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# The Future of the Textbook — Part II

## The Impact of Technology on the Development of the eTextbook Market

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If you recall, in the first of our special reports on the growth of eTextbooks, (see *Against the Grain* Dec10-Jan11 issue, v.22#6), we explored the general textbook market as it finally starts significant strides towards digital delivery, the challenges it will face as it moves from a printed “flat file” to a more interactive electronic version, and the key factors that would determine success for publishers and users alike.

We discovered some interesting facts and figures. Despite what seem to be perfect conditions for the rise of the eTextbook, take-up is considerably lower than adoption rates of other texts that have morphed into electronic. Sales of digital textbooks are expected to rise to \$8.3bn<sup>1</sup> by 2020 yet printed textbooks are still expected to outsell their digital equivalents by 14% and contribute approximately \$9.7bn<sup>1</sup> to the global textbook market. One explanation for this, according to research carried out by **Blackwells UK Ltd** in 2010, is the lack of available core reading list titles in electronic form. Additionally, the slow pace at which Higher Education adapts to change as well as a potential lack of awareness of available eTextbooks may also be contributing to this low adoption rate.

However, the rise in popularity of eReaders such as **Kindle**, **Sony eReader**, **Entourage Edge**, **Blio** as well as tablets including **iPad**, **Motorola Xoom**, and the upcoming **Blackberry Playbook** have convinced consumers that digital reading is as equally accessible as print. Similarly, proliferations of hybrid notebooks/netbooks such as **Lenovo’s IdeaPad U1** and **Dell’s Inspiron Duo** (where the detachable screen can function as a touch-screen tablet) are helping to pave the way for consumers to work, study, and read using the same device. Technically-literate students and faculty are also appearing to contribute to a successful migration to e-only textbooks.

Following from the above, this second report looks in more detail at technology’s role in the development of the eTextbook and how it could help drive adoption, from both a production and usage perspective.

Not least from a technology standpoint, we asked our contributors to help us answer some key questions:

- How are students and faculty using eTextbooks?
- Are they using them at all?
- Are they easy to integrate into the workflows of students, faculty, and the institution itself?
- Are they delivering core content in a cost effective way that enhances and expands the future of higher education? and finally;
- Do they really enable and support the evolution of learning and teaching methods and increasing student engagement in their academic study?

### eTextbooks: Are they being used? If so, how?

Research conducted by **Cengage** last year seems to answer this point quite neatly: not only are eTextbooks actively being used, but they are also contributing positively to overall student engagement and learning outcomes. **Cengage’s** survey, entitled *Instructors and Students: Technology Use, Engagement and Learning Outcomes*, was conducted amongst 751 students and 201 instructors across the U.S. in December 2010 with the aim of establishing the extent to which educational technology impacted overall student engagement and learning outcomes. The results were very positive, and both students and instructors believe that technology can enhance engagement and improve learning outcomes. Of the available technologies tested, online libraries and databases

were most likely to have a positive impact on engagement and learning outcomes as rated by 44% instructors and 49% students. Perhaps this result should be expected; however, what was more interesting to learn was that eTextbook technology followed closely with 32% instructors and 31% students rating it as having a positive impact on learning.

By contrast, technologies including LMS, Smartboards, online self-assessment, and online learning portals achieved much lower scores, with less than 15% of respondents believing that these impacted positively on engagement and learning outcomes. This too was an interesting finding because unlike eTextbooks, institutions are investing or have invested quite significantly in these technologies.

These results did however seem to contradict the findings of **BISG’s** recent survey, *Student Attitudes Toward Content in Higher Education*, which found that 75% of U.S. college students surveyed still preferred printed textbooks. Permanence, look, feel, and ability to re-sell printed editions were cited as the key influencing factors in their continued popularity. This survey also found that prohibitive pricing of new printed textbooks were driving students to seek more affordable solutions, either purchasing cheaper versions from **Amazon** (and similar eRetail outlets) or looking for textbook rental options.

So thinking about these trends so far, the challenges for the eTextbook are:

- Is it accessible across a number of current (and future) delivery platforms?
- Does it do so at an affordable price?
- Does the technology meet both student and lecturer/institution needs?
- Is technology (including its ability to limit or control access via DRM) preventing effective usage of authoritative content and core reading?

And can these challenges be met?

