CREATING AFFORDABLE DIGITAL TEXTBOOKS THROUGH COLLABORATION

A Case Study from Purdue

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ABSTRACT

One area in which library publishing initiatives have a great opportunity to align their activities with university goals is in the area of affordable texts for students. Not every library has the resources to reinvent the wheel and create a new digital platform for texts but searching widely for other campus partners can sometimes produce surprisingly good results. This poster focuses on a pilot project in which the Purdue University Libraries Publishing Division (PUP/SPS) works with a startup company called Skyepack, part of the University's business incubator program, to create low-cost, platform-neutral digital textbooks. The program creates opportunities to marry text and multimedia into a cohesive and easy-to-use product. A working application of the Skyepack technology has been created, and the program is set for rapid expansion in the next year.

INTRODUCTION

Today's undergraduate students, born in the mid-nineties, interact with their world in very different ways than their predecessors. These students have no concept of a world without the internet; indeed, they have grown up with internet access literally at their fingertips. Equally important, however, is the fact that they have grown up in a very different economic climate than their parents, or even than students only a few years older. Costs of secondary education have risen faster than household income. Those cost increases are not limited to tuition; between 2002 and 2012, the cost of new college textbooks increased 82%, as compared to only a 28% rise in overall consumer prices.¹ According to the College Board's Annual Survey of Colleges, four-year public university students can expect to budget an average of \$1,207 annually to cover the costs of books and supplies during the 2013–2014 academic year.²

These skyrocketing costs have an immediate effect on students. Tuition costs may be unavoidable, but students have some immediate control over their spending on textbooks. According to a 2014 study by the Center for Public Interest Research, 65% of surveyed university students reported that they had decided not to purchase a textbook due to cost, even though 94% of those students were concerned that the lack of class materials would hurt their grade.³ Many students reported that the cost of textbooks affected their course selections.⁴

ALIGNMENT WITH PURDUE MOVES AND LIBRARIES PILLAR PLAN

The recent appointment of former Indiana governor Mitch Daniels to the presidency of Purdue University has sparked a wave of new long-term goals, many of which are oriented around the related aspirations of both affordable and transformative education. Purdue strives to "place a premium on measuring student growth and will provide the most growth per educational dollar."⁵ The Libraries' 2011–2016 Strategic Plan exhorts library units to "integrate information literacy into student learning at Purdue through partnerships and collaboration," as well as to "develop and promote new publishing models."⁶

This has created a huge opportunity for the Purdue University Press and Scholarly Publishing Services (PUP/SPS) to leverage our experience in Open Access and low-cost publishing into a new project, collaborating with other campus and community partners to create affordable textbooks for core Purdue classes.

Purdue Moves

Purdue Libraries Strategic Plan

PURDUE UNIVERSITY AND OPEN ACCESS

Purdue University Press and Scholarly Publishing Services operate as one organization, and their collaboration allows the Purdue University Libraries to offer a full range of publishing services, from formal monograph publishing and subscription-based journals to conference proceedings and a university repository. Furthermore, both organizations have a strong history of pursuing and enabling Open Access products, from a growing library of Open Access e-journals to participation in the first collection of books unlocked by Knowledge Unlatched.

The majority of our Open Access offerings have utilized our Digital Commons repository structure to provide stable access to PDFs of books and scholarly articles, but this platform doesn't provide the interactive structure necessary to engage today's born-digital generation of students in an e-textbook. Creating a wholly new online platform, as has been done at some other libraries, wasn't an option for us.

Instead, we searched for a ready-built solution, one that offered strong, practical support for the needs of instructors and already had ties to Purdue. This led us to Skyepack, a local company started by a group of Purdue alumni and a participant in Purdue University's business incubator program. At the same time, we began work on *Perspectives in Bioethics, Science, and Public Policy*, edited by two enthusiastic Purdue PhDs, who wanted to create a new classroom paradigm that recognized the experiential, networked learning style of current students.

