THE DIGITAL LEARNING REVOLUTION

Helping Students, Empowering Faculty and Lowering Costs
FEW OBLIGATIONS ARE MORE SACRED TO AMERICANS ... 

... than the duty of one generation to educate the next to form good citizenship, grow a strong economy and unite society. In fact, the value that our culturally diverse and technologically sophisticated society places on attaining a college degree has never been greater. Yet far too many students are not academically prepared to complete their college studies, are never awarded a degree and fail to reach their full potential. Overall, the dropout rate costs society billions of dollars in lost income and lost federal and state tax revenues. Higher education publishers and digital learning companies have dedicated themselves to helping college students reach the degree finish line with new and innovative personalized learning technologies that colleges and universities can incorporate to increase student performance and the effectiveness of faculty, and lower costs compared to traditional print materials. Understanding how new digital learning technologies work and the full impact they can have on higher learning is an absolute must for policy makers and for students and their families.
It is the goal of publishers to partner with faculty, administrators and policymakers to help students academically and to reduce costs. Publishers are in the education trenches every day, working directly with students and faculty. They, too, grasp how difficult it can be for students to complete their college degree — especially if they must first take remedial courses. They work with faculty who need new tools to confront challenges not faced by prior generations of instructors.

Higher education publishers and digital learning companies have spent the last decade developing, refining and proving their new generation of digital learning platforms that reduce costs and address the needs of both students and faculty. These platforms can be used on virtually any device: a laptop, tablet or smartphone. They can be bundled with a digital or hardcopy textbook. The platforms present the content in more engaging ways and provide interactive activities that improve learning outcomes and student performance.

These platforms also provide space for the professor to include open educational resources. For example, in a twentieth century American history course, a professor may want to include YouTube videos of Kennedy’s inaugural address, Martin Luther King’s “I Have A Dream” speech, and Reagan’s Berlin Wall speech. Another professor may have developed original materials to include as part of the course work.

Contrary to widespread belief, commercial publishers and open source producers often partner to provide students and faculty with digital offerings rich in content. When comparing the offerings of commercial publishers and digital learning companies with the producers of open educational resources, the issue is not “either/or;” rather, it is “both/and.”

Perhaps most importantly, these platforms include personalized learning technologies, such as quizzes, tests and games that use artificial intelligence to assess where a student is strong and where the student needs improvement, and then drill the student in the areas in which he or she needs assistance. The results of these programs are sent real-time to the instructor so he or she can monitor both how individual students and the class as a whole are performing. The platform has an email function which enables the instructor to communicate with
individual students and the class as a whole to fine tune existing instructions. The instructor also has the opportunity to alter in-class instruction to better adapt to the needs of the class.

Increasingly, digital text is being imbedded in the platform to form a continuous whole with work problems, questions, quizzes, and other materials. This method of presenting material closely matches the learning styles of today’s smart phone, tablet, and laptop savvy students.

Many — though by no means all — of these digital platforms are developed for introductory classes that often pair one professor with 200 or more students. They provide an effective means for professors to provide individual attention to the students in these large classes that simply was not possible in the past.

A representative of software giant Microsoft noted at one of AAP’s University Dialogues that “eighty percent of faculty members teach outside the discipline for which they were initially trained. So they need assistance to help support them in the classroom.”

Finally, these digital learning platforms typically cost only a fraction of the price of a color, hardbound textbook. The money saved by shifting from print to digital platforms can be as much as 65 percent.

Again, at an AAP University Dialogue, a publishing representative noted that “There are two words that I heard [earlier in this conversation]: usage and engagement. Is the student going to be engaged opening a print textbook or opening a PDF online textbook? We don’t believe so. We want to create greater engagement for students. We want to create a personalized learning path so each student can have their own learning opportunity and achieve their own success.” Today’s digital learning platforms heighten student engagement and help students to better achieve their own success.

**TEST SCORES UP**

Students in the course using only the textbook showed a 51 percent improvement rate on their end-of-course test compared with their beginning-of-course test. Those students who used both the textbook AND the digital learning platform experienced a 79 percent improvement rate.

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The American Institutes for Research tracked students entering college in 2012 who failed to graduate within six years. They estimated that for this one class for just one year there was $3.8 billion in lost income, $566 million in lost federal income tax and $164 million lost in state income taxes.
The New Technology Improves Student Outcomes

The effectiveness of the new products produced by publishers and digital learning companies has been proven by independent study and review. The results are impressive:

} A study of one publisher compared the results of two microeconomics classes. One class used the textbook alone. The other used the textbook together with the related digital learning platform. The class using the digital technology performed almost 30 percent better than the class that used the textbook alone.

