Moving Toward an Open Educational Resources (OER) Pedagogy: Presenting Three Ways Of Using OER in the Professional Writing Classroom

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ABSTRACT

Open Educational Resources (OER) are changing the face of education. This paper offers some locations where OER may be found before discussing the challenges of using OER in writing courses. An outline of OER's pedagogical use, best practices, and possible parameters for OER evaluation are proffered. After offering a proposed checklist/rubric to aid educators in deciding on the usefulness of OER, the article describes three ways of interfacing with OER in writing classes in general, and business and technical writing classes in particular. Based on teaching experiences at three institutions, the paper is an expansion of my 2019 presentation at the New Jersey Writing Alliance conference.

Keywords: Open Educational Resources (OER), business writing, technical writing, professional writing, OER locations, Bloom's taxonomy

Hacia una pedagogía de recursos educativos abiertos (REA): presentación de tres formas de utilizar los REA en el aula de escritura profesional

RESUMEN

Los recursos educativos abiertos están cambiando la faz de la educación. Este documento ofrece algunos lugares donde se pueden encontrar recursos educativos abiertos (REA) antes de discutir los desafíos de usar los recursos educativos abiertos en cursos de redac-

215 doi: 10.18278/ijoer.3.2.12

ción. Se ofrece un resumen del uso pedagógico, las mejores prácticas y los posibles parámetros de los Recursos Educativos Abiertos para la evaluación de los Recursos Educativos Abiertos. Después de ofrecer una lista de verificación / rúbrica propuesta para ayudar a los educadores a decidir sobre la utilidad de los recursos educativos abiertos, el artículo describe tres formas de interactuar con los recursos educativos abiertos en las clases de redacción en general, y en las clases de redacción comercial y técnica en particular. Basado en experiencias de enseñanza en tres instituciones, el artículo es una expansión de mi presentación de 2019 en la conferencia New Jersey Writing Alliance.

Palabras clave: Recursos educativos abiertos, redacción comercial, redacción técnica, redacción profesional, ubicaciones de REA, taxonomía de Bloom

迈向开放教育资源(OER)教学法:专业写作课堂中使用OER的三种方法

摘要

开放教育资源(OER)正在改变教育模式。本文提供了一些可能发现开放教育资源的场所,随后探讨了写作课中使用开放教育资源所面临的挑战。提供了开放教育资源教学法使用概述、最佳实践、以及用于评价开放教育资源的可能参数。在提出一个协助教育者决定开放教育资源的有用性的清单/说明之后,本文描述了三种从整体上让开放教育资源与写作课相连接,尤其是与商务写作课及技术写作课相连接的方法。基于在三所机构的教学经验,本文是我于2019年在新泽西写作联盟(New Jersey Writing Alliance)会议上所作报告的进一步扩展。

关键词:开放教育资源,商务写作,技术写作,专业写作, 开放教育资源场所,布鲁姆分类学

Introduction

Educational Resources (OER) are changing the face of education. As free resources, they bring the distant close and make learning free, open, and multifaceted. OER mean different things to different people and are often confused with Internet resources. While the Internet hosts a wealth of multimedia sources that may or may not have educational value, OER are different. They may be hosted on and be open like Internet sources, but unlike Internet sources, they are vetted for educational value. Another important differentiator between OER and Internet sources is that the OER sites that host multimedia resources allow reuse, rework, and curation. While it may be foolish not to take advantage of the educational tools that open educational assets can be, using them without a pedagogical understanding and an evaluation method can create havoc instead of promoting engagement, and divert learners instead of enhancing their learning experience. While much research has been conducted on the growth, possibilities, the technical aspects, and the radical economic re-shifting that the OER revolution has ushered in, there are not many studies on how OER impact the teaching of writing. This may perhaps be the first study that highlights how OER have been used to enhance the business and technical writing of students and instructors. The article has been organized thus. Section one offers a brief history of OER, its various definitions, and classifications and provides a quick

review of various repositories. Section two presents a taxonomy, best practices, and a checklist/rubric to help educators in general, and writing instructors in particular, choose OER sources they deem appropriate. Section three discusses how three business and technical writing programs use OER.

What Are OER & OER Repositories?

he term OER was first used at the 2002 UNESCO forum on Open Courseware to designate "teaching, learning, and research materials in any medium-digital or otherwisethat reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions." OER came into being as a fallout of the massive open online course (MOOC) phenomenon when the world's most prestigious institutions, which were not considered to be "open," began creating free and open online courses. Looking for OER thus is not the same as "googling" and finding something educational, since OER now include full courses, course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials, or techniques used to support access to knowledge from universities, foundations, corporate houses, and institutions like NASA. Littlejohn et al. (2008) therefore characterize OER as:

Digital assets—(e.g. an image, video, or audio clip), sometimes called a "raw media asset."

Information objects—a structured aggregation of digital assets, designed purely to present information.

