

INDONESIA INTEGRATED OPEN ONLINE LEARNING

(Piloting MOOCs in Indonesia)

Didin Wahidin *)

(Associate Professor in Science education, Nusantara Islamic University)

INTRODUCTION

The Proclamation of Indonesian Independence subsequently pioneered the establishment of the national goal; there are to protect the people and the homeland of Indonesia, the increase of public welfare, the effort to educate the nation and signified the participation of the establishment of world order. Those goals can never be achieved when highly skilled and educated worker to make it happen is not available. All of us know that the primary key to the solution is education, namely the education that can provide Indonesian people who are superior (prominent), believes, obedient, excellent, having high-standard morals, productive, innovative, skilled, and globally competitive.

Indonesia has 33 provinces with more than 17,000 islands. With a large population of more than 266 million people, Indonesia still has several problems that have not fully solved to achieve national goals. The nation's challenges, including poverty, are still statistically high, social, economic gap is still wide, and the unemployment rate is still high. The other problem is that the average of most of Indonesia labor education is still in elementary education (57.46%), whereas the level of Indonesia labor education in secondary school and higher education is only 42,54%. It shows that the average education qualification of the workforce of Indonesia is commonly from primary education. Of course, this also will affect the rate of progress of Indonesia's national or global competitiveness. Berlianto & Santoso (2016) also argued that there are two indications that Indonesia needs to improve its education quality. Firstly, Indonesian Human Development Index (HDI) still at the medium level. Secondly, the gross enrollment rate in higher education, still at low level compare to other countries. (target 29,16 %, 2016, Renstra Kemenristekdikti, 2015). Indonesia now has more than 4750 universities with about 25,000 study programs, with about 7.1 million higher education students. Regarding this, they have several problems related to higher education. The problems include the matter to access to higher education, the relevance of higher education to the needs of the work field, and the quality of universities in Indonesia that are relatively low comparing to universities in other countries. Therefore, the efforts is to improve the performance of universities in Indonesia have focused on three problems aforementioned.

Besides the effort to raising the capacity of Indonesia higher education, Massive Open Online Course (MOOCs) probably can solve one of the three main problems of raising Indonesia tertiary education gross enrolment rate. This platform is suitable for Indonesia, the

country with an extensive area, and a few lectures. Moreover, internet users in Indonesia continue to increase, this year reached 143,26 million people or 54,68% of total Indonesia population, with average internet use about 9 hours daily. MOOCs in Indonesia is also aiming to bring access to higher education to those living in remote and impoverished regions.

Of course, it is essential to look for strategies that simultaneously contribute to solving the nation's higher education problems. Among these strategies is the use of information technology (ICT) for learning-run universities in Indonesia through lectures or providing the necessary training. The strategy is known as Perkuliahan Daring Indonesian Terbuka dan Terpadu (PDITT) or Indonesia Open and Online Integrated Learning. Sener (in Kentnor, 2015), elaborates that education has been cyberized, is being cyberized, and will continue to be cyberized. Word "cyberize" means adapt[ing] to digital technology or culture." Furthermore, Sener describe that first era of online education devoted to providing access, while the second are the era to dig potential to improve the whole quality of education, not merely online education. Online learning not only not about changing the conveyed knowledge, but also shifting the way it is "transmitted, preserved, and generated."

PDITT developed to solve various challenges of Indonesian higher education, such as limited college capacity, low higher education affordability due to uneven distribution, and location of the higher qualities of Indonesia that still concentrated in Java. Furthermore, in Indonesia, many universities do not have adequate and high-quality educational resources. They still lack equal and quality higher education services and the low guaranteed fulfillment of the needs and requests for quality higher education.

THE IMPLEMENTATION OF MOOCS IN INDONESIA

Term massive open online course (MOOCs) is an online course aimed at unlimited participation and wide open access through the internet beside the use of usual teaching materials, such as speech from the lectures, reading book, and offline discussion. Some MOOCs provide interactive courses maximizing social media discussions to support interactions from the participant between students, teachers, and lecturers. The use of MOOCs increase fast feedback because it can provide quick quizz, tasks, and assignments. Ininitialy MOOCs introduced in 2008 and develop into an easy to access learning platform in 2012.

