

E-Content: Opportunity and Risk

By Shel Waggener

The debate is over: students are asking for digital now, this semester. It isn't as if we didn't know the change was coming. For years we have seen scholarly journals shift from paper to electronic versions. In 1997, E Ink was invented at the MIT Media Lab, promising the creation of "electronic newspapers," but many in higher education didn't notice. Indeed, even with the September 2006 release of Sony's PRS (Portable Reader System), the first commercial e-book reader and a widely used electronic reading platform, we shrugged. Finally in 2007, when Amazon released the Kindle, and e-content at last went mainstream, some early-adopter campuses began to consider these technologies. Still, most campuses and academic senates evaluated, debated, and considered the implications of this latest technology change, with most institutions choosing not to adopt a formal e-content program. It may have been easy to dismiss or delay making real change given that early versions of e-readers were limited, created accessibility challenges, and required high up-front technical investments for noninteractive content (static PDFs).



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The imperative to lower the cost of education and create a viable means to influence the costs of textbooks has arrived. Although institutional leaders are still discussing e-content plans, in reality the debate is over: students are asking for digital now, this semester.

Then, in April 2010, Apple released the iPad, selling more than 3 million units in less than 90 days.¹ Suddenly e-content readers were ubiquitous, with iPads appearing on campuses within hours of the release by Apple. For 2012, Gartner estimates that nearly 120 million media tablet devices will be sold worldwide.² Today the e-reader platforms are improving at a rapid rate, prices for devices are plummeting, the e-content is becoming richer and more interactive, and the content publishers are developing capitalistic business models to respond to this disruptive technology. Yet despite years of discussion, many higher education institutions have found that they are ill equipped to respond to this latest technology change.

Compounding this problem is the fact that what started as an interesting idea has now become a priority for the higher education community. The imperative to lower the cost of education and create a viable means to influence the costs of textbooks (one of the largest non-tuition and non-housing costs for any student) has arrived. Although institutional leaders are still discussing e-content plans, in reality the debate is over: students are asking for digital now, this semester.

During the last eighteen months, first as the Associate Vice Chancellor and Chief Information Officer at the University of California–Berkeley and more recently as Senior Vice

President at Internet2, I have been engaged in conversations with peers from around the country to determine the risks, challenges, opportunities, and best practices associated with a full e-content environment. Simply put, almost every institution is scrambling to develop and implement an e-content strategy. Even those schools that started early and thought they had a strong plan and a clear path forward are now revisiting their plans based on the rapid pace of change. The following guide has been developed as a quick reference “do and don’t” checklist, providing a few observations from these discussions. Some of the recommendations are short-term strategies; others are better for a long-term approach. All can provide guidance during this time of momentous change.

The “Do and Don’t” List

Do: Get Started

Even if campus leaders haven’t yet considered an approach to e-content, students have. E-content is actively being used by students today in the form of web articles, video clips, shared files, and short snippets from various sources. Institutions need to support these activities by having learning management environments that contain repositories and links to popular content.

Don’t: Focus Solely on Textbooks

Ultimately, the platform providing the e-content is going to be the primary multimedia consumption device for the community. The iPad has already shown its versatility by delivering video, interactive graphics, dynamic content, and rich text. Planning only for text as part of a campus strategy will leave significant gaps in the testing and evaluation of delivered e-content.

Do: Conduct Pilots

With so many different platforms and suppliers of e-content in the market already, and many more to come, now is the time to explore all available



options. Institutions should consider conducting trials that examine several different approaches over the next few terms.³ E-content is in its infancy, so there is no need to rush to lock in long-term solutions today when there are likely to be more options in the coming months. In addition to devices and software, campuses will want to evaluate business models, distribution strategies, and various funding approaches for these new forms of content. This evaluation phase should be balanced, however, with the recognition that those in higher education tend to “try everything” before making a decision. E-content is a fast-moving area; waiting too long could prevent an institution from helping to shape the marketplace going forward. Besides, it is unlikely that we will have a “final” state for some time yet. Institutions should be careful not to leave students and faculty sitting on the sidelines simply watching others.

Do: Engage Students

Establishing a standing student committee that focuses on e-content will be key in the coming years. Students can serve as members of a focus group, an early-evaluation assessment team, a tech trend-watch committee, or a user community.

