

Florida's Orange Grove Repository: A Sustainability Case Study

Introduction

The Orange Grove

The Orange Grove repository, established in 2004, was designed as a K-20 repository to collect and store learning resources for use by Florida teachers, faculty, and educational institutions. From its inception, The Orange Grove was funded through the Florida Distance Learning Consortium (FDLC) as one of its main initiatives. In order to support the repository, the FDLC has sought funding for the repository in each legislative budget request since its creation.

The success of this strategy varied widely, dependant on a range of factors. Were there other projects competing for the same dollar? Could the project capture the attentions of a particular legislator who might be able to champion the project and secure funds? This was the struggle faced by The Orange Grove staff in each successive legislative session. The FDLC was most successful in acquire funding when it could be tied to a specific aspect of the project, such as \$250,000 in 2006-07 to "buy out" a perpetual license for the entire state for the Equella software that runs the repository.

As the repository continued to develop and grow, the financial model of relying on legislative funding began to seem less and less tenable. The state's shrinking revenues, resulting in multimillion dollar state budget cutbacks, has compounded the challenge for financial support. Repository funding requests must now compete with basic educational institutional needs such as faculty positions and salaries. The project was left waiting until the end of each legislative session to find out if there would be any funds available to even maintain the existing system, much less improve or expand the initiative. Faced with this reality, The Orange Grove team began seeking alternative sources of funding.

Developing Need for Open Textbooks

At about the same time that the state and U.S. were experiencing loss in revenue and an economic decline, there was a ground swell of concern from students, parents, and other interest groups regarding the staggering rise in the cost of textbooks. The Advisory Committee on Student Financial Assistance reported in 2007 student textbooks could easily cost between \$700 and \$1000 annually. With the cost of college education increasing every year in general, addressing the rise in textbook costs was seen by state and federal legislators as one way of helping to defray the cost of obtaining a degree. As frustrations with the cost of textbooks increased, numerous groups began taking actions to address the issue.

[Student Public Interest Research Groups](http://www.studentpirgs.org/textbooks/) (SPIRG) and other student groups mobilized to bring their dissatisfaction with the situation to the attention of campus administrations at colleges and universities around the country. (<http://www.studentpirgs.org/textbooks/>)

As the movement for textbook affordability continued to grow, a number of college and university administrations and state agencies began exploring the issue, attempting to find remedies to lessen the financial burden on their students. Florida legislatures also took notice and began studying possible courses of action. Ideas ranged from increasing the market for used textbooks to instituting a textbook rental program to using technology to provide alternative delivery methods. Many states passed legislation, such as Florida's [Textbook affordability statute](#), to help curb the rising cost of textbooks. In Florida, the Department of Education issued the [Textbook Affordability Workgroup report](#) in which they provided recommendations for making textbooks affordable for students. (http://www.leg.state.fl.us/STATUTES/index.cfm?App_mode=Display_Statute&Search_String=&URL=Ch1004/SEC085.HTM&Title=-%3e2009-%3eCh1004-%3eSection%20085)

Open Textbooks

One approach that emerged as a promising solution to reduce textbook costs was the use of “open access” or “open” textbooks. While open access textbooks are freely available online to download or print, there are modest costs to sustain the infrastructure and delivery system. SPIRG defines open textbooks as “complete digital textbooks that are accessible online at no cost, and affordable to purchase printed as a book.” (<http://www.maketextbooksaffordable.org/statement.asp?id2=37633>)

Licenses that are attached to truly open textbooks are usually one of the Creative Commons (<http://www.creativecommons.org/>) license options. Some works are also in the public domain. Creative Commons licenses allow the original authors to keep the copyright but allow others to copy and distribute the work (<http://creativecommons.org/learn/licenses/fullrights>) provided they give credit (attribution) to the original author and abide by any other conditions the original author specifies. Many authors license their open textbooks to allow anyone to use, download, customize, print, and even make derivative works without expressed permission from the author.

The Orange Grove Texts Plus

The Orange Grove had long been an advocate for open educational resources and Creative Commons licensing. It is a central tenant of The Orange Grove’s philosophy that broadly licensed resources which allow for sharing and repurposing of the material offer educators, students, and institutions the greatest educational benefits. As The Orange Grove staff delved more deeply into the open textbook issue, they realized that in addition to offering savings to students, open textbooks might also serve as a method to address the ongoing funding problems facing The Orange Grove. The repository staff began exploring the possibilities of using The Orange Grove as a means of distributing open textbooks. Staff members began locating open textbooks and created a collection within the repository to house them.

Similarly, the Florida Board of Governors (BOG), which oversees universities in the state system, also began looking into the textbook affordability issue in depth. One board member, who had heard The Orange Grove was adding open textbooks to the repository, suggested members of The Orange Grove staff meet with the University Press of Florida (UPF), the official publisher for the State University System. It was thought that the two groups would benefit by collaborating on the project. The UPF had expertise in the more traditional areas of book publishing such as editing, project development, and royalty structures, as well as having contacts in the world of publishers and booksellers. Representatives of these two organizations met and began discussing ways that they might collaborate to facilitate an effort toward textbook affordability. The result of this partnership was Orange Grove Texts *Plus* (OGT+).

