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**Trust and Authority in Scholarly  
Communication in the Light of  
Digital Transition: Embedding  
Practices and the Required  
Competencies for University  
Librarians**

# Scenario 1: The Changing Landscape

The University has issued a directive to focus on Research, instead of Teaching & Learning, due to declining undergraduate student enrolment and increase of research students. How we do research and what/where we publish becomes more influenced by government policy, seeking different outcomes at the national and international level. For example:



- Research focuses on tackling global challenges like urbanisation; food and energy security; and meeting the social and economic needs of a growing and ageing population.
- Government places emphasis on Science, Technology and Engineering training.
- Government policy is to fund programmes that produce “researchers”.

The Library is faced with changing cohorts and the need for new and different embedded services. How does the Library respond and engage?

## Scenario 2: Dog eat dog



The Government decides through a combination of amalgamation and disestablishment to recreate a single University of Malaysia. The five research-intensive universities are given two years to demonstrate which should be the Research arm of the University. It should have areas of expertise that could lead to the creation of research hubs, enabling engagement with the wider global research community.

How does the Library respond?

# Introduction



- Librarians in higher education support researchers every day – they are regularly involved in the research process in various ways.
- Librarians’ role is often seen only as an information-provider role and concentrates on information service delivery, rather than knowledge creation, therefore less academic and primarily working in a supportive role.
- This restricted view confining to “support research” denies librarians themselves the chance to realise their capacity to build new knowledge in research.

# A change of paradigm

- It could instead be asserted that the role of a librarian in higher education is academic.
- As information professionals, librarians have much to offer in the research field, especially in contributing to new pedagogic knowledge. (McCluskey 2013)
- McNicol (2004, p. 119) takes the view that “within the library and information profession, research is largely an untapped resource” and advocates that librarians disseminate practitioner research in order to narrow the practice-research gap.
- My view is that a key way of supporting research as a librarian is to engage in the practice oneself, to partake in knowledge creation rather than simply providing information.



# This paper

- Provides evidence to support the idea that university librarians play an important role in research undertaken by their organisations.
- Investigates the notion of the embedded librarian in relation to scholarly communication and research support via literature review
- Provides an overview of an investigation into the research project *Trust and Authority in Scholarly Communications: The Periphery of World Scholarship in the Digital Era* conducted in Malaysia.
- Discusses the implication of the *Trust and Authority* findings in the context of the concept “embedded” librarianship, with regard to university librarians being directly involved in scholarly communication activities and delivering the right services to meet the needs of the research community.



LIBRARIANS AND  
EMBEDDED PRACTICES  
IN SCHOLARLY  
COMMUNICATION

CO-EQUAL PARTNERS, NOT JUST  
SERVICE PROVIDERS



# THE TWO CONCEPTS



## ■ EMBEDDED LIBRARIANSHIP

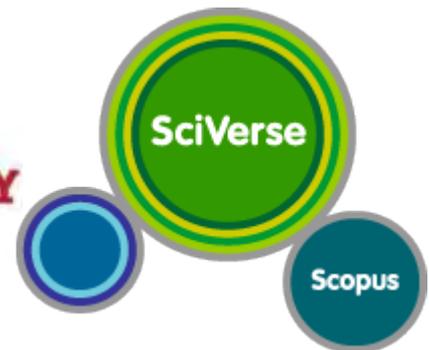
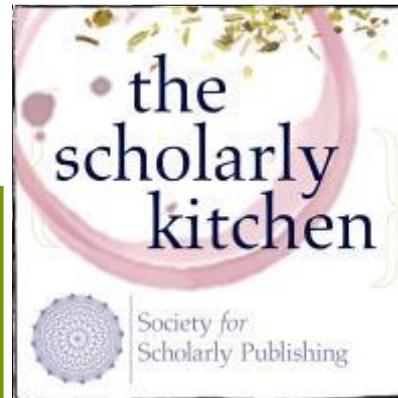
- To be an integral part of a whole; attached; fix firmly and deeply; dedicated function within a larger system.
- As an embedded librarian in the research context, a librarian works with researchers more “upstream” in the research process rather than “just with the products produced at the end of the research lifecycle: books and journal articles. (Carlson & Kneal 2011)

## ■ SCHOLARLY COMMUNICATION

- both 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.
- supported by the library and the librarians, publishers, scholars, learned societies, the legal framework and universities.