Looking at affordability first. Given the research trends highlighted above, digital content must be able to compete with the price of rental textbooks as well as cheaper printed alternatives available via Amazon et al. And even if the cost of digital content compares favorably with these options, students must also be able to afford the device from which to access it. Whilst the average student will undoubtedly have a laptop and a smartphone, there will be students for whom such luxuries are not possible. Such a fact may well have been alluded to in **Cengage’s** research too as just 11% of respondents rated smartphones and iPads/tablets as having the potential to positively impact engagement and learning.

Looking next at accessibility. Whilst work is ongoing amongst publishers, content developers, and platform providers to make content device neutral, there is as yet no publishing infrastructure that can take a textbook and repurpose it automatically for delivery across all available platforms and operating systems. Therefore the initial problem in moving from print to electronic in the classroom rears its head: should the institution take responsibility for providing devices that will enable all students to access eTextbooks via the same platform? Some U.S.-based institutions have begun experimenting with this idea by handing out tablets to students pre-loaded with content, but as the economic situation places greater pressures on institution budgets, such a solution is unlikely to gain traction across higher education globally.

In addition, even if institutions were to provide access to mobile devices, when it comes to choosing which one is best suited to the task, the jury is still out. Right now laptops have greater functionality than

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tablets and smartphones, although, as mentioned earlier in the report, manufacturers are addressing this by introducing laptop/tablet hybrids. Ultimately, the device chosen for accessing eTextbook material should be the one that is most available (and easily usable) to the student at the time. But given the speed with which new devices are made available to the market, publishers will need to continue to ensure that content can be accessed across a number of platforms and devices for a considerable time yet.

In addition, some lecturers have expressed concern over the extent that laptops and mobile devices are used in the classroom and indeed whether or not they are being used for study purposes at all. As pointed out by **John Warren, RAND Corporation**, “Professors have commented that while with traditional textbooks they can see who (in the class) is following along, but with mobile devices the concern is that students are spending class time texting friends or updating **Facebook**.”

All this discussion about devices is fine, but the key point is that lecturers want to use, and will only use, the materials that are best suited for the job. So is technology facilitating effective use of authoritative content and core reading? As **John Warren** also pointed out “Many students are eager for a less-expensive solution, but that’s a concern not necessarily shared by their professors, who have little incentive to seek a lower-priced experience.” Put quite simply, if the required book is not available in electronic form, or the electronic form includes too many restrictions that prohibit its use, then the print version will have to do. Additionally, one of the first lessons learned by **Flat World Knowledge** in creating online-only materials was that students (and lecturers) still prefer a blended approach to learning. They want to be able to access both the electronic and print versions of textbooks, with print on demand options available for the former.

If this is the case, then what is really needed in this transition phase is for electronic textbooks to more closely mirror their print counterparts. Not only does this enable students (and lecturers) to move seamlessly between the two versions but it allows both parties to be confident that assignments and core reading can be followed correctly, regardless of which format is used. Such an approach might include, for example, formatting page numbers and layout in the same way for both print and electronic versions and making use of additional electronic enhancements, such as highlighting and sharing notes as value-added extras in the case of the latter.

#### **Are eTextbooks easy to integrate into the workflows of students, faculty, and the institution?**

In addition to the socio-economic and content availability challenges mentioned above, integrating eTextbooks into the workflows of students and faculty presents technical challenges for the institution too — even if ultimately it is the student that buys and uses the eTextbook. Course materials are created, sourced, and delivered now through numerous channels, including the institution’s content management and learning management systems. Therefore the ability to integrate eTextbooks with them is important. As **Kent Freeman, President Vital Source Technologies Inc.** illustrates “At Vital Source we believe that integration with CMS, LMS, VLE, and SIS systems are all important. For some time the VLE has been a source of content, a portal or link to various forms of content and we expect these systems to continue to fulfill such a role.” This is supported by our institutional representatives, **Audrey Powers, University of South Florida**, and **Sue Polanka, Wright State University Libraries**, who point out that faculty and university buy-in, in addition to the need for faculty and academics to retool their approach to this environment, will be necessary in assisting the successful conversion from print to eTextbooks in the classroom.

However, these technical challenges are not just felt by the institution. **Mark Majurey**, Digital Development Director, **Taylor and Francis** believes that “The pressure that publishers will feel is that whatever products they come up with, they will need to ensure that they can integrate with or can be linked with the VLE. **Taylor & Francis** have DRM on eBooks which currently prevents institutions from putting them on the VLE. However, the feedback we get from institutions is that they need to be able to do this, so we are actively working to address this.”