Learning objects—an aggregation of one or more digital assets which represents an educationally meaningful stand-alone unit.

Learning activities—tasks involving interactions with information to attain a specific learning outcome.

Learning design—structured sequences of information and activities to promote learning. (p. 759)

In fact, as far back as 2002, UNES-CO noted that the central point of the open provision is that the "educational resources enabled by information and communication technologies" can be used for consultation, use, and adaptation by a community of users for non-commercial purposes (p. 24). The vision of OER movement was to enable the creation of universally accessible educational materials, which anyone could use freely for teaching or learning purposes around the world. In the intervening years, much has been done to bring to pass the vision stated at the Paris conference and OER are now accessible globally.

Digitization is a key feature of OER. As the Institute for the Study of Knowledge Management in Education (ISKME) stated in 2007, OER are "digitized materials offered freely and openly for educators, students and self-learners to use and reuse for teaching, learning and research" (30). If "digitized" implies that OER can be podcasts or multime-

dia assets and not just textbooks or print articles, the "reuse" aspect highlights the fact that OER are editable and shareable.

In 2012, the OER movement gained momentum during the first World OER Congress held in Paris, France June 20–22, 2012. This event brought together Education Ministers from a variety of countries to agree on an OER strategy and way forward to make OER mainstream. The outcome of the OER World Congress led to the Paris OER Declaration, which contains recommendations to:

- a. foster awareness and use of OER;
- facilitate enabling environments for use of information and communication technologies (ICT);
- c. reinforce the development of strategies and policies on OER;
- d. promote the understanding and use of open licensing frameworks;
- e. support capacity building for the sustainable development of quality learning materials;
- f. foster strategic alliances for OER;
- g. encourage the development and adaptation of OER in a variety of languages and cultural contexts;
- h. encourage research on OER;
- facilitate finding, retrieving, and sharing of OER; and
- j. encourage the open licensing of educational materials produced with public funds. (p. 2)

Since the World OER Congress in Paris and its recommendations for OER development, the OER movement has undergone a shift and has catapulted quite a few countries and institutions into action. Many new OER initiatives are emerging, and policy developments on the national and regional levels, and even on some institutional levels, are underway worldwide.

The most important development of the OER movement has been the growth of OER repositories. Open educational projects and repositories are being created and maintained by universities, community colleges, nonprofits, educational nonprofits, corporate organizations, and even governments. Some repositories housing educational documentation, textbooks, videos, podcasts, assessments, and full courses include Merlot (merlot.org), OER Commons (oercommons.org), MIT's Open Courseware (ocw.mit.edu), to name a few. Plenty of vetted OER may be found in these repositories: the World Digital Library site (wdl.org/ en/), the Community College Consortium for OER site (https://www.cccoer. org/learn/find-oer/), Princeton University's multimedia repository (https:// mediacentral.princeton.edu/), University of Cambridge's OER site (http:// oer.educ.cam.ac.uk/wiki/Home), Oxford University's open resources beta site (https://open.conted.ox.ac.uk/), the Canadian Athabasca University's site (https://oerknowledgecloud.org/), dia's Shodhganga, an open access repository of doctoral dissertations (http:// shodhganga.inflibnet.ac.in/), Hewlettfunded OER Africa (https://www.oerafrica.org/), and Australia's national digital learning repository (http://www.scootle.edu.au/ec/p/home). See Appendix 1 for a screenshot of more OER repositories.

Such OER repositories serve as sites where OER are collected, collated, and validated. While OER texts and materials may be produced by instructors, citizens, and organizations who desire to raise their profiles or want to share from altruistic motives, what is significant is that neither governments nor universities have policies or pedagogies in place for a large scale or exclusive adoption of educational resources that include complete courses and open textbooks. As it stands today, OER are being adopted by individual departments and instructors. In this context, it becomes important to understand, as Wiley (2007) noted, that OER are OER if they subscribe to the Four R's:

- 1. Reuse: the users can use the OER for their own purposes.
- 2. Redistribute: the users can share the OER with other individuals.
- 3. Revise: the user can adapt the OER.
- 4. Remix: the user can combine two or more OER to create a new OER resource.

In 2014, Wiley updated the four R's with the addition of Retain, in recognition of the copyrighting needs of OER creators.

5. Retain: the user can retain ownership and control the open educational resource. (*An Open Education Reader*, Chapter 16) Since openness, adaptability, and flexibility are hallmarks of OER, it is easy to assume that attribution is not necessary. Most often than not, OER use a Creative Commons license. As per OER Commons, OER are "teaching and learning

materials that are freely available online for everyone to use, whether you are an instructor, student, or self-learner" (https://www.oercommons.org/). However, there are gradations of openness, as Figure 1 shows.

