AN ALTERNATIVE LEARNING THROUGH OPENCOURSE WARE (OCW) IN INDONESIA

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ABSTRACT

A new learning model that has attracted the attention of Indonesian people is OpenCourse Ware (OCW). This study discusses the concept of OCW as an alternative means of delivering educational services to improve and broaden innovative distance education in Indonesia. It first reviews the underlying philosophy of OCW, followed by its history in the Indonesian education system. It then outlines some recently arisen barriers that inhibit the implementation of OCW. Finally, the study outlines some opportunities provided by OCW in supporting enhanced learning in Indonesia.

Keyword: Opencourse ware, distance education, e-learning education

1. Introduction

Indonesian higher education faces challenges in promoting the concept of openness in the context of modern education, especially to those who are not eligible to learn in a formal traditional education setting. It is generally accepted that 'everyone has a right to education', as stated in Article 26 of the Universal Declaration of Human Rights (see http://www.un.org). This accords with the statement of Huijser, Bedford and Bull (2008, p.1), who state that 'higher education shall be equally accessible to all on the basis of merit'; that is, education should be accessed based on the flexibility of an individual's ability to master the knowledge and use its tools. The affordability of higher education is still beyond the reach of many people in developing countries (Johansen & Wiley, 2011, p.369) such as Indonesia. Zuhairi et al. (2008, p.12) consider that the model of distance learning is an alternative academic practice offered to people who are economically and socially disadvantaged in Indonesia. The model relies on the framework of information and communication technology (ICT). Yaumi (2007, p.197) suggests that distance learning can offer Indonesians a way to obtain an education by using the Internet as an important channel.

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The innovation on distance learning instructional delivery system in higher education has become sophisticated since the establishment of OpenCourse Ware (OCW)(Yang & Sun, 2013, p.1). Wong (2007, p.55) considers that its popularity has spread since the evolution of its predecessor—distance learning. Thus, this model is an upgrade of the distance learning system (Apostolopouos et al. 2012, p.1779). According to Arendt and Shelton (2009, p.1), OCW is 'dedicated to the development of freely available, stand-alone online courses and teaching materials informed by the best current research'. In the field of distance learning, many learners emphasise its benefits, mainly in relation to flexibility (Wong 2007, p.55). It provides opportunities for all learners to be 'informal' and 'independent' learners (Carson et al. 2012, p.1), as they can start and stop the course at their convenience. OCW promises to unlock learning for millions of people throughout the world (Moriarty 2009, p.226). It also offers the free and open publication of course contents (Carson et al. 2012, p.1). Likewise, its flexibility offers numerous academic disciplines and develops efficient structures to guide learners (Apostolopoulos et al. 2012, p.1785). At the same time, it provides access to universities reserved 'for the privilege few who could afford to attend' (Johansen & Wiley 2011, p. 369). At the end of their study, learners receive certification credentials of their OCW learning, complete with portfolio documents and grades similar to those obtained when studying in a formal higher education institution and being assessed by professors (Glenn 2011, p.42), thus providing evidence of the person's learning participation.

Globally, many universities have benefitted from sharing course lectures on the Internet for non-profit use, and they have provided learners with opportunities to follow 'classes taught in well-established universities worldwide' (Yang & Sun 2013, p.1). Some advantages may be optimally taken into account when learners are aware of being individually studying (learner-centred). This means they need to enrich their learning with sufficient prior ICT skills and knowledge about OCW (Huijser, Bedford & Bull 2008, p.10). More institutions are providing distance learning, or e-learning, but only a few universities participate in the OCW system since the country relatively new in adopting this learning method. Therefore, information about OCW is still rare. The OCW, which is part of a distance learning system, may benefit Indonesian learners, but its implementation is still perceived to be questionable (Yaumi 2007, p.197). There are also some challenges in making this Internet-based way of learning available and easy to use. The main problems include personal issues, and design and technological limitations, which remain as challenges to its implementation. Therefore, understanding more about these barriers is increasingly important in order to further the development of the potential learning opportunities offered by OCW to

support innovative learning in Indonesia.

