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Convergence towards digitised content influencing strategies of South African publishers

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A research report submitted to the Faculty of Commerce, Law and Management, University of the Witwatersrand, Johannesburg, in partial fulfilment of the requirements for the degree of Master of Business Administration

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ABSTRACT

Publishers today find themselves in an industry that may be on the verge of rapidly evolving towards new potentially disruptive forms of multimedia content brought about by convergence (contextually defined as the coming together of print, electronic media, computer content and book publishing as a result of emerging technologies). Strategic decisions need to be made on the extent to which publishers venture into new markets, taking into account how the South African specific context creates obstacles, or even opportunities. This research investigates the various factors influencing educational publishers in making these choices, based on literature findings of global trends, and in-depth qualitative interviews with executive directors of large local educational publishing houses.

The main findings of the research were that South African educational publishers are generally adopting a reactive strategic stance to the offering of 'converged' content. These strategies commonly include reacting when local competitors advance, learning from better resourced developed country counterparts, and tentatively investing in digital supplements to conventional text in user-friendly 'blended learning' forms. Their subjective strategic choices are resulting from the consideration of a number of explored factors such as: the lack of resources due to the digital divide; governmental spending post revised curriculum implementation; the question of agility versus size; copyright issues surrounding digital rights management; the disintermediating threat or potential alliance offered by search engines such as Google; and the degree of proactivity chosen in early attempts at grabbing market share.

The study was particularly relevant to the South African educational publishing market due to the scarcity of local research in the area of study, and the need for a snapshot of current trends at a potentially revolutionary time for both the scope of publishing and the future of printed content.

DECLARATION

I declare that this research report is my own unaided work. It is submitted in partial fulfilment of the degree of Master of Business Administration in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

_____

Nicholas Frederick Turner

28/11/06

DEDICATION

In memory of my father

John Turner

5 November 1943 – 15 April 1998

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I would like to thank my family for their steadfast support, and to Nicole for putting up with me.

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1. INTRODUCTION

1.1 Background

According to the Publishing Association of South Africa's Snapshot Survey (2003), the annual turnover of local publishing houses is over R1.6 billion rand. Sector analysts Wesgro (2000) estimate the local industry employs 92 000 people. Media convergence is a global issue that may threaten to disintermediate a large portion of this industry, or alternatively offer new opportunities for growth.

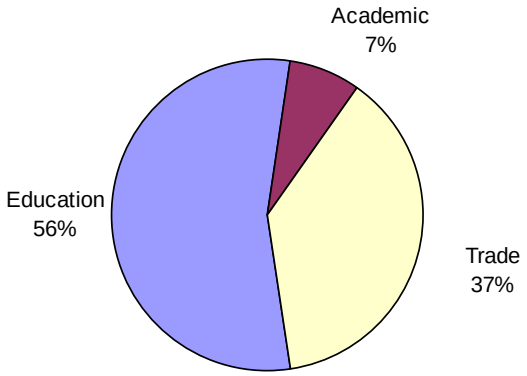
There is little consensus on what the long-term effects of convergence might be within the publishing industry globally. In the past decade there have been a few attempts to survey its pressures and trends within developed countries, such as Tinkler, Lepani & Mitchell's (1996) commissioned report on Australia's educational and technological convergence, but none so locally. South African publishers face unique challenges in this area, as do other developing countries in Africa, and there is a need for direction in the industry to keep up with certain global pressures or else businesses could face extinction.

Microsoft declared that by 2020, 90% of reading material will be delivered in electronic form (Yates, 2001). Such statements of hype do however originate from current trends – presently the Association of American Publishers reveal that almost ten percent of book sales, US$2.3 billion a year, is in electronic format (Rao, 2004).

The educational publishing sector, whose contribution to the South African publishing sector is illustrated in Figure 1 below, was chosen to confine the

scope of this research to a local context. Ninety five percent of the educational publishing content is locally produced (Seever, 2002).

Figure 1: Total Net Turnover Split of South African Publishers per Sector



Source: PASA Directory 2006

1.2 Purpose of the study

The purpose of this study is to explore the factors that are currently influencing South African educational publishers in terms of convergence pressures. By identifying these factors, the goal is to be able to forecast how the industry should react in the medium term to optimise potential growth areas, and defend sustainable advantages.

1.3 Research Problem

How should the convergence of information towards digitised content in the

publishing industry affect strategic decisions within South African educational publishing houses?

1.3.1 Sub-Problems

- What are the trends towards digitised content currently prevalent within the South African publishing industry?
- How can these trends be aligned with strategy for South African educational publishing houses?

1.4 Delimitations

- The study will not examine implied convergence threats facing the printing industry, as it focuses solely on educational publishing houses.
- Although it will look at the international pressures towards convergence, the focus will be on South African educational publishers and not international players.
- Large publishers (arbitrarily defined as having an annual turnover greater than fifty million rand) whose principle business involves educational materials will be included in the study.
- Customers of educational publishers, such as libraries, schools and universities, will not be included in the interview schedule.
- *Scholarly* or *Academic* publishers will not be researched. Generally, the niche markets they serve are inherently unprofitable with a predominant focus on the dissemination of knowledge rather than the enrichment of shareholders.
- Government policy relating to choice of syllabi will not be considered.

1.5 Assumptions

- Strategic decisions should be made with regards to the trend towards convergence.
- The increasing trends in digitisation of content will continue.

1.6 Defining Convergence

'Convergence', in the context of this research, is the coming together of print, electronic media, computer content and book publishing as a result of emerging technologies. 'Converged' is used in the text as an adjective for content that has been digitally affected by convergence.

It has a dual nature encompassing both the coming together of technology platforms, and the merging of industries (such as media and educational industries). The trend towards convergence is most easily characterised by the growing ubiquity and ease of use of technology that is offering a wider range of services and information.

A central question of this research is whether these new technologies will completely replace the traditional media such as print.

2. LITERATURE REVIEW

As most of the literature concerning the effects of convergence comes from developed countries, it is important to identify these global factors and understand which are the most powerful shaping forces within the South African context.

2.1 Global Convergence Factors Affecting SA Publishers

2.1.1 Convergence as a Globalisation Trend

Butcher (2000) contends that the long term effects of convergence on education, and by implication on the supplier publishing houses, are still largely a matter of conjecture. However, its importance is expected to grow alongside existing global trends. Exponential improvements in the transfer of data through increasingly globalized communication systems, along with ever improving media storage capacity and interface options are stimulating convergence opportunities and challenging the face of publishers' traditional print formats.

The question is whether the new media will replace the old, or will merely be an alternative source of publishing, growing a new market altogether without cannibalising 'books' as we know them in print form. McKenzie & Evans (2001) believe that the world is still at least 10 years away from a place where digital format may surpass the print publishing market, and even so, there will still be a large need for print media some way into the unforeseeable future. The reason for this is that McKenzie and Evans argue that 'convergence' a something of a misnomer, and that the real trend is 'divergence', through emerging

technologies' ability to give consumers of educational material a wider range of choice. In this manner, the essence of educational publishing is much the same, and the providers will merely continue to face the challenges of delivering content tailored specifically to various media platforms.

What will change, however, is that educational publishers may now be required to "do it all" (Hane, 2002:7). As well as continuing to produce books they will have to delve into the electronic courseware options, whilst managing to keep profit margins reasonable. Furthermore, the books that are here to stay are likely to be shorter, more customized and more complex (such as having electronic links embedded within text prints), with short print runs and faster turnarounds as essential offerings. Although this has competitive implications, as discussed under the next heading, it does demonstrate how globalisation trends are changing the very nature of the market. Braunstein (1999:24) asserts that the effect of technology and media saturation is changing the way younger people think, supplanting vertical thinking, "the ability to follow a line of thought from beginning to end, to think in linear patterns, or to break an idea down into its component parts", with lateral thinking, "drawing of associations between diverse ideas and images and framing information in inventive, creative patterns". In the same way that thought patterns are changing to cope with content overload, the process of reading itself is changing. Liu (2005) describes how reading behaviour has become shallower, more fragmented and less concentrated over the past decade. Although Liu reports that reading on a monitor compared to reading print is up to 30% slower, the convergence of text, images and audio as digital supplements is able to draw the younger audience to electronic screens first. The strategies of publishing houses need to take cognisance of the evolving impatient needs of information-selective students looking for customized quanta of information.

As younger students thought and reading processes might be evolving, so is the market for a more mature student population. The ideal of continuous

lifelong learning is being chased, and converging media platforms are facilitating the process. According to Levine (1998), the demand for distance learning by students who require customized instruction at flexible times that do not conflict with work schedules is on the rise. This has implications for physical infrastructure-based learning institutions, but also for educationally focused publishers. The form content will take is digital, and publishers will need to supply it in its new shape.

One of the new shapes offered comes in the form of 'e-books', where text is distributed in digital form. Although currently offered devices, 'readers', currently fall down in comparison with conventional print when evaluated across dimensions such as readability, durability, initial cost and ease of use (Rao, 2004), the media allows for some new publishing advantages in the value chain. Publishing speed and costs are better, as are the opportunities to monitor reading habits in order to align publishing offerings with market needs. In the educational context, increased storage capabilities will allow students to carry sums of texts in portable devices. Bill Gates of Microsoft prophetically sees this trend towards digital books as revolutionising the way the world reads (Herther, 2005).

Popular author Stephen King's novel, *Riding the Bullet*, sold 400 000 copies on its first day of publication via the internet in 2000. However, the initial expectations and hype around bestseller e-books whipped up in tandem with the dotcom boom have eclipsed actual market performance, causing a number of vendors to end their e-book efforts (Herther, 2005). As a developing technology there are still a few teething problems nagging the growth of the disruptive technology. One of these is the inability of electronic texts to provide *haptic* feedback to the reader - the text does not easily provide an overall perspective for the document in relating parts of text with respect to its physical position and logical role (Rao, 2004). The straightforward thickness of a traditionally printed book easily conveys a reader's logical context.

Other obstacles to the digital duel with print are the need for development of digital rights to protect copyright, the need for globally common standards concerning technology platforms, and the need for new pricing structures. As networks expand under globalisation pressures, the ability of electronic content to flow across borders easily and instantly creates the necessity that such content be managed, protected and priced correctly in its intangible form.

The pioneering electronic publishing houses abroad are seeing these new shapes of content as an opportunity to grab market share of the large education industries. In the US, where the industry is estimated to be worth $600 billion (Electronic Education Report, 2001), companies such as McGraw Hill are attacking positions traditionally held by higher education institutions as they enter the market. In this sense, convergence trends are enabling larger players the ability to disintermediate higher learning institutions as each tries to find a place in the evolving market.

2.1.2 Copyright

According to McAllister, McAllister & Vivien (2002:1), the Web has been used largely as a promotional tool by offering samples of works as “marketing candy”. This could take the form of portions of a book, interviews with a particular author or a peek at a table of contents. Whilst this has opened a new channel of opportunities for geographically distanced browsers and has increased the potential awareness of a new work, it does hint at the problematic nature of offering a complete sample coupled with the possibility of its reproduction. Copyright issues have become more difficult to enforce due to the instantaneous and weightless duplication made possible by digital formats and e-mail’s distributive potential.

