of resources for which the only options that libraries have for providing immediate access are through acquisition terms lacking perpetual access provisions.

One reason for this is budgetary limitations. A library cannot afford to purchase all of the books and maintain subscriptions to all of the journals to which users might want access. Therefore, the only means for providing immediate access might be pay-per-view transactions and aggregated package subscriptions — both of which generally lack strong perpetual access provisions.

Another barrier to securing perpetual access is vendor license restrictions. Although researchers Jim Stemper and Susan Barribeau found that many vendors will concede to librarians’ expectations for perpetual access provisions, they stress that these concessions must be negotiated into the license. Negotiations can significantly delay access or, if the vendor is unwilling to meet the library’s demands, result in termination of the acquisition.

Fifth law: The library is a growing organism.

Through its characterization of a library as a growing organism, the fifth law stresses the importance of planning. Like an organism, Ranganathan posits, a collection grows in size. He therefore urges administrators to anticipate this growth and strategize so that it has the maximum benefits for users.

In Ranganathan’s time, collection growth occurred as a gradual increase in physical size. The current environment’s so-called “information explosion” has introduced a new form of growth: the rapid proliferation of online resources. A primary driver of this proliferation is the bundling of resources into augmented databases and “big deal” publisher packages. Another driver is the emergence of a long-tail information marketplace in which libraries can quickly and affordably acquire a large and broadening array of individual resources as need for them arises. Because both of these acquisition methods often lack perpetual access provisions, the range of resources accessible to users is shifting from a clearly delineated collection to a nebulous cloud.

Ranganathan considers how to address such radical changes in his discussion of the fifth law. He states that, in addition to their tendency to grow, libraries and organisms share another characteristic: they must both adapt to evolving environments. In many ways, today’s libraries are striving to follow Ranganathan’s guidance. Leaders in the profession are responding to changes in collections and users’ expectations by rejecting arguments purporting “That’s the way we’ve always done it” as a justification for maintaining traditional practices. Instead, they are becoming advocates for innovation and experimentation.

This pioneering spirit generally stops short of questioning libraries’ longstanding commitments to retaining permanent ownership of the resources they acquire. On the contrary, the contents of the profession’s literature and conferences suggest that in recent years there has been an intensification of focus on how libraries can continue to perform the traditional activity of preservation in the evolving environment. How can we account for these two seemingly contradictory trends, one challenging the ways of the past and the other upholding them? The answer is the dual mission paradigm. While tools and workflows are means, the dual mission paradigm claims that preservation is an ultimate end.

As my analysis of the five laws of library science has shown, Ranganathan rejects this paradigm. He contends that a collection’s only value comes in its use. While preservation has in the past been necessary as a means to facilitate use, the activity is of no inherent value.

Libraries must decide whether they agree with Ranganathan. For those that do, two implications come to the fore. First, these libraries should, if necessary, revise their mission statements to make clear that they develop collections with only one core objective: use. Second, libraries must develop a better grasp of how they believe preservation activities (including commitments to perpetual ownership of online resources) function as a means to facilitate future use. In doing so, libraries must weigh the anticipated benefits of preservation for future users against the detrimental impacts it can have for current users. While the future lasts a long time and includes unforeseeable users and needs, the current environment is one in which users and their needs for immediate access are clearly defined. Developing strategies that balance the urgency of the present with speculations about the future is one of the most important but least understood challenges facing libraries today.

The Future of the Textbook

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Endnotes
3. Ibid., 20.
4. Ibid., 26-27.
5. Ibid., 80.

Against the Grain / December 2010 - January 2011
more detail at the emerging technologies. How are students and faculty using them? Are they using them at all? Can they be easily integrated into the workflows of students, faculty and the institution? Do they really enable and support the evolution of learning and teaching methods and increasing student engagement in their academic study? And critically, are they delivering the core content in a cost effective way that enhances and expands the future of higher education?

