

## MOOCs and Youth Employment Strategy

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**Abstract:** The new development of virtual educational delivery feature Massive Open Online Courses (MOOCs) where educational institutions are able to offer courses that are taught and assessed on the internet with students afforded the opportunity to follow courses on mobile phones as well as computers. By way of document and policy analysis, this study explains the causes of youth unemployment in Malaysia and how the Malaysian government policies towards the use of information communication technology in the Malaysian higher education, particularly MOOCs could be used to address some causes of youth employment problem. This study reiterates the importance of harmonizing both higher education as well as industry involvement in order to support MOOCs potential towards access to information and encouraging creativity and innovation in youth human resource development.

**Key words:** MOOCs, virtual education, youth, higher education, industry

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### INTRODUCTION

Knowledge presents an important role in the development of a society. In today's world, various bodies, institutions, organizations, media and even private individuals utilize the Information Communication Technology (ICT) in helping with the dissemination of information to the rest of the world (Chen and Kristensen, 2009) thereby contributing to the understanding of knowledge. By using ICT, information could be transferred speedily, easily and literally free of charge. ICT are also used by educational institutions around the world as means to communicate scholarly works and specific knowledge to their students by way of virtual learning or e-Learning. Virtual education seems to increasingly gain its importance and steadily becoming the global trends in the higher education system (British Council, 2013).

The use of virtual education supports current trends as many youth today are so much connected with technology. A survey by Ming showed that most youth in Malaysia are informed and wired. Through development in technology, the number of youth reading newspapers or watch news everyday for information has increase from 52% in 2007 to 74% in 2012. Internet use has also increase tremendously from year 2007-2012 and there is a huge drop in the percentage of youth who do not access the internet at all for the purpose of information seeking, i.e., from 67% in 2007 to a mere 2% in 2012. This

study indicates the fast adoption of internet and connection among Malaysian youth as a source of information.

The term 'virtual learning' is often used interchangeably with 'open and distance learning, distributed learning, networked learning, web-based learning and computer learning' online learning, e-Learning or cyber-learning and it all basically refer to education in which instruction and content are delivered primarily over the Internet. The development of virtual learning is basically as a result of its compatibility and flexibility that it offers in educational applications. Through virtual learning, lecture videos can incorporate texts, sound, images and various tools to attract students' attention and the videos could be viewed, edited, replayed and shared at anytime and anywhere through different gadgets such as computers, handphones, tablet and so on. It is expected that by embracing virtual delivery models, it will reduce costs, increase productivity and enable future expansion. Through technology, messages or information could be send instantly overriding geographical borders with just a click of a mouse button.

### MOOCs EXPLAINED

Virtual learning models have basically created a new development in educational system called the Massive

Open Online Courses (MOOCs). MOOCs changing and evolving format provides a challenge for it to have a single definition. However, MOOCs basically refers to the capacity to involve a massive or large number of course participants with adequate internet connection to enroll into different variety of courses where it provides open content for all to use and learn from. Basically, a typical MOOC course might take place for approximately 4-10 weeks where students need to dedicate 2-6 h a week to the course. Materials and resources posted in MOOCs are accessible online and course applicants can be numbered in the tens of thousands although, those who finally completed and obtain certificates are usually much less.

Research found that users tend to participate in MOOCs due to financial implications. The United States for instance is in fact the largest users of MOOCs as it is also the birth place of this new system of learning, hitting 27.7% of courses' total enrollees. According to Moshe, the success of MOOCs in the United States is due to the financial situation of the country, first of all, the financial crisis has gave a severe hit to the US's higher education. Hence, with the college and universities' tuition fees escalating despite people can really pay for it, an online learning course with minimal cost will be one of the reason why this system is very popular in the States. He believed that MOOCs success is not based on its technology but financial wise.

The open content normally offers a coherent set of resources and follow a sequence of activities organized by an instructor in order to address specific learning objectives or goals, bounded within certain time period which include software, registration, curriculum and assessment; communication including interaction, collaboration and sharing and learning environment or the access to materials, mainly scholarly publications in the internet in such a way that the materials are free for all to read, use, reused to a certain extent. MOOCs important feature is the use of online system that expands and facilitates users to be able to access the courses through variety of devices. A good example of MOOC can be seen from The University of London International Programmes that offers short introductory courses which lasted for 6 weeks. The initial offering of four MOOCs manage to attract 'over 210,000 initial registrations, over 90,000 active students in their 1st week, from over 160 countries and lead to 8,843 Statements of Accomplishment being attained'. While some MOOCs are free of charge, some do impose minimal fees.