A final (potentially significant) factor to be considered is the role of the institutional repository in storing eTextbooks. The scope of this role depends on the institution and its approach to eTextbooks in addition to the original content owner’s rules of use. “Institutional repositories are interesting because there seems to be a psychological element as to how these are viewed by publishers,” thinks **Mark Carden**. “For example, a publisher might give an institution a book with usage rights for up to 40 photocopies but wouldn’t give them the e-version as they are worried about mis-use, even though DRM security can prevent this.”

**Kent Freeman**, however, cited some of the reasons why publishers might still be exercising some caution over the storage of their content within repositories. Current business models, the need to protect existing printed textbook sales, plus the fact that a large percentage of academic libraries are not (yet) set up to purchase and/or distribute eTextbooks to students indicate that institutional repositories would lend themselves more effectively to storing materials that complement eTextbooks, rather than the eTextbooks themselves. “Publishers should want to minimize the places that allow for the storing and fulfillment of their content,” said **Freeman**. “There is little benefit to be derived from having institutions store and fulfill eTextbooks. It’s more likely that the institutions will develop and maintain supporting materials including presentations, video, and audio files and integrate these with library systems etc.”

Regardless of how the issue of integrating eTextbooks into study workflows is eventually resolved, one thing is certain: lecturers are turning more and more to alternative online materials and use of technology in their teaching practices. “Faculty have access to far more materials today through online searching, providing the ability to generate and deliver presentations and content much less expensively now, thanks largely to technology,” says **Kent Freeman**. “It’s simply more practical for faculty to use alternative materials now”.

Faculty and institutions are also increasingly aware of their students’ continuing struggles to keep up with the costs of attending higher education and so continue to seek alternative solutions that will help keep down the cost to the student. And with nearly 50% of students holding down jobs to help cope with the financial burdens of student life<sup>2</sup>, this trend looks set to continue. The use of online materials helps to make course materials more affordable and more accessible, helping to increase student engagement. As **Audrey Powers** comments, “There is a vast amount of information available that is not available in textbooks. Faculty want to expand student awareness and use of these materials.” Students seem to agree, as more than two-thirds that participated in **Cengage’s** survey<sup>2</sup> reported that they preferred courses that use a great deal of technology, an increase of 9% from the previous year’s research.

This upward trend represents a landscape that is markedly different from 7-10 years ago when both lecturers and students were very resistant to digital content. As **William Chesser**, Vice President Sales, **Vital Source Technologies Inc.** notes “Students are without a doubt ahead of the faculty in digital adoption rates.” And it is this leading of the way that is presenting further challenges for publishers as they are forced to implement technologies that mitigate the difference between the students and faculty, as well as taking chances on emerging technologies in the drive to meet the changing needs of 21st Century education.

#### **Are eTextbooks delivering core content in a cost-effective way that enhances and expands the future of higher education?**

Whilst the ever-increasing availability and accessibility of digital materials and technologies lead to a potentially more exciting learning experience, the primary purpose is still the same: to provide students with core content that enhances and expands the future of higher education. As we move to an increasingly digital landscape, guaranteeing the authoritativeness and quality of content is becoming harder. Whereas with traditional publishing models there are specific processes in place to review and check content, with online publishing things are not quite as simple. Debate still rages about how the integrity of a piece of scholarly material in e-form (as the definitive document of record) can be secured whilst librarians and educators still battle with students over the authority of **Google** and **Wikipedia** versus the library’s online academic databases and resources. But does concern over the potential under-valuing of academic content in e-form extend to the technology used to access it?

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Our contributors do not think so. “Technology has been an integral part of academic learning for quite some time with both students and lecturers spending a significant portion of their time on laptops and mobile devices” says **Kent Freeman**. **Andrew Hutchings**, Managing Director of **Blackwells UK** agrees “It is the content that is key; the delivery of this content is secondary and will be determined by the market.”

This is good news then for the eTextbook. As lecturers continue to seek more ways of engaging students by integrating multiple sources of information into course materials, the make-up of the eTextbook could lend itself perfectly to this development. As business models, budgets, and library set-ups extend to the purchase and distribution of eTextbooks for all students, there is still the opportunity to experiment with different ways of making this content available.