The final article will ask, just what will the products look like? How will they appear on screen? Is there the potential for products to become unwieldy? Will they really enhance education or create more of a hindrance? And finally, are all these innovations really what the students and lecturers want or need?

The Market from “p” to “e”

In 2008, the digital textbook market was worth around $1.5bn. By 2013, the market is expected to grow to approximately $4.1bn. Whilst this represents more than 200% growth, its value is still considerably less when compared to the printed textbook market which, even in 2013, is still expected to be worth more than $12.5bn. *(source: The Future of the Textbook Marketplace, May 3 2010, Outsell, Inc.)*

Fast forward 7 years to 2020, and the gaps between the two formats start to close. Digital textbooks are now expected to generate around $8.3bn in sales, whilst print textbooks are still contributing more than $9.7bn.

So what is the future for the humble textbook? Should the tangible, flat file that has remained largely unchanged for decades make way for its funky, interactive and more engaging alternative? Or is there a place in the market where both solutions sit side-by-side with the same time as meeting student and educator needs? We spoke to some key contributors to this debate to find out just which way they think the cookie will crumble.

Our first port of call was with the market transition from print to electronic. Generally we found that, although the eTextbook market is still in its infancy, the initial indications are that the transition from print to electronic is beginning with institutions and students embracing eTextbooks as suitable alternatives to their printed counterparts. The rise in popularity of e-readers such as Kindle, Sony eReader, Entourage Edge, Blio, and others, plus the success of the iPad and the introduction of competing devices such as the new Android tablets now becoming available and the upcoming BlackBerry Playbook (due for launch “some time” next year) have convinced consumers that digital reading is as equally accessible as print. More recently, the greater availability of content in digital form has also ensured that educators and students are increasingly more likely to find the book that they need. In addition, significant developments in the content delivery platforms, Learning Management Systems, and VLEs with feature-rich solutions for teaching and learning are making it easier for digital content to be integrated into student learning environments and educator workflows.

However, whilst there is an extremely meaningful rise across the book industry in the purchase and use of eBooks, this does not currently appear to be reflected to the same extent within eTextbooks. According to Andrew Hutchings, Managing Director of Blackwells UK Ltd, from research carried out by the company within the UK earlier this year, there does not appear to be a significant rise in reading list recommendations of core textbooks in “e” form. Perhaps one of the reasons for this is the lack of adopted core reading list titles available in e-format. However, the slow pace with which Higher Education adapts to change, as well as a general lack of awareness amongst students of the availability of eTextbooks and what they can do with them, may also be contributing to the relatively low take-up of e-format to date.

Price is also an issue, but not necessarily because eTextbooks are expensive; on the contrary many are cheaper than the printed version. But whilst students (and their parents) may look for less expensive alternatives to the high-priced new printed textbook, the professor will want to pick the best text that is available for his course — and if that book is not available in e-format, the remaining choice is the high-priced print copy. As John Warren, Marketing Director, Publications, RAND Corporation, comments, “…professors generally want to pick whatever text they feel is the best available, and will not necessarily pick a less expensive option if its perceived by the professor as a lesser text.” Content is, and always will be, the driving factor in adopting course materials, and whilst faculty are aware of the pressures placed on student budgets, providing the best course materials that will deliver the best learning results will be their main priority. ETextbooks that have made it onto reading lists are largely extended versions of the printed edition and as yet very few, if any, “born digital” texts have been adopted.

Not least proved by recent research funded by JISC in the UK for Further Education (FE), students too seem to be slow in adapting to the concept of the eTextbook (“libraries and publishers both report that currently there is limited demand from lecturers and students in general for e-versions of textbooks”) preferring still to write in their books, mark particularly relevant pages and have something tangible to refer to. To create a truly successful eText product, it could be back to basics and getting to grips with exactly how a textbook is used.

Leading UK industry commentator, Mark Carden, observes that “[students] turn down pages to bookmark them, they highlight text, they make notes — they also refer to other materials to support what they are reading in the textbook.” Observations from Sue Polanka, Head of Reference and Instruction, Wright State University Libraries, also seem to compound this thinking, stating that, although e-options are regularly offered to Wright State University students, these are not as popular as the printed options. As lecturers increasingly include video, audio, and other multimedia in their lectures, it will be necessary to replicate this experience online and offer the same tools and multimedia objects.

