

Making a Difference: Choose OER to Lower Costs and Optimize Learning

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Abstract

The University of Maryland University College (UMUC) has initiated a process to match all course learning outcomes and competencies with open educational resources. UMUC is the largest non-profit public online university in the U.S. It has committed to finding OERs for all undergraduate courses by 2015 and graduate courses by 2016. The scale of this undertaking is unlike any others in the OER movement. The adoption and scaling process provides a model for other like-minded institutions

Keywords

Online Learning, Open Education Resources, OER, Sustainable OER Business Models, Innovation, No Cost Materials.

I. CHAPTER ONE

UMUC under the leadership of President Javier Miyares has announced the largest non-profit initiative in the U.S. to maximize use of Open Education Resources (OER) for all students. UMUC is leading this initiative to proactively collaborate with the increasing number of state leaders, legislators, students and the general public to keep college affordable. UMUC, given its far-reaching worldwide population of military and adult students, enacted a policy where by end of 2015 all 95,000 students would have all resources available to students, reducing the cost of attendance to students. The massive shift to resources, besides lowering costs, provides UMUC with the flexibility to maximize the use of OERs while maintaining a commitment to locate or create the appropriate resources as a substitute where OER does not meet the academic needs of UMUC students.

By fall 2014, the first 50% of all undergraduate courses will have significant OERs available for students. In fall 2015, the graduate will phase in a majority of OER resources and the undergraduate will complete the remaining 50% of courses. UMUC will reach its final goal of moving to all OER and resources by 2016. With millions of OER created, UMUC has created a sophisticated process for selecting OER by searching for high quality OERs already available throughout the world. Academic directors with instructional support staff have quickly curated significant resources from the worldwide repositories. As an open access institution UMUC is driven to find methods which improve learning quality and lower costs for students through selecting the highest quality OERs. UMUC continues this commitment.

The UMUC move signals that the Open movement is mature enough for institutions to consider replacing publisher textbooks with the use of OER. Besides MIT, this is the largest commitment any institution has made to make openness a part of its mission. UMUC will set a research agenda to calculate cost savings to students, faculty willingness to use and improve these resources with colleagues throughout the world, students' interaction and use of free resources, and a fostering of a new open culture that focuses on lowering costs, improving quality while maintaining open access.

II. CHAPTER TWO

There is a global demand for education and a growing gap between demand and supply. The demand varies by country and type of education. The United Nations (UN) states that OERs are central to the call for improved rates of primary education worldwide for both genders. Most developed countries, while achieving high rates of success in primary and secondary school, are still trying to grow participation in higher (tertiary) education. As a result of the decades that have recognized how important education is to the many, educators have responded by creating OERs. In addition, it has been recognized by many, that there is need for continuing education, which at least in the United States (U.S.) often falls to higher education providers, as jobs, technology and knowledge change rapidly. Online learning, and more recently OER, hold potential for helping to address the global demand for education, particularly in higher education, by expanding access to experts, curriculum and learning materials. OERs have the potential of lower costs and staying current unlike printed textbooks. A current dilemma is these resources have been created but not consumed.

1.1. Defining Online Learning

Online learning started as a type of distance education technology in the 1980s and 1990s. Other distance education technologies were paper-based correspondence courses and later, video- or satellite-based along with some other technologies. The differentiator for online learning is that transmission occurs through the Internet connected computer while continuing the distance education construct where students and faculty do not need to be in the same place at the same time. The Sloan Foundation's asynchronous learning network (ALN) model primarily uses the internet to facilitate something close to the way traditional college courses have been taught for decades (Mayadas, 2001). In the late 1990s, the industry began using terms like e-learning and online learning to describe a richer environment than just ALN (Dringus & Terrell, 1999). In the U.S., more and more technologies, especially synchronous ones, have been added to provide more immediacy and a richer set of options for interaction. The distinction between online learning and e-learning remains nebulous, but e-learning is a term more frequently applied to corporate or self-paced learning. Online learning, especially for U.S. higher education, continues to be designed around the traditional course model. Students may take an online course or even choose to obtain an entire degree online.