2. OCW Philosophy and History in Indonesian Education

Learning through OCW in Indonesia is still under development, so a review of the history of its global development may be informative. The Massachusetts Institute of Technology (MIT) initially established OCW over one decade ago (Carson et al 2012, p.1). It was then taken up by other universities as a means of sharing educational materials (Abelson 2007, cited in Carson 2012, p.1). To provide additional benefits to learners, some leading universities in the United States and elsewhere initiated the OCW Consortium (see www.ocwconsortium.org).MIT decided to provide free and open Internet access to its lectures in various forms—such as course modules, exams, projects and examples, assignments, lecture notes, college textbooks, an online textbook (e-book) and online multimedia streaming—as well as providing a collaborative environment to facilitate interactions, such as study groups and communication with lecturers and professors. The platform is a web-based, interactive, open-source application (Arendt & Shelton 2009, p.1). The program is supported by co-host universities, namely the University of Massachusetts (Boston) and Tufts University. It has further evolved around the world, including in Indonesia (Indrajit & Salahuddien 2011, p.1). The OCW collection now contains more than 2000 courses with a capacity of more than 300 GB, and it continues to grow every day. There are resources for approximately40 areas of study, from anthropology to nuclear science and engineering, which have been translated into seven languages.

When the Global Conference of the OCW Consortium was held in May 2011, (Indrajit & Salahuddien 2011, p.1) reports that Indonesia had developed a program called NEXSUS (National Education Xchange System for Undergraduate Studies). Through this program, universities across the country are able to exchange courses and earn credit through the mechanism of credit transfer. The courses can be taken via an e-learning course, based on the concept of mirroring OCW applications by utilising a content delivery network. All courses are registered on the NEXSUS system so they can be accessed and exchanged with other universities in order to be recognised as a credit. This means that a student from a remote area who attends a college with limited facilities and infrastructure can still have an equal opportunity to obtain a higher quality of academic education by studying courses from various leading universities in Indonesia and elsewhere. Moreover, the courses and institutions involved will be recorded in a student's transcript. As a result, the NEXSUS program

is recognised by various parties—including MIT OCW, Open University Netherlands, Harvard University, Japan OCW, OCW Taiwan and other organisations such as UNESCO—as being able to provide a solution to the problem of gaps in education and the barriers of Internet infrastructure limitations that have been the main concern of the OCW.

To date, four Indonesian institutions have provided OCW learning, namely Indonesian Open University (or Universitas Terbuka (UT)), University of Indonesia (UI), University of Sumatera Utara (USU) and Padang State Polytechnic. In addition, there is an organisational member known as the Higher Education Association of Information and Computer Science (APTIKOM), which supports collaborations between Indonesian universities in the field of information technology. Being supported by four higher education institutions and one organisation will give future Indonesian students the opportunity to participate in courses from universities around the world without having to be a student or attend regular classes, thus greatly reducing their higher education costs (http://aptikom-informasi.org). However, a number of barriers still face the implementation of OCW in Indonesia.

3. The Barriers to OCW in Indonesia

Arising from the underpinning philosophy and history in Indonesia, OCW barriers can be categorised as personal issues, and design and technological limitations. The biggest challenge to being part of OCW learning comes from personal obstacles. Wong (2007, p. 56) considers that a shortage of study time is the most difficult problem for independent learners—especially those with work commitments—which applies equally to Indonesian learners. They may also have family commitments. Another personal limitation is a lack of ICT skills. A study by Arendt and Shelton (2009, p.5) found that learners face difficulties in using new technology and processes that are perceived to be new, as OCW learning is a new practice in Indonesia. Becoming familiar with computer-aided and multimedia-based independent learning requires significant practice. Therefore, unskilled learners are inhibited in their use of this new ICT method of learning. In addition to the disadvantage of a lack of study time and ICT skills, learners (particularly unmotivated ones) may face problems in terms of self-discipline. A study by Apostolopoulos et al. (2012, p.1785) found that learners find it difficult to complete online courses without losing their concentration or being distracted. Such problems remain a challenge, particularly because OCW

may later replace the traditional teaching method. This issue has escalated Indonesian learners. Being self-discipline has benefited to a few number of people who have privileges to commit in affording their higher education qualification but unable to sit in a regular one (Diki 2008, p.9).