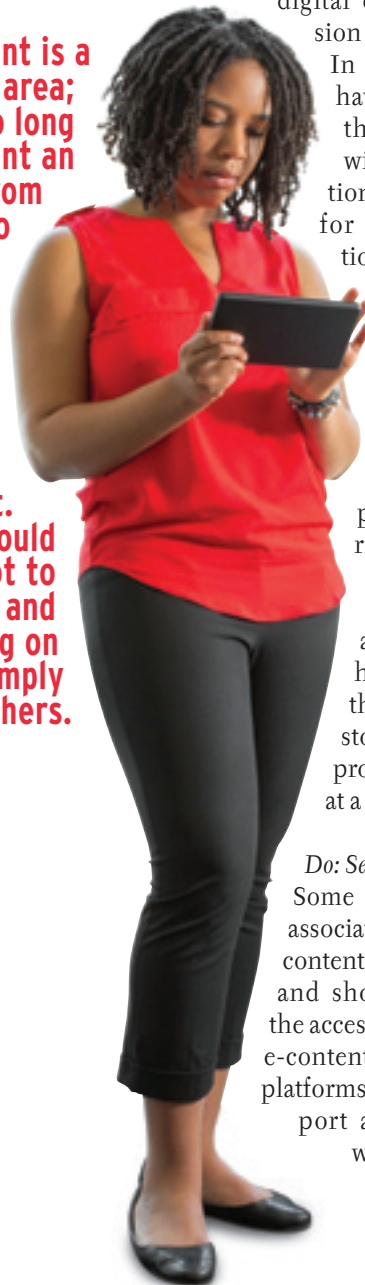
Don't: Set Hardware Standards

Many institutions struggled with hardware standards early on, since they wanted to ensure that everyone had a similar experience with the content. History is clear on this point: hardware standards can drive costs down, but only when there are sufficient resources to ensure that everyone has the same standard. Some institutions or schools within larger campuses may be able to use a student technology fee or other source of funds to provide a standard e-content device. However, in a market as young and dynamic as this, standards are premature at this stage and will likely evolve rapidly in the immediate future.

Do: Test Platforms for Devices and Reader Software

There are many e-reader platforms on the market today, but testing every one of them is not necessary. By building a testbed that includes the dominant players, institutions can allow interested parties to trail different platforms with various forms of e-content. The platforms do not need to be approved or certified as a standard; however, if a campus publishes and regularly updates (say, twice a year) the contents of the testbed, the community will trust that it is staying current with this fast-

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moving market. Institutions can also consider partnering with other, nearby campuses to share a common testbed, thus reducing costs and expanding information sharing.

Don't: Provide Exclusivity

Many content providers—such as publishers, platform providers, and most commonly, campus bookstores being run by large national bookstores (e.g., Barnes & Noble or Follett)—are offering improved terms, rebates, student support services, and many other “perks” in exchange for contracts with digital exclusivity or an extension of existing exclusivities.

In some cases, institutions have signed extensions to their bookstore contracts without noticing the addition of exclusivity language for e-content. One institution, for example, recently signed a contract that provided its bookstore with exclusivity for fifteen years. These contracts are often signed by people who may not be familiar with the pace of technology or the risks involved in long-term contracts. A coordinated discussion of the various aspects of e-content will help reduce the likelihood that a clause in the bookstore agreement will cause problems for the institution at a later date.

Do: Set Standards for Accessibility

Some of the biggest challenges associated with an institutional e-content strategy are the unknowns and shortcomings surrounding the accessibility of e-content. Many e-content providers and e-reader platforms have committed to support accessibility by working with an institution’s local accessibility community

and with national accessibility organizations. These partnerships not only will help content providers meet minimum standards but also can enhance the future of accessibility for e-content. New technologies offer opportunities to address issues ranging from color blindness and text size to audio conversion and descriptive interactive graphics.

Don't: Sign Agreements with Proprietary Providers

Many of the current e-content providers offer compelling solutions. However, these types of agreements can result in long-term vendor lock-in that requires the purchase of ongoing licenses for access to both the content and the e-content platform. Ultimately, deals of this type can end up costing an institution, or its users, more in the long run.

Do: Adopt Open Technology Standards

Many of the products offered in today's e-content marketplace are shifting from proprietary apps to open standards such as HTML5. Open-standard products and software offer many of the same features as closed applications but provide the additional benefit of working across the most common device platforms. Open-standard products and software also allow for greater longevity, since the e-content can continue to be accessed through various devices even as technologies develop further.

Don't: Accept Limited Terms for Content Access

Students purchasing physical textbooks expect to sell back their textbooks, for a limited amount, in exchange for one semester of access. But students won't have the ability to "sell back" e-content because publishers put significant restrictions on resale or sharing. Thus, students purchasing e-content need to have the ability to retain long-term access to that e-content. Ensuring that access rights be given not

just for the current quarter or semester but for the duration of the student's time at the institution, at a minimum, is the best path forward. Students should also have the right to purchase permanent access to e-content that is central to their ongoing scholarship or should be provided purchase rights for print versions.

