

The Potential for Open Educational Resources

by Robert Weisser



The concept of open education is based on the premise that knowledge should be "open" and it should be shared for greater good.

—Danai Nhando, "How Can Open Educational Resources, Advance Online Learning in Sub-Saharan Africa?"

When thinking about open educational resources, many people focus on only one trait: It is (mostly) *free*. Free to read, free to download, free to use for many purposes, free to pass along to others. If schools would just replace their textbooks with OER, they could save a *bunch* of money! This is supported by a 2012 FCC study which estimated that U.S. K-12 school districts spend \$7 billion a year on textbooks, and yet many students still use textbooks that are a decade old.

Cost savings are important, but that misses the point of OER: It is not meant to make education *cheaper*; it is meant to make it *better*. The ability to adapt the resources at will to meet students' needs is really the most powerful feature. Thus, implementing OER is more about cost shifting. Instead of spending funds on static instructional materials that become obsolete, OER creates the potential to move funds to other critical areas such as curating, organizing, cross-linking, and enhancing the open resources and offering professional development so that teachers and students can get the most out of the resources (Soots, 2015).

As teachers learn about open resources and grow comfortable using them, they will become personally involved in creating lessons based on the resources. By networking with other educators to repurpose the resources, they will not only enrich their own classroom instruction, but they will also boost the utility of the resources themselves. The innovation spawned by this interaction is one of the prime ways that OER will impact education.

What OER-Enhanced Education Looks Like

"Do we want kids walking around with 50-pound backpacks and every book in those backpacks costing 50, 60, 70 dollars and many of them being out of date? Or, do we want students walking around with a mobile device that has much more content than was even imaginable a couple years ago and can be constantly updated? I think it's a very simple choice."

—Arne Duncan, former U.S. Department of Education Secretary

One of the primary arguments for using OER in K–12 education is the potential access it gives to instructional materials aligned to educational standards. All of the states have learning standards to help improve their students' academic achievement and preparedness for college and careers. However,





the implementation of educational practices based on these standards has often been rocky, due partly to a lack of high-quality, up-to-date instructional materials aligned to the standards (Hewlett Foundation, 2012).

OER proponents, such as the U.S. Department of Education, are actively promoting the creation and dissemination to teachers of standards-aligned open materials in easy-to-use formats, earmarking more than \$2 billion for such development. The Hewlett Foundation and other nonprofits are also increasing support for aligned materials that cover full years of math and language arts so that teachers and students have continuity in their curriculum.

Achievethecore.org, an OER collaborative founded by lead writers of the Common Core standards, provides hundreds of standards-aligned lessons in math, ELA, and other disciplines. They envision that OER teaching resources will have the following characteristics (Nelson & Wolfe, 2015):

- Designed for digital: They emphasize
 materials designed for a digital world, with
 interactive and multimedia elements rather
 than static files delivered as PDFs or Word
 documents.
- Deeply aligned to the Common Core: Units and full courses will be evaluated by



educators to ensure they are exemplary learning sources that support effective teaching.

- Comprehensive: Resources will contain scaffolding for varying student needs as well as a range of assessment possibilities, including performance tasks with student work examples, formative assessments, summative assessments, and rubrics.
- Designed for long-term sustainability: States, districts, and schools will adapt and maintain copies of the open-licensed resources. In addition, OER aggregators will provide a mechanism through which users can suggest changes in order to maintain up-to-date master copies reflecting new ideas and best practices originating in classrooms.
- Licensed using the least-restrictive
 Creative Commons license: The least-restrictive license better enables teachers to adapt and remix materials to meet local needs.

Achievethecore offers courses in a wide range of subjects and grade bands. One example is a two-day lesson on George Orwell's novel 1984 that includes:

- Text-dependent questions
- Printable copies of the text
- Student discussion activities
- Vocabulary and syntax tasks
- Annotations for teachers
- CCSS-aligned mini-assessment

Exemplar text from the novel is presented side-by-side with vocabulary notes and directions and annotations for teachers/ guiding questions for students. At breaks in the novel, suggested skills tasks can be assigned. Writing assignments and performance tasks are included in the packet. The mini-assessment includes questions patterned on PARCC/SBAC tests, along with annotations and rubrics for each item.

Proliferating OER Portals

Achievethecore is just one of the many OER aggregator sites that have opened since 2002. One reason for this acceleration is the increasing emphasis that state education departments are putting on developing OER curriculum. For example, Washington State's Superintendent of Public Instruction has a Digital Learning Department (http:// <u>digitallearning.k12.wa.us/</u>). The DLD manages OER used by the state's public schools, and it also encourages school districts to increase their use and updating of OER that align to standards so that all Washington teachers can take advantage of the growing library of materials. This means that the breadth of curricular offerings widens each year, and teachers are continuously finding innovative new ways to present the material.

In addition, it is the conduit for students to access online courses and complete online school programs. The state allows students to take online courses that are offered by their school districts, that are created by a contracted provider, or that come straight from the DLD catalog. Each course is extensively reviewed by



Washington state teachers so that students can receive academic credit toward graduation.

The result in Washington is a smorgasbord of pathways for students to learn using OER. Teachers can give students access to materials that are closely aligned to particular standards and matched to their personal learning requirements. Students who are enrolled in alternative schools or summer session can, with the aid of teachers employed by the DLD, take online courses that will provide an education equivalent in value to classroom learning. Students who are home-schooled or who are physically unable to be in a classroom setting can also access the entire K–12 curriculum.

Bringing Educational Opportunity to the World

Open materials can provide vital resources for schools, teachers, and families to educate children from around the world. Many children in the developing world do not have access to books to read and, therefore, never become literate. OER can be a solution to these gaps in educational materials for grades K–12. Raising the percentage of literate children makes education in the developing world much more effective.

The same opportunity exists for addressing adult literacy. Adults who do factory work or farming have little time to attend classes, especially in areas where schools are few and far between. Making learning materials available through smart devices puts educational opportunities into the hands of those who need them, no matter where they live. And,

with appropriate measures by national governments, adults who most need education can also get help from qualified educators to direct their learning.

Conclusion

Although OER is not at this point "taking over" or "revolutionizing" education, it is very likely that its influence will continue to grow. Nonprofit organizations as well as governments at all levels are investing in creating zero-cost textbooks for students from kindergarten through college. As educators and legislators become more aware of the advantages offered by OER, a tipping point will be reached after which open resources will be commonplace in our schools, libraries, and digital backpacks.

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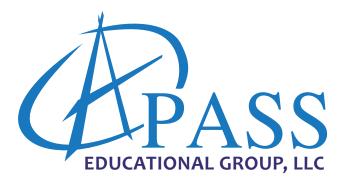
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