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Education Evolution: A Qualitative Study of Student Perception

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EDUCATION EVOLUTION: A QUALITATIVE STUDY OF STUDENT PERCEPTIONS

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ABSTRACT

The educational imperative of textbooks was examined for university business students. 82 students were interviewed to determine their perceptions of textbooks and the factors that affect their willingness to purchase. Student preferences on delivery format, content style and price were examined using choice activities. Issues raised related to the practical nature of print, price sensitivity, student collaboration and the tradeoffs of current and future learning materials for students. Print textbooks were more popular than e-Books and summary chapters are favoured for ease of information consumption. Pacific Rim editions are favoured over International editions and currency and local relevance are key determinants in the students’ preferences. The ‘authority of print’ and ‘experience’ of purchasing and owning a hardcopy version of a text book are posited as key considerations for students.

KEY WORDS

Student centred learning, student preferences, e-textbook, summary chapters, Word of Mouth, adult learning.
EDUCATION EVOLUTION: A QUALITATIVE STUDY OF STUDENT PERCEPTIONS

Today’s societies are developed predominantly through the communication of ideas. Educators of today store and protect their erudition in textbooks-helping to provide wisdom to future generations. Textbooks are used to present students with a stored amount of organised information and have been critical to higher education (Ryan & Marchioro 2009). As new technologies emerge, modern educational tools are being developed to be either embraced or ignored by the market. This raises the question as to the most effective and popular methods for teachers to educate students?

The evolution of books and the resulting changes in textbook publishing models have brought teaching and learning into a new era, where textbook users are demanding alternative methods of accessing content. A valuable analogy exists here with the current print versus digital debate. Understanding consumer needs and aspirations is critical. Kim Williams CEO News Limited poses the salutary fact that the demise of film giant Kodak was mainly about not understanding the consumer-they ‘missed the boat because they thought it was all about the technology’ (Weekend Australian June 23-24, 2012, p.15). Understanding the power of the consumer and the intricacies of changing platforms will be crucial to managing volatility and ensuring stability in the teaching and learning arena.

Market Control

Demand for digital text is increasing quickly as it consumes more share of the textbook market (Peek 2012). Tomassini (2012) states that the hardcopy textbook market has decreased 9 percent in 2011. Reflecting the increased demand for digital materials, Pearson citing its 2011 financial report, stated that its digital learning programs had grown 23 percent to $43 million and overall digital revenues were up 18 percent from the previous year to approximately $3 billion (Pearson 2012). By the end of 2010, e-textbooks accounted for 3.4 percent of the global textbook market but are now expected to take a share of 18.3 percent by 2013 (Mulvihill 2011). Moreover, the electronic retailing consultancy firm, Xplana, predicts that US e-textbook sales will grow to take over a quarter of the market by 2015
(The Economist 2012) even though print textbooks are holding their ground in the publishing market (Raschke & Shanks 2011).

Raschke and Shanks (2011) suggest that the textbook market is ripe for an overhaul including an economic and technological shift affecting the growth of the e-book market and create room for competition. Walter Isaacson wrote in the Steve Job’s biography that ‘he wanted to disrupt the textbook industry, and save the spines of spavined students bearing backpacks by creating electronic texts and curriculum material for the iPad’ (cited in Griffey 2012). Consequently, Apple entered the e-book market in January 2012 (Griffey 2012). In recent years, there has been an increase in the ability for digital publishing from ‘...alternative textbook publishers’ who have begun to benefit from the ‘...dysfunctional textbook marketplace and the cost efficiencies of digital publishing’ reports Raschke & Shanks (2011). By the end of 2011, there were over 85 different digital reading devices designed for e-books, and the Amazon Kindle had sold over 400,000 units in its first 12 months of operation (Tonkery 2011). The increase in the variety of devices, applications and content has helped to increase the demand and popularity for e-textbooks (McKiernan 2011). An evolution is happening where customers are moving further away from print towards digital (Tonkery 2011). Growth in the digital textbook market encourages ‘...new digital product models’ and publishers to enter, which will cause a shift in university students ‘...purchasing patterns around learning material’ (Reynolds 2011).