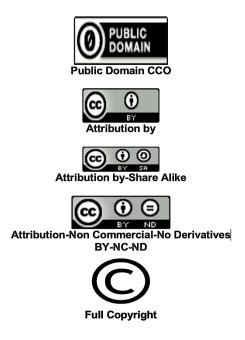


Figure 1. Gradations of Openness Source: OER commons.

OER that are of interest to writing instructors can be of two broad kinds. The first kind is textbooks, and the second is course outcome enhancement materials. Currently, several options are available to locate high-quality open textbooks, a subset of OER often used to substitute for traditional textbooks. Among those providers are Openstax (openstaxcollege.org), The Saylor Foundation (saylor.org), Washington State's Open Course Library (opencourselibrary.org), and the Minnesota Open Textbook Library (open.

umn.edu/opentextbooks/). While quite a few open writing textbooks are available at Openstax (http://cnx.org/), OER commons, Merlot, Project Guttenberg (guttenberg.org), E-books collection (Manybooks.net), and Read Print Books (readprint.com) house free literary texts. Quite naturally, an individual instructor cannot prescribe an open text for students, as they need to first seek approval of the dean or departmental head. As there is a growing realization that OER portals are poised to be information centers that can bring

down costs for entire institutions and countries, two of the three case studies presented here discuss adoptions that are institution-driven. One case study deals with a single department's adoption of an open text and the second discusses how an institution adopted OER textbooks and materials as a policy and process university-wide. Since the OER revolution does not always have to be top-down, the third instance is that of a single instructor's adoption of open educational multimedia material as an enhancement tool.

When the instructor replaces the publisher textbook, whether it is a CC-BY or CCO license with an OER textbook, or introduces supplemental material to supplement a conventional textbook, it creates what Vanasupa et al. (2016) described as "the first moment of building trust between professors and their students" (p. 200). Even more importantly, it is "an acknowledgment by the faculty member that the art of teaching is constantly evolving and that multimedia should be included in their teaching styles" (Vanasupa et al., 2016). In the words of Littlejohn et al. (2008):

Open learning resources are fundamental to good quality education; using only print sources may not be enough now. While the use of print-based resources as an integral part of teaching across all sectors of education and their use has evolved over a long period of time, especially in conventional, didactic modes of teaching, it is now time to move on. The last few decades have seen major changes, both in ideas about effective teaching methods and in the availability and affordances of new types of resources based on digital technologies. Understanding how to employ these new resources is still evolving and teaching staff are in the position of learners as they explore effective ways of using them It is the ways in which resources can be used by practitioners, both as learners and as instructors that are important. This duality of characteristics is particularly evident in our survey of resources that are specifically designed to change eLearning practice. (pp. 757-771)

Embracing OER is in many ways also embracing technology. Technology should be viewed as user-friendly. An instructor must be able to pick OER, find a link between them, curate them for easy use during classes, and eventually, contribute to them. Many repositories, such as OER Commons, offer curating capabilities as well.

To use OER effectively requires an understanding of not only OER copyright laws and their peculiarities, but also an understanding of technology as an access tool and for curation purposes. Repositories and open courseware mostly host OER using universal design principles. To emphasize this point, the mission of the 2002 UNESCO conference that began the OER movement was focused on open software and open courseware. With hosting becoming more common and technology becoming more familiar and available

for both instructors and students, the open educational creator and educator are in a position today to close what Vanasupa et al. (2010) described as the educational gap and "open possibilities for the university to function more as a community" (p. 210). The open educational technological revolution has made it possible for students to spend no or minimal amounts of money on textbooks while offering educators and educational institutions valuable tools to enhance the learning classroom and educational experience at no or minimal cost. Notwithstanding the growth in OER and despite the advantages of using them, Allen and Seaman (2014), in their nationally representative survey of 2144 faculty members in the United States, found that only 34% of respondents expressed awareness of OER (p. 38). While OER creators are using open principles and design for ownership, it does not automatically, as Moore (2018) correctly noted, "create an Open Educational Resources community of practice" (pp. 38-39). More needs to be done to popularize and pedagogize it. To make this happen, "prospective instructors or OER users need to conduct formative and summative evaluations" (Moore, 2018, pp. 42-43). In order for faculty to replace commercial textbooks with OER, they, as Allen and Seaman (2014) noted, not only need to be aware of OER, but also need to be sure that OER texts have proven efficacy and trusted quality (p. 11). This brings us to the importance of peer review.

OER materials and textbooks can be registered under Creative Commons license even when they can be repurposed. The location where OER are found is as important as the understanding of the difference between free to read and free to reuse. Hence, the use of OER-exclusive repositories has led to better reuse and educational outcomes. The advantage of going to university repositories is that instructors and students alike are assured of their authenticity, accuracy, and educational value. When institutions evaluate resources and repositories before recommending or hosting them, they tend to evaluate OER using institutional factors such as how well the resources or repositories have resources that meet institutional requirements and strategies. Since peer review is intrinsic to judging the educational quality of the OER, the appearances of open repositories that vet, collect, and curate is a positive development for instructors eager to participate and share in this new world of learning without barriers. Much work needs to be done to aid instructors who are willing to use multimedia resources in class but may need some technological input in the curation area.

