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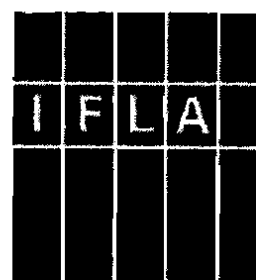
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**INFORMATION LITERACY: THE MISSING LINK IN SOUTH
AFRICA'S EDUCATIONAL TRANSFORMATION?**



INFORMATION LITERACY: THE MISSING LINK IN SOUTH AFRICA'S EDUCATIONAL TRANSFORMATION?

Genevieve Hart
Department of Library & Information Science
University of the Western Cape
ghart@uwc.ac.za

Introduction

This paper uses the lens of information literacy and information literacy education to view educational change in South Africa. Although the focus is on South Africa, I hope that the paper might resonate with delegates from other countries and that this might lead to the exploration of common ground. I have decided to focus on *school* education rather than tertiary because there is consensus in university circles that the issues of information literacy education at tertiary level have their roots in shortcomings in our schools (Walker 2001; De Jager & Nassimbeni 2002). It is a truism that if our school leavers are information literate then our university educators and employers can only benefit.

The paper rests on two assumptions:

- Information literacy is central to South African education, which explicitly aims to provide school leavers with the skills demanded by the global information society. As the new South African curriculum was being crafted in 1996, the then deputy President, Thabo Mbeki, claimed that the “ability to use information effectively is now the single most important factor in deciding the competitiveness of countries” (National Information Technology Forum 1996). In 1997, one of the first government publications on South Africa’s new curriculum, Curriculum 2005, promised that learners “will become analytical and creative thinkers, problem solvers and effective communicators. They will know how to collect, gather and organise information and conduct research” (South Africa. Department of Education 1997a: 27).
- The construct of information literacy includes two layers of competence. The first refers to the technical abilities to access information in a variety of sources and via a variety of tools, with a specific emphasis on the ICTs of the information age. The second layer refers to the subjective sense-making processes of information literacy. Information is more than a commodity that people acquire. This second layer of information literacy has a social dimension as well. The theorists of social inclusion and social capital have identified information sharing and knowledge creation to be crucial to the development of a community’s social and human capital so that a community builds its capacity to take informed decisions and participate actively in

existing social and economic institutions. Dudley (2000: 31) uses the term “community informacy” to denote the social dimensions of information literacy.

New school and university curricula provide a favourable climate for information literacy education in South Africa. The 2002 Revised National Curriculum Statement (RNCS) lists the following attributes of the learner that are implied by our constitution. The desired learner:

- has the linguistic skills needed for multi-lingual and multicultural South Africa
- is curious and ready for scientific and artistic discovery
- can adapt to an ever-changing environment
- has a problem-solving bent of mind
- can gather, analyse, organise, evaluate and communicate information
- is able to take decisions in a complex technological society
- is equipped for the social, political and economic demands of South Africa in our local and global context.

The fifth attribute refers specifically to information literacy; but all the attributes resonate with information literacy educators. As Bundy comments on a remarkably similar list of attributes demanded of university graduates in Australian policy documents, all these attributes imply high-level information skills (1999: 238).

The ethos espoused in this list of attributes is reflected in shifts in teaching and assessment methods with an emphasis on resource-based and enquiry learning. However, there is evidence that schools and educators lack the resources and knowledge that underpin these approaches – an issue that will be returned to later. Indeed, the paper’s central argument is that the construct of information literacy, promoted by school and academic librarians, has been neglected by South African educationists and that this might well have hampered educational reforms.

Education spending is the largest single item in the national budget - representing in 2006 about 17.8% of the total (*Education in South Africa* 2006). Yet, 13 years after the abolition of apartheid education, there is consensus that its legacy lingers and that the money spent has not yet provided satisfactory outcomes (Butler 2004: 82). South African school learners perform badly in international tests of numeracy and literacy – below countries with similar education budgets and below some African countries with lower budgets (Hofmeyr 2006). There is consensus that students arrive at university without the information skills demanded by tertiary education - meaning that universities are having to run very basic information skills programmes in order to fill the gaps (Walker 2001).

In other contexts, a third assumption, additional to the two provided above, might be that the school and academic library sectors champion the cause of information literacy – in collaboration, of course, with educationists and ICT specialists. It is through their information literacy programmes for school learners, university students and the general public that school, academic and public libraries play a vital social and educational role. We have in South Africa wonderful examples of information literacy programmes centred in dynamic school resource centres, where learners create knowledge in engaging with a wide range of resources from books to the latest ICTs. However, it has been said that these are almost always to be found in our private schools or our historically advantaged schools which are able to draw on school fees to resource their centres. The reality is that less than 30% of South African schools overall have libraries and even less have even part-time librarians (Bot 2005); so the question must arise over who is to take responsibility for information literacy education.