The challenge, then, for the publisher is to remain true to the content but package it in such a way that enhances and engages teaching and learning. With the many customization features that digital publishing can offer, and the relatively (compatively) low costs of digital fulfillment, the eTextbook could develop into a number of iterations. Mark Majurey, Digital Development Director, Taylor & Francis, believes that there is the opportunity for publishers to create electronic textbook “sites” that include a range of content types in addition to interactive tools. “Students expect richer, interactive resources which include video, animation, and audio. With the eTextbook you can build into it the ability for professors to upload essay questions and question banks or to reorder chapter layouts to suit course requirements.” Likewise, Mark Carden commented that the eTextbook could be assembled from a combination of learning objects that are created and stored in repositories, allowing professors to tailor materials specifically for individual courses.

An alternative solution is for the publisher to partner with the institution and package the content as part and parcel of the overall course. The University of Phoenix has been very successful in their approach to purchase course materials directly from publishers, the costs of which are recouped by including the price of the materials in the overall fees that the student pays for the course. The student gets value for money and no significant additional textbook bills, whilst the publisher achieves a 100% adoption rate for that course rather than the typical 30% achieved through selling print editions in the traditional way — it’s a win-win situation. Similarly, LMS platform providers are starting to enter into the same sorts of relationships with publishers to achieve the same goals. The McGraw-Hill / Blackboard agreement bridges the divide, integrating Blackboard’s Web-based teaching and learning platform, Blackboard Learn, with McGraw-Hill’s Connect platform to allow students and faculty to use their Blackboard login to access the full suite of McGraw-Hill Connect content and tools.

Whilst there is as yet no definitive standard for the eTextbook, indicators are that the market will demand interactive content with robust tools to manage it — and here is the key advantage of “e” over “p.” Elements continued on page 47
The science of service.

At Eastern Book Company, we’ve spent more than half a century shaping our unique brand of service. The first step is fulfilling our customers’ orders with unmatched speed and accuracy. Then we custom-fit our operations to our customers’ needs, allowing libraries to streamline processes and maximize budgets. And finally, we cultivate next-generation technologies to help our customers build the libraries their users need.

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**The Future of the Textbook**

from page 46

such as self-assessment, multi-media, content editing, annotations, text highlighting, as well as the ability to “slice and dice” content to meet course needs, all present excellent opportunities for educators to expand student knowledge and achieve greater grade potential. Experience so far from the platform providers shows that digital content is indeed increasing student engagement, a view that is supported by institutions, although “the key to increasing student engagement lies with the faculty member and the way they conduct their class.” (Sue Polanka). But while the digital era could enhance the teaching and learning environment and lead to better educated students, as books become increasingly cross-linked, remixed, “mashed-up,” and combined in new combinations, ultimately they may not engage students any more than the traditional textbook.

Experimentation with textbooks, however, is not only seen as acceptable, but inevitable, as publishers, faculty, and institutions appear to be driven by a desire to ensure that the digital experience is simply more than a different representation of the same content. Opinion towards experimentation differs across the sector, and whilst experimentation may be necessary for publishers to continue to survive, faculty “may not be as open to experimentation,” notes Sue Polanka, “so locking on to innovative faculty who wish to experiment with pilot textbook projects is vital.” Andrew Hutchings also points out that “Lecturers expect a much wider use of resources (monograph, journal, etc.) so just focusing on [experimentation] with textbooks is not really addressing the full requirements or potential for learning resources.” Experimentation will also lead to more content choices and, therefore, potential confusion over those choices, adds William Chesser from VitalSource. This is further compounded by the expected continued growth of open source content, which has already seen successful projects such as California’s Open Source Textbook Project (COSTP) (albeit for K-12) and Curriki challenging traditional educational publishers. COSTP seeks to address the perceived high-cost, content range and shortages of K-12 textbooks in California by developing printed, open-source textbooks that will be approved for adoption by California’s State Board of Education for use in California public schools. Curriki’s mission is to create, support, and develop the free distribution of world-class educational materials to anyone who needs them (http://www.curriki.org/xwiki/bin/view/Main/WebHome). More recently, Macmillan DynamicBooks and College Open Textbooks announced an agreement in which College Open Textbooks will facilitate identifying high-quality, peer-reviewed open textbook titles to be offered on the DynamicBooks online interactive textbook platform.