OER can be a godsend for any writing instructor. Santos-Hermosa et al. (2017) proposed three core dimensions for evaluating OER: general/descriptive factors to establish types of OER, a focus on drivers for OER reuse, and a focus on educational aspects (p. 88). While it is undeniable that a secure and reusable platform is an important design factor that contributes to OER reuse, the real driver to their use can only come from pedagogy and bottom-up approaches, as these increase the educational usefulness and reuse of OER. This

implies that when institutions come up with assessment criteria, they may differ from what an individual department or instructor may want to evolve and use. Again, validation by repository creators alone cannot drive the adoption of open educational repositories.

One could assume that educational features are more present in Open Educational Resources-exclusive repositories, which are created to meet an educational need ... [yet] such repositories are not currently achieving their fullest potential. Although there is more educational information in this kind of repository (just over sixty percent), there are still many cases of Open Educational Resources described

and retrieved by type or format instead of by detailed educational metadata that better meets the users' needs. (Santos-Hermosa et al., 2017, p. 113)

To facilitate better sharing and use of repositories there is a need to evolve and share best practices at the instructor level.

Best Practices with OER

eonard Bloom (1956) segregated learning into cognitive categories: knowledge, comprehension, analysis, application, synthesis, and finally evaluation. Instructors were encouraged to move students from level 1 to level 6 learning categories, namely from knowledge to evaluation.

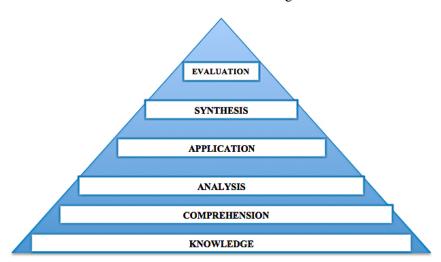


Figure 2. Bloom's Taxonomy

With OER, the instructor needs to move from identifying and collecting resources to connecting and curating them for use in the class. Otherwise, the resource, however interesting and relevant, becomes extra work for the student. Unless the sources are connected to an assignment or the resources, whether videos and PowerPoints, are curated, using OER will not be gainful. Since curation implies sorting, sifting, and combining, it requires both ped-

agogical and technical awareness. It is only when instructors have achieved good results in class with their curated OER that they reach the highest level—that of contributing and sharing for

reuse. So like Bloom's taxonomy, a taxonomy of OER, as Valenza et al. (2014) noted, would show a movement up over the four action categories: collect, connect, curate, and contribute.

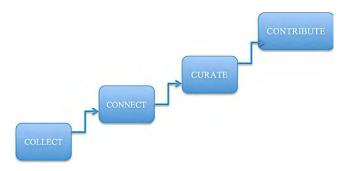


Figure 3. Taxonomy of OER Use

The Collect Phase

In stage one, the writing instructor learns about open educational repositories and OER attribution norms and *collects* useful and relevant content that can enhance the classroom and student understanding of the subject matter. While checking for available multimedia resources that have the proper Creative Commons licenses and that align with the content, writing instructors can find educational resources textbooks on the subject matter that could be prescribed. Even if they do not have the authority to prescribe it, they could recommend it as additional reading(s).

The Connect Phase

In the second stage, writing instructors *connect* the sources with course outcomes as they preserve them for a specific purpose or for its appeal to the student audience. At this stage, it might be useful to have a checklist or select a list of parameters. While each instructor probably has a sense of what they want, I have found these five to be useful: content, format, accessibility, shelf life, and "wow factor." While the relevance and accuracy of the content cannot be overemphasized, the format is equally important. Although students have various learning styles, printed materials help the textual learner but not the auditory, visual, or kinesthetic learner. OER provide the opportunity for the instructor to use audio or video to engage all kinds of learners. Instructors save time and energy by using OER without having to give up on being able to appeal to all learning styles. They are also able to engage, interest, and encourage pupils to interact with the material at hand without having to create audio, video, and visuals themselves, since not everyone has the skill to create multimedia materials. However, it is important at this point to remember the accessibility factor. Resources need to be easily accessible and downloadable, since not all students have access to a 5G network or fast modems. Accessibility factors notwithstanding, writing instructors do not teach core courses. so the "wow factor" that multimedia resources have need to be tapped. The wow factor is an important criterion as it can drive and enhance students' interest and engagement in the class. Unlike those found in OER repositories, shelf life can be an issue when OER sources are used from YouTube, for instance, since they can be removed at the will of the creator. Not all criteria in the checklist are equally important; hence, I do not give equal weight to each parameter. The wow factor and shelf life can be assessed at half the weight of the other three.

