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# Renew, Reuse, Recycle: One University's Multi-Front War on the High Cost of Textbooks

Ann Agee, *San Jose State University*

Christina Mune, *San Jose State University*



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**Renew, Reuse, Recycle: One University's Multi-Front War on the High Cost of Textbooks**

Ann Agee, San Jose State University  
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### Abstract

The rising price of tuition and books is pricing some students out of the market for college. While struggles for affordable tuition take place in state legislatures, universities are taking the movement for affordable classroom materials into their own hands.

Seven out of ten students forgo required textbooks due to cost (Redden, 2011). This creates inequality in the classroom as economic privilege determines access to necessary learning materials. To counteract this trend, the California State University system began the Affordable Learning Solutions initiative, designed to encourage faculty to adopt low-cost classroom materials. San Jose State University implemented this initiative on multiple fronts:

- Renew - faculty modify open educational resources to meet the needs of their classes and teaching styles
- Reuse - faculty use library resources--ebooks, articles and videos--as both required and supplementary texts
- Recycle - faculty choose older editions of textbooks and retain the same textbook for multiple semesters so students have the option of purchasing used books

Cross-campus partnerships have proven instrumental to the success of these grassroots efforts toward more affordable education. An unexpected alliance with the campus bookstore delivered access to students and attractive giveaways—as well as problematic corporate requests for compromise.

While the development of massive open online courses developed by higher learning leaders like MIT and Carnegie Mellon transforms education, more grassroots efforts are needed to accommodate struggling students working towards degrees in local colleges and open universities here and abroad. Renew-Reuse-Recycle empowers teachers from inside the classroom to equalize educational access through using more affordable learning materials.

*Keywords:* open educational resources, educational equity

## Introduction

Rising textbook costs have a profound effect on student learning. In a survey of 1,905 undergraduates from 13 campuses conducted by the Student Public Interest Research Groups in the spring of 2011, 70% of the students responding reported that they did not buy at least one required textbook due to cost. Although some reported borrowing or sharing books, 78% of the respondents felt they would do worse in class without their own copy of the textbook (Allen, 2011).

The average student at a public four-year college spent \$1,200 on textbooks and course materials in the 2012-13 academic year, a 2% increase over the previous year, according to The College Board, a nonprofit organization that tracks college costs (Average estimated undergraduate budgets, 2012-13, n.d.). Compare this amount to the Cal Grant B Entitlement Award--meant to provide an allowance for living expenses and books to low-income students in California--which provides up to \$1,473 annually (Cal Grant B, 2012). At current textbook costs, that leaves students only \$273 for expenses other than books. At San Jose State University (SJSU), the cost estimate for books and supplies is significantly higher than the national average—\$1,754—exceeding the Cal Grant B award by more than \$250 (Cost of attendance, 2012).

The California State University (CSU) system's student population is largely made up of those financially unable to attend the more prominent University of California campuses or those who did not achieve the academic level necessary to qualify. Other students choose the CSU as a local or low-cost alternative for personal reasons, such as family or work obligations. Virtually all our students enroll in order to find jobs, advance their professional standing, and in many cases, improve the lives of themselves and their families. And the state of California needs these graduates. By 2025, the Public Policy Institution of California (PPIC) estimates that the state will need 9.1 million college graduates in the workforce (Johnson & Sengupta, 2009). At current graduation rates, the PPIC projects that there will be a deficit of one million graduates, a lack that will have a significant economic impact for individuals and the state.

The trend of rising prices for classroom materials that make a college degree increasingly expensive and decreases the number of potential college students shows no signs of slowing, however. According to the Bureau of Labor Statistics Consumer Price Index, over the last four years textbook prices have increased 22%, four times the rate of inflation (Consumer Price Index, n.d.). With more than 58% of students in the CSU system receiving financial aid, a percentage that has remained relatively unchanged since the early 1990s, these increasing costs are a significant burden and one that can endanger student retention (Statistical Abstract, 2011). The CSU system awards almost half of the baccalaureate degrees earned in California and about one-third of the master's degrees, so it is under pressure to keep college in a price range these potential students can afford (Higher education funding and mission in crisis, 2012). In response, the CSU launched the Affordable Learning Solutions initiative.