Valenzuela (2016) identified some ideas about the implementation of MOOCs, among others: provide support to accessing quality higher education and training without border, new learning pathway towards tertiary education and lifelong learning, and promotes interactive learning environment. Moreover, MOOCs increase participative pedagogy, collaborative learning, application-oriented activities, automatic scoring assessment, self- assessment, peer assessment, and peer grading.

At the beginning there are at least four local MOOC providers In Indonesia. The selected MOOCs were IndonesiaX, MOOC Universitas Terbuka (Indonesia's Open University), Universitas Ciputra Entrepreneurship Online (UCEO), and FOCUS Faculty of Social and Political Sciences (FISIPOL) Universitas Gadjah Mada. All of them have more than five active courses and offer free courses.

PDITT is a program designed by the ministry of research, technology, and Higher Education of the Republic of Indonesia for conducting online learning adopted a system of online lectures in education known as MOOCs (Massive Open Online Courses), in which the implementation of information technology-based course with all its intricacies. Learning through the program, PDITT has the advantage, among others, of flexibility, namely that teaching materials are accessible to whom interested in, the materials are accessible anytime and anywhere, and the media is also flexible.

PDITT in Indonesia, among others, aims to improve the quality of higher education by improving the students' or citizens' access to high-quality education, increasing the gross enrolment rate of higher education, and providing convenient and flexible access from qualified colleges or universities.

PDITT, as a system, has the following elements:

- a. *Providers*, these elements can be individual providers (lecturers, experts, or professionals), institutions of higher education or training institutions, government agencies, or also the industry/business, or other partners.
- b. *Aggregators* (in this case, the Directorate General of Learning and Student Affairs, The Ministry of Research, Technology, and Higher Education RI).
- c. *Forms of services*, for example, open content, open courses, or online courses.
- d. *Users* (namely students, faculty, higher education institutions, and public).

To make this program running well, PDITT requires the support of the following things:

- a. reliable applications system, among other things associated with the administration, management systems, and delivery system (learning).
- b. The provision of quality learning modules that a full load of teaching materials, student tasks or assignments, quizzes, and exams which are also online.
- c. Support infrastructure includes computing systems, storage systems, and communication systems or interaction between the various elements of SPADA.
- d. The support that regulation remains orderly and does not ignore the quality of learning.

The quality assurance system of PDITT integrated as a system that is standardized with the quality assurance of higher education in general, in the sense that learning is an integral part of the education system in college or university. However, it also refers to the standards,

among others, as outlined in the National Standard of higher education and other regulatory devices. Learning outcomes, curriculum with the control mechanism of the preparation of teaching materials is uploaded. It should do by using a strict mechanism, and it requires quality assurance systems internally and externally to allow both processes and products of PDITT are not under the applicable education standards. Do not let happen because we pursue quantity, and quality is neglect instead.

THE PROCESS OF IMPLEMENTATION (DELIVERY SYSTEM)

PDITT implementation process is as follows:

- a. Sign up to follow PDITT
- b. Downloading teaching materials and learning with a video followed both scheduled (weekly) or independent (semi-annual)
- c. Then conducted discussion forums that involve the lecturer or assistant lecturer concerned.
- d. The scoring system did in several ways, namely based on an automatic online evaluation, peer assessment, and assessment by an assistant.
- e. Those who pass the test get the certificate issued by the course organizers.

PILOTING

As an idea, PDITT on different sides can be said to be reliable, but of course, to ensure that the system that we use is excellent and appropriate for our students will require an adequate trial. For those reasons, the testing process (piloting) involving several major colleges, namely ITB, ITS, UI, UGM, AMIKOM, and Bina Nusantara University. Two steps are piloting prepared to test the reliability PDITT. Piloting first held in August 2014 - January 2015 involved by 6 University providers with a total of 14 online courses, while piloting the second conducted in September-December 2015 also involve six university providers with new 14 courses. The results or the participant achievement of piloting are still showing symptoms that have not been so encouraging based on the data obtained on piloting. In the first piloting, 3623 applicants were participating in activities, 1583 participants take the final exam, and 1,250 passes as many as students (34% of applicants). In the second piloting, 658 applicants follow the activities, 299 people sit for final exams, and only 215 participants graduated.