The Curate Phase

In stage three, instructors move on to curate the OER they found, collated, and preserved. At this stage, the instructors analyze, evaluate, and contextualize the resource and hold discussions within the OER. Although numerous curating resources exist (see Appendix 2 for a picture of the many tools available – even if it is not an exhaustive list), I recommend Storify, Evernote, Scoop it, Curriki, and TedEd lessons, as I have used these successfully. In my Evernote lesson (screenshots presented in Appendix 3), the curating tool gave me the ability to comment on the Richard Branson's beer mat pitch video that I wanted to incorporate in the context of the writing course project. As you can see, I discuss the OER to provide the

larger picture, the context, and the value of the project assignment. The video not only provides an interesting start to the project pitching, but also allows me to provide a scaffolding form to brainstorm on the semester-long assignment. Pedagogically, I use the curating resource to localize the resource.

The Localize Phase

The need to localize to curate and integrate the resources into the classroom cannot be overemphasized, because this is what turns it into a pedagogic entity. Localization refers to the process of taking educational resources developed for one context and adapting them for other contexts. These contexts can, for example, be geographical, pedagogical, political, or technical. The practice of localization encompasses more than the translation of materials into a local language or swapping a photo to reflect a culture. Rather, localization is at the heart of the OER process. It is the process through which educational resources are adapted to meet local teaching and learning needs. According to ISKME (2007),

> Open educational resource localization refers to the process of taking educational resources developed for one context and adapting them for other contexts. These contexts can, for example, be geographical, pedagogical, political, or technical. The practice of localization encompasses more than the translation of materials into a local language or swapping a photo to reflect

a culture. Localization is at the heart of the Open educational resource process—it exemplifies diversity, openness, and reusability. (p. 45)

Localization happens when modification happens, irrespective of what is being taught or where it is being taught.

Localization occurs in proportion to the reasons that drive the instructors to use OER. While most writing instructors may opt to use OER to broaden horizons and be current and hence use them as supplementary coursework, some may opt to use it to improve their teaching practices and form a sharing community with like-minded instructors. Whatever the motivation, here are a few reasons that OER are generally localized:

To address a particular teaching style or learning style

To adapt to a different grade level

To adapt to a different discipline

To adjust for a different learning environment

To address diversity needs

To address a cultural preference

To support a specific pedagogical need

To address either a school or a district's standardized curriculum. (ISKME, 2007, p. 45)

The "format" criterion of the checklist or rubric to judge the OER material, therefore, needs to account for the ease or lack thereof in assisting instructors in their efforts to localize and curate.

The Contribute Phase

The fourth and final step of the OER taxonomy moves beyond curation to creation and contribution. When writing instructors have not just used an open resource after localizing it but have converted it into a new modified resource in the process of adaptation and localization, they may be ready to go public with it. At this point, the OER becomes a redefined resource that can be shared with fellow instructors to use and re-use. At this stage, writing instructors contribute to the movement by collaborating with the source, and trans-creating it for the benefit of the academic community.

The 10-point open educational sources checklist that evolves out of the best practices of an OER pedagogy can be envisaged as a possible rubric (opposite page). This rubric has helped me immensely in my teaching as an OER teacher and can be molded according to individual instructor needs.

As we move toward an OER pedagogy, it is a good practice to share how individual instructors and institutions are going about their evolution into being open instructors. There are numerous ways that OER can be used by the writing instructor in teaching professional and technical writing, for instance, as the next section highlights.

CONTENT	5
1) Is the content accurate?	
2) Has it been vetted? Did I pick it up for an OER repository that uses peer	
review to validate content?	
ACCESSIBILITY	5
3) Can I localize it?	
4) Can all my users access it?	
FORMAT	5
5) What form or multimedia format is it in?	
6) Can my or my institution's server handle the load? Will it present problems	
on my student's device/connection?	
7) Does it allow easy remix for reuse and updatability?	
SHELF LIFE	2.5
8) How long do I assume its shelf life will be? Is the expected time of use worth	
the effort I have to put in to localize it?	
9) Can it be updated seamlessly? Or will it have to be completely replaced?	
WOW FACTOR	2.5
10) How will it engage my student in learning? Will it wow my online and on-	
site students equally?	

Three Ways of Using OER in the Business and Technical Writing Classroom

ER may be used as additional resources by an instructor, as a prescribed textbook by a department, or as exclusive educational material by an institution. It may be useful to study how three educational institutions used OER in these three different ways.