Although media convergence has facilitated the ease of copyright

infringement, Hane (2002) attributes blame to the evolving mindset of young people who embrace the concept of open-source information, where content is thought of as free. Van Hoorebeek (2003) reiterates the claim that people will freely steal content if given the opportunity. The numerous historical examples that abound from photocopying to video-taping necessitate that infringement laws be constantly updated to accommodate the growing ease in duplication through new forms of media. It was the emergence of photocopying in the 60's that actually exacerbated the protective need for copyright law (Davies, 1999), and according to Wesgro (2000), between 30%-40% of potential sales are lost due to illegal photocopying in the education sector. Ajidahun (1998) concurs by reporting that photocopying activities are at their worst in higher educational institutions. This says nothing of the sales lost due to other forms of digital duplication as paperless texts gain prominence.

The content 'sharing' Napster website is a convergence example in the music industry that threatens intermediaries, whereas the intermediaries that are adversely affected in the educational publishing industry are the publishing houses themselves. Since the onset of this research, Google has emerged as the Napster-like equivalent within the industry that is pushing the boundary of copyright infringement. According to Kupfershmid (2005), the company has two projects underway intended to make the texts of books searchable online: the Google Print Publisher Program (whuch has been renamed Google Book Search) and the Google Print Library Project. The latter is currently being sued by five major publishers on behalf of the Association of American Publishers (AAP), namely The McGraw Hill Companies, Pearson Education, Penguin Group (USA) Simon & Shuster and John Wiley & Sons (Bray, 2005). The project involves the collaboration of Google with a few prominent libraries (Harvard University, University of Michigan, Stanford University, Oxford University and the New York City Public Library) in order to digitally scan the books in their collections and make the texts of these books searchable and retrievable online. The contentious issue arises from the fact that Google has not requested permission from the

copyright owners of the scanned texts, and is instead relying on an exception to copyright law under the 'fair use' rule. Kupfershmid (2005) lists the factors in weighing up a fair use exception as needing to consider:

- the purpose and character of the use
- the nature of the work
- the amount of the works in use
- the effect on the market for the work

Google will have to argue these points in order to allow the project to succeed, but in the interim the company has continued scanning texts in order to gain first mover advantages in the new digital realm of content supply. Their main arguments for fair use rely on the small snippets of a text that are displayed upon a successful search, and on the effect on the market for the work. Google contends this effect can only be positive due to an increased market for the work facilitated by its searchability that the company's technology provides.

Rao (2003a) paraphrases the need for copyright due to three reasons: to reward creators for their works, to encourage the availability of the works to the public, and to facilitate access and use of copyrighted works by the public in certain circumstances. As such, copyright is unchanged, but what is evolving is the need for balance between rewarding creators and encouraging availability achieved through the definition of fair use in converged media. Moreover, where publishers used to be inexorably linked with the 'creators' of works in the value chain, it is the new converged content distributors, such as Google, that are attempting to take a share of the rewards in guises of disintermediation.

Random House Inc, the world's largest current trade publisher with revenues in excess of two billion dollars a year, is moving to protect itself against Google in what it proclaims is its territory (Lowry, 2005). The company is also entering the digital marketplace by beginning to offer its books directly to consumers on

a page-per-view pricing basis. The copying of text is being discouraged currently by delivering pages in low resolution files. Random House's announcement that the company will also be launching a movie division indicates how convergence has blurred the territorial boundaries of the industry Random House declares it is protecting.

Copyright law itself is not sufficient as a disincentive to prevent illegal copying, and so Digital Rights Management (DRM) is evolving in attempt to keep pace with practically restricting digital copies (Bixler, 2006). DRM does not implement copyright, rather it is a technology that establishes and enforces to varying degrees certain permissions and restrictions on access and the use of content. As a supplement to copyright DRM is a perceived necessity because of the ease associated with copying digital content.

DRM initially focused on security and encryption to prevent unauthorised copying, but according to Magnussen (2002), the second-generation of DRM is more comprehensive, and covers the description, identification, trading, protection, monitoring and tracking of all forms of rights usages. Monitoring reading habits has the added of appeal of being able to supplement publishers' direct marketing capabilities. The importance of DRM is evident by its priority inclusion in recent publishing summits, such as the Deepbridge 'Beyond Publishing' event (2001) which included the top forty chief executives of major American media and publishing houses, or the Seybold New York Seminar (Govil, 2002) on the convergence of publishing technologies. Both placed emphasis on not only the regulatory legislative frameworks within which copyright infringements need to be more fully defined, but on emerging, second-generation, digital rights technologies. Similar such focus by South African educational publishers does not appear in the literature reviewed.

2.1.3 Competition

By reducing geographical distance as a barrier, emerging technologies are allowing cheaper forms of distribution of content. Butcher (2000) explains that the reduced overhead and logistical requirement of supplying educational material will leave the door open for new types of competitors to publishers, such as small consultancies or NGOs, who will be able to bypass educational publishers by supplying content directly over virtual networks.

A continuation of this theme is by Adam (1995), who contends that the web is an emergent distribution channel that is hijacking traditional educational publishing methods. Traditionally, the industry has been largely reliant on textbook sales using a multilevel marketing channel that begins when an instructor decides to adopt a particular textbook and then advises students to purchase the text, or recommends that the text is accessed via the relevant media resources centre (such as a university library). The margins for these products are already an issue, and so an alternative distribution channel supplied by the World Wide Web, in tandem with digital storage mediums such as Digital Video Disk (DVD) or Compact Disc Read Only Memory (CD-ROM), could pose as a major threat, particularly in instances where universities adopt the role of publisher and copyright holder. These new 'publishers' will further subdivide the market; with traditional publishers losing what little scale benefits existed. The Google threat is an example of an alternative distribution channel to traditional publishing methods.

McAllister *et al* (2002) refer to the global distribution of titles, which again, although making the pie offered to recipients of educational publishers bigger, has cut it into smaller pieces. According to Butcher (2000), there is a bewildering array of choices that make the market more competitive and open to new publishers previously out of reach. Losing share to imports would be

especially detrimental in the educational publishing industry since textbook publishing represents between 60-80% of the entire book publishing industry (Seeber, 2002).

It will be the publishers that are the most agile, and quickest to adapt that will gain a competitive advantage in the educational publishing arena. McAllister *et al* (2002) lists advantages created by digital publishers, such as the ability for textbooks to be quickly revised, for students to be able to interface with ubiquitous online courses, and as a matter of practicality, that students will no longer have to carry around a heavy collection of expensive textbooks. 'Print on demand' offers further publishing opportunities which negate the need for physical stock, and this is especially relevant in the African context of numerous remote learning sites (Igun, 2005).

Local educational publishers will need to balance the new convergence opportunities, such as print on demand, with the pace at which the market begins accepting and using new offerings. Also, without physically bound print, paperless content has altered the traditional pricing concepts and rights of resale. New competitive pricing models will need to be developed that consider the approach to resale and licensing of content (Rao, 2003b).

Publishing companies that are able to serve smaller niches will best supply the responsive market, which is also perhaps best suited to the private sector as shown by American trends (Levine, 1998). This shift on South African soil will allow the educational publishing industry to be less dependent on government spending. In 1999, the expenditure dropped from R800 million the previous year to R120 million according to Wesgro (2000), causing widespread retrenchments in the educational publishing industry. However, the possibility of a move away from government dependence is now being replaced by the increased threat of global competitors in the borderless digital market.

2.2 Research Proposition One

The principle convergent factors affecting educational publishers that are currently prevalent in the market are:

a) *Increases in transmission and storage capabilities driving new forms of paperless content*
   (Butcher, 1995; Mckenzie & Evans, 2001; Herther, 2005)

b) *New markets driven by changing thinking patterns of younger audiences, and a growing population of older learners*
   (Braunstein, 1999; Levine, 1998; Liu, 2005; Herther 2005)

c) *Cost-cutting operation and distribution opportunities*
   (Adam, 1995; Butcher, 1995; Hane, 2002)

d) *A proliferation of choice in supplier and media platform*
   (McAllister *et al* , 2002; Wesgro, 2000; Butcher, 1995, Rao, 2004)

e) *Demand for responsive, agile publishers offering customized content*
   (Hane, 2002; Rao 2004; Levine, 1998; Igun, 2005)

f) *Digital copyrights needing policy and technology development to keep up with convergence*
   (McAllister *et al*, 2002; Govil, 2000; Hane, 2002; Wesgro, 2000; Kupfershmid, 2005; Rao, 2003a; van Hoorebeek, 2003; Bixler, 2006; Magnussen, 2002)

2.3 Success Strategies for SA Educational Publishers

These factors lead from global convergence trends discussed in the previous section, with a focus on what the literature suggests would be most appropriate for a South African context. The resulting Research Propositions will be judged through the interviews of key players in the South African publishing industry explained in the Methodology chapter.

The following two subheadings discuss two alternative directions that current educational publishers will take in the short to medium term. They will either attempt to adapt their strategies to shifts hinted at by global convergence trends, or they will do nothing presently and react when the market dictates at their peril.

2.3.1 Reactive Strategy

The complexity of not knowing which markets will be successful and which technologies will best serve educational publishers leaves many such companies with the strategy as emergent and reactive to current conditions, and with a shorter term vision. This strategy prescribes to Mintzberg's 'Learning School of Thought' described by Mintzberg, Ahlstrand & Lampel (1998), where complexity dictates a logical incrementalism to strategy processes. An extreme subset of this group will adopt an absence of strategy as strategy, be it consciously or not. An absence of strategy may serve many traditional educational publishers well, at least in the short term, as there is strong belief that time-honoured print text-books will be around well into the current century, as agreed by McKenzie & Evans (2001). In the short term, there is also scepticism over the value of convergence as a capable distribution substitute, and Fitzgerald (2001) still sees

'sneakernet', or the physical distribution of media in the traditional sense when technologies fail, as the dominant channel.

On the other hand, ignoring convergence trends may result in a publisher having to face the brunt end of what Christensen (1997) terms the 'Innovator's Dilemma'. In this context, convergence trends represent 'disruptive technologies' which publishers may choose to reject in favour of traditional values. At first the disruptive technology wins a few converts since it offers potential cost savings, although at a lower cost. Over time the disruptive technology takes on more features, until one day the established technology wakes up and finds itself obsolete.

2.3.2 Proactive Strategy - Convergence Opportunities

The evolving aspects of convergence are considered by many to point to a future where educational publishers must learn to adapt, or lose their business.

The apparent lack of research from a South African context dealing with convergence within the educational publishing sector suggests that the industry may not be experiencing a sufficient sense of urgency, which is Kotter's (1995) first necessary step in any transformation attempt. On an individual company publishing level, however, there have been attempts to keep one step ahead of the game. Electronic publishing was established in South Africa through law publications launched by Juta Law Publishing in the late 1980s, one of the first such ventures in the world (Wesgro, 2000).

South Africa also possesses properties along with other developing African countries that make it a candidate for educational opportunities through convergence. Allardice (1998) contends that the key to African information

transfer is oral tradition. Thus the converged digital option that allows transmission of masses of information that can still be convivial, interactive and sociable (through media ranging from graphics to sound and video conferencing) is very appealing to traditional African societal interactions.