The implementation of PDITT Indonesia, in general, follows the following process:

1. Universities (PT) offer the best courses to be visited by other students from other universities. PT offered is called the Organizing College. PTs that take part in brave lectures offered are called User Colleges.
2. Higher Education Organizers can take a partner with several User Universities.

3. The courses offered by Organizer universities are selected and confirmed in advance by the quality assurance team (quality assurance team) that has been appointed by the Directorate of Learning.
4. Subjects that have passed the feasibility test from the quality assurance team can be directly offered to students from the User College to carry out the learning process further as it should.
5. The online learning process offered can be done through the PDITT learning management system (LMS) or the Organizational Higher Education LMS.
6. The learning process recorded, monitored, and evaluated through the PDITT aggregator system in Indonesia. Therefore, for online courses that run in the University User LMS application, a web service must be connected to the PDITT Indonesia aggregator.
7. Indonesian PDITT Data is integrated with the Higher Education Database (PD Dikti) so that everything from both the Organizing College and the User College should register with PD Dikti.

As an initiation, PDITT has collaborated with several Higher Education Organizers, namely, the University of Indonesia, Bandung Institute of Technology, Gajah Mada University, Institute of Technology, November 10, Bina Nusantara University, AMIKOM, Pelita Harapan University, Telkom University, and Trisakti Tourism College. Furthermore, PDITT Indonesia is open to all universities in Indonesia to participate.

Various obstacles or problems encountered in the implementation of MOOCs in Indonesia:

1. Based on the results of piloting, students achievement have not been so encouraging, is still low, some things suspected as the cause, namely, among others:
2. It still seems necessary adequate preparatory steps to prepare students for study by way of online, also the student need for guidance or assistance both from the lecturer or tutor others.
3. Students are not familiar (yet entrenched) to study online or use ICT.
4. Lecturers also still prefer to teach directly (face-to-face) rather than using technology-based learning media. Lecturers' teaching experience in using online media is still minimum.
5. The technical capabilities of lecturers in preparing teaching materials online are still minimum, so it is still challenging to get quality learning resources.
6. Means of pre-ICT-based learning tools are also still incomplete, so sometimes disturbing as well. In other words, academic interaction strongly influenced by the reliability of the technology and its applications.

7. The learning achievement of students attending online is still low, which is also partly because the independence of the student in learning is low, and even they have not been used to learn online.

There are several opportunities and challenges in MOOC Implementation in Indonesia. The opportunities are: Indonesia has many potential MOOC students, the government supports MOOCs through Presidential and Ministerial Regulations, and MOOCs have the potential to connect the non-formal and formal education in Indonesia. Furthermore, MOOCs can be used as promotional tools by the university to attract potential students, because quality and equity in education are needed to improve the standard of living of Indonesians. Accessibility of qualified training is needed to improve professional skills, there are only a few MOOCs providers in Indonesia, so the competition level is low.

The Challenges of MOOC Implementation in Indonesia are that there are only a few internet users outside Java island, digital literacy in Indonesia is still low, and obligations regulated by the Indonesian government need to be fulfilled. Moreover, course development in MOOC requires a lot of time and money, multidisciplinary knowledge and skills are required to make qualified courses, the English skills of Indonesians are still at a low to medium level, there is no mature business model for MOOCs in Indonesia yet.

Valenzuela (2016) also emerge some challenge in pedagogical aspect: massive and low teaching involvement, high heterogeneity of learners, high variation of maturity, responsiveness to student feedback, lack of understanding in how students are engaged in MOOCs, failure to understand the content and no one to turn to for help.