**Purpose**

This paper examines purchasing behaviours and patterns within the context of market volatility in the student academic world. The purpose of this paper is to gain insight into university business students' assessment of textbooks as the evolution unfolds. The questions whether textbooks are worth the financial investment and the delivery platforms best suited for students will be examined from a student perspective. Even though professors and lecturers choose the text (Mulvihill 2011), it is important to consider how effective, efficient and worthwhile students find different learning materials, products and services as universities need to act in the best interests of their end-customers; the students. As new technologies and ideas are developed to provide university students with the materials they need to succeed in their fields, the efficiency and value of the textbook needs to be
reviewed and compared against future educational products. This paper attempts to question and examine why print commands more authority than digital text, why the practical nature of print is appealing to students, how price sensitivity of learning tools affect students choices, how word of mouth and collaborative learning are affecting student studies and what the tradeoffs are of different tools and packages from a student perspective.

**LITERATURE REVIEW**

Textbooks have been a traditional and respected source of education for a number of years. There are two elements that distinguish textbooks from trade or academic texts. Textbooks provide ‘…a broad, unified skeleton for an entire unit and it includes various pedagogical elements; such as discussion questions, exercises, and term lists’ (Cloutier 2009, p. 354).

**Print in Demand**

Price can be the dominant factor influencing students’ decisions when purchasing textbooks and students have been trying alternative ways of obtaining the textbook. Acker (2011) found 15 percent of students did not purchase textbooks because of price or they found alternative ways of obtaining their textbook. Students renting a textbook, using the library’s book for free, ordering their textbooks online (Crowe 2010), or will even find pirated copies to avoid the high cost (Wall 2010).

Although there have been predictions that the textbook will become obsolete and be replaced since the invention of the e-book, this does not appear to have happened (Young 2010). The reasons for this slow uptake of electronic formats were documented in several studies. Reasons included reducing reader discomfort, distraction and straining of the eye muscle, portability, reliability and ease of use (Robinson 2011); students ‘…were more likely to read captions and charts in print books than in e-books and they experienced greater satisfaction with print books’ (Wood, Daniel & Baker 2010, p. 947). Meanwhile the physical aspects of a book, including its tangibility rated highly, and the demand for textbooks from university students ‘…remains quite strong in the digital age’ (Gregory 2008, p. 270).
These studies concluded that although price is a main factor influencing student’s textbook purchase decision, they are still more conservative when choosing the required materials for study. The most recent study by Robinson in 2011 confirms Gregory’s 2008 findings. Studies also acknowledged that university students in general are not yet ready for the electronic textbook, also known as an e-textbook, to entirely takeover the market (Grensing-Pophal 2010).

Rise of e-Textbooks

Although the e-textbook has always had a low price advantage (Pierce 2011) and the ‘digital content has been an important component of library collections for over two decades’ (Hielmcrone 2012), the growth of the e-book had not been rising as fast as it was predicted (Young 2010). However because of technological developments and the price drop of e-readers in 2010, the more recent studies from both Pierce (2011) and Hielmocrone (2012) found that the academic e-book business started picking up in 2010. This finding is supported by the decline of the professional and academic publishing because ‘online learning replaces the classroom-and-textbook tradition’ (Mallardi 2012, p. 26). E-book users were more likely to engage in web activities than print books (Wood et al. 2010). Studies in 2007 found male university students appear to be more interested in using e-books than female students (Rowlands et al 2007), but because of the growing population of female university students in recent years, students’ preferences on e-books and textbooks no longer have significant gender effects on computer use (Wood et al 2010). Whether gender affects demand seem to be divided and warrants further research.