Africa also faces enormous preservation challenges for traditional print because of neglect and rapid deterioration (due to aggressive climates), scarcity, over-use, lack of conservation facilities, lack of preservation expertise, and the lack of good buildings with adequate environmental control. Allardice (1998) adds that digital storage options would thus be a potential storage saviour for many providers of educational media, and digital content may soon be *demanded* from educational publishers. Success story examples are already contained in literature, such as Berger's (1999) case study on a preservation model for future libraries.

Changing market needs are putting pressure on publishers, as tabulated at the American publishing summit sponsored by Deepbridge (2001). There is pressure on organizations to rely heavily on digital technologies to streamline operations, deliver content across multiple platforms, and generate new sources of revenue. The lowered to barriers to entry into the market has intensified competition, and naturally cost-cutting operations by converging technologies would serve as a competitive advantage. Adam (1995) suggests that publishers must engage in strategic alliances with higher education institutes to sustain revenue growth in the face of slimmer margins brought about by the cost-saving implications of convergence.

Another source of competitive advantage may come from responding to the increased demand for customized content, especially non-fiction content according to McAllister *et al* (2002). Digital technologies can facilitate this breaking down of content into granular 'chunks', to be used for multiple re-use, thus extending the life of content in new ways. The question that needs answering is whether the increased demand for customised content will be

directed to educational publishers, or whether new technology forms (such as Internet search engines) will replace them as content suppliers.

It has been recorded that transformational phenomena in the South African context has opened up new opportunities for publishers, such as the growth in educational African children's books (The Cultural Strategy Group, 1998), but as yet there has been a slower uptake in digital African content. There is no doubt that there is a large untapped market for educational material, but one that may not be ready to take advantage of convergence trends due to limited access to digital platforms such as computers. In this sense publishers are largely reliant on government spending on infrastructure that will provide greater access to converging technologies.

Although South African infrastructure may be underdeveloped in many areas, the country is still in a position to enjoy hegemonic benefits over poorer countries throughout the rest of Africa. The South African Development Community (SADC) region with its reduced tariff structures remains an opportunity for local educational publishers to achieve first-mover advantages in digital content markets, although the markets are still presently small. Wesgro (2000) reports that 95% of the basic educational material sold in South Africa is supplied by local publishers. Higher educational materials (such as tertiary textbooks, trade and law books) are principally imported. This supply fortunately mirrors the needs of the SADC community, but the industry needs to come up with innovative ways of distributing the material. McGraw-Hill Education Publishers in the US has experimented with the cost benefits in using thin client servers sitting on the edge of school networks that allow universities to deliver broadband applications such as video and other multimedia, according to the Electronic Education Report (2001). The application also did not necessitate the installation of high-speed access lines, which is particularly useful on the bandwidth-starved continent.

Finally, as proactive publishers will attempt to manage the opportunities of convergence, so will the demand for technology skills escalate. The Cultural Strategy Group (1998) lists this as a consideration organizations need to assess if the decision is taken to pursue electronic strategies.

2.4 Research Proposition Two

The mutually exclusive strategies that South African educational publishers can take to address convergence factors are:

Reactive strategies

a) Strategies that are defined where convergence is not a threat to traditional educational publishing formats in the short term
(McKenzie *et al* 2001; Fitzgerald 2001)

Proactive Strategies

b) i) Strategies that are defined where convergence is a disruptive technology and must be addressed now
(Christensen 1997; Kotter 1995)

ii) There are presently opportunities to explore:
- Digital storage formats for preservation of content
- New markets opened up from transformation issues in education
- The supply of basic education material to community states
- Alliances between publishers and higher education institutions
- Customized content

(Allardice 1998; Berger 1999; Adam 1995; The Cultural Strategy Group 1998; McAllister et al 2002; Wesgro 2000; Deepbridge 2001)

3. METHODOLOGY

This chapter describes the choice of research paradigm and resultant methodologies used in exploring the concepts raised by the Research Propositions.

3.1 Qualitative Research

A qualitative research design was chosen for the purposes of this project with the principle information-gathering tool being semi-structured interviews involving key players from the educational publishing industry. According to Falconer & Mackay (1999), it is the belief of qualitative researchers that they can get closer to individual subject's perspective through detailed interviewing and observation.

The wide range of topics and subject matter that are being discussed also makes a quantitative positivist model of controlling variables and testing pre-specified hypotheses unmanageable.

3.2 Interpretive Paradigm

The intricacy of convergence trends, be it the convergence of educational media industries, or the convergence of technologies itself, lends itself to interpretive research by the nature of its complexity. While it is hard to predict what new technologies will appear to facilitate the process of educational publishing, how people will react to new platforms of education multiplies the uncertainty. The research holds the interpretive assumption that "knowledge of reality is gained only through social constructions such as language, consciousness, shared

meanings, documents, tools and other artefacts" (Klein & Myers, 1999:69).
In this sense, what is more important than causality and the predefinition of dependent and independent variables is the focus on human sense making as the situation emerges, according to Kaplan & Maxwell (1994).

This research will attempt to abide to certain of Klein & Myers (1999) principles set out for field research studies:

- **Principle of the Hermeneutic Circle**

The principle suggests that all human understanding is achieved by iterating between considering the interdependent meaning of the parts and the whole that they form. Improved understanding in this research was achieved by a second review of the recorded meetings following the completion of all the semi-structured interviews, which considered the importance of the raised subset issues of the propositions.

- **Principle of Contextualisation**

The subject matter and context of the interviews needs to be set in social and historical setting so that the readers of the research can see how the current situation emerged. Each publishing firm addressed was placed in context of its current structural and strategic objectives.

- **Principle of Interaction between the Researcher(s) and Subjects**

The social construction of research results is created through the interviews between the researcher and the interviewee, and thus the personal interactions attempted a self-conscious identification of any underlying personal assumptions. Since the researcher has no practical experience within the industry, the researcher specifically introduced himself in the context of being a university student exploring trends for a dissertation. The researcher also granted the respondents the option of a confidentiality agreement to enhance an atmosphere of trust. Analysis took into account the possibility that a respondent may not

always be eager to share their company's strategic direction, thus the goal of exploring national trends for the simple benefit of knowledge exploration was clearly enunciated.

- **The Principle of Abstraction and Generalization**

As an idiographic approach, the phenomenon is perceived in a way that the researcher attempts to understand the relationship patterns between the components that comprise the focus of the study, according to Groenewald (1986). The principle requires relating these details through to general concepts that describe the nature of these findings. The literature review is used as a theoretical basis of general concepts (elucidated by the propositions) that are explored for South African relevance through the interview process.

- **The Principle of Dialogical Reasoning**

By identifying the preconceptions that guided this research design, the intended audience is allowed a framework in which to interpret the findings of the research. This can also help to raise sensitivity to possible contradictions in the design process. For example, *Proposition Two* (section 2.4) demands a choice of strategy between reactivity and proactivity, and the interview design was sensitive to not to steer responses towards the researcher's preconceived ideal.

It is also important to state the philosophical roots of the design, and this research prescribes to the schools of anti-postivism, nominalism, and voluntarism using an idiographic methodology within an interpretive paradigm.

- **The Principle of Multiple Interpretations**

The multiple interpretations are facilitated by the sample of interviews conducted across a range of educational publishing houses to allow an aggregate view of trends to emerge despite possible individual difference in interpretations of such trends. Viewpoints were however limited to senior management perspectives.

- **The Principle of Suspicion**

This principle requires sensitivity to biases in the participant responses collected during the interview process. This is a difficult principle to apply objectively, but its presence was considered in interpreting the gathered responses at the analysis stage.

3.3 Population and Sample

The population in this research was regarded as being all senior executives in the South African educational publishing sector. This involved large South African educational publishing houses with an estimated turnover of fifty million rand and over, which are registered as Publishing Association of South Africa (PASA) members. A few non-publishing experts were additionally selected in terms of their expertise and knowledge pertaining to a particular proposition, and included the PASA chairman, an international copyright lawyer, and a strategic consultant. A niche publisher specialising in digital media was included as an interviewee to represent the emerging publishers explored in *Proposition 1e* and *Proposition 2b*.

The sample consisted of senior (CEO, director or manager) representatives from each major educational publisher as listed in Table 1 below. The non-publishing experts are found in Table 2.

Publisher and contact details for Table 1 were obtained courtesy of PASA for the initial round of interviews.

Table 1: Publishing Executive Respondents

Publishers	Interviewee	Position
Maskew Miller Longman (MML) A publisher of educational books since 1893. In 2006 the company is the largest educational publisher with an estimated market share of over 35%. MML offers pre-school texts through to the adult education publishing. On an international level the company is represented by Pearson Education Group.	**Japie Pienaar**	**CEO**
Cambridge University Press The African Branch of Cambridge University Press publishes a wide variety of educational products from pre-school through to tertiary, with a distance education programme. The company is represented in 14 African countries.	**Colleen McCallum**	**Executive Director**
Juta and Company Juta is regarded as the pre-eminent law and academic publisher in South Africa in both printed and electronic media. The company also produces curriclum school texts and professional textbooks.	**Andre van Niekerk**	**CEO - Juta Law**
Pearson Education South Africa The company publishes education, edutainment, reference and lifestyle resources in both print and electronic form. The holding company Pearson Education plc is the largest educational publisher in the world.	**Nikki Clarke**	**MD**

Publishers	Interviewee	Position
Oxford University Press SA The company develops a South African educational programme in all 11 official languages. Oxford University Press also markets, sells and distributes the publications of other Oxford offices around the world.	**Marian Griffin**	**Publishing Director**
Heinemann Publishers of schoolbooks, academic texts and professional development materials. Distributors of globally sourced text-based and e-learning material.	**Naett Atkinson**	**Manager - Schoolbooks**
Jonathan Ball The company principally publishes in the general book publishing industry in South Africa.	**Jonathan Ball**	**MD**
Nasou Via Afrika One of the leading educational publishers of school textbooks in South Africa. The company has a 40 year history and publishes books in all the new learning areas and in all the official languages.	**Clive Gillit**	**MD**
Shuter & Shooter One of the few large independent educational publishers, which produces a wide range of learning and teaching support materials for the South African school market through all the grades. It also produces literature titles in ten of the official SA languages.	**Dave Ryder**	**MD**

Publishers	Interviewee	Position
New Africa Books A young publishing company with market focused imprints with the goal of becoming the world's definitive gateway to new African content.	**Brian Wafawarowa**	**MD**
Random House SA Trade publisher that is a subsidiary of Random House, Inc of New York that is the book publishing division of Bertelsmann, the largest media conglomerate employing in excess of 80 000 people in 56 countries.	**Stephen Johnson**	**MD**
Learnthings The company specializes in the production of interactive e-learning curriculum materials. Learnthings designs and build education related technology, and offers training and consultancy on e-learning.	**Susan van Wyk**	**Education Director**

Table 2: Non-Publishing Expert Respondents

Non-Publishing Experts	Interviewee	Position
Eve Gray & Associates The company is not a publisher, but provides strategic consultancy across the publishing value chain. Special areas of expertise include the use of digital media and new copyright models. Eve Gray is the former head of Wits University Press.	**Eve Gray**	**Executive**
Publishing Association of South Africa Founded for and on behalf of South African publishers to promote and protect the rights of the independent publishing sector in SA. It offers a wide range of support and networking functions.	**Dudley Schroeder**	**Executive director**
Copyright Lawyer for International Publishers Association, and PASA Carlo is an practicing attorney admitted in South Africa and Switzerland with a mandate to protect the copyright interests of PASA.	**Carlo Scollo Lavizzari**	**Attorney**

3.4 Data Collection

The interviews formed the primary source of information gathered, and were supplemented by documentation supplied by participants if relevant. The final research document was offered to each respondent, which acted as a useful incentive for participation.