Perhaps, the obvious enthusiasm of the South African government for information and communication technologies (ICTs) might indicate that ICT projects in schools might be the vehicle for information literacy education rather than school libraries per se. However there are some who claim that ICT is seen too easily as the cure for all South Africa's social and educational problems. This paper will examine developments in both school libraries and in ICT education to come up with a tentative answer to this urgent question.

Information literacy in the knowledge society

Information literacy, the topic of this colloquium, clearly is not an aim in itself. The construct encapsulates a belief that the so-called information society (or knowledge society), towards which African countries aspire, depends on ordinary people's abilities to make sense of the information that surrounds them and to use it in their everyday decision-making. The fact that a conference on the links between information and development follows the colloquium perhaps indicates acknowledgement that social and economic development depends on these abilities – both in individuals and in social groupings.

Access to information has always been prized and in all societies people who control this access are privileged. But in the idealised knowledge society of the 21st century, ordinary people have direct access to sources of information and are empowered to build their own meanings and knowledge. The New Zealand government's definition of the knowledge society is:

A society that creates, shares and uses knowledge for the prosperity and well-being of its people (*The Digital strategy: creating our digital future* 2005).

Here the emphasis is on the building of knowledge rather than mere access to information sources and tools. And the definition recognises the power of *sharing* knowledge. The growing research in the value of social capital to community development has revealed how a community's development depends on the pooling of information by individuals and groups and the sharing of their knowledge – in order to reach agreed upon developmental goals (Hart 2007). In response perhaps to this kind of research, the South African Western Cape Education Department's recent vision document describes education as a powerful agent in a community's "social and human capital" so that it builds its capacity to take informed decisions and to participate actively in existing social and economic institutions (Western Cape Education Department 2005: 23).

The recent announcement by government of a R1 billion conditional grant to South African public libraries so that they might play a more dynamic role in socio-economic development is exciting news. There has been concern at the lack of "take-up" and sustainability of some of the government's initiatives to bridge digital divides, such as multipurpose community centres, post office internet kiosks and rural telecentres. Snyman and Snyman (2003), for example, warn that government has tended to bring in technology as a solution to under-development without adequate regard for the necessary preliminary building of human and social capital. Hopefully, librarianship's more inclusive view of information literacy rather than mere computer literacy might allow people to learn *when* and *why* information might help them and lead them to exploit more fully the new technologies.

Information literacy as learning

In his book *The Hidden Connections* (2003), Capra distinguishes between two kinds of worker:

- the masses of workers who move in and out of jobs - replaced at any moment by machines or by labour in another part of the world. They are dependent on the fluctuations in the global financial networks, They are expendable - they have no access to information or knowledge beyond that required to carry out orders and
- self educators - people who can access higher levels of education through their capacity to process information and to create knowledge.

Capra points out that, in an economy where "information processing innovation and knowledge creation are the main sources of productivity" (p.125), these self-educated workers

are prized. Capra's "self-educators" are what others might call "lifelong learners". They have learned how to learn. Lifelong learners are by definition information literate. They are able to find, process and assimilate information as they need it – in order to make independent decisions, to solve problems, and to make meaning and new knowledge. Their knowledge in turn informs other people's knowledge building.

Information literacy has been described as a "slippery" ambiguous concept. My view of it relies on the American information scientist Carol Kuhlthau's research since the late 1980s in a variety of contexts, which places it within constructivist learning theory (2004). Her work has mapped out the phases of information seeking, each of which has its own required strategies and skills. Information literacy is thus a subjective *process* of making sense, building meaning out of confusion and uncertainty - and creating knowledge. Information literacy education aims at developing awareness and control of this learning process rather than imparting knowledge of information sources or sets of skills, although of course, in negotiating the information-seeking process, an information literate person will need that knowledge and those skills.

Another influential information scientist, the Australian Christine Bruce, also uses learning theory to examine the dimensions of information literacy. Like Kuhlthau, she "borrows" from learning theory in applying the insights of relational learning theory, in which learning is seen as "a change from one understanding to another, qualitatively more complete one" (1997: 168). Thus, information literacy can be defined in terms of a transformation in people's conceptions of information – and its role in their lives. Bruce groups her categories into three clusters:

- the information technology (IT) and information sources conceptions
- the information process and information control conceptions
- the knowledge construction, knowledge extension and wisdom conceptions (p. 173).