Using OER as Additional Resources

At Rutgers University, NJ, the prescribed texts by Magrino and Goeller (2013) operate on the Six P principles of project writing, where each P symbolizes one aspect of the project that

students need to develop in to complete their real-world course project. The Six Ps are Patron, Problem, Public, Paradigm, Plan, and Price. Students work toward their 6P projects through four assignments: the white paper elaborating on the Six Ps-based proposal pitch, the midterm sales letter to the patron with a validation plan for the Six Ps, the simulated presentation to the patron at the three-quarter point, and the final project proposal, where all six Ps, including the plan and the price, are explained in full detail. Students have to validate their approach and plan by finding and situating case studies within a theoretical framework as a way to persuade the patron to give them an opportunity to implement their technical or business proposal. Teaching this class offers instructors plenty of opportunities to use OER to facilitate student research into models of success (or failure) so they can build a feasible real-world plan. Personally, I use a Ted-Ed lesson to curate my OER-integrated lesson to demonstrate how students can best present their proposal. In it, I reused a Steve Jobs launch video analysis (an OER) and integrated it into a lesson that involves explaining the assignment, highlighting how students can meet rubric expectations, and hold a discussion if necessary, to answer questions on the assignment. (For screenshots, please see Appendix 4). As per student feedback, the Evernote lesson increased both interest and retention for both online and onsite classes, whereas the Ted-Ed lesson was particularly useful for the onsite classes where students came up with their own "wow" factors based on their takeaway from the Steve Jobs video. There as many ways that curated lessons can be used to increase student engagement and performance as there are writing instructors who use OER that best fit their students' profiles and enhance their understanding.

Using Open Text

A second way of interfacing with open education resource is the use of an open text. Cogswell Polytechnical College in Silicon Valley, CA was faced with the problem of students complaining of the high price of the prescribed textbook in the Technical Writing class. When the Dean of Education, Jerome Solomon, approached me as a subject matter expert for a solution, I suggested an open text, The Mayfield Handbook of Tech-

nical & Scientific Writing, written by Massachusetts Institute of Technology (MIT) professors James Paradis, Leslie C. Perelman, and Edward Barrett. Not only was the suggestion to an open source text accepted right away, but it also led to extremely positive outcomes including student savings and student retention, prompting the Director of Online Learning, Richard Schimpf, to state that the course had become "one of our most popular online courses" (see Appendix 5).

An important clarification is required here. The Mayfield Handbook is not just an OER text: it is an open text, because it is both scholarly and peer-reviewed like open access journals. Conceived as a text for MIT's open courseware initiative (http://ocw.mit. edu/courses/audio-video-courses/), the handbook is now open for the world to use. As author James Paradis states, "We were always thrilled to imagine that we could field a useful guide to Science and Technical Communication that would be free in a digital and easy-to-use format. Long live the principles and practices of Open Education! The Mayfield Handbook was a born-digital project that then made its way into print. At any rate, we have made it open access, and hope it continues to serve science and technical communicators everywhere" (personal email communication, May 25, 2019). Another textbook available in the field of technical writing is Technical Writing by Allison Gross, Annemarie Hamlin, Billy Merck, Chris Rubio, Jodi Naas, Megan Savage, and Michele Desilva, which can be found in Oregon University's OER repository,

Open Oregon Educational Resources (https://openoregon.pressbooks.pub/ technicalwriting/). Again, a Saylor Foundation-sponsored business writing textbook by McLean and Moman, titled Business English for Success, is available at the University of Minnesota's open textbook library (https://open. umn.edu/opentextbooks/textbooks/ business-english-for-success) and being used in 13 institutions of higher learning (see site for list). Despite the availability of such open texts, challenges to the production and adoption of open textbooks remain. According to Baker et al. (2009), they are:

- faculty members' and students' expectations of high production quality and ancillaries for open textbooks,
- methods for documenting and maintaining control over various versions, and
- 3) the process of converting existing open content to digital and accessible formats. (p. 7)

When there is a university-wide decision to adopt open resources and open texts, however, the problems and resistance can be surmounted. University of Maryland Global Campus (UMGC), offering classes across USA and in Europe, the Middle East, and Asia, is one such institution whose use of OER will be discussed in the next section.

Using OER materials exclusively as university-wide policy

University of Maryland University College, now UMGC, was able to surmount

obstacles to OER use successfully when it successfully put to the test what Baker et al. (2009) called the premise of open textbook proof of concept, whereby "a system of publicly financed textbook production could co-exist alongside the system of copyright monopolies, allowing for a market test of the relative efficiency of the two systems." Such an alternative system could offer large savings to students, more flexibility to professors, and efficiency gains to the economy as a whole. By converting all texts to OER texts and resources, universities can reduce costs, encourage retention, and increase enrollment, and is the third and perhaps the most effective way of interfacing with OER.

The UMGC story of sustained effort at using OER across courses, departments, and countries is significant. As per an *Inside Higher Ed* article on UMGC by Mckenzie (2018), "In 2014, the university told *Inside Higher Ed* that if it couldn't increase enrollment by 5 to 7 percent per year, it would be forced to raise its tuition. The university's worldwide enrollment had shrunk to its lowest level since 2006. Fast-forward to today, and UMUC [now UMGC] is reporting ... 52,987 new and returning U.S.-based students enrolled in the summer and fall terms of 2017—the highest in the university's 70-year history." As per Javier Miyares, president, the increased U.S. enrollment had been the result of a multipronged strategy that involved "moving away from traditional textbooks and transitioning fully to OER. In the 2013-14 academic year, UMUC [now UMGC] reported its average books and supplies cost was \$1,000 per student. In 2014-15, it was \$600. And by 2015-16, it was zero" (Mckenzie, 2018). Unless UMGC changes its policy, student's books and supplies cost will stay at zero.