Interview times were scheduled telephonically with email confirmations supplied in certain instances. The interviews were planned to take place in person, and at the publishing company offices. The reasoning behind this was to heighten the interaction process, as well as place the participant at ease and in the context of the work environment.

Each interview were recorded by written notes, and audio-taped with the permission of the participant. In two instances the researcher felt that such recording would alter the responses, and consequently only notes were taken. The taping was not for the purposes of transcription, but rather to facilitate the later reflection aims as prescribed by Klein & Myers' (1999) first Principle of the Hermeneutic Circle.

The questions asked were exploratory and open-ended. To give the responses some degree of comparability relative to the core themes and topics of this research, a few standardized questions relating to the research propositions were asked, as shown by the semi-structured interview template in Appendix A. Interviews were supplemented by written and digital material where relevant and available.

3.5 Validity

The validity of the research has two facets, internal and external, and according to Leedy & Omrod (2001) validity is concerned with the research measuring what it is supposed to measure.

Internal validity is "the extent to which its design and the data that it yields allow the researcher to draw accurate conclusions about cause-and-effect and other relationships within the data" (Leedy & Ormrod, 2001:103). Since the research is carried out within an interpretive non-positivist paradigm that steers clear of seeking causal relationships, the relevance of internal validity in this context is reduced.

External validity refers to a research's generalisability (Leedy & Omrod, 2001). In this qualitative research such generalisability can only be considered as limited due to the non-statistical nature of the study. Rather the findings should be seen as exploratory, with non-randomly selected key members of the educational publishing population offering expert insight on convergence trends.

3.6 Reliability

Reliability is concerned with arriving at the same results if future studies are repeated in the same way (Leedy & Ormrod, 2001). One way in which reliability is conserved between interviews in this research is due to the fact that the same interviewer was used in all instances, and although the questions are open ended, they began from the same core questions (as shown in Appendix A).
However, it is not the intent for research within the interpretive paradigm to control all the variables, nor is it possible considering the complexity of gaining

knowledge through contextual social constructions.

3.7 Data Analysis

The analysis tool that was built as an ongoing process was mindful not to alter the core interview themes through the process. The retention of the central questions on the semi-structured interview schedule facilitated this.

Interpretation of interview responses was ongoing alongside scheduled interviews, to help facilitate the iterative process suggested by Klein & Myers' (1999) 'Principle of the Hermeneutic Circle'. At the end the process, a concluding view attempting to interpret the interviews in their entirety was documented after reviewing the recorded tapes. An assessment of the findings in light of all seven principles was tabled at the end of the first round to attain a relative measure of completeness and plausibility within the interpretive design of the research. In all interpretations objectivity, relevance and open-mindedness (to alternative credible amendments to the propositions) was the goal.

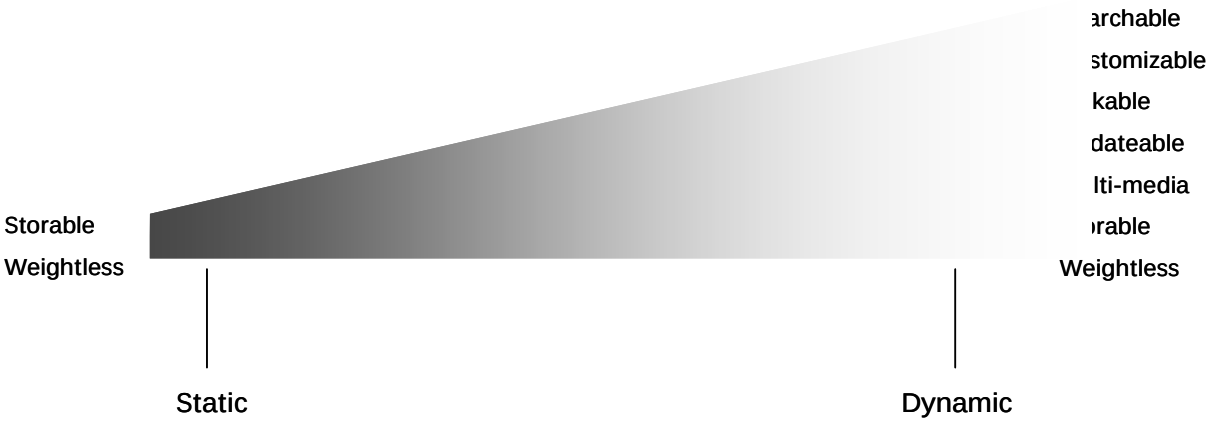
4. RESULTS AND ANALYSIS

This chapter draws on interviews and documents to present the results and analysis of the research. It is divided into two principle sections addressing each of the two Research Propositions developed in Section 2.

The first section deals predominantly with the testing of global trends elucidated by the literature review in Section 2.1 against the documented responses of the expert interviewees. The second section evaluates the strategic attitudes of the publishing house respondents in terms of their views on the local relevance of convergence.

As an introduction to these sections, and in order to ensure the exploratory objective was purveyed to each interviewee on the commencement of each interview, a basic framework of common terms needed to be defined as required by the data analysis methodology. Whereas the concept of 'convergence', as defined in Section 1.6, clearly warranted a contextual meaning to be agreed upon at the outset, it became clear that digitised content comes in many forms and similarly needed further delineation. What differentiates the shapes and sizes of digital content, according to Andre van Niekerk, the CEO of Juta Law, is "[its] ability to harness the potential that the new medium can offer". A continuum of digital content forms is shown on the following page as Figure 2 to give the concept scope. The reason for this differentiation between static and dynamic content is to be able to separate the levels of value-add of digital offerings produced by publishers.

Figure 2: A Continuum of Digitised Content



The level of dynamism demanded depends on the niche within the sector. For example, law publishing prerequisites a need for constantly updated text that is thoroughly searchable, hence the take up digitally. According to van Niekerk:

> The mere conversion of a printed paper text into a digital form is static, and offers very little value-add. It is only when the tag-ons offering searchability and the ability to be constantly updated is when it becomes useful as a different medium.

The locally based Juta Law began digitally publishing their text in 1981, an era before the need has become debated in trade books with the emergence of the e-book. The value adding approach to convergence offers opportunities elucidated by the propositions, and the extent to which they are being utilised is explored.

4.1 Local trends

The following headings present the results and analysis of the research focussing on each of the propositions posed from the literature review in Section 2. Since the propositions were derived principally from international literature certain local trends were neglected and are such are expanded upon in this section due to their incidence in multiple interviews through the exploratory discussions.

4.1.1 Distribution Platforms

The publishing interviewees reported without exception the prevalence of digitisation to facilitate the movement of content along the supply chain, even when the beginning and end products remain in print form. The impact is being felt on "content creation, production, distribution and to a lesser degree, consumption", according to Dudley Schroeder, the chairman of PASA.

All respondents confirmed the **cost-cutting opportunities and distribution advantages** (*Proposition 1c*) that a new digital environment brings to the logistical process, using methodologies not especially unique to the publishing industry. In the same way that digitization has assisted with the instantaneous flow of information in other sectors, the transport of weightless content through the various stages of quality assurance editing has been accelerated, bringing with it associated time-saving cost benefits.

Web based distribution appears to be the most common platform of the new digital distribution channels that have emerged through convergence. Dave Ryder, MD of Shuter & Shooter, acknowledges that the publisher uses the local web-based retail provider *Kalahari.net* to bring to market a number of educational titles. These new distribution alternatives are potentially disintermediating traditional text-book retail outlets. Eight of the twelve

educational publishers interviewed had online pages where text books could be sourced and bought. Van Niekerk, of Juta Law, reports that in the past year they have cut their proprietary bookshops from 20 down to 4, as their website offers a cheaper alternative to the operation of retail outlets, as well as allows a physical inventory at lower levels.

Whereas the threat to booksellers is highlighted by new forms of distribution of the physical stock, in many cases the stock itself is being replaced by intangible digital content. These digital materials necessarily require an alternate distribution platform to traditional bricks and mortar retailers. The learning materials offered by Juta Law carry cost-saving advantages as they can be found online, in which case the inventory is weightless. According to van Niekerk of Juta Law, “the online profits may still be in their infancy but ignoring the potential will be to the detriment of the laggards.”

The cost-saving potential of the weightless medium may also hold certain philanthropic possibilities aimed at the accomplishment of educational development goals within an African context. Eve Gray, the previous managing director of Wits University Press and currently a strategic publishing consultant, believes that the present cost of print distribution is one of the primary barriers in the production of African content. Gray reports that African countries consume 12% of published content globally, yet only produce a mere 2%. Print distribution costs become prohibitively expensive to reach small and fragmented markets across vast distances making them unviable. Offerings such as ‘print on demand’ negate the necessity to physically distribute learning materials, and Gray sees this as an opportunity for educational publishers to expand into previously unviable markets to the benefit of rural communities. The digitised content in this sense is still static in nature as it becomes a printed end-product, but is able to harness an instantaneously distributable potential to overcome logistical hurdles. This is also being seen as a strategy appropriate for the overwhelmingly fledgling African market across regional borders, where local

educational publishers have hegemonic advantages. Static content most appropriately meets the user readiness of markets where print will have a firm stronghold until infrastructure necessary for digital networks is built.

4.1.2 The infrastructure divide

Many of the respondents believe that the digital transport of educational content across networks is hampered by infrastructural deficiencies in South Africa as compared with many developed countries where convergence is happening more rapidly. However, consensus was not reached on the form of such deficiencies. Whereas a few interviewees blamed bandwidth inadequacies as being the chief reason the digital educational publishing is advancing at a sluggish pace, many of the respondents did not see this as being the case. This majority felt that the misinterpretation of the bandwidth as a barrier stems from a mindset that merely compares the cheaper broadband prices offered by connected western first world counterparts. These interviewees believe that the 'digital divide' stems rather from fundamental paucities, such as the lack of electricity, running water and adequate school building facilities before even the most basic of non-prioritised and expensive hardware costs are considered. Furthermore, sufficiently fast internet connections are presently available in South Africa at declining premiums, and various initiatives are underway to lessen any bandwidth restraints there may be, according to Naett Atkinson the Schoolbooks Manager of Heinemann books. The 'e-rate' is Atkinson's given example of the governmental attempt to facilitate connectivity to schools. Legislation has been approved in 2006 to lessen the internet cost burden to schools in line with the Department of Education's (DOE) Information and Communication Technology (ICT) goal of "bridging the digital divide" (Mohlala, 2006). The e-rate demands, according to Section 73 of the Electronic Communications Act (2005:94): "Internet services, provided to all public schools ... and all public further education and training institutions, must be provided at a minimum discounted rate of 50% of the

total charge levied by the licensee providing Internet services to such institutions."