Studies have also found that Business and Management students are the “super users” who are believed to benefit more from e-textbooks and would be more likely to use e-textbooks (Nicholas, Rowlands & Jamali 2010). One of the cited reasons is collaboration on group assignment can be made much easier by pulling in outside readings for courses with a tablet (Fischman 2011). These students tend to spend more time on reading the e-textbook and access e-books more frequently which may suggest a higher level of format satisfaction (Nicholas et al 2010).
Integration of eBooks into Course Material

Jiménez and Campos (2010) pointed out that the textbook market is largely driven by publishers and educators rather than students. Many publishers have taken this market lead and developed new textbook publishing models since 2010. Both DynamicBooks (Hane 2010) and Flat World (Di Maria 2011) allow professors to customize their class textbooks from the company’s existing electronic textbooks or open license textbooks. Similarly, Apple has allowed university professors opportunities to customise their own textbooks by ‘taking keynote presentations, text documents, videos, music and images’ (Walters 2012). DynamicBooks allows students options to choose buying a fully featured e-book or a printed textbook. Flat World provides more flexible options to students – students can either read the web-hosted version gratis, or choose the price and format of the book, which can include PDFs, audio books, e-books and interactive study aids (Di Maria 2011).

McKiernan (2011) divided the growth and development of future textbooks into four stages and indicated that the future textbook would be integrated with course management systems. Before and after his study, a publishing model has been and is being developed by embedding the textbooks with web-based software which can offer much lower course materials fees for students (Wall 2010). The question of student’s choice was examined in a Southern New Hampshire University study that found the majority of students either choose solely to use the e-book (44%) or use the combination of the traditional assigned textbook purchased from the university bookshop and the embedded e-book links in their Blackboard site (student portal) for free (43%) (Ratto et al 2012). The question of student attitudes’ was examined by Evans in 2008. The study found students valued the flexibility that podcast offered because mobile learning in the form of podcast and e-learning allows them to choose when, where and how they choose to study.

METHODOLOGY

A total of 82 second and third year business and management university students formed the sample for this study. Focus groups (16) were utilised as the main form of data collection method. These groups varied in size from two to nine students. A mix of age, race, gender and academic achievement
was attained. Second and third year students were selected so they could reflect over their years of study at university. All focus groups explored students’ perceptions of textbooks and their feelings and notions toward current and future forms of learning, which included e-textbooks, podcasts, online learning (Blackboard), collaborative education and traditional (full) and summary print textbooks.

The format of the focus group discussion was designed to explore perceived tradeoffs between key attributes of textbooks such as price, format, delivery mode, scope and content (full versus summary chapters; Pacific Rim versus International editions). Topics discussed within the focus groups included the level of unit success, ease of use, benefits of full or summary textbook information, textbook usage, dependability, speed of information consumption, price and relevance for current and future units and careers. Participants were asked to make choices between ‘packages’ representing typical offerings of textbook/course material offered to students at the beginning of a semester. These included:

Figure 1 here

The focus group facilitators revised the mediation design at regular intervals across the data collection phase focusing on developing repetitive themes and exploring new concepts as they evolved (Stewart, Shamdasani, Rook, 2007). This process determined reasons behind university students’ decisions to purchase and use particular learning material packages as well as their learning behaviours across their two, three or more years of tertiary study.

The qualitative data gathered from the focus group work was transcribed, analysed and revised by all the authors and reviewed for related themes and data triangulation (Gibbs 2007). Common themes were individually coded and then compared for cross-referencing and consolidation across the focus groups. The initial development of themes is presented and discussed in the following paragraphs; further analysis is ongoing with the development of trade-off behaviours and choices.
THEMES

Agreed themes included; the authority and practical nature of print, price sensitivity and the importance of word of mouth. A final section discusses the findings from asking students to choose between alternative packages and discusses how the students trade off between price, format and content. Student quotes are presented in italics.

