 'pull' factors that make librarians seeking for this new model of library service. In push factors, it is a clear fact that the traditional model of reference services are no longer works in maximum efforts and results. Technology and social changes has changed how people use and need information. Ubiquitous information and ubiquitous technology result reference services at reference desk becoming less relevant and important. People are no longer need to visit a library, physically, to obtain information. They have access to web search engine and various web

contents to access information. Thus, the profession of librarianship has to find innovative ways and models to make reference service to become more relevant to the society.

In 'pull' factors, new trends in work and society require new models of reference services. Among the new trends are the emergence of knowledge workers and the recognition of the advantages of diverse teams and cognitive diversity. In the Age of Information, all organisations recognise that their performances are depending on "knowing what we know" (Shumaker, 2012). In educational organisations such as universities, students, academicians and researchers need a high level of information literacy skills. Hence, an inclusion of a librarian in their research teams or student course will definitely help the universities to enhance and achieve the universities' performance.

The second 'pull' factor of the driving force for the need of embedded librarian is the recognition of the advantage of diverse teams and cognitive diversity. In higher education, there is an issue of some assignments or research projects do not require students to get into the library and expose them to scholarly information resources. When embedded librarian included in the team of developing these assignments or research projects, this issue will not be arisen as the librarian will be able to advice and provide some input to make the assignments or research projects in-line with the requirement to use library and access to scholarly information resources. In short, a team with a diverse expertise and cognition, such as embedded librarian in an assignments or research project development team, will contribute to a better outcome for all by applying a special set of cognitive skills.

EMBEDDED LIBRARIAN IN HIGHER EDUCATION

The new role of librarians as educational partner in higher education to be more important than ever. The changing ways of communicating research and the transformation in scientific publishing have also posed new challenges for librarians. Nevertheless, the increased competition among universities for world ranking, developing successful human capital graduates, hiring prominent academics and finding research funds have

lead the information professionals to reconsider their role in the learning process at higher education (Vassilakaki & Moniarou-Papaconstantinou, 2014).

Embedding themselves into the centre and the schools they serve, make them a more visible and integrated part of the faculty they assist. It is reverses the medium of teaching to the user and proactively fulfilling their needs. It move from merely attracting user to Library towards enhancing to cater the needs of the user groups via outreach programmes and initiatives organised and hosts by them (Talwar, 2014).

ATTRIBUTES

There are five fundamental attributes that make an embedded librarianship differ from traditional librarianship. According to Shumaker (2012), the attributes are as follows:

TRADITIONAL	EMBEDDED
Responsive	Anticipatory
Individual customer	Team of collaborators
Standardised	Customised
Single transactions	Ongoing projects
Service	Partnership

Table 1: Attributes of Traditional and Embedded Librarianship (Shumaker, 2012)

The five attributes enable the embedded librarian to achieve much more than traditional library services able to contribute. Traditionally, librarians are “waiting to be asked”. Embedded librarian go a step further by anticipate what information or data the team or group needs. They use their close relationship in the group to identify needs and find or suggest solutions.

The traditional model of library services is patrons getting help one at a time. At reference desk, librarian will provide information to a single particular student or a group of students. In embedded librarianship, as they are working in a team or a group such as

faculty research team or students whom are taking Introduction to Management, for instance, they work or provide their information services in team or for the whole students in the course. The traditional library services model is standardised. They follow policies, guidelines and standard of service. Whilst this is good, at certain level and conditions, what one team needs may not same with others. Not all teams or groups should use the same guideline and policies.

Embedded librarians provide customised and flexible services to their teams, as they have a strong relationship with the team and may have understand the team's needs and address them in a customised way. Traditionally, reference works are measured by number of transactions such as number of enquiries answered. In embedded librarianship, number of transaction is still measured. However, the more important thing is the project. In higher education context, students in their first semester class beginning from their first class till the end of the semester. Embedded librarians involved in all from basic such as in assisting students to enter the library portal till the more complicated matters such as the student final semester projects.

Finally, in traditional library environment, service is the core of the business. However embedded librarians transcend service because they become partner. Embedded librarian in course of Introduction to Management, for example, becomes a partner in the course. They become partner to students and lecturer in the course till the end of semester.