The local digital divide between rural schools and their better resourced urban counterparts also hampers South Africa's publishing development from the rest of the world, as it fragments the market according to Nikki Clarke, MD of Pearson Education SA. The segmented market is presently small for a converged media offering, and consequently difficulty to prioritise. Gray estimates only four million South Africans have internet access, leaving the large majority of learners to rely on, and demand, traditional formats. All the respondents agreed that there is a fine line educational publishers need to adhere to in order to supply to the current market whilst keeping an eye on opportunities to grab market share in a potentially disintermediating publishing offering. Each publisher's view on the pace of convergence ultimately appears to dictate the extent to which they are willing to venture into digital markets, as discussed further in Section 4.2.

4.1.3 Keeping up with convergence

The participating publishers have used various techniques to keep themselves current with new developments on the global stage. The local market is described as "fragile" by the interviewees due to its size and fragmented nature, which appears to have a dampening effect on innovation from a product offering perspective. The fact that a number of local publishers are multinationals with overseas holding companies has resulted in leading edge products being explored for potential elsewhere first. Their parent corporations feature predominantly in the UK or US markets, which is where the innovation dilemmas can be tested on better resourced and user ready markets. Shuter & Shooter, as one of the few stand-alone local educational publishers of significant size, resorts to active participation in global book fairs in order to keep abreast of the extent of the global take-up in digital markets, according to Ryder. Their technical

innovations are also borrowed from elsewhere – Shuter & Shooter's subscription based digital content offering on the web is outsourced by an Australian company which replaces Antipodean content with curriculum based local material.

Colleen Maccullum, an executive director of Cambridge University Press SA, describes technological innovation as a "nice-to-have" in the local context, whereas the connected digital offering becomes more of a "must-have" in fiercely competitive UK and US markets. These sentiments were echoed by the other publishing respondents, who believe the size of the overseas educational market can support a greater spend on new product creation which becomes strategically necessary if market share in a budding potential market is to be pursued. McCallum describes this spend as frequently being a "bleeding process" that occurs when offering new ways of dealing with publishing content digitally. The example from Cambridge is the electronic whiteboards that were offered by their UK parent in a joint venture with Hitachi. The boards acted as supplemental teaching aides to facilitate learning through converting traditional chalkboard writings to digital format along with proprietary publishing content. McCallum reports massive sums were spent in promoting and marketing the products to national educational providers, but the products were for the most part not taken up, as the strategy declined to address the user readiness of the intermediate facilitators, the teachers. The locally based subsidiary of Cambridge University Press is able to use learnings from its parent publisher to assess how its new digital products such as the whiteboard fared, and decide whether to market them locally or not.

The evidence from the publishers indicates that although product development costs are massive, some bleeding does occur in the local market to reap certain first-mover benefits. Van Niekerk, of Juta Law, reports that the company was within days of being the first in the world to offer law material in digital format in 1981. 'Floppy' discs were still in their infancy, and such was the market

unreadiness that Juta shipped the hard drives along with the content so that it could be accessed. It was costly and breakeven did not occur for four years, but with hindsight, van Niekerk contends that there was no other way the development could have be done. Market share was established early on, which is especially important in the law text sector due to the high switching costs and time lag before new legal frameworks demand replacement of complete works. Furthermore, lawyers and legal students are heavy users of print, and so the advantages that a digital landscape offers in terms of storage and searchability are immediately apparent. The market has evolved from floppy discs to online publishing and intranet, which adds the dimension of continual updates being able to be fed into a user's system from the Juta providers. Fully customizable integration is now the objective. In van Niekerk's words:

> Publishing due to its association with print needs to banished from our lexicon – we need to simply define ourselves as suppliers of information.

Whilst this immediately highlights the impending overlap with other information suppliers such as internet search engines discussed later in Section 4.1.7, it does point to the necessity of publishers to keep up with progressive forms of content along the continuum according to their users' needs. Van Niekerk further asserts, "The market is responding – in 2003 Juta recorded its first year where the digital CD-ROM division overtook the printing division in turnover."

Juta is not the only publisher that attributes part of its success to venturing into unknown, untested markets. Maskew Miller Longman, the largest educational publisher in South Africa, also credits their dominant size to taking financial risks in opening markets, according to CEO Japie Pienaar. Their venturing into the digital realm is however limited at present. Pienaar attests that this is not because they do not see the potential it offers, but rather because they will only be able to sell digital content once "the educators themselves subscribe to the value in the format." The investment Maskew Miller Longman apportions to

pursuing dynamic content forms is still labelled “research and development, not return on investment”. In this vein, Pienaar stresses that the publishing house wishes to be ready for the market when it emerges. As with the majority of the interviewees, the company concedes to be feeding off overseas learnings at present.

Pearson Education SA, headed locally by Clarke, explains that the publisher not only learns form its overseas parent, but also receives from it all of its digital content. This material is constantly updated by large teams that would be unfeasible to carry in South Africa due to size of the market.

> Having our content on companion websites online creates the expectation that the content is updated and fresh like a newspaper’s, and we do not have the resources here to service this expectation, hence the need to import much of the electronic content.

Stephen Johnson, managing director of Random House SA concurs with the belief that experimentation with new forms of content locally is much more limited. Random House is the largest trade publisher in the world, and yet locally there are very few attempts to offer new converged media materials. As a trade publisher, Random House overlaps the educational sector with its supply of prescribed literary novels. According to Johnson, the demand locally for such texts is purely in print form. Whereas the US-based parent is at the forefront of publishers experimenting with digital content, offering such services as pay-per-view digital pricing models for dynamic electronic texts (as discussed in Section 2.1.2), locally there has been meagre investment. Johnson predicts the print demand in South African trade book market will be largely unchanged in the next five years, and thus there is scant need to keep up to date with its global counterparts.

4.1.4 New local markets

Despite the cautious hesitance to lead the way in convergence of content, a few of the respondents postulate that South Africa is in a very unique position where the enabling nature of digital texts can offer solutions to the educational challenges South Africa is facing. Brian Wafawarowa, MD of New Africa Books, posits that the digital characteristics of easy replication and transmission can provide publishers the opportunity to transport weightless content to far reaching schools. Subsidised connection costs legislated by the e-rate, discussed earlier in Section 4.1.2, add practicality to this assertion. However other publishers, such as Pienaar of Maskew Miller Longman believe that before any of these potential benefits can be realised, there are too many intermediate obstacles in addition to the lack of infrastructure. One of his chief concerns relates to the absence of very basic computer skills of facilitators and teachers. IT companies, such as Microsoft, Cisco, Oracle, AMD and Hewlett Packard SA, have made significant donations to set up computer facilities, but on the whole these appear to have failed due to the lack of support or training surrounding these initiatives. Marian Griffin, publishing director of Oxford University Press, agrees - “a lot of Bill Gates’ money goes down the drain”. She believes a co-ordinated teacher training effort is required by government, and more specifically the Department of Education, for such projects to be successful. Only then will publishers be able to supply content in a dynamic new that is taken up by the learners and profitable for publishers.

The proposition that increases in storage and transmission capabilities will drive new markets through paperless content (*Proposition 1a*) holds true in the opinion of the interviewees, but qualified by the fact that these markets have not been able to flourish due to intermediate barriers in infrastructure and facilitator readiness. Digital storage opportunities are currently being pursued less by publishers than by web-based search engines, and are discussed again in Section 4.2.2.

Despite the obstacles and limited prevalence of digital formats in South Africa, there is consensus amongst the interviewees that new thought patterns are evolving especially with regard to learners exposed to internet and other globalisation effects from a young age. According to Atkinson of Heinemann, “Children exposed to the multitude of information sources are becoming more selective in what they read, tending to be attracted to the most media intensive materials.” Atkinson limits this observation to historically privileged independent schools, which also serves to deepen the local digital divide.

Media intensive content, including audio and video enrichment, form part of what Clarke of Pearson Education describes as “wow” content that has all been imported from offshore holding companies roots. Opportunities to include colour, contemporary content and interactive assessments are proving to be order winners in developed countries, the main import source being the US. The interviewees echoed these results garnered from the literature review, and supported the claim that **changing thinking patterns are driving new markets** (*Proposition 1b*), although these markets are presently small and to a large extent confined to privileged learners with access to an online environment.

Wafawarowa of New Africa Books adds that the new audience of learners is becoming more impatient and demands “stimulating content that can be rapidly consumed”. The dynamic content that is supplied needs to be searchable, relevant and current. For educational publishers, the majority of this content at present is contained in supplemental packages accompanying textbooks or comes as embedded links in the printed text. Again, in local context this needs to be qualified in terms of the youth that are exposed to digital realm, as it excludes the majority of the population. Thus these new markets demanded by the technologically savvy youth are small, and primarily provided with imported materials. Niche publishing companies, such as the interviewed Learnthings, have identified the demand and are producing local content digitally. Educational concepts are presented in an interactive way which includes colour animation

and assessment optionality to provide a pseudo facilitator role. Susan van Wyk, Learnthings Education Director, notes:

> Learning is about discovery, it's about stimulating the thought processes. A teacher's role is to guide this process of discovery. And if a student raises a disputed point, we need to be able to jump right in and search to follow the discovery process. Therefore our content needs to be connected to provide an integrated learning experience.

Despite the appeal such a learning experience brings, the intermediate facilitator role remains a challenge as mentioned earlier. Even skilled teachers who find themselves on the privileged side of the digital divide are referred to by MacCallum as a "notoriously conservative bunch" who are generally resistant to moving out of the traditional teaching paradigm comfort zone. Van Wyk concurs, adding that every school needs a "champion" to push the change process towards embracing the benefits of connectivity and digital content. For the educational publishers, this is a weak link in the chain to deliver dynamic content to young learners who are not in a position to choose what they consume in the classroom.

On the other end of the spectrum with regards to older learners, Pienaar attests that the online adult educational market's growth has been "in small pockets, but is neither organized nor prioritised". Other respondents agree that at present the adult distance learners is not significant size yet, despite predicted new thinking patterns in this demographic from the literature review in section 2.1.1. Clive Gillit, MD of Nasou Via Afrika, forecasts that the market is set to expand in proportion with adult confidence to working with new media.

4.1.5 Blended learning

All of the respondents, apart from the representatives of Learnthings and Juta Law, report that the most common forms of digital content supplied to students at present comes in the shape of supplementary media to printed text. This combination of the traditional formats with an enabling new form is referred to as 'blended learning'. A first step in convergence, the accompanying content is typically media enriched with graphics or interactivity, or with some other quality that can create value as updateable dynamic content. Pienaar, of Maskew Miller Longman, contends that digital supplements and support is the principle example of convergence as it stands today within educational publishing, "with no replacement of traditional print forecast in the medium term".

All of the interviewees remained fairy confident that the imminent replacement of printed text by digital formats forecast in the last decade of the twentieth century (as discussed in Section 2.1.1) is inaccurate. The stance taken by the various respondents varied in resistance to the potentially disruptive technology. Van Niekerkek of Juta Law believes that for certain fields, such as legal research, digital content makes more sense than printed material, simply from a searchability and storage aspect. For educational purposes, Carlo Scollo Lavizzari, copyright lawyer for the International Publishers Association and PASA, believes print is the more apposite medium for "sequential knowledge acquisition", and he does not foresee disintermediation as imminent nor desirable:

> Learning from paper or print textbooks should not be discarded. Language, literacy and numeric skills are best acquired not by a mouse click, but by touching, and by honing hand-writing skills. In other words, the substitution of electronic tool for paper learning materials should not be a *per se* objective.