The Authority of Print

A dominant theme perpetuating from the discussion of delivery modes was the value that paper had in representing an authoritative version of the text material. The print version of the textbook depicted the students’ belief in the quality assurance of the product and the investment into the validity of the material. As one management student stated ‘hardcopy books... have a powerful cultural connotation associated with them – they command respect’. Furthermore, ‘Textbooks are the definitive source of information on the subject. They’re fact and are 100 percent correct. Well, at least they should be. Why else would the lecturers recommend us to buy them’? The actual publishing of the book is seen as a validating process along with the endorsement from the lecturer ‘...the fact that the books are published, have had money invested into them, have been reviewed, have been marketed, put into libraries, have been suggested by the lecturer for that unit who was chosen on merits by the university, and have the subject name on the front, such as Human Resource Management; this textbook must be the best source of information for that subject’. Students felt empowered by going to the university bookshop and purchasing the textbook (hardcopy). This action represented the book as a solid asset, overriding other forms of information. The authority of print seems to have been a great marketing success with students.

Chesser (2011) states that e-books may not offer innovation or enrich learning because they require little change teachers and students behaviour. This suggests that as the information in the textbook and the e-textbook are the same. The reason why textbooks may hold sway could be due to inherent value of the paper version of the product, its tradition and meaning to students rather than simply the delivery mode.
**Practical Nature of Print**

Student responses reinforced previous findings in highlighting the practical nature of the printed version of the text. The aesthetic qualities of the printed version had students opting for summary chapters (print version) over the eBook (full text version) even at the same cost. Overwhelmingly the management students preferred summary (print) chapters and textbooks over the e-book. One student stated I ‘...lay everything out onto the desk’ in order to study and that multitasking with hard copies is easier than with digital versions. Referred to in literature as the appreciation of ‘low-tech conveniences’ (Columbia Daily Tribune 2009), the practical nature of print is particularly important to students who exhibit a particular style of working ‘I can have five different hard copies open at the right section at the same time, (which) is not possible to do with e-books’.

The lack of tangibility meant that students could not store or keep e-textbooks in personal reference libraries. This was evident with management major students who wanted to use their first year textbook throughout their degree as a reference. In addition, these text books became useful in their work environments... ‘I needed to refer to something at work; so I took my textbooks in’. This may not be possible if the student had purchased e-books due to licence agreements and expiration dates. Students indicated that the physical existence of the textbook is important to them; they want a real book that they can touch and hold which gives them peace of mind and a feeling of security and attachment. This was well summarised by one student’s comment, ‘...It’s a bond between you and the book. I’ve put in effort to obtain the book and I’ve made it my own by making my own notes, highlights... It is mine; it became a part of me’. Confirming findings by Gregory’s (2008) research about the desire for the physical, tangible properties of a hardcopy book, these students would often buy the textbook prior to class commencing... to ensure they were prepared and ‘secure’ for the semester, as one student noted... ‘for the textbook, I will be able to preview it, flip through pages and check out the content by reading it from the bookshop’s shelf or library... but won’t be able to do this pre-purchase evaluation according to my needs if it is an e-textbook’. In addition, students also identified that they found it easier to find relevant textbooks in the bookshop and library than e-books online.
Students, who have formed the habit of reading printed textbooks since their primary and secondary school, find it more difficult to take notes, highlight and make bookmarks with e-books. This reflects individual student’s experience and learning styles and they suggest ‘...e-books should only be an option’. Habits formed from studying with hard copy are not always easy to transfer... ‘I fold the corner of the pages that I want to compare or cross reference when I read, but I can’t fold my device or flick through pages easily’. Another student identified that using e-books to find specific information is more difficult than using the textbook as the student found that ‘...it is easier to look at the index page of the hard copy...’

Students did recognise the convenience of e-textbooks as already indicated in previous research (Brown, 2011; Massis, 2010). The fact that e-textbooks take up no physical space, are easier to transport, especially compared to multiple textbooks was compelling. But, students receive ‘value’ by ‘...having access to it...’ just about anywhere. Many e-textbooks are copyright protected and can only be decoded and viewed by certain types of e-readers (Brown 2011). Students also found that it is ‘...hard to create familiarity with e-books’. This aspect of being familiar and comfortable with a text was predominantly important to students in regards to their major subjects (Management, Accounting and Marketing).

