

**EMBEDDED LIBRARIANSHIP IN SCHOLARLY COMMUNICATION: PERCEIVED  
ROLES OF ACADEMIC LIBRARIANS IN MALAYSIAN RESEARCH INTENSIVE  
UNIVERSITIES**

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**ABSTRACT**

When scholarly communication is placed at the forefront of Malaysian research universities, the need for a research arm to support and facilitate usage, publishing and dissemination of research output becomes crucial has and this has changed the academic libraries' services landscape. This paper reports the results of a study that aims to understand the practices of embedded librarianship in Malaysian research universities. The paper explores the embedded librarian's in the pre-publication and post-publication roles of the scholarly communication process. Data were collected through personal semi structured interviews with twelve respondents from five academic libraries. Findings show that the academic libraries are expected to take a greater responsibility for the usage and dissemination of publication output of research intensive universities, as the participants in general perceived that the survival of the professionalism requires the embedded librarianship practices.

**KEYWORDS:** *Embedded Librarianship, Scholarly Communication, Academic Libraries*

## INTRODUCTION

Research universities are public universities that have been recognized by the Cabinet on October 11, 2006 to become a hub of excellence for education and research. Five (5) public universities in Malaysia namely Universiti Malaya (UM), Universiti Sains Malaysia (USM), Universiti Kebangsaan Malaysia (UKM), Universiti Putra Malaysia (UPM) and Universiti Teknologi Malaysia (UTM) (Ministry of Higher Education of Malaysia) are currently given the status of research universities.

Awarded as a research universities requires these five Malaysian universities a hard work to improve the ranking among top universities in the world such as the Times Higher Education Supplement rated (THES), together with the aims of the National Higher Education Strategic Plan (PSPTN), to be at least three (3) higher education institutions (HEIs) listed among the 100 best universities in the world and one (1) amongst the 50 top universities in the world by year 2020. Since the recognition given, the country's research activities and outputs have shown tremendous increase, which proves that higher learning institutions in Malaysia can be at par with reputable universities in the world.

Research and publications productivity is one of the criteria evaluated for the rankings and other accreditations processes. Librarians are not viewed as an academic; but primarily working in a supportive role. This assumption leads to the belief that the role concentrates on information service delivery, rather than knowledge creation. It could be asserted that the role of a librarian in research intensive universities is academic and

that as information professionals, they have much to offer in scholarly communication. Librarians in academic libraries are increasingly required to “understand” research in order to meet institutional service needs and to further their own careers. Therefore librarians and the libraries should be able to carry out the tasks as their new roles since the establishment of these research universities. Librarians should be able to embed themselves in scholarly communication process in these research universities.

Librarians should become a member of the customer community rather than a service provider standing apart (Schumaker& Nixon). They are embedding themselves with research groups, faculty members, and courses. They are building new relationships and delivering new, valuable services. Yet, as they do so, they raise new challenges for user services management.

### **Embedded Librarianship**

Embedded librarianship is a distinctive innovation that moves the librarians out of libraries and creates a new model of library and information work. It emphasizes the importance of forming a strong working relationship between librarian and a group or team of people who need the librarians’ information expertise. (David, 2012). While ACRL defines Embedded librarianship as the part of the overall strategy to provide equivalent library access, resources and services for learner (The Association of College and Research Libraries – ACRL)

### **Scholarly Communication**

Bailey (2002), defines scholarly communication as a formal and informal process by which the research and scholarship of academics, independent scholars, researchers are created, evaluated, edited, formatted, distributed, organized, made accessible, achieved, used and transformed. Scholarly communication also can be defined as the process whereby the result to the scholarship and the scholarly communication process was supported by the library and the librarians, publishers, scholars, learned societies, the legal framework and universities.

Borgman and Furner (2002) in their study who defined the term scholarly communication as the process of sharing and publishing research works and outcomes. The definition of scholarly communication is similar to what has been defined by Graybill, Offord, and Pioron, (2011). This researchers defined scholarly communication also as a process through which scholars and researchers communicate research findings to the others. While other researchers defined the scholarly communication process as participation in an academic community, sharing of ideas, obtaining feedbacks from peers, receiving intellectual recognition and publishing process.

However nowadays, the scholarly communication has been extended also to include aspects of open access (Frandsen, 2009), scholarly publishing (Case, 2009), and information-seeking behavior (Fleming and Yuro). Scholarly communication is an important part of scientific research (Borgman and Furner, 2002; Barjak, 2006). Collaboration, discussion and even academic writing are achieved in the context of

scholarly communication. For researchers, different modes of scholarly communication entail different kinds of information behaviors (Wilson, 1999; Kling et al., 2003). Scholarly communication is a useful framework when studying the impact of new participatory context and its impact on research work (Hurd, 2000). The scholarly communication wider the academic community (Halliday, 2001).

