



OER Issues: Apples, Orchards and Infrastructure

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Open Education Resource (OER) advocates are gathered this week in Vancouver for the 12th annual [Open Education conference](#). Reflecting their energy and their evangelism, the home page of the conference web site proclaims “Open Education resources provide a massive, high quality open content infrastructure on top of which innovative people and organizations are building a new generation of educational models. Methodologically rigorous research is demonstrating that these OER-based models can be extremely effective in reducing the cost of education and improving student learning.”

Clearly the OER movement is fueled by good intentions and great aspirations.

Several reports and events leading into this week’s Open Ed conference may help to advance the OER cause. First (and at the risk of some shameless self-promotion) were the data from the [2015 Campus Computing Survey](#) indicating that four-fifths (81 percent) of the CIOs and senior IT officers representing the 417 two- and four-year colleges and universities who participated the fall survey agree/strongly agree that Open Source textbooks and OER content “will be an important source for instructional resources in five years.” Additionally, almost two-fifths (38 percent) of the survey participants confirmed that their institutions encourage the use of OER curricular resources, up from a third (33 percent) in fall 2014.

Second was the emergence of a potential [OER cause célèbre](#) at California State University-Fullerton where [Alain Bourget, a tenured math professor](#), opted for OER resources and a less expensive textbook in lieu of the recommended (commercial) textbook for a large enrollment, multi-sectional course, a textbook written by his department chair and co-chair. If the Open Ed conference had a *Faculty Hero of the OER Revolution Award*, Bourget would, no doubt, be a strong contender.

Finally there is the research paper published online in September in [The Journal of Computing in Higher Education](#) (JCHE) which suggests that students enrolled in multi-section courses that use OER curricular resources do as well academically as their counterparts in parallel sections that use conventional (and by extension, more expensive) commercial textbooks and course materials. The JCHE article is significant for OER advocates and evangelists in that the research included some 16,000 undergraduates attending four BA/MA institutions and six community colleges: these students

were enrolled in multiple lower-division courses including biology, business, chemistry, English, history, math, and psychology, among others.

The JCHE article is worth reading. The authors, two professors at Brigham Young University, an official at the Michigan State Department of Education, and David Wiley, a former BYU prof and now the co-founder and Chief Academic Officer of [Lumen Learning](#) (which advocates for OER), strive to present the case that if the learning experiences and outcomes are, in essence, equivalent (usually no significant difference) when students use commercial vs. OER course materials, then the economic benefits of using low- or no-cost OER course resources are compelling.

(*Sidebar:* David Wiley, a corporate officer of Lumen Learning, obviously has a vested interest in research that documents the pedagogical value of OER course materials. This was not acknowledged in the online version of the JCHE article that was posted on 22 Sept 2015. However, earlier this week the JCHE editor assured me that this will be corrected in an updated version of the online and printed versions of the article.)

Of course there are some underlying problems with the “as well” (or as good) argument, which also haunts the continuing discussions about online education. In essence, arguing that something (OER? Online Ed?) is “as good” as the known or standard practice also involves an effort to document no negative impact of the intervention or experimental condition. Too, advocating on behalf of “as good” (or no negative impact) sidesteps an important conversation about the actual quality of the known or standard experience, such as commercial textbooks and traditional (on-campus) college courses.

The conversation and emerging research that compares commercial vs. OER textbooks and course resources offer an “apples to apples” assessment: (a) how does my Introductory Widgets text from Acme College Publishing compare to an OER textbook on the same subject? and (b) what’s the (learning) experience, as measured by multiple metrics, of the students in sections that use my commercial Widgets textbook compared to an OER Widgets textbook? (Although not within the scope of research activity and analysis, the JCHE authors acknowledge the need for independent assessments of the quality of commercial and OER textbooks and course materials.)

These are overlapping issues. For example, we can compare or review textbooks independent of any actual student experience (and often we do!). And efforts to evaluate the impact or benefit of specific course materials on student learning in “control” vs. “experimental” sections also have to acknowledge the potential impact of other variables, including: (a) the experience and expertise of the instructor; (b) when and where the class or section convenes (morning, afternoon, or evening; on-campus or online); (c) the use of ancillary instructional resources by students and faculty; and (d) the characteristics of the students in the respective class sections including age, gender, academic ability, prior exposure to the subject matter, enrollment status, etc.

While the “apples to apples” comparisons are important, often missing from these assessments is recognition of the larger “orchard” – the ancillary and supplemental instructional materials which, commercial publishers generally provide for large enrollment, lower-division college courses. These ancillary and supplemental materials are primarily intended for faculty but also, at times, may be available to students. And they are generally provided at no direct cost to faculty.

Seen in this context, my (well-reviewed) Widgets tome from Acme College Publishing is part of an ecosystem that presumably [adds value but understandably also adds costs](#) to the development and distribution of my wonderful Widgets textbook. The ecosystem includes editors, designers, fact checkers, test sets, supporting web sites, and supplemental content plus support services for faculty who adopt my book. An alternative OER Widgets textbook that has been independently reviewed as being “as good” as my commercial Widget text (“apples to apples”) probably exists without a similar supporting ecosystem of readily available ancillary products and support resources (“apples to orchards”).

So the comparative assessments of a single commercial textbook to a single OER textbook notwithstanding, let us stipulate that the textbook ancillaries and supplements from commercial publishers do benefit faculty. Indeed, many faculty members depend on these resources; some might even feel entitled to them. Let us also stipulate that the development costs for these materials are factored into the price that students pay if they purchase a new copy of my Widgets book.

And finally, let us stipulate that the “free” ancillaries and supplements publishers provide to faculty, especially for large enrollment, lower-division courses, have probably become increasingly important given the large number of part-time/adjunct faculty who teach lower-division courses.

Whatever your personal experience with OER (no direct experience or happy user) or your perspective (advocate, agnostic, or antagonist), the stipulations above highlight the importance of ancillaries and supplements as critical components of the instructional ecosystem and infrastructure for college courses, and in particular large enrollment, lower division courses.

Admittedly, you may question the real added-value of commercial ancillaries and argue about the accompanying costs passed on to students. You may believe that faculty do not need or should not use these commercial ancillaries and supplements, or that with a little effort they can find viable OER alternatives at various online archives and clearinghouses, including the [Open Ed Consortium](#) or [Merlot](#).

Alternatively, you may see value in commercial course ancillaries and test materials but feel strongly that colleges should purchase these resources rather benefit from the pass-through costs imposed on students.

But whatever your perspective on these issues, the fact remains that commercial ancillaries and supplements are an established and important part of the instructional ecosystem and infrastructure in higher education. If Open Education Resources are to supplant commercial course materials, OER providers must be prepared to compete on the quality, comprehensiveness, and value of their *orchards* – textbooks, ancillaries, and supplements – and not on the “as good” assessments of their apples (commercial textbook vs. OER textbook).

Disclosures: During fall 2014 and spring 2015 I served on an advisory board for the [Saylor Academy](#), which supports the development and use of OER curricular resources. And for the record, I view myself as agnostic about OER.

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