Dependability was also an issue in e-books as the required technologies can become faulty, problematic or do not work due to lack of connectivity. Students also indicated that reading on electronic devices can be distractive because of the social media, programs and applications that are running at same time in the device. Many students felt they had to pay more attention and be more careful when they carry the electronic devices with them, which adds extra stress while studying.

For Management units, students preferred the Pacific Rim editions to the International editions as they contain more relevant examples, management styles and business law for those who were ‘...most likely to work in the Asia-Pacific’. Students also felt that the case studies in the Pacific Rim editions were more supportive and better reflected their assignments and management exams. Interestingly,
students with an accounting major or focus preferred the International edition because they felt that it was seen as the ‘right one’ for their future careers.

The preference for printed textbooks has been referred to in the literature as ‘student conservatism’ (Young 2010). However, these results indicate that students require a broad spectrum of textbook/learning material offerings relating to their experience with technology and to their particular learning habits and styles. Results also indicate there is an active group of price sensitive students.

**Price Sensitivity**

Currently, the print textbook remains popular in a market that is being pressured to be more cost-effective (Tonkery 2011). Results indicated that the cheaper price of e-textbooks were appealing to students that were studying a minor unit, not connected or affiliated with their major as they felt they would ‘...not use it again and may as well go for the cheaper option’. There were also a group of students that favoured the lower option regardless of the major/minor status. These students were often overseas students who opted for second hand hardcopy versions or the cheaper e-textbooks. The overwhelming majority of students identified that they will purchase the textbook if the lecturer recommended it as a useful source for examination preparation. This was evident in the following quote, … ‘I’d rather spend a couple of hundred (dollars) to buy the textbook, to make sure I pass the unit, than spend a few thousand on the tuition again to repeat the unit’. Textbooks in general become less price sensitive when students feel that they need the text to pass the unit. Many students want to keep the textbook for their ‘...future careers and as a cross reference for other units’. This reinforces findings from Robinson’s (2010) survey and the NACS survey results of 2010 (The Presidency 2011). Students identified that they would prefer the e-book if the price was decreased lower than half to a quarter of the price of the textbook, also confirmed by the work of Chesser (2011). Students also suggested they would consider the e-book if e-books could be converted and viewed on any e-reader, Smartphone or computer and they could keep the electronic copy for as long as they want with no additional cost.
Many students were frustrated with the subscription based e-textbook conditions. Students suggested that there is ‘no financial advantage...’ to e-books as they will be ‘...buying a subscription which expires’ and therefore has no future value. Students indicated that the average reasonable price for a textbook was $80.00. When the materials are above students’ reasonable price point, Word of Mouth (WoM) seemed to play a major role in the student’s decisions to purchase the text.

**Word of Mouth**

The importance of WoM is evident within the student sample in this research. As one student explained, ‘if my friends, whom I trust, have done the units and they’ve used the textbook and have the experience on whether the book is necessary, I will be able to avoid wasting my money on the textbooks that I later found not necessary’. Another student stated that if a friend recommends the textbook and ‘...I think it’s necessary, I will buy, and otherwise I may borrow it from friends or the (university) library’. Additionally, ‘The people who read the book understood the book, they’ve gone through the hardship and they’ve got the experience... I believe them’. A majority of students said they would not purchase a textbook if their friends did not recommend it, while, over 70% of students suggested they would consider buying the text if their friend suggested that it was important for exams. Initially, WoM encourages students to borrow the textbook to flick through, before making a decision on purchasing, with over half of these students then saying they went on to buy the text. This sharing process would be more difficult if it was an e-book. Students agreed that they would nearly always purchase the textbook if their friends recommended it.