SUSTAINING EMBEDDED LIBRARIAN

The librarians are faced with the challenge of understanding new and emerging user needs. Furthermore, the new invention of the greatest information revolution especially the web constitutes threat to librarianship. The embedded librarian should aware what really happening in the society that makes them really exists. Thus, instead of being consumer of the information, embedded librarian should become a producer of information. Embedded librarian involves revamping and re-shaping the role of librarians

that involves developing a new framework in providing library service that exceeds user's expectation.

a) Build strong relationships with user

Embedded librarian starts with building relationships and developing trust towards users and to translate these qualities into the team, group or department level. However, there could be some initial tension between the newly embedded librarian and other librarians. There will be a subsequent increase in demand for embedded librarian contributions or for an increase in the embedded librarian staff due to proactive and analytical approach. Not only that, other librarians should have the training and skills to step in and take on embedded assignments as needed (Riccio, 2012). Emphasis on building cohesive and collaborative relationships between academicians-librarians is must. Thus, embedded librarian is a process which builds strong relationship so that they can gain deeper insights into what users are doing and how they would utilise the information provided by the library.

b) Focus on understanding their work and information needs

This literature review provides evidence that in the light of technological, social and economic changes, librarian still play an important role in addressing changing user needs. However, librarians are still worried about being accepted as partners and colleagues in both public and private organisations. Embedded librarian must have a sound knowledge of the area/research is taking place and harmoniously work to achieve the desired group goals. Furthermore, embedded librarian should anticipate and suggest ways of accomplishing tasks that others on the team wouldn't think of-ways that save the team's time and effort.

c) Share their goals and actively contribute to the achievement of those goals

Embedded librarian must be seen as a person who capable of customised, active and high value contribution towards achievement of the team and organization common goals. Nevertheless, embedded librarian is not working in isolate, but must work in team and

collaborate with other members so as to achieve team's efforts instead of individual interests. Hence, embedded librarian builds partnerships and is more focused on achieving the desired ends mutually. The embedded librarian uses the strong working relationship formed through participation in a team to understand the team's needs and address them in a customised way and it is tailor-made approach to fulfilling user's needs. It becomes an integral and indispensable member of the group. The emphasise of embedded librarian is not only to build strong social relationship but also to proficient technical skills. Embedded librarianship is that provide the value based technical services to the user, team and organization. Thus, embedded librarians' work is measured by impact of user learning outcomes and by way of the team success and evaluated by more and more involvement of students in their research work through proper fair and original means.

EMBEDDED LIBRARIAN COMPETENCIES

According to Talwar (2014), embedded librarians should be competent enough to provide custom-made, intensive information services to a research team which they is integrated. No embedded librarian can work successfully unless they have certain competencies. The most important competency is to acquire tacit knowledge, which is subjective and experience based knowledge, efficacious, high possess of information ethics and circumspective. As embedded librarians embed within the research team, this competency certainly vital to serve at high quality service. Embedded librarian also demand a high generic skills such as communication and interpersonal skills, critical thinking, problem solving and teamwork which allow individuals to function not only in disciplinary or subject domains but also in employment and social situations.

Nevertheless, for managerial skills, the embedded librarian encompasses a cultural leadership, strategic planning, and restructuring skills. The embedded librarian must be cost effective, sound decision makers, qualified in TQM, MBO, ISO and etc. To be a good embedded librarian, the candidate must possess personal competencies which show the inclination of personal intuition. The embedded librarian should be among those people-centric competencies that able to facilitate and identify user information need,

mentoring and guiding patron, consensus and work in team, and able to establish networking via development building of relationship. Moreover, as the library engaged into ICT facilities and infrastructures, the embedded librarian must be technocratic equipped with ICT and computer technical skills.

EMBEDDED LIBRARIANS IN DISTANCE LEARNING

In distance education mode, embedded librarian is mostly about integrating librarian with students and faculty members in Learning Management System (LMS). Embedded librarians take advantage of a user's preference to work electronically and independently. Embedded librarians in distance education environment, however, must possess five critical success factors: "interpersonal communication skills, library research and reference skills, information organisational skills, information technology skills; and knowledge of customer subject domain (Shumaker & Tyler, 2007).

To achieve access in LMS, embedded must get permission from faculty members who are teaching the course. Interact and working with IT staff who can add librarian into the courses. Embedded librarian can start a discussion forum and introduce database or journals related to the particular course. Embedded librarians in LMS also must encourage students to ask queries. Chat widget can be embedded in LMS to encourage synchronous communication. Sources and link to the sources especially related to a specific assignment can be stated or included in the forum. Regularly monitoring the forum or discussion board in LMS is a must for an embedded librarian. Students posting or questions related to assignment, for instance, will provide opportunities for librarian to determine what information the students need.