} In a different independent study of another publisher’s platform, students were tested upon entering a course and upon the conclusion of the course. Those students in the course using only the textbook showed a 51 percent improvement rate on their end-of-course test compared with their beginning-of-course test. Those students who used both the textbook and the digital learning platform experienced a 79 percent improvement rate.
In yet another independent study from a different publisher, use of its digital platform in six separate courses improved student performance in each course and reduced institutional costs between 10 and 35 percent.

Finally, an independent study of more than 700 students at six distinct institutions found use of a specific digital learning platform increased their performance. Students using the platform increased their grades by one full letter, with more B students getting As, and more C students getting Bs. Community college students participating in the study saw their graduation rates improve by 12.5 percent and their retention rate increase by 10.5 percent.

These are just a few of the examples of how using new digital learning platforms can significantly improve student outcomes.

THE FIGHT TO KEEP STUDENTS IN SCHOOL

A New Weapon

New digital learning platforms constitute an important new weapon in the fight to keep students in school and on track to graduate. Independent studies of digital learning platforms show double-digit student improvement rates. If those rates of improvement could be replicated on a campus-wide basis, significant progress would be made in getting more young adults across the graduation finish line.

In the struggle to help more students graduate, one of the greatest assets that any college or university possesses is its faculty. Digital learning platforms and materials also enhance faculty’s ability to communicate with students and monitor their progress — especially in large classes — a vitally important component in improving student success. These platforms also make it easy for faculty to supplement and modify the course without outside materials to enhance the learning experience.
According to *The Chronicle of Higher Education*, today, on average, only 31 percent of students who enroll in a four-year institution graduate within four years. Increase the time period to six years and the graduation rate increases to around 50 percent. Students who require remedial help stand even less of a chance of completing their degree requirements.

When students leave college without obtaining a degree, the value of the investments that they, their parents and the taxpayers have made is substantially devalued. Because of their reduced earning potential — about $1 million less over the course of their lifetime — students who borrow to attend college and then leave without graduating are likely to struggle with an effectively higher debt burden. According to a recent article in the *Wall Street Journal*, “dropouts are more than four times as likely as graduates to default on their student loans.” The economic impact of students dropping out of college also has a huge impact on society.

The American Institutes for Research tracked students entering college in 2002 who failed to graduate within six years. They estimated that for this one class for just one year there was $3.8 billion in lost income, $566 million in lost federal income tax and $164 million in lost state income taxes. These figures substantially understate the true loss involved because the losses of the 2002 class and all that follow will accumulate year-after-year.

It stands to reason that the dropout rate also hurts the institutions’ bottom line. If 69 percent of entering freshmen dropout within four years, that means they are not paying tuition, not paying for housing, not purchasing meals at the on-campus food court and not making purchases at the bookstore. Plus, the cost to recruit new students is a large and often overlooked expense. These costs only serve to exacerbate the financial woes of colleges and universities.

Of course, over and above the economic costs of dropping out, students also lose the many cultural and intellectual benefits gained by finishing their degree. Although difficult to quantify, the benefits of being immersed in a higher learning environment cannot be overstated.

Publishers want to win the fight to keep students in school and graduate. Faculty are on the front line of this battle every day. It is our hope to provide them with the best materials possible to assure the best outcomes for their students.
A large and growing number of faculty currently employ these new digital learning platforms in their classes and the vast majority are interested in how they can employ new technology to benefit their students.
A PROGRAM FOR TODAY

Using Digital Resources

If these new digital learning technologies produce such good results, why are they not used more? The good news, according to a recent study of the Book Industry Study Group (BISG), is that about 20 percent of all faculty currently use these new digital learning platforms in their classes and the vast majority are interested in how they can employ new technology to benefit their students.

There are obstacles, however, to a more rapid adoption of new technology. According to BISG, very large segments of faculty do not believe they have the training to use these technologies properly and about half of all faculty believe that they lack the time to redesign their courses to use.

GRADUATION RATES

According to The Chronicle of Higher Education, on average, only 31 percent of students who enroll in a four-year institution graduate within four years.

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WHAT IF ...

In the next four years, the average four-year student graduation rate increased from 31 percent to 41 percent? Such a development would produce many beneficial results.

Whether we could ever progress so far so quickly is certainly open to debate. What does seem reasonably clear is that publishers, policymakers, academics, and administrators should be working together to find the best technologies and adopt them in ways that ensure we both maximize student success and cost savings, and best enhance the role and reach of faculty.

To accomplish this, we have to ensure that professors and instructors are empowered to embrace and incorporate new technologies into their classes. This may involve implementing policies at the departmental, institutional or perhaps even statewide levels. We must also set clear goals for improved student achievement and reach an understanding on how publishers support faculty in reaching those goals.

And finally, of course, we must recognize that we are all in this together.