Some barriers to the effective implementation of modern distance learning technologies in the university teaching and learning process are non-readiness of teachers and parents, the lack of necessary skills of applying the computer-based online learning systems, inability to interact with the faculty and teachers, the lack of sufficient academic advisors online. Also, this article investigates the internal problems: limited resources, unevenly distributed marketing advantages, inappropriate administrative structure, and the lack of innovative physical facilities.

CONCLUSION

1. To achieve its national goals, Indonesia still requires many steps in preparing superior human resources development, especially increasing the number and quality of highly educated human resources, which now is still low.
2. With such a large population with still low access to tertiary education, accompanied by the fact that the Territory of Indonesia is so vast with thousands of islands and

remote areas, Indonesia needs MOOCs to solve the main problems of Indonesia's higher education; these are access, relevance, and quality.

3. With all the problems of higher education in Indonesia (access, relevance, and quality) PDIT is likely worthy to serve as a pledge to solve the problems of higher education in Indonesia as well as to support the Indonesian human development through education.
4. The implementation of MOOCs in Indonesia still faces many challenges, including the maturity of student learning in terms of learning styles and culture of student learning. Also, lecturers' readiness to prepare their learning materials, facilities, and mastery of information technology relatively still can not compensate for the current technology applied to learn, especially distance learning.

RECOMMENDATION

1. There are needs to be additional programs/courses for college applicants that varied widely online to make it more interesting.
2. It should be anticipated dealing with collaboration with other universities and even to universities abroad to attract students from abroad to study in Indonesia.
3. It should immediately carry out an increase in the quality assurance systems of this PDITT program so that education does not ignore the quality.
4. To use technology as a learning tool, it is necessary to improve the quality of technology applications and infrastructure technology use.
5. Besides, it cannot take for granted; we must continue to improve the quality of the management organization of lectures online.
6. The process of solving the problem of education never ends (never-ending processes), hence it requires continuous assessment and sustainable access to PDITT from day to day so that the quality is better and more capable to solve the problems of education in Indonesia, which in turn will contribute to the development of the nation of Indonesia. (Continuous quality improvement).
7. What is also important is the commitment to make education not only as a medium for training solely, but also to contribute to the enrichment of knowledge, internalization of character or ethical, moral values and patriotism.

REFERENCES

- Baturay, M.H. (2015). An overview of the world of MOOCs. *Procedia - Social and Behavioral Sciences* 174 (2015) 427 – 433. DOI:10.1016/j.sbspro.2015.01.685
<http://creativecommons.org/licenses/by-nc-nd/4.0/>
- Kementerian Pendidikan dan Kebudayaan (2013) *Panduan Pengembangan dan penyelenggaraan kuliah Daring Indonesia terbuka dan terpadu*. Direktorat

- Pembelajaran dan Kemahasiswaan Ditjen Pendidikan Tinggi Kemendikbud.
- Kentnor, H. (2015). *Distance Education and the Evolution of Online Learning in the United States*. Digital Commons @ DU Sturm College of Law: Faculty Scholarship University of Denver Sturm College of Law
- Peraturan Menteri Pendidikan dan Kebudayaan No. 109 tentang Pendidikan Jarak Jauh di Pendidikan tinggi
- Universitas Bina Nusantara (2014). *Pembelajaran Daring Indonesia Terbuka dan Terpadu*. Jakarta: Binus
- Universitas Indonesia (2014) [UI Buka Kesempatan Kuliah Online untuk Mahasiswa Indonesia. www.ui.ac.id](http://www.ui.ac.id)
- Valenzuela, EAP. (2016) *ICT MOOCS in Southeast Asia: Trends and Challenges*. SEA-MOOCs Meeting, Ciputra Hotel , 13-14 December 2016. Jakarta, Indonesia
- Kim, B. Ed. (2015). *MOOCs and Educational Challenge around Asia and Europe Editor in Chief*. Seoul South Korea: Knou Press. Retrieved from <http://easem.knou.ac.kr>.
- *) presented in regional Seminar on "SEA-HiED 2016: Digitalization Era For University Education" SEAMEO RIHED, Convocation Hall Mandalay University, Myanmar, May 13, 2016*