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DEVELOPMENT OF OPEN EDUCATIONAL RESOURCES IN HONG KONG: A STATUS ANALYSIS

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Abstract

This paper attempts to assess the status of development of open educational resources (OER) in Hong Kong. It first outlines the potentials for Hong Kong to develop OER. With examples in three types, it describes educational resources freely accessible from Hong Kong's portals. It analyses the extent to which the resources are open, and points out that existing materials have a lot to be desired in terms of openness. The final part of the paper proposes strategies that may facilitate the development of OER that are more open.

Keywords

Open educational resources / OER; Open content; Open courseware; Hong Kong

Introduction

Hong Kong is one of the most advanced cities in Asia in terms of the education quality, internet penetration and technological infrastructure. It is natural to expect that OER would be able to flourish there, but the reality seems that OER development is still in its infancy. Within its length limit, this paper discusses the development of OER in Hong Kong. It begins by delineating the city's potential for OER to develop. It quotes examples of freely accessible educational resources and offers a preliminary analysis of their development in terms of their openness so far. In the final part of the paper, it proposes strategies that may facilitate proper development of OER in Hong Kong.

Hong Kong's OER development potential

Hong Kong has been among the top 50 countries with the highest internet penetration (Top 50 countries with the highest internet penetration rate, 2012). The number of mobile subscribers doubles the number of the city's population and an overwhelming majority of the households are broadband service subscribers[1]. Virtually all students at the tertiary, secondary and primary levels have mastered at least some skills related to searching the internet, uploading and downloading contents onto sites of various kinds (such as school intranet, Facebook and Wikipedia).[2] So, with such an infrastructure and community readiness, few people would expect Hong Kong to lag behind other developed regions in terms of OER development.

The quality of Hong Kong's teaching professionals, as well as the curricula, has been well recognized. Take higher education for example. In the last few decades, higher education in Hong Kong has experienced rapid development. Relatively young universities, such as the Open University of Hong Kong (OUHK) and the University of Science and Technology (HKUST), have made distinguished achievements and received worldwide recognition in

various ways. Five universities from Hong Kong ranked in the top 200 globally while three ranked in the top 50 (QS World University Rankings: Overall in 2011). Also, universities in Hong Kong have taken three of the top five seats among Asian universities (QS Asian University Rankings: Overall in 2012). Higher education in Hong Kong has taken on a leading role in Asia and has built up a good reputation and recognition globally. At present, Hong Kong has eight statutory universities and two statutory institutes, along with several other tertiary institutions.

It would be reasonable to expect that the faculties in universities and teachers in schools in Hong Kong would produce quality learning materials for their students, and that many of these products are OER. The reality, which is quite different, is explained below.

Freely accessible educational content from Hong Kong portals

Resources considered as OER in this paper bear at least three basic and distinctive features. First, such resources are freely available to the public, which is one the key requirements for being "open". Second, they are for educational purposes, rather than commercial endeavours. Third, they are all accessible on the internet.

There are many portals in Hong Kong offering open content that bears the three features of OER. The following are examples of the major ones.

Education Bureau platforms

First, the most notable provider of OER is the Education Bureau (EDB) of the Government of Hong Kong SAR. It offers open content for primary and secondary schools mainly through three platforms: *Resource Banks* (http://www.edb.gov.hk/index.aspx?nodeID=79&langno=1), *Interactive Activities DIY* (http://diy.fwg.hk/teacher/exerciseCREATE.php) and a *Resources Depository* (http://resources.hkedcity.net/).

Resource Banks provides various free resources including: Learning and Teaching Resources, IT in Education, Kindergarten Teaching Resources, Native-speaking English Teacher (NET) Scheme and Resource Banks of Good Educational Practices. From the platform, a teacher can locate useful materials in many forms, such as curriculum documents, visual materials for arts subjects, and relevant music resources for reference. The platform also provides information about some useful learning activities conducted offline. It also offers links to other useful sites, such as *Educational Television* (ETV) (http://etv.edb.gov.hk/home-c.aspx) and EDB's *YouTube Channels* (http://www.youtube.com/user/edbgovhk).

Interactive Activities DIY contains learning resources that have been developed by the EDB. There are different kinds of quizzes and tests including matching exercises, multiple choice, jumble sentences, reordering, sorting, fill-in-the blanks and so on. The site covers many subjects such as English, science, and technology. The learning objects or tools available on the website allow checking or viewing of answers, as well as restarting the activities.