The study focused on the practices of embedded librarians in scholarly communication which is the publications process. Publications are tangible outputs of research in the form of research reports, academic dissertations, theses, journal articles, conference papers, book chapters, monographs and books (Moracsik, 1985).

## **OBJECTIVE AND METHOD**

The objective of the study is to explore the embedded librarians' practices in supporting scholarly communication in Malaysian Research Intensive Universities. The research question posed is: How do academic librarians in Malaysian research intensive universities perceive their roles in the scholarly communication process?

This study employed a qualitative research method and was designed as a case study of the librarians' involvements in scholarly communications. Qualitative research is primarily concerned with meaning, interpretations and giving research participants 'a right of voice'. (French and Swain 2004).The population chosen for this study was focused on practicing academic librarians in research intensive universities in Malaysia.

There are about 260 Practicing librarians in five research intensive universities in Malaysia including the branch campuses. Twelve sample were purposively samples to participate in the current study in consideration of their involvements in scholarly communications. While two librarians whom meets the characteristics were selected for preliminary study.

A semi structured interviews were conducted to gather the data and it takes almost two months for the data collections. All respondents were asked to respond anonymous to the study. The profiles of samples are presented in Table 1 and each participants is identified with a pseudonym:

Table 1: Demographic Profile of Research Participants

<b>Participants (Gender)</b>	<b>Position (Case Library)</b>	<b>Working Experience in Library (Years)</b>	<b>RSD</b>	<b>Participation in Conferences</b>	<b>Indexed Publications</b>
Emma (F)	Chief Librarian (A)	32	No	Yes	17 ( 15 in scopus and 7 in ISI)
Jane (F)	Senior Deputy Chief Librarian (A)	More than 30 years	No	Yes	5 (in Scopus included one article in press)
Bob (M)	Senior Deputy Chief Librarian (A)	22	No	Yes	No
Airene (F)	Deputy Chief Librarian (A)	12	Yes	Yes	5 (4 in Scopus and 1 in ISI)
Kane (M)	Senior Librarian (B)	9	No	Yes	No

June (F)	Librarian (B)	8	No	Yes	No
Rose (F)	Librarian (B)	8	Yes	Yes	No
Adam (F)	Librarian (B)	6	Yes	Yes	No
Ray (C)	Senior Librarian (C)	15	Yes	Yes	1 (Scopus)
Sally (F)	Deputy Chief Librarian (D)	23	Yes	Yes	No
Azry	Senior Librarian (E)	13	No	Yes	1 (Scopus)
Sam	Deputy Chief Librarian (E)	13	Yes	Yes	No

**Indicator :**

**RSD :** Currently or having an experience in servicing the Research Support Department in their respective academic library

**FINDINGS**

**Perceived Roles of Embedded Librarians’ in Scholarly Communication**

The perceived roles of embedded librarians’ in this study are categorized into the pre-publications roles and the post-publications roles, presented in Table 2 and Table 3 respectively.

## Pre-publication Roles

Pre-publications roles are the embedded librarians' roles before the research articles are being published. It consists of five embedded roles i.e. as information providers, information service providers, bibliographic roles, liaison roles and research counsellor.

**Table 2: Pre publication roles**

	Perceived Roles		Example of Statements
1	<b>Information Provider</b>	Librarians play the roles as Information Provider. Librarians make available printed and electronic information sources requires for scholarly communication.	<i>"We acquire and make available print and electronic information sources required for research; We impart information literacy skills; We keep track of the academics' publications via the citation databases; We organize authorship workshops; We meet-up academics and journal publishers. (Emma, Interview, , April 10, 2015)</i>
2	<b>Information Service Provider</b>	Research universities has its own information services for their researchers to support the scholarly	

		<p>communication process in pre and post publication. This service are brought about through various programmes and initiatives introduced by the library such as:</p> <p><b>User education programme</b></p> <p>User education programmes are programmes designed to increase the information literacy skills among library users toward the library collections and facilities.</p> <p>One participant in this study indicated that experience as a researcher helped her in her teaching activities for the user education programs. However self-preparation before teaching would further enhance the teaching process.</p>	<p><i>“We librarians can share our experiences with users during the KKM classes [information skill class]. We teaching not only theory but based also on our experiences.” (Rose, interview, February 27, 2015)</i></p>
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	<p><b>Research support programmes</b></p> <p>Research support programmes are more specific programmes designed especially for researchers to meet their information needs for their scholarly communication process. This programmes conveyed through classes or a workshops such as authorship workshops, Reference Management tools classes for End Note and Mendeley, open access classes and the research awareness workshops for example the researcher i.d, research impact factor and many more.</p> <p>Librarians play an important role in consultations for publications. Librarians provide guidance on how and where to publish. It is also found that one library in this study provided the services called</p>	<p><i>“As a librarians, our role is to provide our services effectively and efficiently based on the supervisor’s advice. We shouldn’t direct the researchers what to do.”</i></p> <p>(Adam, interview, February 27,</p>
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		<p>scholarly communication services to help their researchers on articles writings based on the research findings.</p> <p>However librarian understand that in providing a research support for their researchers, they have to collaborate with other departments such as the IGS (Institute of Graduates School) and also really understand their roles as a librarian not to overshadow the supervisor's roles.</p>	2015)
3	<b>Bibliographic roles</b>	<p>The bibliographic is very valuable for researchers. The bibliographic roles such as information packaging and the current awareness services help researchers obtain a qualified information for their scholarly communication process.</p>	<p><i>“The bibliographic role is something which we have forgotten. The bibliography roles is what they need. They are not going to look at that thousands of the hits list there no time for them. The librarian should manage for them.”</i> (Jane, interview, March 3<sup>rd</sup>,</p>

