

## **Malaysian Education Index (MEI): An online indexing and repository system**

**Muhammad Kamarul Kabilan, Hairul Nizam Ismail, Rohizani Yaakub,  
Najeemah Mohd Yusof, Sharifah Noraidah Syed Idros, Irfan Naufal Umar,  
Muhammad Rafie Mohd. Arshad, Rosnah Idrus and Habsah Abdul Rahman**

**Universiti Sains Malaysia, Malaysia**

### **ABSTRACT**

This 'Project Sheet' describes an on-going project that is being carried out by a group of educational researchers, computer science researchers and librarians from Universiti Sains Malaysia, Penang. The Malaysian Education Index (MEI) has two main functions – (1) Online Indexing System, and (2) Online Repository System. In this brief write up, the authors describe the objectives, functions and contents of MEI, as well as its critical role in the process of enhancing the quality of teaching and learning, and research in Malaysia. Also described are some of the rigorous steps taken in ensuring that the proposed MEI system will be efficient, fluid and transparent.

### **INTRODUCTION**

The last two decades have witnessed a worldwide proliferation of information and communication technology (ICT) into the fields of education and higher education in developing countries (Albirini, 2004). ICT has become an integral and effective tool in enhancing the quality of teaching-learning and research activities that very much takes place in institutions of higher learning and in schools. It is widely accepted that ICT is already changing the landscape of secondary and tertiary education, in which the impact of ICT on education encompass an increase in technology use in classrooms and a far greater access to a myriad of information, among others. Primarily, the impact of ICT on how educators and learners search, retrieve and gain access to information is astounding in terms of the amount and wealth of information gained and also in terms of the pace of information flow and access. This means new methods of accessing information and relating information to others need to be sought and recognized (Abbott, 2001).

The dynamics of functioning in a knowledge economy, the changing nature of learning and the changing needs of the learner have been forcing educational institutions of higher learning, especially, to consider new ways of managing teaching-learning and research activities, as both these two entities are inter-related and influence each other. Clark (1997) explains that teaching as a process of inquiry where students learn to frame questions, use appropriate research instruments, and induce critical thinking and active learning rather than memorization and regurgitation of facts. This is especially relevant for postgraduate students who need to demonstrate the above abilities to conduct research and report their findings in the most effective and efficient manner.

## **MALAYSIAN EDUCATION INDEX**

In the Internet, there are varieties of databases, repository systems and websites that provide and offer quality references and research ideas that are useful for teaching-learning and research purposes in the higher education settings. These references and ideas – in the form of conference papers, journal articles, thesis and thesis abstracts, scientific reports, research reports, research abstracts, research notes, reviews, research instruments and experts – are current, attainable and accessible to anyone, anywhere. The above resources, data and information are usually well procured, collected, documented, organized, maintained, managed, distributed and dispensed because, in the online environment, ‘an implied requirement of today’s World Wide Web (WWW) is to provide mechanisms that store, manage and discover resources in an efficient way’. (Koutsomitropoulos et al., 2010, p. 1). Some of the examples of well-established and managed, and popular databases and repository systems in the field of education are:

Education Line (maintained by British Education Index) [[www.leeds.ac.uk/educol](http://www.leeds.ac.uk/educol)]

Educational Resources Information Center (ERIC) (maintained by US Department of Education) [[www.eric.ed.gov](http://www.eric.ed.gov)]

Australian Education Index (maintained by Australian Council for Educational Research) [[www.acer.edu.au](http://www.acer.edu.au)]

### ***Aim and objectives***

In an international survey of institutional repository or database, van Westrienen and Lynch (2005) argue that research and exploration into this aspect of the academia is ‘immature and rapidly evolving part of the infrastructure for scholarship and scholarly communication’ (p. 10). This is more than true for the Malaysian context – so far, there are no online databases or repository systems and networks that specialize in indexing educational documents and materials similar to the ones above. Hence, a needs analysis survey was carried out to determine if such a database or repository system was needed by stakeholders – 75 lecturers, research officers, postgraduate students and, practicing and studying teachers were invited to participate in the study. It was concluded that MEI is needed, useful and valuable to these groups of people who are directly involved in education and educational research activities.