1.2. Defining Open Educational Resources

The history of the term "Open Educational Resources" (OER) is brief, but its foundations reach farther back in innovations including open access journals, learning objects, open source software and open licenses (Willinsky, 2005). The term itself was adopted by UNESCO in 2002 (Albright, 2005). OER refers to the "open provision of educational resources enabled by information and communication technologies, for consultation, use and adaptation by a community of users for non-commercial purposes. It includes open content, as well as software tools and standards" (UNESCO, 2008). The term includes free (no charge) and open (for modification) resources such as digital content, open source software, and intellectual property licenses. OER takes many forms, including formal courses; course-related materials such as syllabi, lectures, lesson plans, and assignments; textbooks; or collections of digital media such as libraries of images and videos. The principles of OER are founded on the academic traditions of freely and openly sharing and extending knowledge (OECD, 2007). In this way, OER extends the concept of the public commons, as well as the principles of open source software, into education (Udas, 2007).

Ahrash Bissell, a former director of the ccLearn initiative of Creative Commons describes the effort this way: "Open Educational Resources (OER) represents the efforts of a worldwide community, empowered by the Internet, to help equalize the access to knowledge and educational opportunities throughout the world. They 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 customization by others. It is

the granting of freedoms to share, reprint, translate, combine, or adapt that makes them educationally different from those that can merely be read online for free” (Bissell, 2007). The OER leaders at the William and Flora Hewlett Foundation sum it up by stating, “At the heart of the open educational resources movement is the simple and powerful idea that the world’s knowledge is a public good” (Smith & Casserly, 2006).