			<p>2015</p> <p><i>“We provide Information Packaging Services, so when lecturers obtained FRGS or LRGs from the ministry, and so on for group research they will ask for background reports or support data from the library.” (Sam, interview, March 20, 2015)</i></p>
4	<b>Liaison roles</b>	<p>Librarians act as liaison for their researchers as they often meet-up with academicians and journals publishers. They should also be present at all faculty activities like students’ postgraduate seminars, discussion, meetings with the faculty members and students’ activities. So that they are aware of what is going on around as this could provide meets their</p>	<p><i>“We are involved in the discussion, mini seminars, colloquiums of PhD and Masters Students.” (Adam, interview, February 27, 2015)</i></p>

		researchers with the necessary information.	
5	<b>Research Counsellor</b>	Librarians should facilitate the scholarly communication in every single process of scholarly communication such as research, publications and presentations. Librarians should be the ones referred to by the researchers when they faced problems in scholarly communication.	<i>“When it comes to research consultation, we as a path finder must willing to solve their problems, if the researchers feel down or unconfident, we have to guide them. We give them counselling to them on information resources.” (Adam, interview, February 27, 2015)</i>
6	<b>Facilities Providers</b>	Librarians have become the facilities providers for their researchers. Librarian plan and create the facilities in the library for scholarly communication activities such as Wi-Fi facilities, research writing rooms, discussion rooms and many more.	<i>“Well the library is quite complete in the sense that services and facilities and resources are there but whether we really going forward and help them is a big question. We are presenting everything to them and we are expecting them to come and get it. So behind the scene we have</i>

			<i>done what we could. Want resources, want services, want facilities everything is there and we wait for them to come.” (Jane, interview, March 3<sup>rd</sup>, 2015)</i>
7	<b>Module designer</b>	Librarian in this study play the role of module designers especially for modules related to research support programmes. The librarians realize that they have to first gain experience, knowledge and skills before they can offer new research support programmes to their researchers. It is important to review and develop a new modules for research support programmes or user education programmed to be up-to-date with latest development in scholarly communication.	<i>“Now we are developing a module for thesis writing using MS Words.” (June, interview, February 27, 2015)</i>
8	<b>Policy Makers</b>	Librarians are also involved in a	<i>“We draft the IR [Institutional</i>

		policy making for publications in their respective universities.	<i>Repository] policy. We discussed it in a workshop, we ask inputs from the deans and approval from the top management. So that the policy is belong to the university, not us.” (Sam, interview, March 20, 2015)</i>
9	<b>Intellectual property of Scientific Products</b>	Uniquely one of the librarian in this current study is involved in Pattern Filing and the verification process for the university.	<i>“We have the Putra Science Park where intellectual property and patterns are filed. We go to there every week for pattern verification and so on.” (Sally, interview, March 20, 2015)</i>

## Post-Publication Roles

Librarians play an important roles in the post-publications process, after the journal articles are accepted and published. This findings is similar to Narin and Hamilton 1996 who’s found the publications count used to measure the research productivity and also used for rank the universities, the faculties and the author’s productivity (Hart, 2000)

**Table 3: Post-publication Roles**

	<b>Perceived Roles</b>		<b>Example of Statements</b>
<b>1</b>	<b>Provision of scientific product and research impact to policy maker</b>	<p>Librarians in research intensive universities play an important roles in maintaining and generally taking care of the publications. The provision of scientific product and research have a great impact on policy makers in recruitments of academicians, in the process of promotion and tenure, in the process of giving awards and incentives and finally in the ranking process.</p> <p>Librarians who are responsible for provision of scientific product and research impact to policy maker deal with other departments in the universities as well as with the</p>	<p><i>“We have to take care of the publication because the publication is the main criteria in term of ranking the ISI and the Scopus, so our division is the main role because we take charge of monitoring the performance of UM academic in term of publications.”</i> (Airene, interview, April 8<sup>th</sup>, 2015)</p> <p><i>“I manage career advancements and authentication for example, if the lecturers and other academic staff seek career advancement they have to provide details on their past publications which I</i></p>