Add this to the fact that lecturers need to use authoritative content in their teaching, regardless of format, what we could be looking at is an ability to integrate “bite-size” chunks of textbooks with other learning materials. DRM and territorial rights concerns notwithstanding, such an option would not only meet lecturers’ desires to include a variety of materials to enhance teaching, but it also addresses the affordability element that students want. Purchasing just the information they need at the time that they need it could well be the answer. **Amil Tolia**, CEO **Reference Tree**, readily agrees. “When I was a student I found it frustrating that I had to spend a lot of money on purchasing printed textbooks that I might only refer to a few times throughout my course. Whilst eBooks were beginning to emerge, it was still only possible to buy them as a whole entity. That’s when the idea for **Reference Tree** was born. If I wanted the option to buy individual chapters of textbooks, then it stood to reason that other students would want this option too.”

**Do eTextbooks really enable and support the evolution of learning and teaching methods and increasing student engagement in their academic study?**

So could eTextbook technology deliver core content in a cost effective way that enhances and expands the future of higher education? Do they really enable and support the evolution of learning and teaching methods? Well, potentially yes. Etextbook technology allows for greater experimentation with core content as well as the ability to add assessment tools that will provide both lecturers and publishers with

insight. For example, these technologies allow for “hidden” information to be gathered on how a student reads a text, how they interact with it, how they highlight it, how they annotate it and so on. Not only does this provide lecturers with information about their students’ needs and learning habits, but it also helps them to identify further learning materials that could better educate students. **Flat World Knowledge**, for example, now offers faculty a sophisticated customization platform that lets them edit textbooks down to the sentence level, add new material and interactive media, and then publish the book automatically in a variety of digital and print formats through a simple one-click process. Such sophisticated customization tools in addition to the availability of new productivity tools and performance reports means that eTextbook technology could help encourage better teaching practices too.

Similarly for publishers and their authors such technologies can enable more targeted publishing. **Rough Cuts** from **Safari Books**, for example, allows customers to view and comment on pre-published manuscripts, providing the editors and authors with valuable information as to how manuscripts could be improved. With greater detail available as to how students and faculty want to use textbooks, publishers can also learn more about potential frustrations or limitations that may exist and develop products accordingly.

To conclude this article, whilst the eTextbook is still very much in its infancy, technology has contributed greatly to its development and will continue to do so. But whilst technology excites and invigorates, it can also blinker the core purpose of keeping the focus on the goal of improving the education of the student. Whilst publishers, platform developers, content providers, and device manufacturers need to continue to introduce new technologies as the market demands, when it comes to higher education, we must be on our guard and not focus on technology simply for technology’s sake.

In our next and final report we explore in more depth how the eTextbook could be developed in line with the needs of 21st-century education. 🐻

#### Endnotes

1. The Future of the Textbook Marketplace, *Outsell Market Report*, May 2010.
2. Instructors and Students: Technology Use, Engagement and Learning Outcomes, *Cengage*, December 2010.

## Is Selection Dead? The Rise of Collection Management and the Twilight of Selection

by **Rick Anderson** (Associate Director for Scholarly Resources & Collections, Marriott Library, University of Utah; Phone: 801-721-1687) <rick.anderson@utah.edu>



*Distilled from an ALCTS Collection Management and Development Section Forum, presented at ALA Midwinter, San Diego, January 2011.*

### Introduction

(**Harriet Lightman and Brian Quinn, conveners**)

“Is Selection Dead? The Rise of Collection Management and the Twilight of Selection,” was the name given to the provocative forum hosted by **ALCTS/Collection Management & Development Section (CMDS)** at **ALA’s 2011 Midwinter Conference**. The forum was conceived and planned by the section’s Collection Development & Electronic Resources Committee, under the leadership of committee chair **Brian Quinn**.

The forum reflected some of the chief concerns of librarians who work with collections. Patron-driven acquisitions, high serials costs, housing and preserving legacy print collections, and, most profoundly,

the delicate balance we must all strike between our traditional mission as information professionals and the changing needs and expectations of the communities we serve are topics in the forefront of our minds. Yet while an exploration of these issues propelled the organizers to propose the forum, they were not the only reasons behind the choice of topic. This new emphasis on the management of collections, no matter whether those collections are owned, leased, or freely available, affects all librarians, and it was our hope that the forum would stimulate conversation about changes in the entire concept of “library collections.” It was under these general auspices that the forum topic was born.

**Reeta Sinha (YBP, Inc.)**

Faced with reduced budgets and statistics showing low use of monographic collections, some contend that selection is an inefficient use of library resources. One solution being adopted rapidly in academic

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