The Writing Across the Curriculum Department at the University of Maryland Global Campus was at the forefront of the shift to OER including open textbooks. While business writing courses at UMGC opted for McLean and Moman's Business Communication, the technical writing class used the Mayfield text and an open corporate produced textbook titled Tech Writing Handbook by Kyle Wiens and Julia Bluff as an additional text. Also, both the business and technical writing courses use numerous open educational podcasts, videocasts, video reviews, work instructions, user manuals, video tutorials, blogs, white papers, guides, manuals, and articles that have been carefully curated and organized weekby-week in keeping with weekly deliverables and progressive outcomes so each builds onto the other so that they fulfill course objectives. Having taught at UMGC, I know firsthand the delight of students of having a no-cost option of textbooks and learning materials.

Discussion and Conclusion

he use of OER in professional writing classes, whether as additional materials, as prescribed textbooks, or as exclusive educational materials at the institutions just discussed, show that OER can enhance the project writing classroom successfully. Whether used singly, additionally, or

exclusively, OER offer educators ways to raise engagement levels by providing a repository of multimedia materials. OER thus expand the toolbox for instructors to connect with students with multiple learning styles at multiple levels while saving them time and offering them an opportunity to collaborate, contribute, and create with colleagues. However, the OER revolution can reach its full potential not just with business and technical writing classes, but with all courses—only when the following happens. Instructors need to acquire the expertise to move up the OER taxonomic scale, while methods of documenting and maintaining control over the various resources used in a department are found. This can come about only when the will to migrate to OER grows stronger in institutions. As the Hewlett Foundation put together its new OER strategy for 2020, they acknowledged that "While scale and access have been the focus of OER's initial growth, we see considerable interest and opportunities for OER to enhance student and instructor agency. We are at a point in time when we can begin to more deeply explore questions about how open education can engage learners who come to school with different experiences, needs, and interests. This work calls on the field to advance the sustainability of open education models, to increase opportunities for collaboration among organizations in the open education ecosystem, and to intentionally invite new voices and perspectives for leadership and insight" (DeBarger, 2019). In other words, irrespective of what universities and OER organizations decide, the role

and importance of open faculty—or faculty who use OER—will continue to be important and critical, as it is they who localize information and provide it to the students. As Anderson (2010) put it,

Institutions should value intellectual diversity, and by this, I mean that institutions *need* open faculty in the same way they need extraordinary instructors and expert researchers. Open digital faculty are exceptionally good connectors—open communities of learning usually span many disciplines, countries, and levels of educational institutions. These faculty can be extremely valuable for connecting faculty in one field with those who have similar ideas in another field, or at a different level of education. Because they share on the web, open digital faculty can maintain good ties with former students (now alumni) and with colleagues in other countries. (p. 49)

To conclude, here are ways that open faculty can become involved in and strengthen the OER movement:

- Know that OER are academically feasible.
- Keep using OER to connect to students.
- Begin working with digitized materials and curation tools.
- Move up the OER use taxonomy scale.
- Help develop models and processes to support OER textbooks.
- Spread the word about OER and share best practices.
- As adoption grows, prepare for the OER revolution that will eventually overhaul curriculum, pedagogy, and assessment.

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Appendix 1: List of OER Repositories

Retrieved from Prof Joyce Valenza's post @

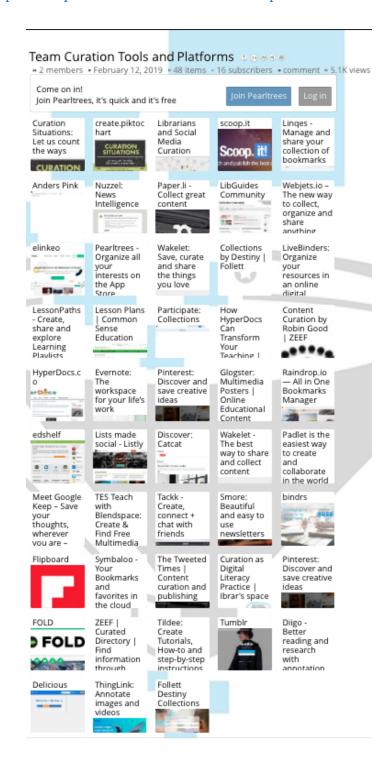
http://www.pearltrees.com/joycevalenza/oer-portals/id17856381#l958



Appendix 2-List of Curation tools

Link: J. Valenza's post @

http://www.pearltrees.com/t/curation-tools-platforms/id17762089



Appendix 3: Evernote Use Screenshots

Link: https://bit.ly/2YTlVyQ



Project Writing: Finding the Pitch for your Proposal

How do I begin a project?