Do: Engage Faculty

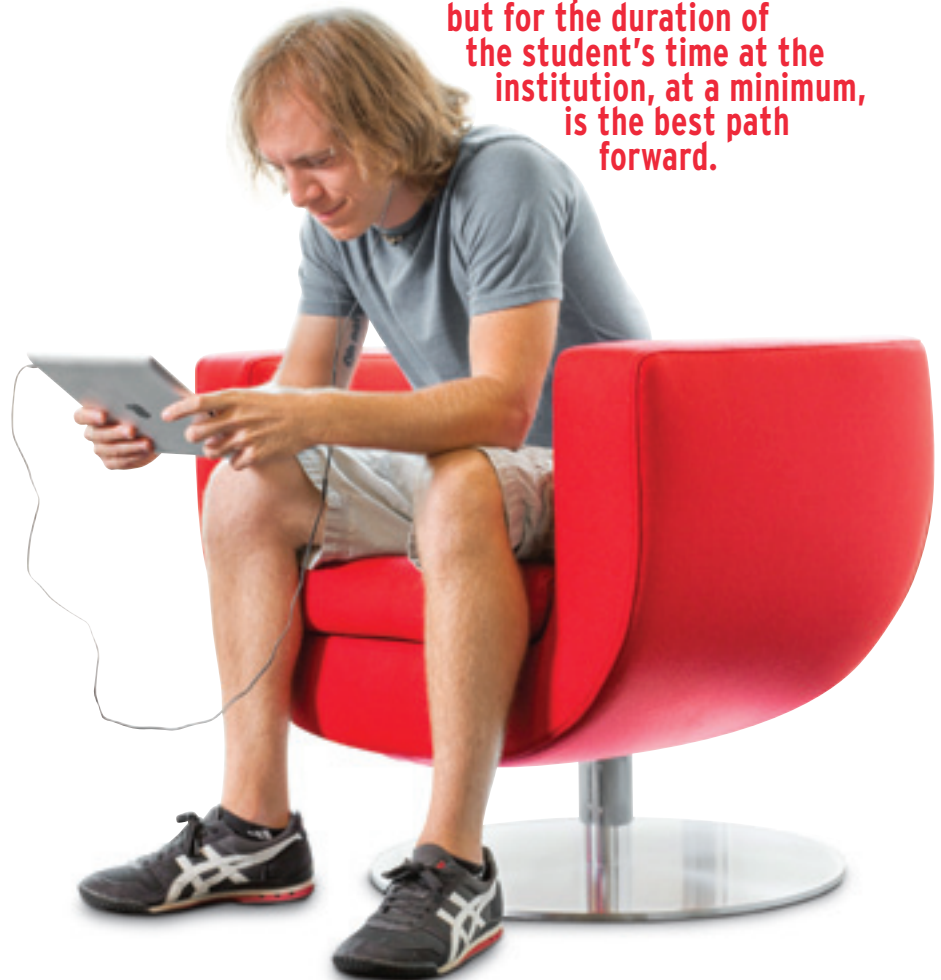
Faculty have many different perspectives on e-content and have likely already engaged with various types and platforms. Institutional leaders should establish an open communication channel both formally with the academic senate and informally with faculty members who are particularly progressive in this area. The faculty senate may already have an established process for evaluating e-content, but that process may not be moving at the

same pace as experimental faculty members. Having both a senate and a faculty focus group, combined with student input, will prove invaluable in developing an institutional strategy.

Do: Work with the Library

Most libraries pay large license fees for students and faculty to have access to huge amounts of content. Can this content be used in a teaching and learning setting? Can it be plugged into an e-reader platform and used by faculty and students at no additional cost? Depending on an institution's

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agreements, much of this content has likely been paid for already and can be distributed electronically to students for use in the classroom.

Don't: Forget Research

Faculty who have a special interest in the educational impact of e-content should be engaged in pilot studies. Faculty can evaluate the various benefits, challenges, and pedagogical impacts of these new models and can provide a structured approach to document the evolution of the technologies over time and the use/benefit of new types of e-content as it is incorporated into courses in innovative ways.

Do: Consider Various Business Models

The team evaluating different types of technology should include someone who has the business expertise to help develop/consider different types of e-content delivery models. The historical approach in which a student purchases a textbook in its entirety is no longer the sole method of acquiring content. Institutions should consider working directly with authors for content, or with publishers for individual chapters instead of whole books, or with platform providers for a blend of traditional content and new media. Pricing models are still being developed, but just as iTunes revolutionized music by allowing people to purchase a single song, faculty should be able to have their students purchase only a few chapters, rather than an entire textbook, or mix content from various sources.