The creation and implementation of MOOCs normally involves a significant amount of time, money, skills, energy and human resources. Based on a study

conducted on iMooX in Austria (Fischer *et al.*, 2014), it was assumed that working on one course unit requires about 12 h for 1 min video about 3.5 h work are estimated, for the post-production the amount of work is about 1.5 h per video, uploading of course content to the platform takes about 3.5 h per unit, pedagogical supervision will take about 15 h for one course, technical assurance is about 10 h per course. A MOOC lasting 7 weeks (including 2 videos for each week) costs 997121 Euro. Furthermore, the one-time costs per year for the development of the platform are about 55,500 Euro (Fischer *et al.*, 2014).

The idea of learning without borders and learning for everyone may raise different response by stakeholders. Some higher education institutions are reluctant to part from the traditional method of teaching while some may be very enthusiastic and supportive of the same idea. Those who are reluctant to adopt MOOCs may be deterred by the fact that the creation of MOOCs requires enormous investment in term of time, costs and manpower as well as collaboration between many parties. Those in favour of MOOCs may see MOOCs as means to earn revenue within the formal higher education system as content licensed for use by institutions awarding degrees. MOOCs are regarded as 'try before you buy' marketing tools that provide a way of leveraging scale in a new, potentially highly profitable educational industry. In MOOCs, students may be charged for additional services like individual supervision, additional learning materials or examination fees. There are views that free online courses offered under MOOC will not be free for long (Fischer *et al.*, 2014). Moreover, the industry is being aggressively enlisted by politicians keen to privatize the delivery of educational services in the expectation that this will help address the perceived higher education crises of cost, access, completion and productivity. In the process, the proliferation of portable and reusable educational resources as well as policies and technologies that encourage academic freelancing will likely expand the relative size of the teaching-only sector in higher education and challenge traditional practices of academic governance.

Hence, due to the substantial investment in MOOCs by various parties or stakeholders, it is very crucial that MOOCs are implemented in the best way possible so that not only it could be a tool to increase students' knowledge and understanding but would also able to impart certain soft skills, prepare students for work environment and better still, inculcate entrepreneurship skills so that they could bring forth more job opportunities for others. Clear knowledge on related policies as well as well thought strategy to combine

higher education aims and industrial interest could bring MOOCs a long way towards assisting youth employment dilemma.

### **YOUTH EMPLOYMENT CHALLENGES IN MALAYSIA**

Employment issue is one of the concerns of the Malaysian youth. Ming disclosed Malaysian youth concern over job and educational prospects notwithstanding their satisfaction with the progress of the country. The 9% viewed unemployment as one of the top five national issues and another 5% indicated concern about the lack of jobs for young people. Interestingly, almost three quarters of respondents perceived that the real issue is not about getting a job (which means there are sufficient availability of job opportunities) but rather to get the job of their choice. While, the youth are concern about getting the job of their choice, they also recognized the important role of tertiary education in achieving their aim. Thus, it was viewed that pursuing higher education could become more popular amongst Malaysian youth in future.

A study by the World Bank (2014) further revealed higher enrolment of young people (particularly those aged between 20-24 years old) in tertiary education from year 2000-2010, thereby decreasing labour participation. The report concludes that young people prefer to further their studies at the tertiary level and defer their participation in the workforce until they finish their higher education. Ming supported this finding and indicated that either a bachelor degree or a certificate or diploma is necessary for better paying job.

The changing scenario in the job market however, demands youth to be adaptable and diverse in their search for employment. A person who studied law may now need to be computer and IT savvy, knowledgeable in current affairs, political science or international relations in order to do their job well and to satisfy employers' expectations. In other words, youth today must acquire skills beyond their own subject knowledge in order to secure a job and be effective in it. Good grades in degree or diploma certificate will no longer be sufficient to convince employers to offer job opportunities since, many people emerging from education failed to display a 'can do' attitude nor acquire interpersonal and customer-related abilities that is necessary to be efficient at work. Today's work scenario demands youth to be 'ready for work', acquire certain job specific skills as well as adaptable to change. Hence, it is important that additional skills are developed during the course of studying in university.

Based on other countries' evidence, education can enhance the opportunity in the labour market as those who have better qualifications will enjoy superior job prospects. However, there are also circumstances where highly educated young people remain unemployed due to inappropriate matching of the degrees that they obtained with the demand of the job market. Other reason that made young people susceptible to unemployment is their limited basic skills particularly in literacy and numeracy. It is normally, those young people who have limited job prospects, underdeveloped skills and inadequate education that face a risk of long-term unemployment, underemployment as well as low wage employment. The increasing number of youth postponing their intention to join the workforce but opt to further their studies at the higher educational institutions also make educational institutions as 'holding containers' of these human resources.

