OpenCourseWare and the Self-Learner

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How many people are aware they can have the same educational advantages as a student from the Massachusetts Institute of Technology (MIT), for free? This option is available to the public through open source networks referred to as Open Educational Resources (OERs). “Open Educational Resources are teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use or re-purposing by others” (Atkins, 2007). Open Educational Resources shape the self-learner through a portal of knowledge infusion. These portals, repositories and initiatives include OER Commons (www.oercommons.org), Multimedia Educational Resources for Learning and Online Teaching (MERLOT, www.merlot.org), and MIT’s OpenCourseWare (http://ocw.mit.edu). Self-learning, also called self-directed learning (SDL), has been explained by Abdullah,

> “[it] views learners as responsible owners and managers of their own learning process. SDL integrates self-management (management of the context, including the social setting, resources, and actions) with self-monitoring (the process whereby the learners monitor, evaluate and regulate their cognitive learning strategies)” (Bolhuis, 1996; Garrison, 1997).

What makes a self-learner different from a student? One basic consideration is the involvement of a guide or professor. Overall, this is someone with authority who guides a student through information, initiates discussion and provides feedback. A number of member institutions in the OpenCourseWare (OCW) project allow self-learners to email professors to ask questions. Response time for feedback can range anywhere from twenty-four hours to months to never. The quick responses on average come from schools with a smaller number of OCW courses, whereas, the larger

universities such as MIT, with thousands of OCWs, have been known to be on the less timely spectrum. Students generally have a designated classroom, unless he/she is enrolled as a distance learner, in which additional students and course professor meet to discuss a specific subject of topics. Self-learners take on their education alone or in small, personally formed groups in the quest for knowledge. They are not affiliated as a learner or enrolled with an institution, concerned with grades or the obtainment of a degree.

An important aspect of open education is the awareness of the resources available. Would the awareness of open education inspire more people to expand their knowledge and take advantage of the educational resources? How can we as information professionals and distributors of knowledge create consciousness of these resources? What methods can be used to reach self-learners? How will self-learners benefit from OER? One form of OERs is OpenCourseWare, most readily affiliated with the creators at MIT; this will be the primary open educational tool upon which I will focus.

OpenCourseWare is supplied by highly sought educational institutions allowing the learner to use the same materials available to the university's students in a structured process without the demands of professors, institutions or financial obligations. "Open Educational Resources include full courses, course material, modules, textbooks, streaming videos, tests, software, and any other tools, materials, or techniques used to support access to knowledge" (Atkins, 2007). Institutions from around the world are contributing their OCW in this relatively new and growing movement. In figure 1.1, a graph from an OpenCourseWare Consortium presentation

shows the growth of courses from October 2003 to October 2008. These staggering numbers provide a true grasp on the force of the OCW and OER movement.