Finally and most importantly, all enquiries related to students' information needs in the forum must be answered instantaneously. One's student's doubt can be other's too, so it needs to be posted in open platform such as forum or discussion board (Pramod Sharma, Kamal Kumar & Parveen Babbar, 2014). An instantaneous answer or response will form a strong relationship between librarian and students in the forum, and this is one of the essences in embedded librarianship.

PRACTICING EL AT DAR AL-HIKMAH LIBRARY, IUM

Examining the attributes and characteristics of EL, it is similar to the liaison librarian programme in the case of Dar al-Hikmah Library. It started back in year 2000, where the establishment is prior to the interactions between librarians and the faculty through the reference help desk services handled by the Reference and Information Services Division (ISD). Analysing the campus partnership in information literacy programme, Bakeri & Fazli (2013) found that the liaison programme able to fulfil 100% request of information literacy class. This achievement is exceed the division quality objective which to fulfil at least 95% of requests for information literacy workshops as a means to enhance customer learning and research needs. Not only that, the findings also revealed that the division successfully achieved the customer satisfaction by 99.9%, exceed from the division quality objective which is 90%.The survey method is used for the study to gather feedback from users who attend the information literacy class from 152 sessions with a total number of 5358 (95.3%) out of 5133 surveys were collected starting from January until December 2012.

Information literacy under liaison programme is to provide user with self-sufficiency where they able to identify, locate, evaluate, organize and effectively use information to address issues or problems at hand. Moreover, several information literacy modules are offered from first year until post graduate student. The modules also cover from basic information searching until advanced library research to support research and publication.

No.	Module	Level of study
1.	Library skills for first year students	Undergraduate
2.	Law 1030: Legal method	Undergraduate
3.	Seminar (Engineering)	Undergraduate
4.	LE 4000: English for academic purpose	Undergraduate
5.	LQ 4000: Arabic for academic purpose	Undergraduate
6.	Library research skills for post graduate	Post Graduate
7.	LAW 6812: legal research	Post Graduate

8.	ACC 6650: Academic writing and library search	Post Graduate
9.	Online database training	All levels
10.	Bibliographic tools (Endnotes & Mendeley)	All levels

Table 2: Modules offered at Dar al-Hikmah Library

Not only that, the information literacy modules also embedded into course syllabus for examples, LE/LQ 4000, LAW 6812, LAW 1030 and ACC 6650. Precisely, for ACC 6650: Academic writing and library search which is under Kulliyyah of Economics and Management Sciences, the liaison librarian is integrated into the course syllabus for 4 sessions as well as to carry out the quiz for 20 marks. Below are the detail topics for each session:

Week	Topic
8.	<p>Introduction: Using the library for academic research purposes.</p> <ul style="list-style-type: none"> • Types of library and related information providers • How information is arranged – use of classification, collection development and organization • Functions and use of research tools in the library– lib catalogue, indexing and abstracting services, etc
9.	<p>Electronic Research Process (Library)</p> <ul style="list-style-type: none"> • Search techniques - how to develop your search query, Boolean Operators, Proximity Search, Wildcard Search, Truncations • Query Language - some rules for formulating search queries
10.	<p>Electronic Research Process - Online Databases</p> <ul style="list-style-type: none"> • Online sessions - using online databases in social sciences - theses, statistical data, news, articles, etc (a practical session and applying online search techniques) • Alerting services, current awareness service
11.	<p>Using Internet for Research Purposes</p> <ul style="list-style-type: none"> • Web 2 applications and its implication on research process and how we do things • Evaluating the world wide web documents • Search engines - various types; the advantages and disadvantages. of search engines

Table 3: Information literacy (IL) embedded in course syllabus

CONCLUSION

The goal of embedded librarianship is more than service. It is partnership. Librarians must not stand a part. They must place themselves into teams as “integral parts of the whole” (Dene, 2011). In higher education, embedded librarian collaborating with faculty to teach information literacy to students in the classroom or online. They answer students’ enquiries and provide necessary information and link to distance education students in LMS. They are partnering with research teams to find, collect and analyse data and information to achieve the team goal. The success of embedded librarian, indeed, depends not only on the understanding of librarian and faculty members, but also on the support of the organisation.

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