Empowering Higher Education Data Openness with Selected Methodologies

Siti Nur'asyiqin Ismael[1, *], Othman Mohd[1], Yahaya Abd Rahim[1], Kamel Mohamad[2]

[1]Fakulti Teknologi Maklumat dan Komunikasi, Universiti Teknikal Malaysia Melaka, Hang Tuah Jaya, 76100 Durian Tunggal, Melaka, Malaysia
[2]Deputy Secretary General (Management) Office, Ministry of Higher Education, Level 16, Tower 2, 62200 Putrajaya, Malaysia

*Corresponding e-mail: syiqin08@gmail.com

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ABSTRACT – The phenomenon of delivering an Open Data initiative becomes pervasive in every country. Communities nowadays are starting to consider Higher Education (HE) Open Data portal in deriving the ideas and understanding about HE aspirations; thus can assist them in making wise decision for the future. The needs of implementing Malaysia HE Open Data is crucial and demanding. In some countries, HE Open Data portal has been introduced as one of the best approach in encouraging student engagement and academic activities. This paper discussed about blended of methodologies that have been used towards data openness for selected HE countries.

1. INTRODUCTION

Giuseppe[1] stated that Open Data phenomenon is expected to change the government and public relationship. The goal of Open Data Implementation is to access the data produced by the government through an open format datasets form. Tran and Scholtes [2] emphasized that the implementation of Open Data would address some existing legal challenges such as the scope of the access to information and the data ownership. The researcher is advised to be well conceptualized and understand on how the data is collected, why the data is collected and who will benefit from Open Data in order to ensure the data sharing is efficient and accurate.

According to Manyika et.al [3], This new concept has been introduced and has create a phenomenon around the world for its potential capability to improve delivery of public service, encourage the participation of the citizens towards having a transparent government.

Every country has a different governance structure as well as different policies in regard to open data [4].

In this study, 3 selected HE Countries Data Openness approaches has been conducted. Currently, there is no limit of data sharing as this paper focuses on how the data is shared only.

2. RELATED WORK

Manyika et.al [3] stated that Open datasets always been characterized by no cost, machine readability and minimal rights on data distribution. HE plays as one of the major roles to provide the information for future needs.

The open data information such as HE performance and requirements data can also be used by community especially school teachers, students and parents to make more informed decisions about choices of schools and academic or vocational concentrations. Moreover, the benefit of having open data in HE are as below: -

a. improved instruction; especially on top down approach and guiding educators to the most effective teaching methods.
b. better matching of students to programs; Parent and student may select educational opportunities that match the student's need and abilities
c. matching students to employment; Company may choose the student (potential job candidates) based on their skills
d. more transparent education financing, more efficient system administration; Parent and student will get the actual cost of education from various universities

Ministry of Education Malaysia [5] specified that Malaysia's Higher Education Institutions (HEIs) is categorized as Public Universities, Private Higher Educational Institutions, Polytechnics and Community Colleges.

Universities UK stated that [6], 'creating value from Open Data' is a project led by Universities UK in conjunction with Open Data Institute (ODI) to gain value of UK Higher Education.

Francois et.al [7] found that in South Africa, the Department of Higher Education and Training (DHET) is the government department that responsible for public higher education sector, integrate the data as well as to develop responsive data driven intelligence system. Centre for Higher Education Transformation's (CHET) Open Data Portal has been developed to supply the data from DHET for public perusal. CHET drew on data from Higher Education Management Information System (HEMIS) and acted as intermediaries between DHET's HEMIS database and the end-users.

Alrushaid and Saudagar [4] discovered that Saudi Arabia has vast amounts of data collected to be transformed into information. Open data initiatives always focused on the accessibility and the technology

excepts user perspectives.

3. METHODOLOGIES USED TOWARDS DATA OPENNESS APPROACH IN HE

Figure 1 shows the blended of methodologies used for 3 selected HE Countries; United Kingdom (UK), South Africa and Saudi Arabia.
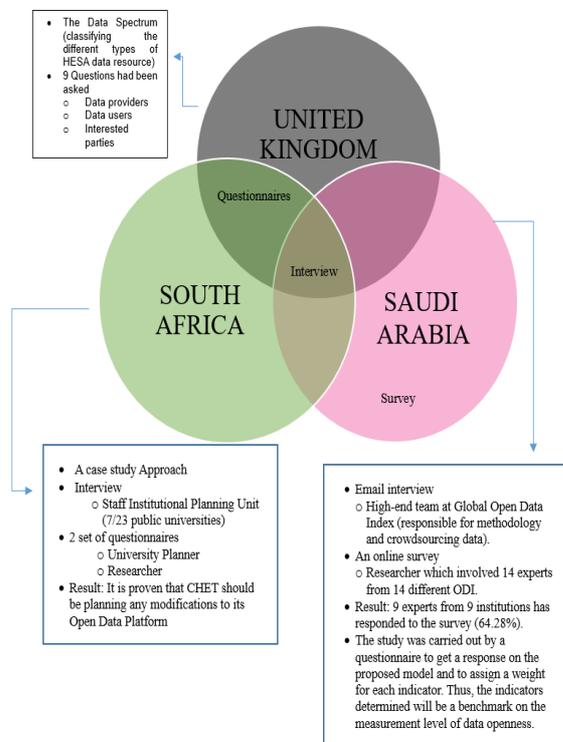

Figure 1: Blended of methodologies used towards data openness for selected HE countries.

4. RESULTS & DISCUSSIONS

Based on these three (3) (UK, South Africa and Saudi Arabia) HE countries, it can be seen that the same approach had taken place in deriving data from the respondents; the interviews, surveys and questionnaires.

Selection of these 3 HE countries are based on the country classification by World Economic Situation and Prospects report. Dji [8] has categorized UK as developed country. Meanwhile, South Africa and Saudi Arabia has fallen into a group of developing countries in which the latter one specifically belongs to the same region Asia as Malaysia.

HESA [9] stated that the samples are categorized into several groups of Access which are Internal, Named, Group-based, Public and Anyone. All the groups and their respective access will be listed in the data spectrum to determine the openness of the data.

Francois et.al [7] found that South Africa has focused on staff in the institutional planning units at selected 7 of 23 South Africa Public Universities. The selected universities were chosen based on University's criteria such as the size, type, location, multi or single campus. For data collection, the researchers were selected based on the prominent HE journal and those

previously had request the data via email.

As for Saudi Arabia, the interview had taken place with high end team at Global Open Data Index that involve an expert from four-teen (14) different ODI. The researcher 's required to identify at least one (1) open data expert in each institution and ensure that the panelist certainly has a relevant experience/ knowledge [4].

In implementing HE Open Data, some challenges need to be addressed such as data availability, licensing and machine readability. Therefore, to overcome these issues, interest groups/tools are established to ease the process towards the implementation of open data based on the objectives of data openness in HEIs model.

5. CONCLUSION

HE Open Data is one of the government initiatives that are currently has undertook the sensation in order to share the data throughout the public universities thus can benefit the HEIs and public as well. Further research will be conducted to identify characteristics in developing Malaysia Technical University Network (MTUN) Open Data Framework.

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