The participating trade publishers held the most resistant views to the advent of converged media replacing printed novels, and cited the failure of the e-book as evidence. Stephen Johnson, MD of Random House SA, took the bold stance that "nothing will ever remover print, or the engagement of the reader with the page". Jonathan Ball, of Jonathan Ball Publishers, the other trade publisher interviewed in this research is not as clear-cut in his judgment of converged media, but does believe that "narrative books will not be threatened for some time in the future". Ball reports that the reference book sector is being more significantly affected as its converged media attributes are better suited to content searching.

When it comes to blended learning offerings, CD-ROM appears to the most popular form of ancillary product tagged alongside print at present. The reason for this according to Atkinson is twofold: it is a standardized format that is easy to package with print, and it is easier to price than online equivalents where some form of subscription agreement typically comes into play. The publishers Juta, Cambridge, Oxford, Nasou via Afrika, Maskew Miller Longman and Shuter & Shooter all use CD-ROM as their chief supplemental product. David Ryder of Shuter & Shooter also sells rights of certain texts to be used in the development of locally produced CD learning aids, with titles such as 'Learn Xhosa'. Further language-study texts are being prepared, where again the rights will be sold and the encoding to digital format will be outsourced. Ryder believes that in this way they are tentatively testing the demand in the digital market while shifting the risk to the outsourced developer.

According to Pienaar digital supplements offered by Maskew Miller Longman are principally targeted not at the learner, but at the facilitator. Along with CD-ROM, teachers are given access to companion websites that carry support for learner assessment, which has been identified as a key demand from educators. The facilitator focused supplements are typically static in terms of interactivity, which helps "ease our technophobe teachers into familiarity" according to Pienaar.

The content primarily includes sought-after databanks of answers and explanations to student evaluations, which cater for teachers' needs. Due to the rigorous submission process for approval of texts for the national curriculum, it is the teachers who ultimately decide on which content will be purchased from the Department of Education's approved lists. The use of converged media through CD-ROM storage is strategically being used by Maskew Miller Longman to win the approval of the facilitators in order for the product to eventually end up in the hands of the students.

4.1.6 Responsiveness to convergence

As suggested from the literature review in Section 2.1.3, new niched competitors may seek entrance into the market through openings granted by digital opportunities. The very presence of Learnthings, a small publishing company that specialises in the production of interactive e-learning curriculum materials, most clearly demonstrates the attempt to capitalise on new markets.

The company publishes proprietary content based on the core curriculum, according to van Wyk, the Education Director. A traditional content creating and educational division is supplemented by a team of interactive designers and software solution developers to convert content to digital learning material. The content is dynamic in terms of the discussion in Section 4.1.1, and uses web-connected electronic whiteboards as a new media platform. The idea, according to van Wyk, is to be able to offer a fully integrated learning experience which is guided by the facilitator. Animated, interactive and media intensive content provides a stimulating learning session, allowing the user to manipulate variables and concepts and observe dynamic outcomes. Connectivity offers the option to go beyond the content in a discovery-orientated process.

As a niche company, the market is focused on the online schools or

facilitators requiring digital supplements, but is limited by the extent of South Africa's connectivity. However, the concept is replicable, and the company currently exports content and curriculum materials to the UK market. Initiatives are underway to broaden the local market by participating in digital education resource projects such as the New Partnership for Africa's Development (NEPAD) e-School Demonstration Project.

The market proactive emergence of new publishers like Learnthings gives evidence for **the growing demand for responsive, agile competitors** (*Proposition 1e*). That is not to say that the market leading large publishing houses are incapable of agility due to their size. Much support was garnered by certain interviewees for Maskew Miller Longman's ability to remain responsive in the industry allowing it to become the market share leader. Gillit, of Nasou Via Afrika, was vociferous in highlighting the fallacy that publishers need to be small in order to be agile, and examples of Oxford, Cambridge and Maskew Miller Longman point to the success of large publishers with agile attributes.

One method of retaining responsiveness, agility and entrepreneurial flair, according to Stephen Johnson of Random House, is through the concept of 'imprints'. Imprints are units within publishing houses which carry a particular branding or common characteristics in title offering. Their ability to be semi-autonomous, yet also able to rely on the supply chain infrastructure of a large group company allows a certain competitive advantage. McCallum gives the example of Cleverbooks within the Macmillan publishing fold, which has shown exceptional growth.

The publishing houses also appear to be very responsive to each other's developments, in certain approaches superseding what the immature digital market is presently demanding. Ryder of Shuter & Shooter believes that a number of publishers are tentatively entering the online market more out of concern of being left behind than anything else. In his words, "there is

the fear of waking up one morning to find the world has moved, and we haven't". Similarly, Clarke of Pearson repeats his sentiment, stating that publishers "are not afraid of change, but they are afraid of being left in the dust." It is in this sense that many of the publishers adopt a wait and see attitude, attempting to keep abreast of new markets whilst at the same time trying not to get their fingers burnt in non-existent markets.

Pricing models for digital content are currently very simplistic, as they are still geared for a print market. As was mentioned earlier, CD-ROM is a preferred medium because of the ease in which it can be packaged along with traditional text which also erases the need to price them separately. Shuter & Shooter have used a subscription agreement pricing structure for access to their content on their 'Zipple edutainment' website. There are 144 titles, 12 of which are locally produced. Contributing authors no longer receive a straight royalty fee, but rather a pro-rata percentage of the number of hits the site records. Individual title usage is not monitored, so poorly accessed title authors receive the same payment as the most popular texts. The resale market for texts does not exist at this stage, as once accessed, the digital text does not age in the way a physically bound book would. New sales would either have to come from the promulgation of new text, or through DRM control of the originally sold content.

With the majority of large publishers choosing CD ROM as their primary digital supply platform, agreement was not reached by the respondents on the local **proliferation of choice in 'new content' suppliers and media platform** (*Proposition 1d*) as suggested from the review of global trends in Section 2.1.1. New media platforms are emerging, such as whiteboard experience offered by Learnthings, and web companion sites offered by publishers such as MML and Shuter & Shooter, but on the whole alternative media offerings appear limited. Furthermore, the local choice available is again restricted to the small percentage of learners on the privileged end of the digital divide, typically including independent school pupils.

The lack of local proliferation according to Gillit of Nasou Via Afrika, is precisely because of the small size of the “connected learner” market.

There has, however, been an explosion of non-publisher content suppliers chiefly evidenced by the emergence of internet search engines. Their impact on local educational publishers is explored in the following section.

4.1.7 Google approaches South African publishers

According to Dudley Shroeder, chairman of PASA, the debut Cape Town Book Fair held in June 2006 was a noteworthy success after it turned a profit in its first year despite break-even only being forecast in its third year. The Cape Town Book Fair Company is 51% owned by the Frankfurt Book Fair Company, and provided a useful opportunity for publishers to network and review the latest trends in the industry. American based Google representatives used the opportunity to approach every one of the participating publishers in this research with the offer of scanning in their texts for searchability purposes within the Google Book Search database. Evidence gathered from the interviews indicated that this is generally being confused with the project under legal scrutiny, or the Google Print Library Project, as described in Section 2.1.2.

A considerable amount of reservation was detected when discussing the potential Google alliance with the educational publishers interviewed. The trade publishers represented by Stephen Johnson of Random House and Jonathan Ball of Jonathan Ball Publishers, were staunchly unprepared to align with Google. Comforted by the e-book failure and the first victory of traditional print over digital in the trade market, Johnson and Ball treat Google’s local advances with a marked degree of suspicion. In Ball’s words, “We’re not ready, they must go away. Full stop.”

As with the venturing into untested digital markets, the educational publishers spoke together affirming a wait-and-see attitude to the adoption of any alliances with the search engine. The multinationals including Cambridge, Random House, Oxford, Cambridge, Maskew Miller Longman and Pearson education all responded that they are awaiting decisions from abroad in order to speak with one voice on behalf of the parent entities. Phrase such as “poses a threat” and “potential damage to the publishing industry” were however noted, but also with interviewees generally adding qualifications of not having an adequate understanding of the proposals in question.

The project under spotlight, according to Carlo Scollo Lavizzari, who is being called on by certain publishers to examine the Google tenders, does not see the project as threatening. Lavizzari believes that the reason Google representatives were at the Cape Town Book Fair was to explain to publishers that they are “the good guys”. By obtaining publishers permission to digitise their content enables proprietary content to be found, thus opening up markets by connecting buyers and sellers. Publishers still retain the right to choose what content may be digitised. Lavizzari believes that the confusion stems from the similar Print Library Project, which he conversely believes is simply a case of copyright infringement. This latter project deals with the digitising of vast amounts of Library materials without author or publisher permission. Accoridng to Lavizzari:

> The seminal case Google is fighting about is basically over content created between 1920 and 1990. Before that, broadly speaking, copyrights have dated, and then after 1990 content has generally already become digitised. Basically Google wishes to grab that gap in market share now.

The class action suit is currently in discovery phase in the US, and a judgment is not expected before 2008. If Google is successful, the doctrine of ‘fair use’ will probably demand a more explicit form to consider digital and convergence implications.

Brian Wafawarowa of New Africa Books does not see the Google entrance, nor any other search engine emergence, as a warning light so long as publishers are able to continue "retain[ing] their roles in the rigorous commissioning of quality in their content... Search engines can carry on concentrating on their core skills of finding content." Pienaar and Gillit agreed with the importance of the publishers' responsibility and specialised skills in assuring content quality, which acquires additional relevance when dealing with unchecked content emanating from a variety of online sources.

4.1.8 Government responsibility and support

Ryder of Shuter & Shooter, who also chairs the PASA Education Executive, estimates that government spend on books will reach R1.4 billion in 2006. In 2007 that spend is forecast to drop slightly, with a portion of that money being directed towards libraries, ICT facilities at schools and technical colleges. After the publishing industry shed 40% of its workforce in 1998 due to a reduction in government spend, it is evident how important the policy driven size of the fiscal pot affects publishers from year to year. Furthermore, there needs to be political will for new forms of content to be explored from the directed funds.

The Revised National Curriculum Statement (RNCS), which maps out the new approved school curricula texts per class year, is due for completed implementation by 2008 with the last grade 12 implementation. This is the second curriculum change since 1994. A number of the publishers believe that there will be a thinning out of publishers after 2008, as for the past few years the market participants have been "riding a wave of publishing success built on large demand for newly prescribed texts" according to Griffin of Oxford University Press. The publishing consultant Eve Gray is more pessimistic about the consequences: "the days of easy money will be over, I don't think [the

educational publishers] have the faintest idea what they're in for..."
An opposing view is taken by Clive Gillit of Nasou via Afrika. He believes that it is a commonly held fallacy that the end of this current curriculum implementation will spell out a decrease in governmental spend. The evidence he cites is the budget in 1996, which was R960 million despite no curriculum changes being implemented, compared to the spend in 2005, which was R900 million in the midst of RNCS implementation. In fact, Gillit believes that post-implementation may spread spending across grades, and publishers will be able to access backlists for text repurchases on better profit margins. Gillit does concede that this will asymmetrically benefit the publishers with existing buyer relationships, and a certain degree of consolidation is imminent.