# THE TRUST & AUTHORITY IN SCHOLARLY COMMUNICATION

Provide evidence to support the idea that university librarians play an important role in research undertaken by their organisations



**usage**  
downloads  
views

**peer-review**  
expert opinion

**citations**

**alt-metrics**  
storage  
links  
bookmarks  
conversations

# What does the literature say on embedded librarianship in research

- Embedded librarians as a partner for the academics who helps in running of an academic journals and research output
- Academic librarians are significantly more likely to say they provide embedded services in these sectors: education, financial services, information services, technology, biomedical and media.
- Librarians face obstacles to conduct research, such as lack of skills in conducting, disseminating, and interpreting research, as well as limited time, access to funding, access to previously-published research, and employer support.
- The majority of the literature by librarians is not research-based.
- Library practitioners collaborate with LIS empirical researchers, rather than viewing practitioner research and collaboration with practitioner/action researchers from other arenas.
- LIS professionals, need an in-depth understanding of the writing for publication process and that by participating in conferences and similar events, LIS staff may build up networks, meet editors and gain publicity.
- One way by which less-confident practitioner researchers might start to engage in research is to seek partners or mentors



# The Trust & Authority Study

- Examines the behaviours and attitudes of academic researchers as producers and consumers of scholarly information resources in the digital era in respect to how they determine authority and trustworthiness in the sources they use, cite, and publish in.
- A national investigation into what is unquestionably the most important characteristic of scholarly communication, use and information seeking behaviour - quality and reliability.
- Investigation is being conducted world-wide in recognition of the universality, connectedness and, possible, inequalities in scholarly communication and focuses on countries which are at the centre of scholarly communication.



# Research Background

- Originates from CIBER, began in 2012 with two countries, USA and UK, which are at the centre of scholarly communication.
- Also conducted in India and China. Extends to Malaysia, a periphery country in scholarly communication.
- First phase: Dec 2013 – April 2014
  - five focus groups conducted at 3 universities in Kuala Lumpur
  - 48 science and social science researchers cum authors
- Second phase: May & July 2014
  - Critical incident interviews on citation practices
  - 8 SRs, 6 ECRs
- Third phase: Oct – Dec 2014
  - 514 respondents, from a target of 2500 (20.56%)



- Major findings:

- There is uniformity among authors, irrespective of disciplines and publishing experience, that only journal is the channel and the scholarly resource that they trust for publishing and disseminating their research works.

- Authors trust journals in view of its

- Impact
- Indexation status
- Reputation,
- Peers' recommendation,
- Accessibility and visibility
- Authority's approval.



- Institutional mandate influences peripheral researchers' customary practices of information-source and dissemination evaluation.
- New forms of communication channels such as social media or new journal models are not much used
- Publishing in Open Access journals, as well as blogging and micro-blogging to disseminate research findings are not influential as there are no forcible or encouraging measures for Malaysian researchers to blog or tweet.
- Authors trust institutional repositories more to disseminate their research compared to subject repositories.
- There are more unethical practices (e.g. plagiarism, falsifying, fabricating, citation gaming) but Malaysian researchers are in general cautious and aware about unethical practices in scholarly communication.

# Implication for Embedded Ideas and Practices

- Purposive Selective dissemination of information service to researchers
- Conduct bibliometrics studies – the growth of literature in a particular field.
- Conduct citation analysis studies; Make academics aware that most scholarly e-journals are refereed and some are highly cited
- Conduct single journal studies; Provide advice to the faculty with regards to ranking of journals, journal impact factor and related indicators.
- Educate faculties about the types of e-journals available in respective disciplines, the referee status, their impact factor and whether they are on open access.
- Regularly generated research assessment statistics
- Advocacy and promotion of open access journals and social media platform through liaison librarians, seminar on open access, leaflets, letters and e-mails.
- Evaluate journals, and educate faculty on suppressed list and predatory journals. Respond to prevalent and misleading Open Access myths.



# Implication for Librarians' Competency

- Systematic literature review; Critically evaluate published research
- Citation analysis; Statistical tools / quantitative analysis; Expertise on choice of data sources and analysis
- Bibliometrics; Scientometrics; Evidence appraisal / critical appraisal of institution's own research output
- Institutional mandate or strategic plan Knowledge on choosing a publication avenue
- Advance the theory and practice of embedded librarianship, and keep faculty apprised of new knowledge
- Knowledge on Open Access Scholarly Communication; Almetrics; Value of social impact of scholarly communication
- Familiarity of tools to disseminate research output
- Knowledge on predatory journals/ publishers; hijacked journals



# Implication



- With such competency, a scenario planning may see embedded librarians organizationally attached to the centralized organizations, though they may spend their days away from the library and other librarians. They could be:
  - librarians working with information resources as they are generated over the course of the research, such as data, to prepare them for dissemination beyond the project personnel for re-use by others, or for long-term preservation.
  - librarians designing workflows and systems to organize, manage, and deliver research project documentation or other needed materials.
  - librarians who not only perform literature searches, a standard library service, but also would be better able to identify search needs by joining researchers to do research.
  - librarians doing research that not only involves them to improve the library services or accountability, but a specific research topic in in the areas of competency that require special attention with groups they are embedded with.
- They may have offices with the groups they are embedded with; they spend most of their time in collaboration with the teams whose work they are participating in.