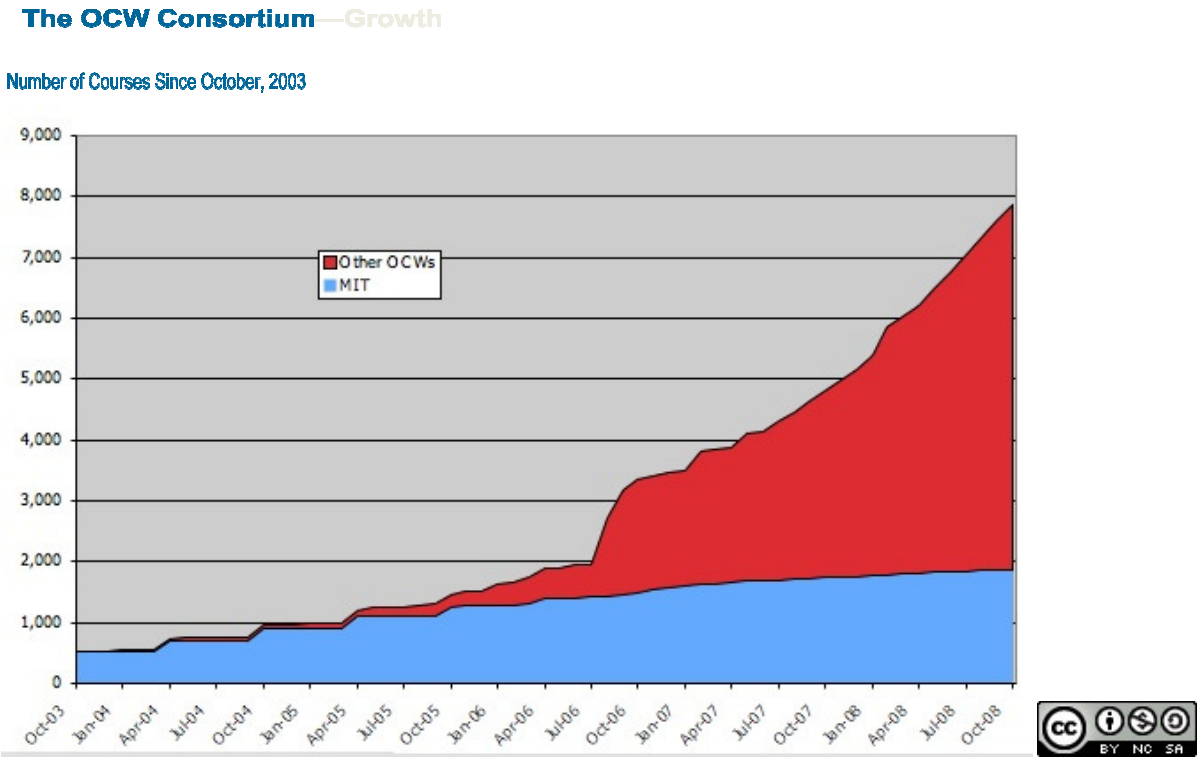

Figure 1.1

Howard Feintuch (2009) interviewed Steve Carson, MIT's external relations director for their OCW program, in relation to OERs and the prospect of an educational movement. "OpenCourseWare is one type of open educational material," says Carson, "but there have also been other types of open educational efforts that have been growing as well, such as open textbooks, open journal publications and open educational software. They all have been feeding off one another. To me, this constitutes a movement, a really vibrant movement, within vibrant educational communities."

This revolutionary movement began with MIT, who's "mine of educational resources has in five years put 1,800 courses - virtually the entire MIT curriculum - onto the Internet" (Boroughs, 2009). This process began in 2003 and has all but grown in the years following and has over 650 courses translated into ten different languages with many institutions providing RSS feeds for users. MIT started a movement so profound that "more than a hundred universities around the world put course content online for free public use, many of them through the MIT-inspired OpenCourseWare Consortium" (Boroughs, 2009). The quality of MIT as an educational guru is a weighty rationale as to why many universities around the world have caught the OCW bug. Would OCW have taken off if a smaller, less well known, institution tried to play out this initiative; would it have faltered in the minds of many and have the hundreds of contributing universities still vying for a way to profit from placing their content on the Web? How long would the OCW movement have lasted if it had been any other institution? Of course there are many other well known educational institutions that may have been able to pull it off and create this anomaly but MIT has reinforced the backbone of an open tool to sustain the integrity of OCW. Many believe the consistent addition of new courses and the level of traffic makes open education sustainable. "The website, ocw.mit.edu, draws 15 million visits per year and has earned public praise from Bill Gates and from Margaret Spellings, the outgoing Bush administration Secretary of Education" (Boroughs, 2009). Even with millions of visitors per year, open education is not just a matter of whipping content up onto a site. MIT spent approximately 29 million dollars creating their OpenCourseWare and it costs approximately $25,000 for each new course to go through the rigorous process of OCW implementation. Money well spent and struggles