		<p>Ministry of Education. These Embedded librarians are required to work hard and be experts in publications management. How do they collaborate ensure the effectiveness of their roles in the process of publication management.</p> <p>Librarians in this study do come out with a few initiatives to encourage their researchers to enhance their understanding of scholarly communication and its impact to the universities.</p>	<p><i>have to authenticate. At UTM, each publications would be recorded in the yearly reports and I have to check. This is a lot of work. Last year we had 6,676 publication data which we had to authenticate.”</i> (Ray, interview, March 29, 2015)</p> <p><i>“For researchers, we have to report his/her H-Index as a requirements to apply for FRGS. Besides, Professor Ulong who come under the ministry, Professor emeritus and such whenever they are appointed, we provide data and so on.”</i> (Sam, interview, March 20, 2015)</p> <p><i>“Our unit assist the Research Management Center (RIBU) and the Secretary in authenticating</i></p>
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			<p><i>claims made by lecturers who have published in high impact journals before incentives are given. We prepare reports, candidate lists, go through all their claims and then send them to the Bursary so that payment can be made.” (Sam, interview, March 20, 2015)</i></p> <p><i>“Publications is the main criteria in THES - Time Higher Education. So we have to ensure that lectures in one field write on that field, for example a lecturer in mechanical engineering write on chemical engineering so the marks will be drop. Journals selections is very important.” (Ray, interview, March 29, 2015)</i></p> <p><i>“Presently I am in the process of</i></p>
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			<p><i>detecting fake journals. Usually I make use of the BELL List. On this list, we can get background information on journals like whether it is indexed in Scopus or ISI Web of Science. Whether have been deleted because of the redundancy and whether they are fake or genuine. If there are not listed in the Beall's List, we still have to check out their background. Usually such journals are written in India, peer reviewed in Germany without an address. This is rubbish.” (Ray, interview, March 29, 2015)</i></p>
2	<b>Report writings</b>	<p>Librarians who involved in Provision of scientific product and research impact to policy maker are responsible for preparing reports which are required in the process of ranking, auditings, promotions,</p>	<p><i>“Information and reports have to be prepared by us according to the MYRA glossary. Regarding publications, quartile reports, the impact factor, citation analysis, H-Index, My MoheS reports, RU</i></p>

		<p>award presentations and recruitments.</p> <p>Besides writing reports, librarians also do data analysis to show the pattern of publications and to gain an understanding of association rules and the relationship among authors in publications.</p>	<p><i>data reports, SETARA, CAPS and KAI data reports for the university.” (Ray, interview, March 29, 2015)</i></p> <p><i>“When I prepare reports, I do analyze, so that I have a idea of the pattern of the publications. I am also involved in doing annual reports. So librarians don’t only gather data but we also do analysis. We must be familiar with bibliometrics, scientometrics, altometrics, data mining and bibliomining.” (Ray, interview, March 29, 2015)</i></p>
<b>3</b>	<b>Promotion</b>	<p>Librarians promote the scholarly communication output via their user education programmes and through exhibitions and social media. Promotion is important to inform</p>	<p><i>“I promote research so that other researchers and decision makers alike know that I have done this research and read my thesis. These are my findings and in</i></p>

		<p>interested parties that research has been carried out on a particular subject and to share the research findings with other researchers.</p> <p>Library and librarians provide a platform for their researchers to deposit their publications in institutional repositories for the promotion and publication management process.</p>	<p><i>there are elements of new information.”</i> (Adam, interview, February 27, 2015)</p> <p><i>“So only after a publication is deposited in the IR [Institutional Repository] it will be graded, awarded a grant and so on. Only after this will it get visibility.”</i>(Sam, interview, March 20, 2015)</p>
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## CONCLUSIONS

This study showed embedded librarians’ roles in scholarly communication focused in publication which can be divided into the pre and post publications. In order to ‘embed’ in scholarly communication process, librarians should prepare themselves with competencies in doing research, writing skills, communication skills and many more. Librarians also required to update their knowledge and skills from time to time like what has been voiced up by one of the respondent in this study.

*“Since academic library dealt with researchers, dealt with academics how we can help them is the only when we understand what the whole process of scholarly*

*communication is all about. So every librarian must, if not write at least read and present paper, go for conferences so that they understand what the researchers interest and when the researchers know that you have publish the paper how they look at the librarian will be at the higher level than to say the librarian don't know what you talking about. To gain the attention is good that librarian go into the school.”* (Jane, interview, March 3<sup>rd</sup>, 2015)

Finally embedded librarians in scholarly communication should have a good ethics in professions, interest in doing research, creative thinking skills and applied a strong leadership practices to success in their embedded roles.

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