### **Affordable Learning Solutions**

In 2010, the CSU system initiated the Affordable Learning Solutions campaign for all of its 23 campuses (Hanley, 2010). The campaign had two related purposes: to offer faculty greater access to low-cost and free online material and, subsequently, lower the cost of classroom materials for students. The CSU had already taken some steps in this direction by creating MERLOT (Multimedia Educational Resource for Learning and Online Teaching), a repository of digital learning material. Launched in 1997, MERLOT offers access to freely available textbooks, tutorials, full courses, videos and presentations created by educators around the world.

Two additional parts of the Affordable Learning Solutions approach are the Digital Library Services and Digital Marketplace. Digital Library Services provides several different tools that make finding and linking to information in library databases easier and more streamlined:

- **SFX GetText:** If a student finds an article in one database that does not offer the full text, SFX GetText searches other library databases to find the full text elsewhere, if it is available.
- **Xerxes:** This search engine allows students to search across multiple databases with a single query.
- **Get It Now:** This service is a pay-per-view option that links to dozens of publishers and provides articles via email within one to eight hours.
- **Scholarworks:** This is a suite of systems that allows campuses, including SJSU, to create their own digital repositories for the work of their faculty and students, including masters theses, articles, data sets and more. All of these are available freely online and are indexed by the Google search engine.

The Digital Marketplace provides faculty and students with an online authoring tool for creating digital learning objects. It is also the platform that provides access to materials that are available for a discount from publishers that are working in cooperation with the CSU to offer online textbooks for less.

This collection of online tools was designed to encourage faculty to incorporate more free and low-cost material into their courses. All of the CSU campuses function independently and each is taking its own approach to how it implements the Affordable Learning Solutions initiative. At SJSU, the campaign was spearheaded by the library.

### **Cross-Campus Partnerships**

The university library touches all departments on campus, providing resources for research and expertise in scholarly communication and copyright. Because of the inclusive nature of its mission, the library was deemed the ideal place to coordinate the campaign at SJSU. Once tasked

with the initiative, it became immediately apparent that for Affordable Learning Solutions to be successful it had to be a cross-campus effort and not isolated in any one academic silo.

Partnerships initially came from traditional arenas, such as the campus Center for Faculty Development (CFD). The CFD's instructional designers introduced the Universal Design for Learning concept that allowed faculty participating in Affordable Learning Solutions workshops and webinars to target digital and low-cost print material that directly contributed to student learning outcomes and course objectives, forming completed puzzles rather than loosely related heaps of resources. Promotion of Affordable Learning Solutions events through the CFD allowed the library to reach faculty with emails that actually got through the white noise of overcrowded in-boxes.

However, the CFD also competed with the library for attention on campus and for limited fiscal resources. Respect for this partnership meant pulling back from an initial plan to offer iPads as incentives for faculty to develop and showcase affordable solutions in their courses because such an incentive would overshadow awards available for other CFD programs. Instructional time within affordable learning workshops became a contentious issue as well, with competing agendas fighting for space. But these compromises were well worth the rewards of having access to the CFD's expertise in curriculum planning, event programming and outreach. As a trusted and low-pressure place to develop teaching expertise, the CFD continues to nurture the Affordable Learning Solutions initiative and support its increasing forays into media development.

A more surprising partnership formed almost immediately with the campus's Spartan Bookstore, operated by the for-profit business, Barnes & Noble. This partnership proved fruitful in a variety of ways, including the store's sponsorship of Affordable Learning Solutions events and its donations of food, raffle prizes and Spartan Pride gear. The cooperative exchange that has had the most impact, however, is the Textbooks Available as eBooks in the Library list.

Before each semester begins, the Spartan Bookstore gives the library the list of textbooks ordered by campus faculty for the upcoming semester. The library's Technical Services department matches this list of textbooks from the bookstore to the library's collection of multiple-use ebooks, to see if any of the titles required by faculty are available in the library. In Spring 2012, a total of 126 titles in the library matched.

