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Digital Readers and the Campus Bookstore

On the same day that Steve Jobs debuted the iPad, I was sitting on a university bookstore conference panel with two publishing execs describing the advent of digital readers. My fellow panelists were unimpressed with these tools and dismissed all of the press as so much noise. To my ear, it sounded like McCain saying, "The economy is fundamentally sound." I, meanwhile, was shouting, "The sky is falling!" I was not the most popular speaker at the podium, as it turns out.

I compared the future of bookstores on campuses to a downsized recording industry. These warnings were dismissed with wry comments like, "I would tell you what's going to happen, but forgot my crystal ball." My description of the swarms of new e-readers was met with the cynical shrug of folks who have seen over-rated technology before. "It doesn't matter what screen it's on, it's still just a book."

Finally, the bookstore operators and the publishers agreed that "textbooks were a poor fit for e-readers," and that I was misinformed. As I'm sure Chicken Little must have had her feelings hurt, I drove to the airport shaking my head. It's all about to happen and here's why.

Textbook Reformation

Textbooks have been around since writing has been around. Libraries have existed almost as long as books have. Students could all own a book but couldn't all own a library, and there is an advantage in having the exact right parts of each book in one place. Aggregating this information was a crucial task. But, for the past decade or so, that has been turned upside-down. Students do each have a library. The role of the textbook is no longer to collect hard-to-come-by information, but rather to filter it out. The ability of everyone with a connection to instantly access so very much of the world's knowledge is not *like* a reformation, it *is* a reformation.

Textbook Salesmen

Another way to understand this is to look at it in reverse. If textbooks had not been invented until now, they would be a very tough sell. They are heavy individually, yet are purchased and

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carried by the backpack-full. Their very weight and complexity makes the idea of manufacturing, delivering, and storing them preposterous. While they provide a great surface for discursive symbol sets, it's hard to tell if they're being used, and instructors see a great deal of evidence that suggests they are not. While textbooks may have nice pictures and graphs, they lack audio and video. Even if they include exercises, how would a user record and share his or her work? Lastly, unlike the beloved novel, textbooks are treated with promiscuous infidelity. After a season of intimacy they find themselves shelved or discarded outright. Trying to sell the idea of a big fat textbook to a world that had never seen them would be impossible. But that's not where we are.

Beer in Old Wineskins

It is common for demonstrations of e-readers to fill the screen with randomized "ipsum-lorem" text to show their interface, as though they are content agnostic. The comment that "it doesn't matter what screen it's on, it's still just a book" belies the fact that very often content should prescribe containers. The reason espresso is served in tiny demitasse cups, is because it is a small, hot, condensed drink. Beer is not served in wine glasses and wine is seldom served up like Slushies. Both the container and content jointly inform the experience. Likewise, with deference to Marshal McLuhan, media makes the message. Tolstoy does not taste as good from an iPhone.

Studying Cosmo

The experience a person has with a textbook is significantly different from the experience one has with a novel, magazine or newspaper. The claim here is not that all of these much-hyped electronic readers are going to displace traditional textbooks, but that something is. Let me explain. Devices like the Kindle and the vaunted iPad are dandy for casual, one-way communication. The Kindle is great for readily downloading Danielle Steele novels. The iPad cannot be beat for browsing splashy magazine articles and YouTube clips. Average readers may get their newspaper for a day; magazine for a week; or novel for a month. As time and interest permit the user lights up the gadget and sees the vivid words in glowing 16 pt. font and pretty pictures for a quick glance between sips of coffee. No assignment, no pressure and no quizzes after finishing the first two paragraphs of the article about climbing Machu Picchu. The motivation for buying, reading and retaining this month's Cosmo is all implicit. Not so the motivation for a textbook.

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Textbooks are selected and assigned by a third party. 400 densely-packed pages, chuck full of run-on sentences with imposing vocabulary chosen like celebrities choose shoes, with an eye to fashion and no concern about the price. Many have noted how textbook economics are reminiscent of the healthcare debate. Just as insurance companies negotiate with hospitals while patients are literally left holding the bill, so publishers negotiate with universities while conscripted students pony up as much cash as is required.

After being forced to purchase these academic anchors, successful students are required to devote hours, weeks, and seasons skimming, reading, organizing, discussing, annotating and memorizing these volumes. This arranged marriage creates a reading experience that is so dissimilar from other types of reading that it has its own name: "studying." Few of the existing readers are designed for that level of intimacy. This distinction seemed to be lost on my co-panelists.