In addition to new content demanded by the radical curricula changes post 1994, publishing in each of the 11 official languages is also being attempted by a number of the educational publishers with varying degrees of success. Brian Wafawarowa sees a growing market in African children's books, but has not seen huge demand for these same books in all languages, despite the pressure by the DOE to provide in this area. McCallum admits that Cambridge University Press burnt their fingers in over-estimating the demand in all languages post-transformation. She believes that indigenous languages are not being encouraged for reading at home as there is a cultural belief that English is the language of business, and this has a dampening effect on demand carried through to schools.

Atkinson, Schools' Publishing Manager for Heinemann believes a second drive by provincial educational departments is underway to strongly encourage primary school teachers to tutor in students' mother tongue languages. This stems from the belief that this will result in the building of a better basis in terms of cognitive skills in numeric, literacy and technology. This drive is to address the poor literacy and numeric skills in the formative years of South African children from a global comparison. At present, grades one to three are encouraged to use

indigenous language texts, but this may be extended to grade six and thus stimulate publishing demand for new content.

An important point according to McCallum of Cambridge University Press, is that "government is looking toward technology to address the educational challenges of a developing country steeped in technological asymmetry". The educational publishers need to take cognisance of the direction, term and significance of government spend on electronic publishing as its policies drive the schools' buying behaviours. Examples such as the recently legislated e-rate, introduced in Section 4.1.1, and involvement in NEPAD's e-School Demonstration Project described in Section 4.2.2 give evidence for the emerging governmental focus on the potential of the new media. The education department may also decide to increase the autonomy of schools to choose between learning materials, but without reducing the spend, which should allow for greater flexibility in terms of content supplier choice and the choice to include dynamic content where suitable.

4.1.9 Copyright pressures

The issue of copyright holds varying degrees of importance for the range of interviewees. The representatives of Cambridge University Press and Oxford University Press still see photocopying as the most obvious example of copyright infringement, and believe teachers are the biggest culprits. Large chapters of texts are frequently being passed onto students without consent from the Dramatic Arts and Literary Rights Organisation (DALRO) under the pretence of fair use.

Van Niekerk of Juta Law said that their publishing business fortunately found itself in a subsector where the reputation and integrity of the buying legal practitioners and students would be "against the grain" of the segment, and

as such copyright infringement is not a burning issue. He did however mention that the company has been involved in DRM for the past 15 years due to the electronic nature of their content, and that the technology is still lacking in its ability to prevent unlawful infringement.

DRM is not being prioritised at present, and the majority of publisher interviewees admitted to paltry local investment in the technology. Evidence points to two explanations: firstly because the South African market remains to a large extent print-based, and secondly because the educational publishers are generally selling electronic products to institutional buyers in relatively trusted environments. Lavizzari contends that DRM does not focus on the same functionality as in the film or music industries. Rather than a copy-control, DRM operability and development is around product enhancement, such as search and monitoring tools.

According to New Africa Books' Brian Wafawarowa, a publisher increasingly involved in the distribution of electronic texts, DRM is becoming of real importance to the company. Wafawarowa agreed with Pienaar of Maskew Miller Longman, that a lot of learning is taking place, especially in the American markets.

The trade publishers Random House and Jonathan Ball do not see as much copying of their texts, even from the ubiquitous photocopying threat, which is attributed to the fact that their texts in the educational market would require the duplication of the entire work to be of use. These books serve as curriculum setworks, and since they are not available in electronic form photocopying would prove a costly and time-consuming alternative to buying the work. Trade publishers' focus on copyright relates predominantly to author plagiarism. Reputational dangers face publishers who unknowingly produce books that exhibit plagiarised sections facilitated by the vast quantities of content found unmanaged on the internet.

There was agreement by the interviewees that **digital copyrights need policy and technology development in order to keep up with convergence** (*Proposition 1f*), but due to the pace of convergence in local markets being sluggish in comparison with developed countries, the technological development in DRM has not as yet demanded prioritisation. For many publishers, according to McCallum, "there simply is not enough electronic local content for copying to be a threat at present" and learning from overseas leaders or corporate parents has proven sufficient thus far.

In terms of second-generation DRM, where digital rights are not only focused on security and encryption, but also on monitoring, tracking and trading of text rights usage (discussed in Section 2.1.2), there has been no notable investment by any of the locally based publishers.

With the advent of convergence technologies allowing the easy transfer and replication of content stripped out from is physical form, there is also an imminent need to tighten the laws surrounding the distribution of content. As has been illustrated by the dilemmas the digital music industry, there is a fine line between fair use and free use which convergence appears to be blurring. The consultant Eve Gray emphasizes this point using US copyright lawyer Lawrence Lessig (2004: xiv):

> ... we come from a tradition of 'free culture' – not 'free' as in 'free beer' (to borrow aphrase from the founder of the free-software movement – but 'free'; as in 'free speech', 'free markets', 'free trade, 'free enterprise, 'free will' and 'free elections'. A free culture supports and protects creators and innovators. It does this directly by granting intellectual property rights ...

The initial intention within this free culture paradigm, according to Pienaar of Maskew Miller Longman, is to protect and reward the creators of content.

Insofar as the Google Print Library Project diverts from the spirit of copyright in neglecting the rights of the creators, it appears the project will be labelled an infringement. It is pertinent to note that Maskew Miller Longman's offshore holding company in the US is Pearson Education, one of the five publishers suing Google for infringement over the Print Library Project, and Pienaar stressed the sensitivity required in respecting right of content owners and author contributors. An example of such sensitivity is carried by the Open Content Alliance (OCA) which is a global collaborative effort to build an archive of multilingual digitized text and multi-media content, whilst abiding to copyright permissions.

4.2 Publisher Strategies

The second proposition of this research pits reactive strategies of educational publishers against pro-active strategies to assess each in terms of their relevance to the local market. Implications of this are that the approaches are mutually exclusive, however the publishers interviewed were reluctant to fall into delineated classifications so easily. During the course of each interview, respondents were asked to classify firstly themselves, and then the remainder of the market into one of these two broad classes. By in large, the publishers believed that the sector is 'reactive' to convergence pressures at present.

On an individual basis, the overwhelming number of publishers correspondingly classed themselves as 'reactive', but in many cases stressing certain projects that can be described as proactive to varying degrees. Care was taken by the researcher not to associate negative connotations to the 'reactive' as opposed to 'proactive' classification by posing both classes in context of strategies potentially apposite for the present market.

A few of the publishing representatives did not wish their own classifications to be known since they represent individual views. For this reason the

classifications within each pool were not named.

4.2.1 Reactive Strategies

Nine of the thirteen publishers interviewed consider themselves to be part of this bracket and subscribe to the belief that **convergence is not a threat to traditional educational publishing formats in the short term** (*Proposition 2a*).

This majority of publishers does not see convergence as an imminent threat, and conversely do not perceive convergence as an *opportunity* large enough to be prioritised in the short term. Reasons for the lack of impetus are varied and in many cases stem from the companies' views on the pace of convergence.

Many of the companies in question steer toward's Mintzberg's "Learning School of Thought" (1998), as discussed in Section 2.3.1, where a great deal of learning is derived form offshore parental roots. Due to the links present in more advanced markets, South African based publishers are allowed to cherry pick from pioneering technologies and develop local content around it. The small size of the immature market increases the likelihood of this tactic according to Gillt of Nasou Via Afrika. There are also a great deal of wait-and-see strategies geared to respond to competitor advances, as examined in Section 4.1.2.

All the publishers are investing in converged media to a limited degree, and the safest avenue for these ventures are encapsulated by the products offering 'blended learning', where digital texts supplement traditional print (Section 4.1.5). This accomplishes two goals, it hedges publishers' exposure to the new medium, and it progressively introduces a teething market to new media forms.

South African infrastructural deficiencies play host to a number of obstacles to convergence, from bandwidth speed to the basic supply of electricity in under-

funded schools. “These infrastructural changes are necessary before noticeable change can occur,“ according to McCallum. The government is attempting to level the playing field by increasing spend on education and through ICT specific measures such as the ‘e-rate’ (Section 4.1.2) but the economic problems cannot be solved overnight. This immediately cleaves the local market, digitally dividing the schools, leaving a small subset of privileged schools with a lesser opportunity for publishers to proactively invest in new content forms.

Lack of teacher skills and user-readiness, is “the biggest obstacle to accepting digital content” according to McCallum of Cambridge University Press (Section 4.1.3). Teachers are more than facilitators in the educational text market; they also fulfil the purpose of content choosers within boundaries set by the RNCS. The massive buying power indirectly held by teachers forms a principle part of the intensive relationship marketing efforts of Maskew Miller Longman and a large explanation to how they hold the leading market educational textbook market share, according to Atkinson of Heinemann. A well-co-ordinated implementation plan that garners teacher support and is also aligned with government spending plans is typically seen as the primary strategic route.

Certain publishers also believe that change fears are also a discouraging factor for ventures into digital formats. Recent copyright and DRM implications, different pricing mechanisms requiring new competencies, and reactive strategies all allow for the delay in attempting change. Certain market experiences, such as the failure of the e-book to reach its hyped potential (that is repeatedly cited by the trade publisher respondents), provide negative re-enforcement to exploratory product development and further credence to a wait-and-see philosophy.

It was interesting to note that all the interviewees were aware of concept encapsulated by Christen’s ‘Innovator’s Dilemma’ described in Section 2.3.1. This awareness at the very least encourages a strategy of constantly rationalising

the amount of investment in a potentially disruptive technology.

4.2.2 Proactive Strategies

Four of the thirteen publishers interviewed representatively see their companies as proactive publishers. Note that these classifications appear to be built not in terms of a percentage investment spend on new forms of media, but rather in terms of how the publishers have defined their own views towards the pace of convergence and how proactively they have been about investigating digital opportunities. This classification excludes the publishers that are simply gleaning digital strategies from their offshore parent companies.

Van Niekerk, of Juta Law, speculates that "the industry will look very different in five years, and publishers will wake up to find that they shouldn't define themselves around content". The impetus for change is pressing according to this group of publishers, and they subscribe to the belief that **convergence is a disruptive technology and must be addressed now** (*Proposition 2b*). Apart from seeing the technology as a threat, and in contrast to the reactive publishers, this group of publishers believe that there is the opportunity that is viable and growing. In order to capitalise on future market share, strategic direction needs to be assessed now.

The government shift in focus towards using new technologies in education to advance its aims is evidenced by Department of Education priority policies for ICT infrastructure spend in schools, legislation supporting initiatives such as the e-rate, and collaboration with initiatives such as NEPAD's e-School Demonstration project. As the primary funder of educational publishers, a few of the companies are increasing efforts towards digital content depending on their medium term views on government spend. According Naledi Pandor (2006), in a speech to International Association for Digital Publications, the South African Minister

of Education proclaimed that, “the time is long overdue for us to re-visit the way in which we teach and what we teach.” Certain publishers are quantifying this spend alongside new digital content efforts.

Van Wyk sees believes that involvement in NEPAD’s e-School Demonstration Project, which Learnthings is currently involved in, bodes well for the future in ICT development and focus. The 18 month demonstration phase is to confirm feasibility of the concept in both rural and urban locales in a number of African countries. The key objectives of this project are to demonstrate that ICT skills will facilitate pupil functioning in emerging knowledge worker environments; demonstrate that the use of ICT can enable superior health literacy; provide teachers with ICT skills to enhance their teaching abilities; and provide school managers with skills to facilitate administration in schools. Addressing these concerns will overcome a number of the obstacles to the increase in demand for digital content, according to van Wyk.