over copyright issues led and paved the way for other universities. Each university must adhere to copyright, “in opening up course material to the world, institutions must invest the time and expense to scrub the material to be sure that materials licensed for use in their formal community are not available to world” (Atkins, 2009). This can lead to portions of textbooks, graphs, pictures and other material to be cited but not viewable. “The MIT OCW has adopted the Creative Commons Attribution, Noncommercial, ShareAlike (By-NC-SA) license. All of this is fundamental infrastructure for the OER movement and thus Hewlett has quite wisely lent sustaining financial support to Creative Commons” (Atkins, 2009). Creative Commons, like GNU Copyleft, is the option to provide a digital copy of work to be licensed to allow access, distribution and other properties (depending on the license chosen). A division of OCW, which expands on the issues of copyright, is the knowledge behind the purpose of open content. The education of open content and the usefulness of disseminating knowledge for free into the public domain can inspire further creators to pursue open licenses, such as Creative Commons or GNU Copyleft, in order to continue the open educational movement and permit open licensing to become commonplace. MIT has illustrated how the need for free knowledge and the ability to touch more learners through open resources can be accepted and used by many. Rather than segregating learners by putting a price on knowledge and thoughts, an educator now has the ability to focus on the distribution to all to who are interested. The Organization for Economic Co-operation and Development (OECD) provide

> “a number of possible positive effects from open sharing are put forward, such as: free sharing means broader and faster dissemination, with the result that more people are involved in problem solving, which in turn

> means rapid quality improvement and faster technical and scientific development; decentralised development increases quality, stability and security; and free sharing of software, scientific results and educational resources reinforces societal development and diminishes social inequality. From a more individual standpoint, open sharing is claimed to increase publicity, reputation and the pleasure of sharing with peers". (OECD, 2007)

There is proof of an open educational movement which continues to grow, except how do we bring awareness and potential users to this wealth of knowledge? Some will argue the requirement of only using other open approaches to advertise OERs; that it would be a cliché to use for-profit tools to spread the word. The use of open source tools shows the reverence for the overall movement but at this time would be doing more of a disservice to the product and potential users. It is typical of self-learners to use resources such as the library in their informational quest to knowledge. Therefore, Librarians have an opportunity to facilitate in this movement and it is one way around the use of profitable applications for advertising/marketing. Marketing tools such as write-ups in the library newsletter, links from the library website, guides at the reference desk and subject specific programs can initiate interest in courses and bring awareness to these educational resources. Librarians have the opening to engage patrons about their interests and endow with resources that would otherwise cost thousands of dollars. To expedite the process of searching through multiple OERs is to roll all of the resources up into one search engine. These personalized vertical search engines can be created using sites such as rollyo.com. Take a personalized search engine one step further by integrating it into the library website in order to give patrons the option of searching all of the trusted sites at once or browsing through courseware to see the

range and availability of subjects offered would be a tremendous service to the self-learner.

Another way to create awareness is to form groups of people who are interested in learning about the same subject. Reference Librarians can create a program which meets once a week and act as a mediator to provide the open information for members to study and reconvene the next week. Providing an area for people to learn and using social stimuli may meet the needs of certain populations who learn better in a group environment.

Youth Services Librarians can use repositories such as Curriki, found at www.curriki.org, to bridge the gap for students' curriculum during summer vacation, homeschooling or extra help in a particular subject. Many teachers use and adapt shared items on Curriki to help better engage and teach their students. "Just as these educators used to pull relevant books onto a cart, they can now create a set of vetted online curricular resources that directly aligns to a class's particular area of study" (Levy, 2009). Another excellent runoff of MIT's OCW is Highlights for High School http://ocw.mit.edu/OcwWeb/hs/home/home/index.htm. Hosting material available for the K-12 audience shows the concern for education not only for adults but for this age group as well. Highlights for High School focus on science and mathematics but also has links to "knowledge in action" such as: build stuff, save the world, write better. In addition,

> "The site includes more than 2,600 video and audio clips from faculty lectures, as well assignments and lecture notes. Some of that material is assembled on the site for specific high school classes, such as Advanced Placement biology, calculus, and physics, which are college-preparatory courses.

> "But the online portal also allows high school teachers to search by topic for faculty lectures and assignments and use them as they see fit." (Cavanagh, 2008)

These materials are sought not only from educators close to home but throughout the world. If they are able to provide an Internet connection (preferably high-speed), the use of audio visual clips, lectures and the other material will help less educated populations to offer a better education for their children. Too often, there is a lack of funding throughout the world for schooling. MIT's Highlights for High School and Curriki can help supplement some of the material in the form of worksheets and lectures. Librarians are often looked to for guidance from a number of parents homeschooling their children for ideas on curriculum; many parents want their kids to continue their studies through summer vacation. These open educational resources are authoritative and conducive to students' online environment.