But who will lead the eTextbook revolution? Whilst the traditional textbook powerhouses have been part of the eTextbook trend from the beginning and are likely to remain dominant, in a market where there is no single definitive business model, there is still space for new players to make their mark. As John Warren comments, “traditional publishers such as Pearson, Cengage, and Blackboard have undergone a series of mergers and acquisitions in efforts to gain market share or new technologies.” Therefore, opportunities exist for smaller organisations that are able to fulfill particular content or technological needs or who can introduce innovative new business models which may challenge some of the larger players. Smaller organisations, too, are likely to be more flexible and better equipped at adapting to this moving target.

Another wave of players are the institutions themselves and the authorities and governments funding them. In addition to the innovative approach of University of Phoenix, for an example, projects such as California eBooks and UCL London’s CIBER SuperBook project (http://www.ucl.ac.uk/info/studies/research/ciber/superbook/), the first large-scale national user study of eBook use by academic staff and students in higher and further education institutions in the UK, show institutions looking to explore eBook usage and demand. Even the JISC’s national eBook Observatory continued on page 48
The Future of the Textbook
from page 47

The Future of the Textbook

Project, which involved nearly all UK higher education institutions accessing eBooks and studying usage over a two-year period from 2007 to 2009, sees institutions, authorities, and governments researching and even playing an increasing role in determining what content to offer and how to offer it. In the U.S., a number of developments to address the impacts of the credit crunch on provision of textbooks, particularly for K-12, are expected to encourage the take up of digital textbook resources. For example, The Orange Grove project launched by The Florida Distance Learning Consortium (the Consortium also serves as an advisory role to the State Board of Education) provides a digital, online repository of free instructional resources for Florida’s educators. Likewise, the state of Texas is, from 2010, allowing schools to use textbook funds for technology purchases, the first time that Texan schools have been able to do this.

Mobile, too, will have a role to play, and as devices such as smartphones and tablets grow in popularity and use, there is the potential for non-publishing organizations to enter the space as they seek to use consumer to provide a competitive edge. Whilst none of these devices are, as yet, capable of offering all the services that a student may need (and indeed it could be argued that, in the case of the smartphone, the screen is far too small to make study and learning particularly effective), the transition may leave some current content providers and publishers struggling to adapt to the rapidly changing landscape of mobile delivery, whilst the mobile device providers themselves may come out on top with their experience at swiftly adapting products that meet changing consumer needs. Take the success of Sony’s eBook store for example. It could be that this success is due more to increased market penetration of the iPad and iPhone than as a result of the quality of the content that the eBook store provides. Likewise, just as larger publishers may struggle to adapt quickly enough to changing consumer needs, smaller, niche publishers or indeed small technology companies may simply find themselves swallowed up as the larger publishers increasingly turn to acquisitions in order to gain market share and/or new technologies.

At the same time publishers want, and need, to increase revenues in a space where the switch to digital is beginning to impact on reliable print revenues. Etextbooks could provide a solution for publishers to begin to claw back the revenue lost to the used book market and start reducing students’ reliance on second-hand textbooks. However, the low price point nature of the second-hand market has impacted consumer expectations and artificially lowered the true value of academic content. “The market for used books and rental models have effectively established new expectations for per student, per course pricing” notes Kent Freeman, President of VitalSource. “VitalSource have already seen significant downward pricing movement on digital trade book sales already, and whilst publishers may strive to maintain higher digital price points through improved content formats and customization, competitive pressures including open source options plus expectations of low pricing will continue to drive prices down.”