Technology Required

Studying is different than pleasure reading. Different interactions are dictated by the common behaviors of a student and the requirements of an instructor. First of all, an e-textbook must be easy on the eyes. Backlit screens, like most computer screens and tablets like the iPad are pretty and bright. However, for hours of sustained reading, well-lit paper is just better. There are studies that discuss this at length, but if you've ever read a book or tried to read a book on your computer it's just not the same. The "digital ink" common in many e-readers answers that issue. For sustained, long-form reading, this is the desired technology. Even the texture of the screen for stylus use is more paper-like. Yet, current study requires media standards such as the video and PowerPoint and a raft of tools pioneered in computer-assisted instruction years ago. So the digital textbook must also include a standard tablet computer screen. No doubt in the future the technology will exist to do both on one screen. Right now, there are gadgets like the enTourage eDGe that provide a book-shaped tablet that has digital ink on one side and a small computer screen on the other. Voila. For a truly interactive textbook to work, both screens are required.

Attention Problem

The argument could be made that any additional electronic gadgets are part of the problem not the solution. The problem being the Twitterizing of the student attention span. Technology provides distractions. More technology provides more distractions. Every new communication

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tool that crops up yanks on our pants leg. Staying in touch went from being a struggle, to a convenience, to an obligation. However, as an optimist I believe in a technology cycle where tech provides solutions, then becomes part the problem, and then swings back toward providing solutions. An effective textbook platform needs to include strategies to help regulate surrounding interruptions and reinforce on-task behaviors. Part of the battle for student attention needs to employ meta-technologies to control all these little pests.

As the textbook platform is central to study, it is reasonable to suggest that the e-textbook will become a primary tool for harnessing distractions and reinforcing extended attention. An interactive textbook is not a passive boat anchor with words on it. Instead, it should be designed to complement intentional and often long-form interactions. For students who need explicit motivation, or assistance staying on task for whatever reasons, this study tool should not surrender the fight to instant messaging and Facebook.

When an instructor is at the front of the class, he or she expects the attention of the group. The time-honored measure for this is the same from primary through graduate school. Instructors make eye contact, get the occasional nod, see pencils moving on paper, and ask for some kind of visual or verbal feedback. A student can fake attention giving, but pretending to pay attention is much like paying attention. This is an important point, because it is easy to dismiss electronic verification methods as insufficient to gauge true understanding. But that's the nature of the game. We don't measure understanding, we measure behaviors. Instructors would like to look inside of heads and see if they're full, but we are left counting and grading and hoping that this implies understanding. So, if these technologies can offer a host of systems to verify and assess, then at minimum we should know what these tools are and should be able to choose those best for our classes.

Attention Portfolio

Technical methods for assisting and tracking student efforts are not new, combining these tools within a portable digital textbook that includes textual and rich media is. Tracking time on task, verifying student interactions, and quizzing are just a few of the ways electronic textbooks can approach the traditional attention-getting activities of the instructor.

For starters, students must be able to highlight and annotate in the text. As these notes and selections are automatically collected and organized they become the primary reinforcement

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structure for study and a first artifact in an "attention portfolio." Other measures that can be collected are as simple as how long a given page was displayed, or might even require students to simply tap every time they finish a paragraph, or see a given idiom. While portfolios are collections of student work, they serve as a testimony to a comprehensive view of learning. A portfolio concept recognizes that achievement is represented by more than test scores. An attention portfolio implies that effort and time on task are measurable and significant.

In a literature course these e-books could subtly provide positive feedback for longer and longer time on task, or break up study sessions with exercises, reflection moments, quizzes, outside video/audio. The additional elements could be aimed at remediation or deeper study. This all sounds very Skinnerian, and could be used that way, but educators are in a battle for "hearts and minds." If pop-culture is winning with recreational positive-reinforcement-based tech, then these tools can help educators aggressively reclaim a "technical" advantage.

Reasonable Luddites

At the bookstore conference, I was told that the cost of physically printing a textbook only accounts for 30% of the price. On top of this "bookstore services" tend to account for another 25% of the total--bookstore services for students being similar to the services Tower Records provided to music lovers. A whole bunch of students could save money, while whole industry suffers a setback.

Luddites have received undue criticism. Their name has become synonymous with cavemen. But, the Luddites were a group during the Industrial Revolution who feared losing their livelihood as weavers to automated looms. So, like John Henry and other anti-tech heroes, they put up a fight. They attacked the factories and were put down in summary British fashion.

Fighting against a technology that's going to take away your job is not an unreasonable action. So, if bookstores see the advent of non-paper text in that light, I get it. What is missing from this analogy is how expensive fabric was before the Industrial Revolution and how much my son is going to be paying for textbooks next semester. Disruptive technologies make it possible to buy clothes at dollar stores, but cause hand weavers to burn down factories.

Of course, as this model fails it will open the door for another to replace it. Companies that can take all of the rich media, all of the text-based media, and the software to support the assessment and assignment structure and weave them together into helpful combinations will

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flourish. Many of the textbook companies out there are trying to furnish this function as their companion websites get fatter and more complex. But it seems more likely that new, leaner, hungrier companies will come along and do it for a fraction of the cost, and will learn to work with educators again as they make digital media course packs with an eye to instructional design wrapped in instructional technology.

This disruptive technology is going to put an end to all those journal articles on how expensive textbooks are, but will make me less popular at bookstore conferences.