By thinking about the pitch.

To know more about the pitch, watch this

https://www.youtube.com/watch?v=U3Qgull6W_s

How can I arrive at my pitch?

By knowing your 6 Ps

What on earth are the six Ps?

Go through this presentation to find out



Moving Toward an Open Educational Resources (OER) Pedagogy: Presenting Three Ways Of Using OER in the Professional Writing Classroom



Save Copy to Evernot

What is the link between the pitch and the 6 Ps?

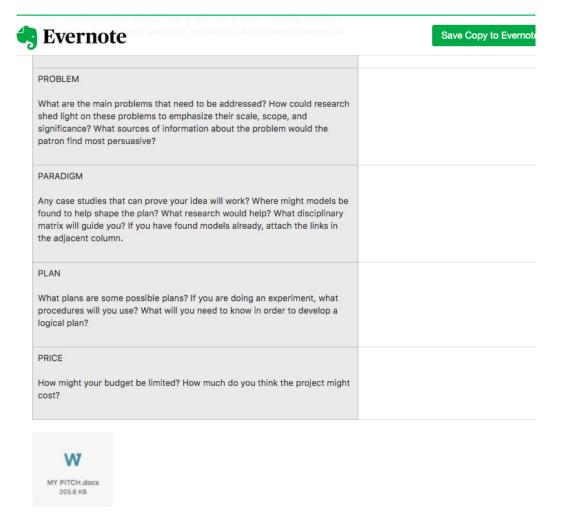
MY PROJECT PROPOSAL WILL HELP A SPECIFIC POPULATION ADDRESS A PROBLEM BY DEVELOPING A PARADIGM-BASED PLAN OF ACTION THAT STAYS WITHIN THE PRICE THAT YOU AS A PATRON MAY BE WILLING TO PAY

YOUR PITCHING ASSIGNMENT: ARRIVING AT THE PITCH THROUGH THE 6 PS TABLE

PROJECT TITLE

Must contain what(problem), how(methodology of the solution) &nd where(local area of implementation)

THE 6 PS (from Magrino & Goeller, Effective Business & Professional Writing, Kendall Hunt, Second edition)	RECORD THE LOCATION USED TO DEVELOP (Web URL, article, etc.)
PATRON Who would be willing to fund this project? Why would they want to fund it?	
POPULATION Who does the problem affect? That is, who has a stake in seeing that there is a solution to the problem? Does your population have the same interests as the Patron?	



Appendix 4

Screenshots of my use of TED-Ed to introduce and discuss the presentation assignment. I utilized the tool so I could hold a conversation about the upcoming presentation assignment along with rubrics and samples while presenting it in class and asynchronously online using a Steve Jobs video as a hook and centerpiece

Link: https://ed.ted.com/on/9NPbqYnF

Present Like Steve Jobs

LESSON CREATED BY **SARBANI YENGADASALAM** USING **TED** Ed VIDEO FROM **BNETvideo** YOUTUBE CHANNEL



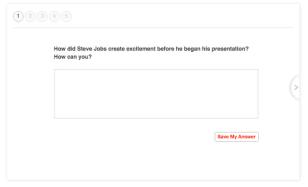


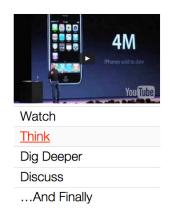
Present Like Steve Jobs

LESSON CREATED BY **SARBANI VENGADASALAM** USING **TED** Ed VIDEO FROM **BNET** VIDEO FROM **BNET** VIDEO CHANNEL

Let's Begin...

Welcome to the Presentation Assignment. As you know, you have to make a presentation on your project to the class very soon The assignment will be graded for 15 goints Would it not be great to use this opportunity to hone your skills for the real world? Come, lets learn from the pro- Apple founder Steve Jobs- himself?





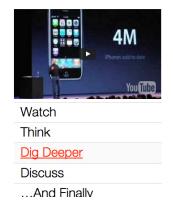
Present Like Steve Jobs

LESSON CREATED BY **SARBANI VENGADASALAM** USING **TED**Ed
VIDEO FROM **BNET**video YOUTUBE CHANNEL

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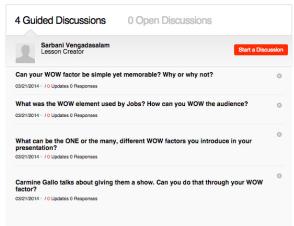
Present Like Steve Jobs

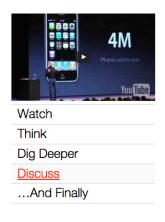
LESSON CREATED BY **SARBANI VENGADASALAM** USING **TED** Ed

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Appendix 5

Cogswell Email Exchange Screenshots