A FIRST COLLABORATION

Perspectives in Bioethics, Science, and Public Policy, edited by Jonathan Beever and Nicolae Morar, was a groundbreaking book for PUP/SPS. It was the first book published by these editors, who had organized the lecture series it was based on while they pursued their doctorates. It marked the beginning of an ongoing series collaboration with Purdue's Global Policy Research Institute (GPRI), which is committed to wide dissemination of books that address vital public policy issues. It also marked the first collaboration of PUP/SPS and local startup Skyepack.

The book was published traditionally, but the text was also uploaded into Skyepack's system, with each chapter constituting a pack. Videos of especially compelling arguments from the original lectures were added, and the editors created all-new interactive quizzes for students to test their understanding. Ironically, the first undergraduate class scheduled to use the enhanced Skyepack version, in the fall of 2014, won't be at Purdue at all, but at Penn State.

Perspectives in Bioethics, Science, and Public Policy

SKYPEPACK

Skyepack is a digital publishing environment designed specifically for the new age of higher education, which utilizes an intuitive cloud-based authoring platform to make the creation and dissemination of digital coursepacks seamless for faculty. Students can access their course materials on a laptop, phone, or tablet, whenever and wherever they choose. Any notes they make on the text are accessible the next time they open the materials, no matter what device they use.

This born-digital content can be enhanced in a number of ways unavailable in a traditional print textbook. Full color images can be included without the cost concerns associated with printing, as can digital audio and video, creating a truly immersive learning experience. Moreover, class materials can incorporate both multiple-choice quizzes, short-answer assignments, and open-ended discussion boards. Skyepacks can either be new material used to replace a traditional textbook, or can incorporate outside texts into a less formal coursepack.

Poor course performance is usually an indicator of a low level of engagement with the course material. Unfortunately, that indicator often becomes apparent too late for the instructor to impact the student's success in the course. With Skyepack's Student Engagement Dashboard, faculty can assess each student's interactions with the course materials and recognize problems right away. Additionally, the Dashboard allows faculty to directly correlate specific pieces of content to learning outcomes. The Dashboard also allows students to direct questions about the materials to their instructors and receive replies in real time, and in immediate context.

Purdue University Press on Skyepack

The eText Project Proposal Form

REFERENCES

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NEXT STEPS

The future of digital textbooks at Purdue is bright, and this program is poised for major expansion in the next few years. 2014 will see the beginning of the Affordable Textbook Pilot Program, a larger and more focused version of the program begun with *Perspectives in Bioethics*.

The new program will continue to involve PUP/SPS and Skyepack, but will add a new shareholder. Teaching and Learning Technologies is a program within Purdue's Information Technology department (ITaP) whose mission is to "support, empower, and advance the innovative and evolving use of technology to facilitate learning." They offer services, training, and support to help faculty members enhance their classes with technology-based learning experiences.

The Affordable Textbook Pilot Program incentivizes faculty to participate in a University digital textbook development trial, providing an affordable and innovative alternative for a currently taught course. ITaP Teaching and Learning Technologies specialists provide instructional design services and content development assistance. These faculty commit to publishing a digital textbook, either new or existing, to be ready for use beginning as soon as fall 2014.

Now, in March of 2014, we are just beginning the book creation process with the seven professors identified as participants in the program. The program will create texts for classes in political science, computer graphics technology, agricultural and biological engineering, communications, entomology, chemical engineering, and civil engineering, at both the main West Lafayette campus and a satellite campus in Calumet, Indiana.

This variety will allow us to experiment with the best practices for integrating the Skyepack technology in classrooms with widely differing methods and learning objectives. It will be imperative for the future of the program to develop a system that streamlines and standardizes the book creation process, no matter the field of study, while allowing instructors the freedom to determine what technical enhancements best fit the needs of their students.

Finally, we must prove this model for a self-sustaining program that can continue to be used to transform classroom experience across the Purdue University system.