Is it plausible or idealistic to believe more people would make use of OpenCourseWare when they become aware of the resources? Is it possible that one would find an influx of traffic with increased awareness? It is reasonable that with increased awareness you would also see an increase in traffic to OCW; but not all people will specifically go through an entire course. It is likely that a number of people will find open education attention-grabbing, and look through courses or search syllabi, lectures or worksheets for answers. To give the world the knowledge that such resources exist and are accessible is all one can truly ask for when dealing with the public. A dedicated and stimulated self-learner will work through the material provided and continue with additional courses.

There is also a niche for employers to use OpenCourseWare to expand learning not only for themselves but for employees and job improvement. Smaller businesses may not have the funds available to pay for employees to take classes or to pay for schooling. If the goal is to help employees improve business, management or similar skills, and the employee is not focused on obtaining a degree, employers can suggest courses that they have authorized as beneficial to their position. Therefore, the business is taking the initiative and providing employees with ways to better themselves in their position.

It is essential for many people to become (if they are not already) self-learners due to the career path they have chosen. This can be seen in the health industry, tourism, academia, and business. Although a number of professional positions must continue their education with accredited classes, show proof of completion and seek higher education such as a Masters or Doctorate degree, this is not the case with all professions. People with careers such as a stockbroker can improve their knowledge and marketability by taking courses in economics or finance, just expanding on their day to day tasks, in addition to stockbroker licenses. Open courses have no time limit, so if the learner takes a whole year to finish a course they are not penalized.

OCW is not all frills and Christmas lights; it does have its downfalls here and there.

> "Barriers for using or producing OER can also be characterised as technical, economic, social, policy-oriented and legal. A technical barrier would be the lack of broadband availability. The lack of resources to invest in the hardware and software needed to develop and share OER would be an economic barrier" (OECD, 2007, p.59).

Social barriers can be classified and expanded on the user's lack of understanding and skills. Copyright laws are a major issue and are placed under the policy-oriented and legal barrier. Without open textbooks or material with copyleft or creative commons licenses, the universities are unable to show this content online. This means that some readings and figures that may be extremely valuable in the learning process are unavailable. Users must then purchase the text if they choose or continue on and skip those sections. Another interesting downfall to OCW is the lack of information in the available course. At times, a course is added and it is incomplete; this can be very frustrating to users. In this case, another resource or course can be searched in order to supplement the lack of information. Although there are conflicts and barriers, it also shows a bit of a utopian society: the ability of major universities willing to apply their material and upset the traditional workings to contribute to the open movement.

OCW is important in the open education environment and a bridge for self-learners to seek higher education without the constrictions placed by the attendance at a university. The benefits are extensive, even with the lack of information in some courses, and the power to use the material is only restricted by the creativity of the potential self-learner. Just because one will not earn college credits, degrees or any certifications, does not mean the adherence to the work of the course is un-gainful. The self-learner is still profiting from the knowledge and information they have obtained. The challenge is to create awareness to the population around the world and give them the opportunity to make a decision about partaking in OCW. Public librarians can connect patrons to OCW through the reference interview and the execution of OCW related programs. Working with children, teachers and parents, whether the librarian is in a

public or school library, can provide this specific population with teacher repositories, such as Curriki. These repositories may help to initiate the implementation of different teaching methods and curriculum and provide extra help to the children in their primary educational years. Special libraries can also supply their users with subject specific courses; this would be useful for expanding on an already present college degree. There are many graduates who did not stay after graduation to take classes that were still of interest because they could not be fitted into their schedule or graduation requirements. Whatever may be the motivation, it will only thrive if given the proper tools to succeed. MIT has created a wonderful tool and network which has been expanded upon by other universities. The presence of willingness and eagerness to learn and expand one's knowledge must be attended to by librarians and others who are in the field of the information dissemination.

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