# Conclusion

- The findings of this study highlight one important implication; that librarians in higher education who involve supporting or conducting research, or who have an interest in conducting research, need to demonstrate a set of competency supported from the findings of the *Trust and Authority* study.
- These skills are knowledge in the area of bibliometrics, scientometrics, citation analysis, journal studies, and research assessment .
- As such, librarians need to perform assessment of their current competencies and competencies they need to develop.
- This calls for academic librarians whose jobs involve supporting or conducting research, or who have an interest in conducting research, to develop research competencies, and the academic libraries to source research training for their librarians.
- This embedded role offers librarians a means to increase their value in their organizations, their communities, and society as a whole



# LIBRARIANS AND RESEARCH IMPACT

## A story of measurement, insights and action



**BEYOND BOOKS AND ARTICLES**

Though scholarly publishing is still the primary measure of academic research, other forms of output are now more widely recognized, described in repositories and included in assessments. Librarians and information professionals are helping to raise awareness of the breadth of outputs and systems for tracking these new measures.<sup>1</sup>

**RESEARCH OUTPUTS**

- articles
- books/book chapters
- conference proceedings
- theses and dissertations
- datasets
- patents and other IP
- multimedia
- software
- slides
- reports
- illustrations
- websites and blogs
- live presentations
- curated events
- many more!



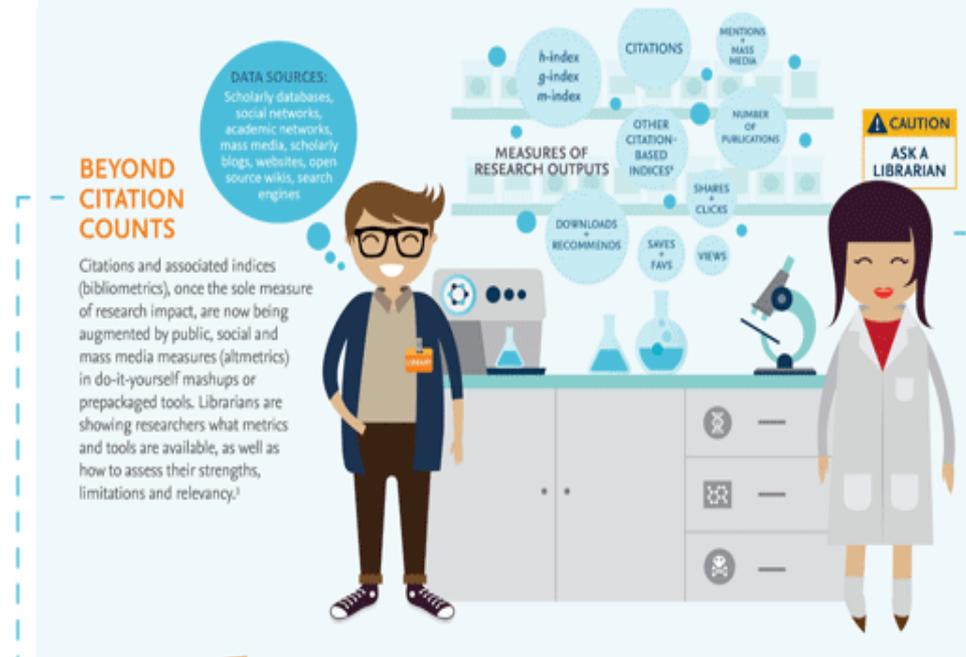
**BEYOND TENURE DECISIONS**

Researchers can apply such evidence to influence collaboration, funding and promotional opportunities. Librarians are working with researchers on raising the visibility and impact of their research and enhancing research and career opportunities, and with the research office on performance measurement and quality assessment activities.<sup>1</sup>

**To-do list**

- Find collaborators for phase 2 study.
- Update promotion and tenure file.
- Identify alternate funding agencies.
- Register for an ORCID ID.
- Post latest article to academic networks.
- Cross-check h-index on repositories, databases and networks.

**Never Underestimate the {IMPACT} of a Librarian**



**BEYOND CITATION COUNTS**

Citations and associated indices (bibliometrics), once the sole measure of research impact, are now being augmented by public, social and mass media measures (altmetrics) in do-it-yourself mashups or prepackaged tools. Librarians are showing researchers what metrics and tools are available, as well as how to assess their strengths, limitations and relevancy.<sup>1</sup>

**DATA SOURCES:** Scholarly databases, social networks, academic networks, mass media, scholarly blogs, websites, open source wikis, search engines

**MEASURES OF RESEARCH OUTPUTS**

- h-index
- g-index
- m-index
- CITATIONS
- MENTIONS MASS MEDIA
- NUMBER OF PUBLICATIONS
- OTHER CITATION-BASED INDICES\*
- SHARES
- CLICKS
- DOWNLOADS
- RECOMMENDS
- SAVES
- FAVS
- VIEWS

**CAUTION ASK A LIBRARIAN**

Embedded librarianship is a powerful way to show the impact that librarians can and do have beyond the traditional functions of the library, and why librarians are needed now more than ever.

# Acknowledgements

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Thank you for  
your attention

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