Other problems identified with the recent availability of OCW content in Indonesia are related to design and technological limitations. First, limited Internet access presents a technical difficulty in accessing OCW course materials. Although distance learning in Indonesia has the advantage of unlimited Internet service, this privilege is not available to those who live in remote or rural areas. As a result, the learning process is hindered by inadequate telecommunication facilities (Wong 2005, p.57). The limited Internet coverage is coupled with bandwidth limitation, which exacerbates the access problem. Learners with a slow connection cannot contribute ideas during online discussion sessions: 'While e-learning is supposed to be a multimedia-rich learning environment, the limited bandwidth may hinder the learning process as the downloading of multimedia materials may take a longer time' (Wong 2005, p.57). Secondly, design and technological constraints are viewed in the lack of hardware and software facilities and also other ICT resources such as networked computers. As study by Johansen & Wiley (2010, p.377) emphasise these infrastructures are essential part for such learning as OCW. As indicated in Indonesia educational practices, although many institutions have offered distance learning practices, the availability of such infrastructures is still not adequate (Soekartawi, Haryono, & Librero 2002, p.294). As a consequence, OCW may not be widespread around Indonesia.

4.   The Potential Opportunities of OCW

As has been pointed out earlier on, a basic purpose of distance learning such as OCW practice in Indonesia is somewhat to overcome the learners who are not capable to reach higher education level (Soekartawi, Haryono, & Librero 2002, p. 289) . The innovation development of the practices is also wished to conquer the educational difficulties that are not solvable through traditional practices especially for those who live in remote or rural areas far away from any institutions. Yet, despite current inhibitions in the implementation of OCW practices, there are quite some potential values that can be cited in favor of this method of educational delivery. These points are attempted to reflect on the previous disadvantages above since there is still little published precious on the discussion of the practice of OCW in Indonesia.

Minimising the earlier personal barriers, there are a number of 10-minute lecture videos that provide a conceptual lesson prior to undertaking the course, so learners can initially address their ideas to the class as a whole (Apostolopoulos et al. 2010, p.1785). Moreover, the existing non-video contents are available in PDF form, which is readily accessible. This directly addresses the problem of inadequate Internet coverage, as students can copy PDF documents to take home and study offline. Thus, unmotivated learners may find that the system is feasible for them. In relation to limited Internet access, educational resources could initially be re-used 'in printed copies or in localised digital copies' (Arendt & Shelton 2009, p. 4). Arendt and Shelton also suggest that OCW materials are being broadly delivered offline to learners. Thus, when the Internet is not available, learners can still study as long as the documents have already been downloaded.

Additionally, Apostolopoulos et al. (2010, p.1785) maintain that making link between universities which already be the members of OCW Consortium and pre-university levels such as high schools and diplomas would be helpful to promote the existence of OCW. Indonesia can initially apply such systems as well so that students who just have graduated from high schools will understand the concept of the technology before following the course. Further, the partnership among the four institutions and one organisational member is likely to promote more intensive OCW learning, especially for those who are not able to afford higher education. Thus, this agreement will be beneficial in assisting and engaging with learners. Moreover, the strength of OCW courses displays that the course does not charge tuition fees, and although applicants may pay a cost for obtaining Internet access, this is considerably lower than paying for a formal education (Johansen & Wiley 2010, p. 372). Accordingly, it is no longer limitedly for most Indonesian learners who have low socio-economical level.

5. Conclusion

As an alternative learning model, OCW learning plays important roles in reaching out to people in the hinterlands and advancing the right to education in Indonesia. It is important to cooperate more with the communities that have the potential to develop OCW resources. By providing widespread access and free course materials, as well as educational resources, OCW can significantly improve the quality of education, particularly in relation to expanding the scope of access to quality education for all people, regardless of where they live. Thus, higher education institutions need to acknowledge and promote technological skills in order to advance OCW learning.
Further, although OCW course delivery currently faces many barriers, some

opportunities have been identified, in any case, to accommodate Indonesian people with no prior higher education experience. This helps to fulfil the Indonesian government's commitment to assist all citizens to achieve education via any kind of learning opportunity. The OCW learning model cannot compare with regular higher education programs, but its flexibility shows that it is a valuable alternative to the traditional classroom-based environment and will facilitate more widely accessible distance learning in the future.

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