Another motivation supplied by government to investigate alternative content forms derives from the fact that the rollout of the RNCS is nearing completion. Budget spend is not forecast to decrease, and Lavizzari contends “Government will not abdicate its responsibility for education, and so will the private sector increase its spend on education and especially continuing education”. This may open up new opportunities to explore as per *Proposition 2bii*. Transformation goals, such as requiring text to be replicated in all 11 official languages, may drive demand for new content. Ryder of Shuter & Shooter and Wafawarowa of New Africa Books both expressed their eagerness to capitalise on new African markets. Ryder’s launching of a multimedia division to search opportunities for selling rights to their language-learning digital content bears testament to this effort. The success of these ventures is however difficult to forecast. Other publishers have reported that they did initially enter the transformational market but experienced a lack of demand for materials in indigenous languages.

Customized non-fictional content is a new avenue for growth brought about through convergence of digital with publishing, referred to in the literature review section of Section 2.3.2. The concept is not foreign to local shores, and Clarke of Pearson Education reports that the publisher has been involved in two large deals this year where content was customized to cater for a buyer's needs. The customization involved simply the collaboration of different text chapters from alternate sources copyrighted to the publisher spliced into a single offering.

Another opportunity for proactivity stems from the potential of South African publishers to develop digital storage for African community states, as discussed in Section 2.3.2. Clarke reports that a number of African countries, among them Kenya, Malawi, Namibia and Botswana, have all expressed interest in investing in alternative storage mechanisms. Unfortunately it appears that much of the initial enthusiasm eroded due to lack of funding and training resources. Clarke recalls an adult digital learning project initiated by the United Nations Educational, Scientific and Cultural Organization (UNESCO) with similarly virtuous goals floundered due to user-readiness problems originating from the indigenous authors who battled to submit materials online. The lack of infrastructure and ICT skills poses a deeper digital divide on the rest of the continent. The launch of the first NEPAD e-School in Uganda demonstrates the commitment to change and latent potential of the market, but as yet none of the South African educational publishers interviewed with presence in Africa noted any significant convergence expenditure.

The entrance into the same space as pay-per-view search engines, such as the US Random House venture discussed in Section 2.1.2, is not yet being seen by South African publishers. However, alliances with search engines may yet prove a profitable entrance into the converged market. Lavizzari contends that "there is no problem with the large scale co-operation between Google and publishers. The publishers have a hold on local content, which will always be necessary for educational publishing, and the 'Googles' can help to expand their

reach." Publishers' competencies in terms of the commissioning of quality, as mentioned by Wafawarowa in Section 4.1.7, create another barrier between the businesses at present despite convergence and the implied threats of disintermediation.

Blended learning is regarded as a safer progression into the digital sphere, as the new content is always accompanied by traditional text. However it still seen by a few publishers as a proactive endeavour, as it requires new skills in content creation, and take-up by a largely untested market. The product manages to smoothly introduce the facilitators, teachers and pupils to new electronic materials in a process that van Wyk of Learnthings refers to as "evolutionary, not revolutionary."

Insofar as the new media for users is tempered by concepts such as blended learning, it appears as if the mindset demanded for the production of converged content requires a distinct entity, such as an imprint. Imprints typically behave like niche publishers, and Pienaar believes that the "more varied offering also creates space for the emergence of niche companies that specialise in electronic offerings". Lavizzari concurs, adding that "small players always have the edge... small niche publishers will always enter the market and drive innovation."

Not all the publishers agree that new entrants will have any advantage over the incumbents, despite the new environment. According to Clarke of Pearson:

> ... the big players will remain; those that have been successful with the RNCS will have resources to expand into new digital markets if they emerge. Small players will battle against barriers of marketing spend and entrenched buyer relationships of the big publishers.

As previously described, the strategy undertaken by the large educational

publishers need not be strictly polarised in its choice between reactivity or proactivity, since a company may opt for a stance that carries mixed objectives of both strategies, and include pockets of proactive action within a generally reactive approach. The strategies do however appear to be dependent on individual perceptions of the factors explored throughout this chapter. These factors are summarised in the conclusion in Section 5.

5. CONCLUSION

The research succeeded in obtaining a representative view from senior executives involved in decision making for large South African educational publishers concerning their views on the pace of convergence and how the market is reacting in the short term to benefit from its implications. These views supplemented the literature review garnered predominantly from developed country sources, and were able to highlight both the local obstacles and the prospects for converged media. The research was able to identify various factors that are likely to contribute to strategies followed by educational publishers, and to what extent publishers rely on either estimates of the pace of convergence, or on local competitive developments, before deciding to invest in these new markets. These unranked factors are highlighted below.

The first of the local factors commonly understood as an overwhelming obstacle to the take-up of converged media content is the digital divide. The conceptual partition fragments the market between differently resourced counterparts, being local versus international, government versus independent, or rural versus urban school pupils. The size of the market thus accessible to a new digital offering is a small subset at present, and publishers are basing their strategies around estimates on the growth of the subset.

User readiness is a second decidedly important factor, and the user readiness of the intermediate facilitators is being seen as the most critical in enabling the introduction of new media to learners. A number of publishers regard the teacher ICT skill deficiencies as the fatal flaw in converged media succeeding in the short term at least. Without sufficient prioritised governmental ICT programmes aimed at teachers, a few publishers are tackling the problem independently by offering facilitator focussed ‘blended learning’ as a phased introduction to digital content, although still only in relatively privileged pockets.

A third factor derives from the fact that a number of the publishers are able to rely on overseas learnings by being multinational subsidiaries. Although the research and development can be expensed offshore, the strategies still require careful consideration as to the relevance of digital successes overseas for the local market, as well as the ability to source content to suit curricula. For the most part, educational publishers have adopted a wait-and-see strategy reliant on reacting to the incremental advances of competitors, which may already be beyond the user readiness appropriate for South African markets.

In addition to forming strategies to match competitors, the larger publishers are required to align their convergence strategies with government spend as the principal funder of schools, a fourth factor to bear in mind. With the RNCS nearing the end of syllabi implementation, new avenues for expenditure are being sought, and ICT development has been listed as an objective by the Minister of Education, evidenced by supporting legislation such as the e-rate and by NEPAD projects like the e-School Demonstration Project. Government commitment and project success will directly affect growth in demand for new forms of content.

Copyright considerations are a fifth factor that will require considerable investment if converged content becomes more prevalent. Scant investment has been made in this area locally since the primary copyright crime is still regarded as photocopying, which exist outside the realm of DRM. As advancements are rapidly being made in overseas markets for second generation DRM in monitoring and market analysis as supplemental to its protective encryption role, a number of learnings can possibly be inherited from developed markets when the digital content becomes more ubiquitous locally, which may explain the current lack of local investment.

The nature of convergence blurring boundaries with other media providers such as search engines is a sixth factor, and supports the need to consider

strategies around the options of delimiting publishers' traditional scope, aligning with new content providers, or entering new playing fields with non-traditional competitors. Google provides an example of the local emergence of a global content provider that claims its competitive advantage in searchability whilst seeking alignment with content owning publishers. Educational barriers provided by strict quality controlled curricula as well as the on-the-ground school buyer marketing relationships appear to lessen the intermediate threat of disintermediation by a search engine, and point to a collaborative partnership potential.

The question of publishing size versus to agility does not result in a clear answer in this research, but remains a factor to consider. Certain large publishers have managed to stay responsive despite their size (although frequently using imprints to detach from the traditional printed text processes) whereas there has also been the surfacing of niche players to capitalise on the new skills required in converged multimedia publishing. What have emerged are burgeoning market potentials carried by transformation efforts in indigenous languages, distance learning opportunities in weightless content transfer, and customized multimedia demands. It is the size of these markets that is important and will provide the driving force behind publishing strategies. The relative ongoing success of small competitors versus larger counterparts could shape a further study as the market evolves.

This research elucidates the factors shaping convergence strategy considerations for educational publishers, and gives a snapshot view of the medium term trends based on current strategic decisions. Whilst the overwhelming consensus remains that printed text is here to stay indefinitely, new digital converged media forms need not necessarily represent an all exclusive disruptive technology. As an evolving technology there is evidence that the content can serve a market with profit growth when utilised dynamically in a value-adding way. It appears that strategies to convergence remain predominantly reactive in the medium

term, but this result does offer an opportunity for further investigations as a replication of this study in five years time. In subsequent research, the importance of each factor in shaping the market will have gained clarity as incremental changes have summed to create a new strategic landscape. It would also be enlightening to observe if the currently perceived dominance of print is still widely held, or if current perceptions were merely as a disproportionate reaction to recent digital experiences such as the failure of the e-book or the 'dotcom' collapse. Notwithstanding any future studies, consideration of the variable factors identified in this research resulting from convergence pressures could assist in assessing a sustainable strategy to new content offerings within the educational sphere.

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Appendix A: Semi-structured Interview Schedule

Convergence Trends

- How are operations and distribution channels being affected by emerging technologies?

- What are the changes noticeable in younger learning markets?
    - Probe: How are these changes being addressed by publishers?

- Are overseas competitors entering the market, and if so, why?

- How is electronic media affecting copyright issues?

  Probe:
    - Is DRM demanding investment?
    - What is your stance on the Google Print Library Project?

- How do you see alternative content providers, such as web-based search engines, differing from publishers in the future?

- Do you see disintermediation as a threat (in context of Christensen's Innovator's Dilemma)?

- In terms of the definition of convergence in this research, what do you see as the major convergence trends affecting the South African publishing industry and the pace of this convergence?

Strategy choices

- Is your organization involved, or intending to become involved

in the selling of electronic educational content?

Probe:

- How is your company involved in distributing content digitally?
- How do you see other companies' digital distribution?

- How has your organization been affected by new markets opened up by transformation (the growth of African children books as an example)?

- What do you believe is the potential for selling customizing educational content facilitated by digital distribution?

- Are electronic storage and preservation capabilities seen as business opportunities?

- What are the principle detractors from moving to digital formats in this country?
    - Probe: How do skill and infrastructural problems affect convergence in South Africa?

- (For Publisher respondents) Do you see your organisation as being 'reactive' or 'proactive' towards convergence and its appropriateness for the South African educational market?
- Do you see the industry in general as being 'reactive' or 'proactive' towards convergence?
    - (If reactive) Probe: Why do you believe a reactive strategy is appropriate for the local market?
    - (If proactive) Probe: How is your company being proactive in the market?

- How do see the educational publishing industry changing over the next five years?

Appendix B: Acronyms

CD-ROM	Compact Disc - Read Only Memory
DALRO	Dramatic Arts and Literary Rights Organisation
DOE	Department of Education
DRM	Digital Rights Management
ICT	Information and Communications Technology
MD	Managing Director
NEPAD	New Partnership for Africa's Development
NGO	Non-Governmental Organization
PASA	Publishing Association of South Africa
POD	Print on Demand
RNCS	Revised National Curriculum Statement
SADC	South African Development Community
UNESCO	United Nations Educational, Scientific and Cultural Organization