

PREDICTING THE FUTURE OF MOOCS IMPLEMENTATION IN REDESIGNING HIGHER EDUCATION OF A MEGA UNIVERSITY

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Abstract: *The objective of this case study is to share the insights of MOOCs in UiTM by highlighting the building blocks and opportunities faced by MOOCs developers in implementing the new paradigm in teaching and learning. MOOCs is predicted to provide solutions in managing a Mega University such as UiTM whereby the approach will prepare in sustaining the fluidity and flexibility in embarking into a borderless education system. Indeed, MOOCs is the futuristic step to transcend synergistically towards the future and endorsing the need to move towards 4IR. This has transformed the learning environment allowing a flexible and personalized learning experience.*

Keywords: *MOOCs implementation, Mega University, UiTM, teaching and learning.*

Introduction

In the shift towards „*redesigning higher education*“, Malaysia embark on Massive Open Online Courses (MOOCs) as an approach to innovate teaching and learning experience through flexible learning. Such innovation has never been thought to be possible but it has indeed transformed the conventional learning environment and such development in virtual learning allow a more flexible and personalized education system which is needed in today’s technology driven way of learning.

MOOCs, a term to describe the emerging trend of virtual mode and open source teaching and learning, provides opportunity for educators to be creative in designing teaching methods on OpenLearning. A learner, on the other hand, will have an exciting opportunity and freedom to explore courses and engage in an interactive and empowering learning experience from around the world. MOOCs courses which crosses the boundaries of time and space, which is accessible via smart phones, tablets, computers and laptops, makes the learning experience much more interesting and fun. Additionally, the learning process will be granted through certification of course completion that is recognized internationally.

The learning revolution via MOOCs is the ability for content to be accessed globally as compared to the conventional learning. In the context of Malaysia, MOOCs, is considered as one of the several ambitious initiatives by MOHE since April 2015 and to embrace technology were set as a means to jumpstart a paradigm shift in higher education (Jusoh, 2017).

Universiti Teknologi MARA (UiTM) is among the local universities that is ready for this paradigm shift. In Malaysia, UiTM is considered as a mega university. As of May 2018, the university has over 140,000 active students, over 17,000 staff members, 508 programmes and these numbers are spread over 35 campuses (UiTM Centre for Strategic Planning & Information). Aside from the size, the university even offers academic programmes at Diploma and Bachelor Degree levels for potential candidates via part-time/off-campus (PLK) and online distance learning (e-PJJ) mode of study. This is to fulfill one of its objectives, to provide life-long educational opportunities for Malaysian working adults for academic improvement and career enhancement.

UiTM, through Institute of Neo Education (iNED) has also strategically promote MOOC initiatives with the aim to be part of constructing change to the higher institution and achieve global excellence, in line with the Malaysian Education Blueprint 2015-2025. The derivation towards creating a global classroom posed opportunities and challenges not only at the institutional level but also the educators, especially the content developers.

In the case of UiTM, the first stage of MOOCs implementation featured an average of 15 courses from every faculty. Likewise, various initiatives were organized at faculty and institutional level, from workshops, technical trainings and also e-content development competition to promote MOOCs. In 2017, UiTM managed to establish 450 MOOCs from various programs and in 2018 UiTM aspire to complete another 450 courses making the university a leader of MOOCs development in the nation. As such, it is deemed necessary for the university to set a well-planned approach to ensure that the educators in the Higher Education Institutions, are well prepared to face the challenges ahead.

The implementation of MOOCs has attracted a great deal of attention and has given rise to debates about the impact towards the teaching and learning process, the learners and the educators as the MOOCs developers. Likewise, debates about the model of delivering, teaching and learning in digital content via MOOCs in the higher education community revolves around the possibilities, impact and significance of MOOCs to reform the role of higher education institutions (HEIs), the educators and the learners

Research on MOOCs started to expand beginning 2013, whereby the pattern of research indicated three main research areas namely, on theories and models, learner's characteristics and instructional design (Aras Bozkurt, Ela Akgun -Ozbek and Olaf Zawacki-Richte, 2017). However, these researchers also found that the least explored research area revolves around learner support services, management and organization involving access, equity and ethics. Such implications provide an impetus to explore MOOCs implementation in the context of UiTM.

Within the perspective set, to extend the opportunity of MOOCs is one step to move synergistically towards the 21st century and endorsing the need for Malaysian education system to move forward and in line with the 4th industrial revolution (4IR).

MOOCs Implementation: The case of UiTM

As mentioned earlier, MOOCs is considered as MOHE's initiatives in embracing technology to transform the higher education apart from promoting flexible learning approach. UiTM has taken this challenge and encourage educators to participate in the

project which makes UiTM as one of the pioneers of MOOCs development in Malaysia. In the coming decades, it was highlighted that the building blocks for higher learning institutions will revolve around issue related to globalization, demography, new approaches to governance and technology (OECD, 2007). Hence, UiTM is looking forward to the future of innovative learning and MOOCs is one of the mechanism that could realize the new wave of teaching and learning.