Youth unemployment will make them vulnerable to social exclusion since having a job will not only provide a source of income but also affect their dignity and self-respect. Failure to address the unemployment issues among youth will also contribute to higher poverty rate in Malaysia. By focusing on strategies to increase employment among youth, it will provide our Malaysian youth the chances to actively participate in the workforce and avoid social disintegration, marginalization, exclusion, frustration which will later lead to social problem that is burdening the society.

Employability has become an important agenda for higher education. To be able to compete in the global market, it is pertinent to have human capital that is knowledgeable, highly skilled, flexible, creative, ethical, positive and having spiritual values. A prolonged youth unemployment crisis will affect the nation socially, economically and politically. Hence, there is urgency in addressing the youth employment issues.

Malaysian higher education is also committed towards producing graduates that are not only able to become workers but also employers. Entrepreneurship programme and courses was largely introduced within universities. Studies found that young entrepreneurs that participated in at least one business mostly had an upper secondary and university education and were moderate students during their studies (Geraldine *et al.*, 2009). They started their business with less than RM50,000 as initial capital and after some time manage to hire their own employees (Geraldine *et al.*, 2009). This shows that there are other alternative for young generation, i.e., not merely to expect acquiring job that is within their area of studies but to broaden their choice and perspective towards becoming an entrepreneur that could provide work for

others. Hence, higher education must strategize on how to help young people to create job opportunities and participate in competitive modern business.

### **MOOCS IN MALAYSIAN HIGHER EDUCATION INSTITUTION**

Malaysia spends around 5% of its GDP on education. Meanwhile, consumer spending on education in 2010 is around RM6.4 billion and is expected to grow to RM12.9 billion by 2020, according to Digital Malaysia Report. Apart from enormous expenditure spent on education the country's education system is also faced with two key challenges namely lack of customisation and uneven distribution of knowledge to society at large. The Malaysian government hope that through ICT and digitised education, both of these challenges can be addressed, since it could enable more customised and remote learning opportunities beyond those of traditional methods. Malaysia's efforts to shift into a digital economy are being accelerated by the deployment of the Digital Malaysia 354 Roadmap. The Roadmap focuses on MOOCs as one of the way to transform the country into a digital economy by 2020.

Malaysia has just recently embrace MOOCS since 2013 when Taylor University (a private university) started its first MOOCS in Malaysia offering courses on art and commerce as well as entrepreneurship. The MOOCS developed in Taylor's University were successful with over 11000 students from 200 countries and proves to be one of the reason that leads the Malaysian Ministry of Education to adopt this system.

Soon, in 2014 MOOCS was offered initially in four Malaysian public universities namely Universiti Putra Malaysia which offers Islamic Civilisation and Asian Civilisations (TITAS); Universiti Kebangsaan Malaysia on Ethnic Relations, University Teknologi Mara Malaysia on Introduction to Entrepreneurship and in UNIMAS on ICT Competency. The courses are open for anyone to register and not limited to the university students only. The approaches used by Malaysian MOOCS in public universities are basically video lectures and the courses mostly targeted minor subjects available under commerce and arts instead of offering technical science subjects. Approximately, 4000 students have enrolled the online courses and it was expected that 30% of courses offered in public universities will be conducted online by 2020. Malaysian MOOCs is still in its infancy and thus, requires some time for further improvement and modification.

Malaysia saw MOOCS as a promising approach to improve Malaysia internationalization of education, for

instance, Professor Emeritus Anuwar Ali, the Vice Chancellor of Open University Malaysia stated that:

“Initiatives like MOOCs which represent freely distributed online courses by established institutions like Stanford and Harvard, also provide the opportunity to learn and adopt new ideas in higher education. While Malaysia may not yet be ready to embrace MOOCs in their entirety, much can be gleaned from this initiative, especially in terms of high-quality course materials and curriculum design”

As to date, all Malaysian public universities are required to produce their own MOOC websites. The Second Education Minister Datuk Seri Idris Jusoh had announced that MOOCS will be implemented in all public higher education institutions in Malaysia and thus, become the world first country that implement the new education system in all of its public universities. The purpose of introducing MOOCS in the Malaysian higher education, according to Idris is to transform learning and teaching towards using internet-based technology consistent with the Malaysian Vision 2020. MOOC initiative is part of the Ministry of Education's strategic plan to increase the quality of its higher education level as well as to boost the rankings of Malaysian universities in global survey.

In addition to the public university, private Universities in Malaysia that are currently using MOOCS includes Curtin University of Technology, Monash University, Open University Malaysia, Swinburne University of Technology, Taylor's University, Wawasan Open University, British Council.