**Tradeoffs**

Students were required to make choices between 6 options to consider and discuss in organised focus groups. These are listed in the methodology section of this paper. The key finding from this process was the overwhelming demand for print summary chapters. The summary print package for $65.00 appeared to be the favoured package. This was especially evident when the unit was not a core in the student’s major stream of study. Summary chapters are a condensed version of the text and focus on an overview of what the students’ need to cover for that specific unit’s assignments and exams.
Young (2010) compares this change to the shift from music album demand to demand for individual songs. Students referred to print as tangible, and therefore more ‘reliable’ and ‘dependable’ than e-texts. Students in the focus groups identified that summary chapters are easier to study as the language used is often much simpler and direct which is favoured among international students. Summary chapters ‘...focus on what you need and save time for completing assignments and studying for exams’. This is because lecturers and unit coordinators know what students need, so the ‘...summary chapters reflect the student’s chosen career and industry’.

A number of students indicated that textbooks can be daunting. Difficult to read fonts adds to the problem. The trade-off with this quickly digestible information is that it is trimmed and more concentrated. Students identified that to simply pass a unit summary chapters would be enough and therefore represent a solid purchase. However, many students also stated that if the package was for a unit that was part of their major and reflected their career goals, they would prefer the full textbook as it would contain relevant information for more than one unit.

Student interviews identified that the trade-off of such easily gained information is that ‘...there is not as much detail with online material as compared to the textbook or summary chapters’ and that students who are looking for high unit marks may find this material supportive but not their main source of information.

Management students particularly favour case studies on student portals such as Blackboard as they were relevant, practical, engaging and help students to think critically which makes them feel more confident and well equipped. Management students indicated that they are more interested in the practical case studies as they usually understand the theory and concepts better when they can apply it to real life situations … ‘I can’t use the theory by itself to solve a problem, but case studies tell me how to use the theory in real life.’
CONCLUSION and RECOMMENDATIONS

This paper provides insights into how business students’ relate to the various delivery modes of texts, within a rapidly changing marketplace. The recent changes at Fairfax Media Limited due to the changes in disseminating information via print are relevant. Evidence from this research highlights that print still has a role to play in supporting the learning behaviours of students. A limitation of this research is that the students were predominantly in their final year of study. Therefore students had largely moved through the education system. However, their insights and purchasing decisions are still valuable in understanding that throughout their studies there needs to be different learning packages available at different stages. The research also differentiated management students within the business cohort and their individual learning preferences. For example it was evident that management students highly valued their first year print texts as authoritative sources that could be referred to over the course of their studies and beyond.

Students are required to work with paper as examinations are largely conducted in this mode. This research indicates a need for a graduated process of learning materials along the degree course. Offering student’s choices across format, content and price could be an option. The overseas student market is particularly price sensitive indicating a preference for summary versions of content as they find the language easier to comprehend. This graduated approach can also take into consideration the younger students who whilst preferring the ease and convenience of e-texts also require the security and comfort of knowing they have a textbook to refer to in their first year of study.

Print is not dead. It is important to consider the intangible attributes of print and whether these attributes need to be compensated by the e-text delivery mode. One solution could be summary format magazine texts that are popular in the USA supported by electronic format supplements. The authority that printed text commands affects the students’ perceptions of texts and their willingness to purchase them. Students find the nature of print to be more comfortable and providing a sense of security. Price sensitivity plays a large role in the willingness for students to purchase one format over another. Textbooks in the future should realign ‘education from a faculty-directed focus to a more student-
centred one’ McKiernan (2011, p. 43). Literature also indicates a lack of research on the influences of 
Word of Mouth (WoM) or peer influence on how students make purchasing decisions on textbooks. 
This represents an area of further research focusing on student collaboration particularly in regards to 
overseas cohorts. Future investigations into the buyer experience should also be undertaken to help 
determine the student preference for what is a considerable investment in money and ultimately 
learning.
REFERENCES


Pierce, Kathleen (2011) More and more, college students go buy the e-books: Digital textbooks are a no-brainer for many, and sales are up this year, *Boston, Mass*.


Walters R (2012) Apple's new iBooks textbooks package is going to change publishing as we know it, *ExtremeTech*.


FIGURE 1

CHOICE OPTIONS FOR UNIT MATERIALS

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<th>Format: Summary chapters</th>
<th>Format: FullText</th>
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