The *Resources Depository* is a major component of the *Hong Kong Education City* (HKEdCity) website (http://www.hkedcity.net/index.php). It provides teachers, parents and students with a wide variety of learning resources, in the form of videos, animations, PowerPoint files, and so on. It covers a broad range of topics, subjects and themes.

Institutional portals to assist learning

Educational institutions, especially tertiary institutions, have developed a large number of online learning resources. Many of these resources are freely available for the public. One example is the English language learning resources provided by the universities in Hong Kong. The following are some of these sites:

- *Learning Resources* of the Independent Learning Centre, Chinese University of Hong Kong (http://www5.cuhk.edu.hk/ilc/index.php?option= com_content&view=article&id=93&Itemid=6&lang=en)
- *Online resources* of the English Language Centre, City University of Hong Kong (http://www.cityu.edu.hk/elc/language_resources.html)
- *English for Professional communication* of the English Centre, University of Hong Kong (http://www4.caes.hku.hk/epc/)
- *Virtual Language Centre*, Hong Kong Polytechnic University (http://vlc.polyu.edu.hk/)

At these sites, numerous exercises and other tools for language learning are offered. There are also portals providing contents for teachers' use only. A popular example is *TeleNex* (http://www.telenex.hku.hk/telec/pmain/openreg. htm), which provides a wide variety of resources for English language teachers in Hong Kong Schools.

Another example worth mentioning is *Self Learning College* (http://self-learning-college.org/). The portal, as a virtual college, was established by a volunteer and has been maintained and supported by the volunteer himself. It provides a broad variety of learning materials, mostly text-based rather than multi-media, as references.

Open courseware

The last two types of OER serve mainly reference or learning-support purposes, and the materials in individual sites have not been designed as courses. Unlike these two types of which there are many examples, there seems to be substantially less open courseware (OCW) available. The major provider of such resources appears to be the OUHK. The OUHK offers OCW through its *Free Courseware* website (http://freecourseware.ouhk.edu.hk) and an external platform, *iTunesU*.[3]

In OUHK's *Free Courseware* website, there are a large number of topics and units of open learning content. Visitors to the site may select a particular topic of interest. They may then follow the instructions and will be presented with the study content, which includes text, video and audio materials. Users will also be referred to relevant websites and other reference texts. Scattered among the course are learning activities and assessments (such as quizzes, fill-in-the-blanks, and multiple choice questions) which ask for learner inputs.

The OUHK joined *iTunesU* in 2010 and was one of the first institutions in Asia Pacific to make its content available on Apple's *iTunes Store*. Top universities and institutions such as museums, libraries and broadcasters around the world have been distributing their educational contents on the platform to students, faculty and the public. Contents on it can be easily searched, viewed, downloaded and played conveniently on mobile devices anytime, anywhere, in addition to being available on a desktop computer. OUHK's content in *iTunesU*, accessible at http://itunesu.ouhk.edu.hk, includes

contents for Chinese business law, basic Chinese, corporate governance, China studies, environmental studies and investor education.

There are also isolated portals providing course-like resources. For example, the University of Hong Kong provides *Knowledge Building* (http://lcp.cite.hku.hk/resources/KBSN/intro/default.html) and *Critical Thinking Web* (http://philosophy.hku.hk/think/). *Knowledge Building* is an open online course for teachers who wish to learn how to conduct knowledge building activities in their teaching through Information Communication Technology (ICT). Organized into modules, *Critical Thinking Web* provides over 100 online tutorials on different aspects of thinking skills.

Extent of openness of the educational resources

Educational institutions in Hong Kong have made use of the internet technology to provide educational resources. The examples listed above offer fair evidence that the technological potentials have been well exploited in Hong Kong. However, in terms of the degree of openness, the present developments are far from satisfactory. One of the most common framework for assessing the extent to which content is open is the 4Rs, as stated on the OpenContent website (Wiley, n.d.). They are:

1. *R*euse — the right to reuse the content in its unaltered/verbatim form (e.g., make a backup copy of the content)
2. *R*evise — the right to adapt, adjust, modify, or alter the content itself (e.g., translate the content into another language)
3. *R*emix — the right to combine the original or revised content with other content to create something new (e.g., incorporate the content into a mashup)
4. *R*edistribute — the right to share copies of the original content, your revisions, or your remixes with others (e.g., give a copy of the content to a friend)

Copyright requirements for the use of the educational resources listed above appear to be highly restrictive. In general, the portals quoted in the previous section do not allow remixing, revision or redistribution. Many do not even allow users to keep their own backup copy.