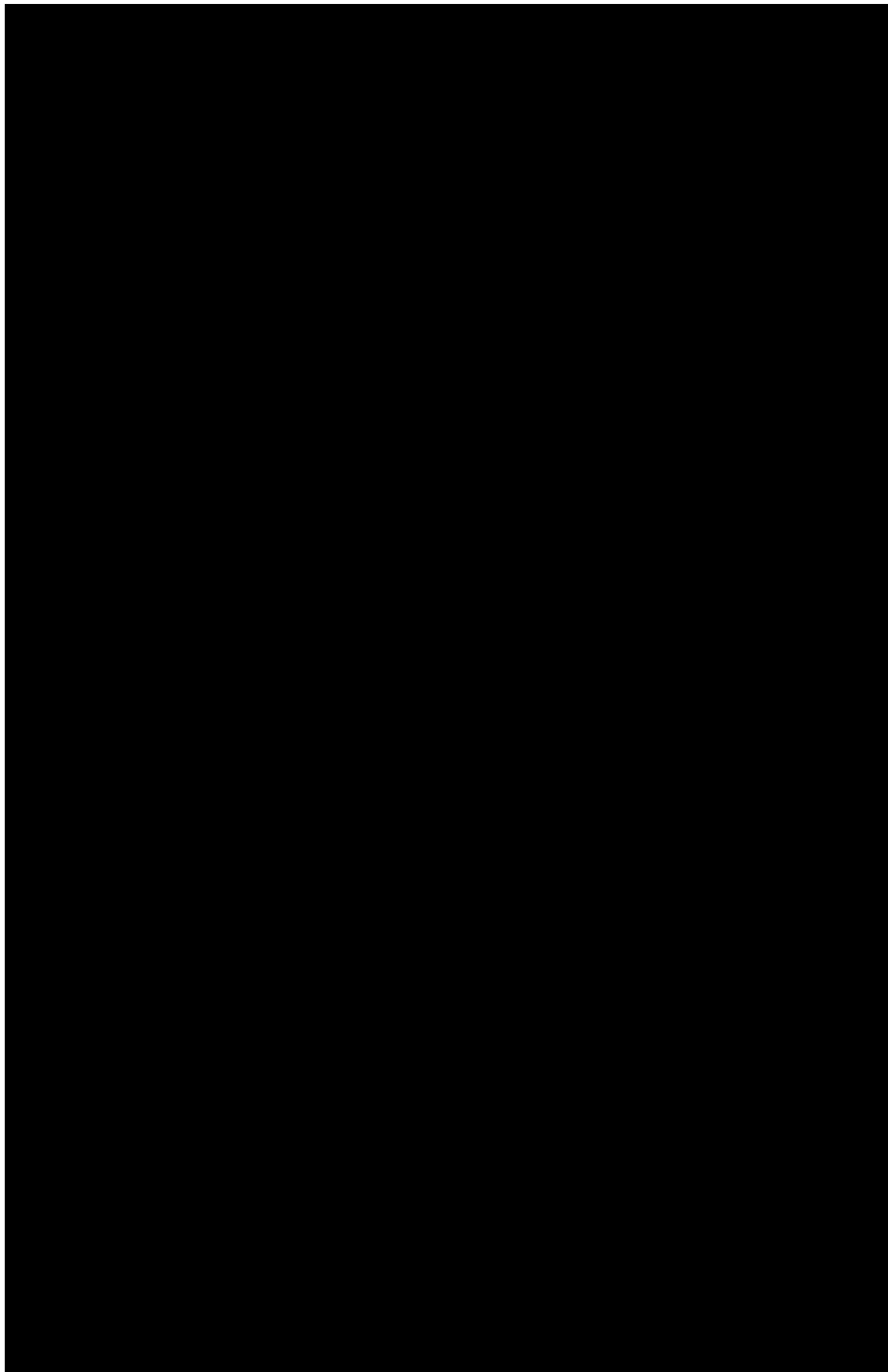
III. CHAPTER THREE

When UMUC decided to respond to its President’s directive, it was unclear whether there was enough high quality OER available for its needs. The Provost in collaboration with others created a concept paper to provide guidance to the internal community. The following was the introductory paragraph from that document.

The cost of course materials has risen historically and continues to rise. According to the College Board, between 2011 – 2012, textbooks, course materials, and other supplies increased on average by 3% to \$1,168, for students at public schools. These increasing costs have a detrimental impact on students and especially UMUC’s students. In addition, student success is affected by difficulties obtaining textbooks and other materials. As a result, UMUC has made a commitment to move to an eResource solution. With this solution, course materials will be designed or obtained based on course outcomes and as much as possible, will be embedded in the online classroom electronically at no additional cost to students. This approach also provides flexibility and accessibility for students (access to all course materials from day one).

UMUC quickly moved from eResources to determining the availability of OER, the Office of Instruction Services and Support (OISS) and the Undergraduate School (TUS) set out to familiarize themselves with the world of OER. The new Center for Innovation and Learning (CIL) provided some of the background and connections to multiple OER organizations. OISS quickly moved forward to suggest collaborative processes that would ensure quality.

Academic Directors at UMUC are responsible for majors and programs in TUS. The Academic Director used shareable internal online space to illustrate the courses covered by a particular program. The program was broken down into clusters of courses and courses. The learning outcomes were previously identified in early processes. The Academic Director then decides with others the timetable for identification of OERs from 2013 to 2015. The teams include Subject Matter Experts, OISS, and Library representatives.



The flowchart above shows the extensive processes used to create a scalable approach to identifying OER. UMUC has created a highly successful and scalable method for finding high quality OER.

IV. CHAPTER FOUR

Since September of 2013 until February 1, 2014, 267 undergraduate courses are now using only OERs. For spring enrollments, this move to no cost materials represents a savings to students of \$2.4 million. These savings will be repeated and by

UMUC is likely to encounter some content areas where no OER exists. The considerations will be to buy a eResource, to create an OER, or work with others to find content. The massive scale of UMUC enrollments requires new and innovative thinking. The next issues will be keeping OER current and dynamic. Further there is a need for trying to see if multiple OER resources can be linked to create a more adaptive learning process for students.

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