As an innovative way of learning platform, MOOCs allow learners to explore a social learning environment. It also enables students to experiment „*classes without walls*“ or an environment free from the conventional classroom experience. Such method opens up opportunities for students to be responsible for their own learning as they have to manage their learning. In order to give such freedom to the students in managing their own learning, the educators who are MOOCs developers must put forth creative ways in presenting learning materials. To set a flexible learning environment for the learners, multiple activities would include teaching and learning by utilizing different ways such as videos, links, infographics, interactive, quizzes and many other. Likewise, the educators would also have to familiarize themselves with analytics to ensure that students' interaction and progress with the online learning tools are monitored accordingly.

To leverage MOOCs unique platform, the university aims to introduce many courses to be made available to the public. Unfortunately, hiring professional developers will eventually result in higher cost of capital. UiTM, as a mega university, scattered over 36 campuses throughout the country envisage that implementing MOOCs will ascertain the academic affairs in sustaining the quality of teaching and learning.

UiTM's MOOCs implementation has taken its leap with the strategy of conducting Training of Trainers (TOT) from all 27 faculties. As such, the representatives from each faculty was required to attend training and was appointed as master trainer. Upon completing the intensive course, the master trainer was expected to be able to train members of the faculty to develop their own MOOCs. This strategy not only manage to save training costs but also ensure that MOOCs development will meet the timeline set by the University. Hence, MOOCs developers need to be equipped with the skill of developing their own MOOCs.

Despite the opportunity of advancing teaching methods, indeed in piloting MOOCs implementation has proven to be a considerable challenge to the educators because the university has invested in an unconventional teaching method. Hence, the challenge lies in the ability of MOOCs developers to learn how to incorporate new technologies such as Powtoon, Youtube, Vimeo, and all the latest state of the art applications in their teaching materials. Additionally, these MOOCs developers were found to face the challenge of having to step away from conventional lectures by designing a learning method that is more interactive. For instance, the use of Powtoon, Youtube and Vimeo in the teaching video. Powtoon enables the educators to create animated presentations and animated explainer videos (Discover Powtoon, 2018), while YouTube and Vimeo allow these developers to share their video content through MOOCs.

In managing MOOCs development between educators, the challenge also reveals the realities of iNED in its responsibility in managing the development of MOOC across all course in every faculty. iNED had devise a plan to make sure that every educator will adhere to the university's timeline. Making sure that this mega project continues to move forward requires supplementary strategies, thus iNED had used what is known as iNED's integrated system or known as m-track. This system was designed by UiTM's in-house programmer and the aim of this system is to track the progress of each educators that is

working on each individual MOOCs. The system works like a progress tracker and the educators are expected to update the system regularly. Apart from tracking MOOCs progress, the system also allows the completed MOOCs to be evaluated by the appointed evaluator.

In order to ensure the quality of each MOOCs, expert evaluators are appointed to inspect the quality of the MOOCs produced. For each course, content and language evaluators are given two weeks to inspect the MOOCs and approval can only be given after the total content and language surpass a certain score. If the total score of content and language fall below the expected score, the educators would have to rectify their MOOCs and would be re-evaluated. In order to get the educators interested with MOOCs, UiTM came up with many incentives such as the opportunity for educators to be recognized for their innovation in teaching and learning. Furthermore, each educator who completed the project could use this experience to enhance their skill and be part of network that help to improve Malaysian education aspiration in embracing 4IR.

Apart from that, MOOCs in UiTM could be an alternative in resolving the university's ever-increasing challenge in utilizing human resources, space and capital. UiTM's biggest building block is accommodating the number of increasing students and with limited amount of resources. The maintenance cost to run this mega university is great and the university's obstacle to provide the best education solution to its students. MOOCs could revolutionize the conventional teaching approach practice in UiTM. This is because MOOCs allows the students to study independently with the education materials readily available online. The students no longer confine to a space and educators can monitor the students' progress through analytics.

Sustaining fluidity and flexibility of a borderless mega university

In line with the National Higher Education Strategic Planning which has set the agenda of creating Public Higher Institutions (HEIs) as an autonomous entity, various income generation activities and cost-saving exercise were put forth to ensure HEIs are financially sustainable. Hence, MOOCs is seen as a potential for cost-saving exercise and eventually become a source of revenue for the university.

As of May 2018, there were a total of 120 courses developed by UiTM made available for free to the public on the OpenLearning platform. While MOOCs is at the early stages, there is still no fee charges nor any form of payment for the content being charged to the students who utilized the MOOCs platform. MOOCs has yet to become an income-generation for the university. The absence of a clear revenue model and the reality that MOOCs is still evolving, the potential of this exercise as an income generation has yet to be proven to be possible. Hence, it's potential as a source of revenue comes from two aspects; (i) certification and (ii) premium learning service.