A list of these titles was posted on the library website and Textbooks Available as eBooks in the Library was promoted to students through social media and the campus newspaper. Usage of the 126 ebooks increased by 794% over the course of the semester. Classes that had a combined total enrollment of more than 1,700 students were using the ebooks as either required or supplementary textbooks. Using these enrollment figures and the books' usage statistics, it was estimated that the Textbooks Available as eBooks in the Library list saved students more than \$50,000 in a single semester.

More importantly (and surprisingly), the bookstore now has labels on its shelves to indicate if a certain textbook is free in the library as an ebook, despite the possibility of the store losing sales. The bookstore manager also invited librarians to present on Affordable Learning Solutions

during the store's part of the Freshman and Transfer Student orientations that are held throughout the summer.

To reciprocate, the bookstore's rental and digital textbook options are listed on the Affordable Learning Solutions website. The store is mentioned in workshops and webinars and store representatives were invited to present at the Affordable Learning Solutions Fair held for faculty and administrators on campus. Ultimately, the partnership has been mutually beneficial, but some dubious requests have come along with the support. During the summer orientation sessions, librarians were asked to remove Chegg.com from the resources handout designed for students. Chegg, an online company that rents and sells textbooks, is a major competitor of Barnes & Noble in the college textbook market. Because the bookstore was hosting these orientation sessions, the listing was removed without too much trepidation. More recently, however, a request to remove the Chegg.com link from the Affordable Learning Solutions website gave pause. Because the site also linked to Slugbooks.com, a textbook price-comparison tool for students that includes Chegg.com in its results, the request was granted. It remains to be seen what other requests will be made as the Affordable Learning Solutions initiative moves forward on campus. However, the bookstore has stated that selling textbooks is no longer its main retail goal; rentals, digital books and merchandise are apparently much more lucrative and scalable.

### **Renew**

One of the most exciting things about open educational resources is how they can be customized. Unless they come with a No Derivatives license from Creative Commons, which means the resource can only be used as is, open educational resources can be tailored by the instructor to fit a specific class. A popular example of this is the "Flip This Lesson" feature from TED-Ed.

The TED-Ed website features short videos on a wide array of current, controversial topics in technology, entertainment and design. Flip This Lesson allows instructors to customize the educational videos available on the TED-Ed site or create lessons of their own based on a TEDTalk, videotaped lectures by speakers who are innovators in their fields. Faculty can write comments and quizzes than share their video lesson with students as a private link. The site even allows instructors to see which students have completed these online lessons and to track their individual progress.

Engineering faculty at SJSU have flipped the classroom using another popular open resource, the massive open online course (MOOC) MITx 6.002x Circuits and Electronics. Created by the Massachusetts Institute of Technology, 6.002x allows students to watch lectures, take quizzes and participate in virtual labs all online. In class, instructors are able to work one-on-one with students on problem sets, rather than stand in front of the class lecturing. This way they can see when students are struggling and provide help on the spot. Faculty discovered that students in the flipped classroom scored 10 to 11 points higher on their midterm exams than students enrolled in the traditional classroom course (Harris, 2012). Instructors can use part or all of the 6.002x course, tailoring it to their instructional objectives.

Some online publishers provide digital textbooks and allow them to be reshaped to the specifications of a course. The best known of these publishers is Flat World Knowledge. Flat World Knowledge offers digital textbooks for as little as \$20 and instructors can add, delete, change and move content to match their syllabi. Called "Make It Your Own," this is the option chosen by a faculty member in SJSU's Educational Leadership department. Introduced to Flat World Knowledge at one of the Affordable Learning Solutions workshops held for faculty on how to use open educational resources, the instructor began with the Flat World business title, *Principles of Management*. The instructor uses the "business" theories and applies them to the educational environment. She also incorporates the supplemental materials offered by Flat World, such as videos and PowerPoints.

This opportunity to shape the content to the class rather than have to shape a class to the structure of a textbook frees faculty members to teach the way they want to. Open educational resources allow instructors to exercise their creativity and gives them the tools to reach their students through text, video or images in a way that print alone cannot match.