Don't: Leave E-Content to the Bookstore

Pricing negotiations should not be left to the bookstore or to students. Institutional purchasing power can be leveraged to obtain discounts of 60 percent, 70 percent, or more off the list price. It's going to take time to experiment with and consider new approaches before the industry adopts pricing structures that recognize the lower-cost delivery models that e-content can provide.

Do: Engage Campus Business Leadership and the CFO

The cost of content continues to be a major component of the overall cost of education. Moving to different business models, even in exploratory phases, will be of interest to campus financial leaders. Institutions can ask a member of the budget or CFO office to participate on the governing board or can, at the least, provide regular updates to that group.

Don't: Ignore Faculty Authors

Many faculty are publishing their work as they have for decades: through individual publishers. If faculty use a publisher who provides e-content in an inaccessible format, institutions may have a real challenge with campus (and federal) accessibility guidelines. Instead, campuses should support faculty by providing information on how they can engage in this new digital publishing era. Conversely, if an institution has strong guidelines, is the university limiting opportunities to innovate? Faculty need to know what works today and what might present a problem. Good behavior should be incentivized.

Do: Choose Open Content

Purchasing content through traditional channels is no longer the only option available to an institution. There is outstanding open content being developed specifically for electronic consumption—content being published under Creative Commons or other open licenses that allow it to be freely distributed and remixed, without restriction. Open content may not meet the needs of all faculty and students, but it is a fantastic option for faculty interested in adopting free, customizable content.

Do: Consider Comparison Content

As faculty evaluate content, they should have an easy-to-use comparison tool that can gather the content for their subject matter and show the financial impact that their choices can have on students.⁴ Considering that textbooks

represent one of the largest costs for higher education outside of housing and tuition, a price comparison of available content can help faculty directly influence the cost of education.

Do: Plan for Analytics

One of the biggest advantages of e-content over traditional textbooks is the e-content

E-content metadata analysis can suggest when students are struggling over a particular piece of course material, when students aren't reading at all, or when faculty need to freshen up the content to improve student learning. For example, which sections of content are the most annotated, and are those annotations shared?

metadata (information about the use of the e-content), because its analysis can be particularly helpful to faculty, students, and the institution as a whole. Metadata can suggest when students are struggling over a particular piece of course material, when students aren't reading at all, or when faculty need to freshen up the content to improve student learning. For example, do students who used a particular electronic module perform better in subsequent courses than students who used traditional texts? Which sections of content are the most annotated, and are those annotations shared? Are sections of the content rarely consulted?

Answers to these types of questions were difficult to obtain in the past and certainly were not analyzed and displayed instantly. But with e-content analytics, this data can be gathered and utilized quickly to help aid faculty and improve the development of core curriculum. Institutions need to be sure that their agreements identify this data as the property of the institution, because in addition to privacy concerns, access to this data could violate aspects of FERPA or other regional legislation. Campuses must also carefully consider how to anonymize the data, handle the small sample problem, and store the data so that it can be maintained over time and used by departments, faculty, and eventually students.

In Summary

As is the case with most innovations, we won't understand the real impact until people are actively exploring e-content. Even though most students are already using e-content and many faculty have received proposals from publishers to distribute their content electronically, higher education leaders should not be dissuaded. Campuses should embrace

these changes, involve their communities, and move forward. Rather than waiting for things to settle in the market before making a decision, institutional leaders should get involved immediately by trying some pilots, funding a small grant for faculty content development, and examining what other institutions are doing in the areas of e-content. The sooner a campus establishes a process for supporting its community's exploration of different models of e-content, the sooner it will be able to help positively influence the e-content marketplace and also address the largest priorities of higher education today: learning in new, effective ways while simultaneously lowering the cost of education. ■

Notes

1. "Apple Sells Three Million iPads in 80 Days," Apple press release, June 22, 2010, <http://www.apple.com/pr/library/2010/06/22Apple-Sells-Three-Million-iPads-in-80-Days.html>.
2. "Gartner Says Worldwide Media Tablets Sales to Reach 119 Million Units in 2012," Gartner press release, April 10, 2012, <http://www.gartner.com/it/page.jsp?id=1980115>.
3. Internet2 and EDUCAUSE have partnered to develop a series of e-content and e-text research and evaluation efforts designed to assist institutions in exploring ways to incorporate e-content into their institutional efforts to transition from traditional textbook models to the myriad of electronic content options. See <http://www.internet2.edu/netplus/etext/index.html> and <http://www.educause.edu/focus-areas-and-initiatives/policy-and-security/educause-policy/issues-and-positions/etexts> for more information.
4. Many websites offer price comparisons for print books and are likely to start adding electronic content as well. AllBookstores.com (<http://www.allbookstores.com/>) is a good example.

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