For example, at the entrance of the *Interactive Activities DIY*, the following copyright statement is conspicuously posted, and users have to indicate that they have read and agree to it before they can proceed to access the content in the portal:

> These teaching resources are developed by the Education Bureau of the Government of the Hong Kong Special Administrative Region for teachers' use to facilitate learning and teaching in Hong Kong. The copyrights of these teaching resources belong to the Government of Hong Kong Special Administrative Region. Except prior written authorization is obtained from the Education Bureau, any reproduction, adaption, distribution, dissemination or use for commercial purposes is strictly prohibited.

In the institutional portals, the copyright line indicating "all rights reserved" is normally put at the bottom of every content webpage of the learning resources. For iTunesU, copyright is similarly protected and users are prohibited from doing the 4Rs.

There are only a few exceptions, allowing more openness. One most open example is *Critical Thinking Web*. Licensed under a Creative Commons Attribution-Noncommercial-Share Alike 3.0 License, it allows revision, remixing and redistribution for non-profit making purposes. However, most others still impose tight protective copyright jackets. For instance, *TeleNex*, which allows teachers to reuse their materials for teaching-related purposes, states in their "Conditions of Use" webpage that no part of their website "may

be may be reproduced, stored in a retrieval system, or transmitted, without the prior permission in writing" from its owner, the Teachers of English Language Education Centre of the University of Hong Kong[4].

Such protection inhibits the realization of openness. A vision to promote open education in the *Cape Town Open Education Declaration: Unlocking the promise of open educational resources* (http://www.capetowndeclaration.org/) of 2008 was stated as: "educators worldwide are developing a vast pool of educational resources on the internet, open and free for all to use. These educators are creating a world where each and every person on earth can access and contribute to the sum of all human knowledge…" Three strategies were proposed to increase the reach and impact of OER:

- Encourage educators and learners to actively participate in the emerging open education movement. Participating includes: creating, using, adapting and improving open educational resources; embracing educational practices built around collaboration, discovery and the creation of knowledge; and inviting peers and colleagues to get involved. Creating and using open resources should be considered integral to education and should be supported and rewarded accordingly.
- Call on educators, authors, publishers and institutions to release their resources openly. These open educational resources should be freely shared through open licences which facilitate use, revision, translation, improvement and sharing by anyone. Resources should be published in formats that facilitate both use and editing, and that accommodate a diversity of technical platforms. Whenever possible, they should also be available in formats that are accessible to people with disabilities and people who do not yet have access to the Internet.
- Have open education made by a high priority governments, school boards, colleges and universities. Ideally, taxpayer-funded educational resources should be open educational resources. Accreditation and adoption processes should give preference to open educational resources. Educational resource repositories should actively include and highlight open educational resources within their collections.

For the policy makers and senior management of educational institutions who wish to have a more open environment for education to flourish, these strategies should be useful guidelines to follow.

Conclusion

This paper has highlighted that Hong Kong is an educational hub with a high level of technological development and therefore possesses favourable conditions for the development of OER. However, through closely examining major freely accessible education resources available from Hong Kong's portals, this paper has illustrated that the current level of openness of our resources is still unsatisfactory. Technological readiness is no doubt a necessary condition for OER to become popular. Yet, it is not a sufficient condition for OER to thrive or prosper, as the relevant phenomenon of Hong Kong suggests. To achieve our goals of attaining more openness in education resources, we must make greater efforts and implement strategies similar to those proposed in the Cape Town Open Education Declaration.

Notes

1   In December 2011, the household broadband penetration rate was 86.6%, and there were 14,930,948 mobile subscribers, with mobile subscriber penetration rate of 210.2%. (Ref.: http://tel_archives.ofca.gov.hk/en/datastat/key_stat.html, retrieved on August 10, 2012)

2   Refer to documents in the "Policy document and Report" section of the Education Bureau: http://www.edb.gov.hk/index.aspx?nodeID= 7286&langno=1

3   The OUHK has recently initiated a project to develop an open textbook system. It is expected that its OCW provision will be richer and more appealing to OER users.

4   "Conditions of Use" page of *TeleNex*: http://www.telenex.hku.hk/telec/ pmain/openreg.htm

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