Materialization of a Malaysian online repository system that functions as a clearinghouse for educational research and an educational index (to catalogue documents and materials related to research, publication and other academic activities) would enable and encourage quality research that are based on, and stem from a systematic and thorough current research and critical review of literature. This will lead to the enrichment and enhancement of quality teaching and learning at the higher educational level as well as other levels of education, schools for example. Also, it will contribute to the vacuum of the infrastructure for inter-national or intra-national scholarship and academic development and practices as pointed out by van Westrienen and Lynch (2005).

With the recent bestowment and acknowledgement of Universiti Sains Malaysia (USM) as the leading research university in Malaysia and the establishment of National Higher Education Research Institute (NAHERI) since 1997 in USM, a group of researcher has taken the lead in initiating, developing and establishing a Malaysian Education Index (MEI) in the online environment since 2007. In the process of establishing MEI, the following stages have been (and will be) to be carried out:

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Stage	Objectives:
1.	To examine the entities or elements that needs to be included in MEI (underline the structure of MEI).
2.	To identify and establish the processes involved in maintaining and sustaining MEI.
3.	To develop and build an online environment that houses MEI. *
4.	To identify the process of procuring, collecting, documenting, organizing, maintaining, managing, distributing and dispensing the materials
5.	To examine the impact and contribution of MEI to various stakeholders (students, academics, Ministry of Higher Education and public).
6.	To examine the impact and contribution of MEI to the quality of research undertaken in the field of education.

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*\* At the time of writing, this project is at the third stage*

### **Functions and contents**

A long-term aim of this initiative is that MEI will be a point of reference for the Ministry of Higher Education and the Ministry of Education and also students and academics of universities and colleges in Malaysia, as well as outside Malaysia, particularly the Asia pacific region, for various research and teaching-learning purposes. The first function of MEI is as an indexing system. As an indexing system, MEI will index and rank the research and researchers, conferences and conference papers, and articles that are published in local and international journals and assign impact factors to them. These impact factors refer to the extent – in terms of numbers – they have been referred to in local and international publications.

The second function of MEI is as an online repository system that aims to house conference papers, journal articles, thesis and thesis abstracts, scientific reports, research reports, research abstracts, research notes, reviews, research instruments and experts related to education at all levels. However, MEI will only document, catalogue and index these educational-based objects/items/documents/references/materials that are based on the Malaysian context and settings (by Malaysian authors and researchers or by foreigners).

These impact factors will be the indicator of the effect and impact of conferences, conferences papers, research, articles, among others, to the field of education in Malaysia. Some of the sub-fields that will be included in MEI are:

1. Language Education - English Language Teaching, Bahasa Melayu Education
2. Mathematics Education
3. Science Education
4. Social Science Education
5. Higher Education

6. Special Education
7. Counseling
8. Educational Psychology
9. Educational Sociology
10. Educational Administration
11. Educational Evaluation and Testing
12. Arts Education
13. Sports Education

To ensure that the contents of MEI are reliable and valid, the process of procurement, documenting, cataloging, indexing will be rigorous, systematic, fluid and transparent. The following procedures will be adopted:

1. Members of public need to register before they are able to contribute materials to MEI;
2. A manager will verify all contents uploaded by registered members;
3. Continuous monitoring of contents of MEI will be carried out to weed out errors;
4. The indexing system and cataloging will be innovative yet based on the procedures practiced by the libraries in Malaysia.
5. An annual report – THE MALAYSIAN EDUCATION INDEX – will be printed and distributed to libraries in Malaysia as well as other parts of the world for transparency and current relevancy;

## CONCLUSION

With the establishment of MEI as an indexing agency and an online repository system, it is hoped that documentation and the managing of resources related to the field of education and educational research will be more focused, fluid, transparent and systematic. MEI is expected to gain international recognition as a reliable and valid source of information and documentation of Malaysian educational research and activities in the near future. The research team is undertaking serious measures to ensure that such recognition is attained with the use of rigorous documentation process, as well as rigorous research measures.

*Note: The MEI is expected to be completed and available online in December 2010.*

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