A number of MOOC providers offer certificates of completion for MOOC courses. UiTM MOOCs capitalizes on the OpenLearning platform, whereby the platform allows students to be certified upon completing a course. The institution can charge a fee when providing a certificate of completion. Much like the traditional teaching and learning, mastery of learning could occur in many ways, even in MOOCs. It is just indifferent about where the learning process occurs, in which traditional institutions prefer classrooms but with MOOCs, the learning process can be done anywhere. However, MOOCs could still compete to receive fees by ensuring that by the end of its course, valid and reliable assessments of competencies are held for students (Baker & Passmore, 2016).

The OpenLearning platform do provide paid courses. Unfortunately, as the platform is not UiTM-owned therefore the university must also be charged in order to collect payment via the platform. While some students may pay for premium learning services, such form of scheme have yet to be formally assessed by the university since it is still in its infancy stage.

Rather than looking at MOOCs as a source of revenue, a mega university such as UiTM prefers to see it as a cost-saving exercise. Traditionally, online learning system depends on the infrastructure and support services that are provided by self-sufficient institutions. It is to help reduce the duplication of courses and minimize delivery infrastructure on separate campuses. As such, it is seen a contributor to cost containment.

MOOCs offers a venue for economical two-way communications, easy reproduction and distribution of content. It is a virtual space for both instructors and students to assemble in teaching and learning activities. In the long-run, this process can be seen as a potential for cost containment in terms of reducing the expenditures pertaining to human resources, space renting and utilities.

Launched in Malaysia in 2014, MOOCs have gained much traction among the tech-savvy generation here. MOOCs are quality online program targeted at large-scale participation via the Internet. MOOCs creates visual and exciting environment that also enhances teachers' passion and capabilities in teaching as well. In the Malaysian context, teachers are known to spoon feed information to their students. However, with the program, the educator will no longer be the source of information. This creates pressure and positive competition among universities to build better courses, knowing that the world is going to see and evaluate them (Chonghui, 2016).

Through the platform of MOOCs, students are also able to interact with learners from other universities, even from those outside the country. In no time, the university can introduce teaching and learning that does not constrain the instructors and students to be in the classrooms. By doing so, it allows the university to reach out further in terms of diversity in reach and access. It is a known fact that face-to-face courses might attract the usual university clientele, but MOOCs provides the possibility for this clientele to expand further.

Most local universities utilize MOOCs as a tool to promote their courses to a wide range of audience, surpassing space and time. Initially, prospective students may begin their journey as a student of MOOCs but their desire for opportunities to supplement their MOOCs experience with interaction and direct contact with an instructor can be seen as a transition into formal education with the university. As such, the university can still be at par competitively with other boutique learning institutions that have mushroomed recently across the globe. By providing a specialized learning institution, it poses as a threat for institutions such as UiTM which caters for all. Unlike boutique institutions, which needs to only promote one specialization, a mega university cannot afford to do so.

Therefore, the best way to boost its brand to a global scale is via MOOCs. As it is, the university already has the reputation of being at the frontline of technological innovation by embracing technology to change higher education learning approach. UiTM has taken the challenge and encourage educators to participate in the MOOCs project as one of the pioneers of its development in Malaysia.

Conclusion

Indeed, the insights are timely and undeniable, considering the fact that MOOCs has transformed the way to teach in an online mode. In such an instance, for educators, MOOCs implementation require a change of mindset, and at the same time to ascertain the MOOCs

developers be savvy in dealing with technology in order to create an interesting teaching and learning experience was indeed necessary. Educators as MOOCs developers need to embrace the new mode of content presentation, apply technology in any form of new applications and be creative in constructing materials to be relevant to the current teaching and learning style.

Hence, the challenge lies in the efforts to incorporate the conventional and latest technology course materials involving interactive content such as videos, exercises, quizzes which require creativity and yet all these initiatives can be time consuming for educators who are involved in face-to face conventional classroom. The basis of a successful learning environment is to embed the process of critical and creative thinking, engage in discussions, interacting while reflecting rather than the conventional way of memorizing and listening.

As such, educators as content creators in MOOCs must prepare and empower themselves in ways to present their content creatively where adaptation to the new teaching environment must be adhered. On the contrary, dysfunctional response will therefore reflect a clash in adapting as well as embracing technology to pursue teaching in a learner-centered environment. This is evident in the case of UiTM, whereby MOOCs is considered as in its infancy stage and to successfully attract the attention, inspire, challenge and motivate of learners across the globe is a challenge. Hence, MOOCs offered in UiTM must be relevant to the current trends such as, the courses offered by renowned universities across the globe such as Yale, Harvard and Stanford as well as other leading higher institutions.

To enhance global competence, the Ministry of Higher Education (MOHE) Malaysia continuously transform its teaching and learning methods in meeting the current demands of higher learning. This is in line with the vision to be an education hub. As such, the role of higher institution has continuously transforming and leveraging technology to promote teaching and learning across the globe via MOOCs platform is part of the agenda set by the Ministry of Higher Education (MOHE) Malaysia.

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