Rental business models such as Chegg’s printed book and CourseSmart’s eTextbook rentals, despite contributing to the above-mentioned downturn in pricing, have proven to be cost-effective alternatives to used books at the same time as delivering revenues to the publisher. But whilst it is unlikely that the used textbook market will go away anytime soon, the jury is still out as to which business model will become the most effective when it comes to delivering eTextbooks.

“Freemium” models such as the provision of free online textbooks from Flat World Knowledge (where open-source digital textbooks are available free-of-charge online with revenue generated from downloads and print-on-demand, “customer collaborative” eBook solutions such as Dynamic Books (where lecturers can customize and edit existing text, add their own content, and even print the customized book via POD) demonstrate that flexibility in business models is critical to gain a secure foothold in this fragmented market (albeit the debate over copyright versus fair use will rage on with some of these newer models for some considerable time to come). Barnes & Noble’s NOOKstudy platform is also offering an attractive alternative to students, allowing access to fixed and paid-for content from the NOOK eBook store, as well as the ability to organize notes and class materials from within the NOOKstudy downloadable application.

But not only do students expect access to free or low-priced content, but they expect to access this content whenever they need it, regardless of device and location. As Sue Polanka neatly put it, “let me buy the content … but let me choose how I’m going to read it online, downloaded to my smartphone, netbook, eReader etc.” The responsibility then lies with the publisher in partnership with platform providers to make accessibility possible, at a price which the market will bear. Downloadable and online deliveries offer equally important solutions for licensing eTextbooks, whilst individual chapter licensing available from new market players such as the UK-based eTextbook aggregator Reference Tree, have a lot of value from the student perspective. As Amil Tolia, CEO of Reference Tree, explains “Having been a student myself I know full well the great costs involved when purchasing study material. These new business models enable students to gain access to information in a concise and relevant manner, whilst focusing their spend on exactly the material they need.”

Another factor in the decision of whether to provide temporary or permanent access to content may largely depend on the subject studied. Texts used in the study of law or medicine, for example, remain relevant long after the student has completed the course, yet for students of engineering and other fast-paced industries, access to smaller chunks of information is necessary to stay on top of the game. And whilst temporary access may go some way to addressing publisher concerns surrounding piracy and misuse of content, where longer-term access is required, the business model presents a range of issues, from the ease with which students can share online credentials to the ongoing support required in providing permanent solutions. However, all our sector respondents agree that there is space for a variety of business models to operate effectively, but that the key is interoperability of format and quality of content.

But as this article draws to a close, its not just the configuration of the eTextbook that needs consideration but also who will be responsible for organizing the potential mass of information that could be generated. One of the themes of our research was to explore was respondents’ views regarding the potential future role of the library in textbook provision. Arguably, all the players mentioned so far have their part to play in the digital textbook revolution. But should there be a coordinating entity that needs to form a central role? Traditionally, the library has not (to a great degree) been responsible for overseeing textbook acquisition within their ongoing provision and facilitation of access to key electronic resources. But now with the numerous eText iterations that could exist in this new market, it would seem logical that the library will have to have a greater role to play as custodians of academic content. Already in the U.S., institution-lead projects are relying on the library to recommend and administer relevant texts alongside the lecturer. Plus, as institutional budgets continue to shrink and centralized purchasing becomes more prevalent, the library may well have an increasingly influential and administrative role in determining what is purchased and how. Finally, then, and by no means least, to enable the continued provision of efficient education, if textbooks are to go electronic, they will need to be effectively integrated with all the other e-resources that are available to the student. Given that these are generally organized, administered, and delivered by the library (not least via the library’s OPAC), it seems fair to say that whether the library wants it or not, it will inevitably be involved in institutional eTextbook delivery in some way or another in the future, or at the very least in the conversations surrounding it.

Look out for our next article where we explore the impacts of technology on the future of the textbook.