### **HIGHER INSTITUTIONS' ROLE IN MOOCS**

The Malaysian government initiatives in investing and introducing MOOCs especially for the young generation are plausible and should be supported. A university is frequently regarded as the key institution that plays a very important role in the process of social change and development. University is expected to produce highly skilled labour and to come out with research output to meet perceived economic needs as well as building a new institution of civil society, facilitate new cultural values and in training and socializing members of new social elites (Brennan *et al.*, 2004). Hence, the creation of MOOCs in all Malaysian public university needs to hold true to these principles and objectives which in some way would improve the condition of the younger generation.

The motivations behind MOOCs may vary from one university to another. MOOC is motivated by the idea of providing access to education to as many people as possible which beautifully complement the universities social responsibility. While, there is a move towards universities providing free online courses for their on-campus students, MOOCs are usually intended for students not enrolled at the university in question. Here, MOOCs present a good way of attracting potential younger people, who are familiar and would happily utilize ICT as a medium learn a course in the university. By this way, the universities rather act as companies where they invest in promotion to sell their product, i.e., education.

Universities can be considered as a significant contributor to MOOCs. Universities often provide the facilities and infrastructure such as computers and internet connection or grants for researches to be conducted by the faculty members. A university usually maintains computer and information services departments as well as many people with appropriate know-how about information systems and technology enhanced learning, there is a strong in house knowledge. Furthermore, in house lecturers might be able to provide content (Fischer *et al.*, 2014). The university also offers supervision as well as significant investment in the production of MOOC. Although, the composition of the university MOOC team varies between universities, almost every layer of the university staff involving the administrators, the authorities, instructional designers, platform experts, academics as well as students are involved in the MOOC process.

Among the course team, faculty members (lecturers or professors) or experienced academics play a very important role since, he or she is familiar in developing materials on a learning platform. This particular 'academic leader' or instructor for the online course will take overall responsibility for the integrity of the course and the completion of all content within agreed timescales. While some instructors actively participate in the MOOC forums, some may choose teaching assistants to respond to students queries. Funding was offered to each team to utilise in employing students, graduates or researchers of their choosing. The roles and responsibilities of these teaching assistants were discussed with each MOOC team with the decision whether to employ and what role they would play is left with the respective academics. Hence, it is important that the team players acquire the right motivation and goal when creating MOOC courses.

MOOCs offered in higher education institutions could be used as providing minor courses for graduates offering youth different alternatives and choices of courses. Those who are currently studying international studies for instance could also take another minor course in order to instill extra added knowledge on information

technology or psychology courses for instance. Collaboration between higher education and industry is pertinent to ensure that courses introduced under MOOCs could effectively address employers' requirements and demands. MOOCs could also forge youth interest in entrepreneurship and international business since its group work or assignments could potentially present various perspectives and experience from participants around the world.

MOOCs could also enrich their knowledge and understanding on soft-skills, attract youth interest towards entrepreneurship and somehow address industry demands on wanting employees with good collaborative attitude. This can be achieved when students are the major participants of MOOCs. The students may comprise of students enrolled to the particular institution as well as students from other institutions or countries. MOOC is created in a way that it is mainly student-oriented. Students may create work and assignments and these are presented in discussion sessions. A lot of interactions in groups are required signifying collaborative learning that could develop soft skills among youth.

## CONCLUSION

A new development in today's educational setting saw the rise of MOOCs across the globe which offers instant educational delivery with a click of a mouse button. Various educational institutions around the world have also increasingly utilized information communication technology as means of disseminating and acquiring knowledge. It is probable that MOOCs create the potential of reinforcing knowledge which will not only be interesting but also different from those normally taught at the university. Here, information or course materials need to be properly planned and crafted leading to a better prepared youth ready for industry of entrepreneurship. To do this, input from and cooperation from the industry is pertinent to ensure that future youth are well trained suitable to the needs of the workforce. All the effort in enhancing knowledge and building the character of our future generation certainly requires collaborative effort among various parties.

Development in information communication technology significantly offers the potential for youth to reach out to the world and to grab various opportunities to communicate and interact with various parties. MOOCs should be used as supplement to a particular countries' education. Educators should also be more creative and bold in its approach to blend basic area of knowledge combined with development of soft skills as well as nurturing values that are suitable for the nation. Strategic critical thinking and creativity is required for educators to create interesting courses that could attract youth

participation in different area of studies. It is also through creative thinking, youth would be trained to think independently and able to adapt to different circumstances which is necessary for young entrepreneurs.

Analysing the various stakeholders in MOOCs, it could be said that MOOCs can bring great impact to many people. From the students, lecturers, faculty, university, content providers, etc., all have some interest and a role to play in contributing to a planned education for youth development. While previously universities were blamed for being unable to produce students that have competitive advantage, now many other stakeholders, including youth themselves that will have duties towards the community or the world at large.

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