Launched in September 2009, this new partnership combined the strengths of a digital repository, an on-demand printer, and a traditional book publisher. UPF supplies editorial staff, while The Orange Grove provides a mechanism to distribute free online copies of the book, or to order low-cost print copies from the print-on-demand printer, Integrated Book Technology. This on-demand printer was selected by UPF for the Orange Grove Texts *Plus* project.

The priorities of OGT+ are affordability, accessibility and adaptability. Students can read the books online and download them to their home computers (or mobile devices) for free. They can also order bound printed textbooks for up to half the cost of traditional textbooks. Orange Grove Texts *Plus* began with 120 textbooks and scholarly monographs free online, with more titles added on a continuing basis.

Open Access Textbook Task Force

Also in 2009, the Florida legislature passed *Section (s.) 1004.091(2), Florida Statutes (F.S.)*, (http://www.leg.state.fl.us/statutes/index.cfm?mode=View%20Statutes&SubMenu=1&App_mode=Display_Statute&Search_String=1004.091&URL=CH1004/Sec091.HTM). This statute required a collaborative study for the development of a plan to promote and increase the use of open access textbooks as a way to reduce student textbook costs in the state of Florida.

In response, a twenty-three member Open Access Textbook Task Force (OATTF) was established in July 2009 to fulfill the requirements of the legislation. The task force had broad representation from Florida's university and college community – faculty, administrators, student government leaders, business officers, bookstores – as well as staff from the Board of Governors, Division of Florida Colleges, Florida Distance Learning Consortium, and the University Press of Florida. The task force benefitted from and reported on OGT+. The task force developed strategies for a number of issues related to the use of open textbooks, including: arguments for the use of open textbooks and strategies for facilitating adoptions. Some of the findings from the OATTF report surrounding these issues are detailed below.

Benefits of Open Textbooks

The open access textbook study undertaken by the OATTF is about both academics and economics. The economic merit of open access is straightforward: it can greatly reduce the high cost of textbooks which are a significant portion of higher education costs for students. However, the Task force suggests the academic merits and value of open access are even more compelling than saving dollars.

- **Quality.** A recent survey of Florida student government leaders indicated that open access textbooks used in their courses were perceived to be of the same quality as traditional publisher textbooks and a few students stated that they were of better quality. Robert Stewart, a professor of oceanography at Texas A&M University, cites the quality control element of open access textbooks as an additional benefit. Students and colleagues regularly send him comments relating to errors of fact, typographical errors, and suggestions for improvement. This information is then used in identifying areas to address for the next publication of his textbook.
- **Flexibility of access.** By allowing students options in the format in which they receive the textbook, students are able to access to resources they might not otherwise be able to afford. Books are generally free to read online, while some websites and repositories also offer links to print-on-demand publishers, enabling students to order low-cost print copies of textbooks and electronic student aids. In addition, having the entire book available online allows students access the book whenever and wherever they choose, without having to carry a physical textbook with them.
- **Flexibility of content** Open textbooks promote flexibility in faculty selection of textbook components. Where the copyright permissions allow, faculty are given the flexibility to adopt a textbook in its entirety, choose a combination of sections or chapters, combine components of multiple textbooks, or even include content that they have authored. Dr. Erik Christensen, South Florida Community College, customizes an open textbook each semester for his Physics with Calculus course. Despite some added work, he reports that his students are far more successful using the customized National Science Foundation open textbook and are pleased at the 700% reduction in textbook costs.
- **Currency of information.** Currency of information is crucial in some disciplines, such as technology, engineering, and medicine, and open access allows for ready changes and edits to keep the information up-to-date and relevant. For those disciplines in which the basic factual information does not quickly go out of date (2 plus 2 still equals 4) and is an important

component of general education textbooks, open access can increase efficiency by reducing the need to continually reinvent the wheel for basic courses.

- **Professional collaboration.** Open access promotes professional collaboration in the design, delivery, and assessment of courses by enabling those who are teaching and researching in a field to participate in the design and delivery of the textbooks that are used. This promotes faculty as stakeholders.
- **Active/interactive learning.** Open access promotes active learning by incorporating Web sites that engage students in ways that the single-format textbook does not.
- **Teaching and Learning Technology.** Educational repositories such as The Orange Grove Digital Repository offer a wealth of free simulations, flash animations, lesson plans, and multimedia objects in multiple disciplines ranging from biology to world languages. Repositories can be used as a tool to help faculty members organize supporting learning resources and provide easy access to the chosen textbook,
- **Savings.** Discussions in Florida regarding open textbooks have estimated some spectacular savings for Florida students using open access textbooks. For just one general education course, College Algebra (MAC1105), with an annual statewide enrollment of well over 100,000 students, reducing the typical textbook cost from \$130 to \$50 could amount to a yearly savings of \$8 million for students. Florida's student government leaders overwhelmingly confirmed that textbook costs in Florida are too high and indicated their willingness to promote open texts to reduce costs.