### Reuse

Library resources represent a vast, largely untapped wealth of scholarly, well organized and increasingly digital information that is perfectly suited for classroom use, both as core and supplementary material. Multi-use ebooks are available at no charge to faculty and students and, as demonstrated by the Textbooks as eBooks in the Library list, they can be easily adopted as textbooks and accessed from almost any device.

Library databases are another source of classroom material. Faculty already assign students peer-reviewed and popular articles, often as suggested readings. The currency and quality of these articles, combined with their availability to students free of charge, makes it worth the effort to collect them into digital readers, replacing traditional textbooks. The prevalence of course and learning management systems on most campuses means digital readers can be delivered fully online, no printing charges required; although, the option to print still exists for those students who desire paper copies. At SJSU, subject specialist librarians assist faculty in locating and disseminating these works in copyright compliant formats.

In the last decade or so, libraries have also increased their collection of multi-media resources, taking advantage of academic media collections to provide more engaging, interactive materials to enhance student and faculty research agendas and presentations. If the unvetted offerings of TED, Khan Academy, and YouTube do not appeal to faculty as classroom material, library subscriptions to Alexander Street's Academic Video Online, which encompasses dozens of disciplines such as anthropology, counseling and therapy, dance, education, and nursing, should. These databases provide videos from academic observation and documentary footage. They also include full transcripts, the ability to make clips of varying length and user-friendly ways to present them to students online or in class.

Additionally, for many of the resources mentioned, digital access may actually increase accessibility for differently-capable students, as delivery systems adopted by the university



generally comply with Section 508 of the U.S. Rehabilitation Act and so work with adaptive technologies like screen readers and text enlargers.

Demands to justify library collection budgets increase in economic downturns, such as the one California is currently mired in. Librarians and educators know how important quality research materials are, but administrators and legislators may not see them as imperative. Incorporating library resources as core course materials takes advantage of money already spent, reusing funds for the benefit of the institution and its stakeholders, while introducing students to campus resources that will serve them their entire academic and professional careers.

### **Recycle**

A recently discovered syllabus for a three-course series required by hundreds of science and engineering majors at SJSU each year, discouraged students from buying used books or sharing textbooks. The syllabus referred to purchasing anything but the newest edition as “trying to save a few bucks.” The instructor states: “I do not recommend using earlier editions as many changes have been made, particularly to the end-of-chapter problems.” Only the publisher’s website was listed as a source for purchasing the book and a \$50 “homework access code” was required—in addition to the \$257 textbook. For this particular course, there are more than a dozen freely available online books that would fulfill its curricular needs. This includes a comprehensive text from Rice University's OpenStax College, actually written by a CSU colleague from the same discipline.

For those who still prefer assigning print texts, or in cases where no viable online alternative exists, there are still many affordable print options that may arguably be the best solution for campuses serving student populations with limited access to the internet and computers. This is particularly true for basic courses in math, science, writing, and literature with content that rarely changes. Instructors can increase affordability, and therefore equity, by recycling textbooks in the following ways:

- Assign readings by topic and chapters rather than page numbers, so small changes do not mean having to give up used-books options for the latest edition
- Develop customized end-of-chapter questions so new questions sets do not preclude utilizing old editions
- If teaching introductory, benchmark or overarching concepts, allow students to use a book of their choice, as long as it covers the core materials. Provide more focused materials using journal articles, lectures, OpenCourseWare, etc.
- For large General Education courses, work with publishers to find a textbook that will be maintained without changes for an agreed upon time, four to five years, for example. Combine forces with similar institutions to make the deal worthwhile for publishers.
- Ask students to donate their old book to future classmates. Provide these books to students in need.
- If all else fails, choose a print book that is reasonably priced. Instructors can compare prices for possible texts themselves at Akedemos Textbook Adoption Tool (<http://akademos.com/textbook-adoption/>)

### **Conclusion**

Although not all approaches from the CSU are focused on equalizing educational access and tuition hikes continue to discourage our most challenged students from obtaining advancement through education, Affordable Learning Solutions represents a student-centered, sustainable, multi-faceted battle against inequity in education. Providing a myriad of possibilities from renewing free digital media to recycling textbooks to reusing library materials in order to maximize existing campus resources, this campaign signifies an excellent example of grassroots work toward equal educational opportunity for all.

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