Strategies for Adoption

The Open Access Text Task Force felt a sound approach to facilitate adoption was to focus on the general education courses that have the highest enrollment in the colleges and universities of Florida. This seemed like an effective way to provide a cost savings to the largest number of students and to introduce students to the concept of open textbooks. The OATTF obtained a list of the top 50 high-enrollment courses from the Board of Governors and the Division of Florida Colleges. Courses were prioritized by task force members, after consultation with appropriate staff at their individual institutions. The top six courses, in order of priority were determined to be:

1. College Algebra - MAC X105
2. Introduction to Psychology - PSY X012
3. Introduction to Statistics - STA X023
4. Principle of Macroeconomics – ECO 2013
5. Principles of Microeconomics - ECO 2023
6. Intermediate Algebra - MAC X033

The task force members concurred that some incentives would be needed to encourage widespread faculty adoption of open access textbooks. Commercial publishers often meet directly with the faculty, promoting packaged course materials, and eliminating the need for faculty members to expend time and energy on textbook selection or the development of supporting learning and teaching material. This suggests that comparable endeavors could be supported for open access textbooks.

Faculty incentives could include recognition, faculty stipends, student assistants, release time, grant awards, professional development, or additional technology. Institutions are strongly encouraged to raise awareness of pioneering instructors introducing open textbooks for their students or spotlighting innovative initiatives in technology areas. One example of an incentive program is being piloted at the University of West Florida. Monetary awards are made to faculty research and development accounts based upon the percentage of savings for students by an instructor's textbooks adoption.

Another aspect of facilitating the adoption of textbooks was the need to educate and inform faculty members about the advantages of open textbooks as well as how to go about adopting and open textbook. OGT+ joined forces with the Community College Consortium for Open Educational Resources (CCCOER) to offer training in this area to university and community college faculty in Florida. The CCCOER is a joint effort by the Foothill-De Anza Community College District, the League for Innovation in the Community College, and many other community colleges and university partners. Their goal is to develop and use open educational resources (OER), and especially open textbooks, in community college courses.

Several open textbook workshops, conducted by Jacky Hood of the CCCOER, were held in locations around the state including Orlando, Broward College (<http://www.broward.edu/>), and St. Petersburg College (<http://www.spcollege.edu/>). These workshops were open to all Florida higher education faculty and administrators interested in knowing more about how to use open textbooks to reduce the costs of textbooks for college students. The workshops were well attended and also offered training on how faculty members might become advocates for the use of open textbooks on their home campuses.

A Model for the Use of Open Textbooks

It was becoming increasingly obvious that open textbooks would be a big part of the future of The Orange Grove. However, this was a new area and there was not a model or guide for how such an initiative might be developed or supported. While open textbooks hold the promise to significantly reduce textbook costs for students, an effective model for their development and delivery was needed. This model must take a systematic approach to the textbook production and adoption system as it now exists in higher education.

To address this need, Susie Henderson applied for a grant from the Fund for the Improvement of Postsecondary Education (FIPSE) (<http://www2.ed.gov/about/offices/list/ope/fipse/index.html>) under the special focus competition "College Course Materials Rental Initiative" (<http://www.ed.gov/programs/fipsesf/index.html>) The goal of this grant is to develop an effective, sustainable and replicable model for the use of Open Access Textbooks. The FDLC received \$300,000 over two years to develop this model.

This project proposes to create and present a sustainable model to discover, produce, and disseminate open textbooks. This Open Textbook Implementation Model will develop and then test processes and strategies that will be ready to disseminate among early adopter higher educational entities, academic presses, and educational systems. The outcomes from successful implementation of the model will be reduced textbook costs for students and increased recognition for digital publishing as a scholarly activity. We also envision more digital content being integrated into these online textbooks over time, increasing anytime/anywhere access for students.

Through this grant funding, staff members will determine the current status of open textbooks. Today, there are a variety of websites, repositories, and individual faculty web pages that offer access to open textbooks without any costs or restrictions to download or print a book. A few websites and repositories that offer open textbooks link to print on demand publishers, enabling students to order low-cost print copies of textbooks and electronic student aids. Some faculty members are selecting chapters or parts of open texts while adding content that they have authored to create their own customized textbooks. Flat World Knowledge, a new online print-on-demand vendor, claims that they are developing a model which offers royalties equal to or greater than those typically received from traditional publishers.

This grant project and its proposed model will build on the recent 2009 Florida legislative mandate that requires a higher education task force to study and identify any barriers to: faculty adoption and use of open textbooks, the production and distribution of open textbooks, and the implementation of open textbooks in general education courses.

Conclusion

The growing interest in textbook affordability and open access textbooks offers a new and exciting avenue for The Orange Grove to explore. Through the new FIPSE grant and the OGT+ partnership, The Orange Grove hopes to use open textbooks as a way to sustain the repository and achieve financial stability. The project seeks to address the rising cost of textbooks by providing students and researchers with high-quality scholarship that is affordable, accessible, and adaptable to reader preferences.