Conceptions in the third cluster contain those in the first and second clusters and can thus be described as more "complete". People in the third group might well be sophisticated ICT users but this is almost incidental to their conceptions of information and information literacy. They conceive of information as subjective - an internal process of knowledge building and transformation. New information can be transformed as people use their existing personal knowledge base to reflect and decide. In its turn, it can be transforming.

Clearly, to both Kuhlthau and Bruce, the aim of information literacy education is more than teaching information skills and sources. Information literacy is about learning how to learn

not about finding *the* right answer. And information literacy education must infuse all aspects of education. Follow-up research supports their claim that information literacy is best learned when embedded or integrated in the larger curriculum in the learning process of subject assignments and projects for example – rather than in standalone generic courses (Loertscher & Woolls 2002). A “whole school” approach is required.

The challenges of educational change in South Africa post 1994

The first South African democratic elections in 1994 led to the abolition of apartheid education, new educational legislation and a new curriculum. South African educational reform has had a double agenda:

- to redress the inequalities inherited from apartheid’s 19 racially-based and unfairly resourced education departments. In 1996 for example, more than half of all schools did not have electricity and 24% had no access to water. It was estimated that 57, 499 classrooms were needed (South Africa. Department of Education 1997b). By means of the National Schools Building Programme, the Education Department can now claim that “classrooms under the trees have been eradicated” (South Africa. Department of Education 2007).
- to build an education system that develops lifelong learners, able to compete in the global information society.

The case for information literacy education

In 1994, the new Education Ministry published a draft policy discussion document, which set the tone for the educational legislation of the next few years in saying that South African education should encourage:

independent and critical thought, the capacity to question, enquire and reason, to weigh evidence and form judgements, to achieve understanding, and to recognise the provisional and incomplete nature of most human knowledge (South Africa. Ministry of Education 1994).

To librarians, this kind of language indicated recognition of the need for information literacy education – widely accepted internationally to be the specific mission of school and academic librarianship.

The new curriculum, introduced in 1996, Curriculum 2005, seemed to offer new opportunities for information literacy education and for libraries, for four reasons:

- The ability to “collect, analyse, organise and critically evaluate information” was listed as one of eight generic cross-curricular outcomes

- Its documentation promised an ethos that values critical thinking and active discovery learning
- The new stress on assessing learning by means of projects and portfolios of work implied resource-based and enquiry learning. The Department of Education itself seemed to share this assumption, as de Vries (2002: 10) points out in his quotation from a Department of Education publication explaining Curriculum 2005 to teachers in 1997 that says that “adequate resources [for the new outcomes-based approaches] are essential” and, in the next sentence, that “adequate provisioning of libraries” was being accelerated.
- An Information Skills programme was included in Curriculum 2005. Unlike the pre-1994 “book education”, it reflected a process approach to information literacy in keeping with models such as Kuhlthau’s and also emphasised the need for a whole school approach.

On the introduction of Curriculum 2005, librarians were quick to point out its implications for resources, libraries and information literacy. Much of the advocacy for school libraries has relied on the curriculum’s need for information literacy education. For example, at the 2003 annual conference of the Library & Information Association of South Africa (LIASA), Le Roux combed each Learning Area for any references to information literacy (2003). She demonstrated that many of the critical and developmental outcomes and the learning outcomes contained in the eight Learning Areas are, in reality, information literacy outcomes. Examples are:

- the ability to listen for information (Languages)
- the ability to make informed decisions ... (Social Sciences)
- the ability to collect, summarise, display and analyse data in order to draw conclusions (Maths)
- the ability to use enquiry skills (Social Sciences).

Educators’ capacity for information literacy education

At the beginning of this paper, I highlighted the absence of libraries and librarians in South African schools. The lack of specialist information literacy educators in the form of school librarians and the nature of South Africa’s new curriculum imply the need for classroom teachers to take responsibility for information literacy education. But teachers’ own information literacy, let alone their capacity to teach it, cannot just be assumed. Over the years, several commentators have made the point that only a small minority of South African teachers, curriculum planners and departmental officials will have had direct experience in

their own education of the demands of resource-based and enquiry learning and the role of libraries in this kind of learning (Olén 1993; Karlsson 2003; Macpa & Mhinga 2003).

Bearing in mind Moore's finding in her research in New Zealand schools that teachers' information literacy cannot be taken for granted (1999: 105), my research in the late 1990s set out to investigate educators' capacity for information literacy education – specifically in historically disadvantaged schools without their own libraries (Hart 1999; 2000). I spent some weeks in a school in Cape Town observing how teachers were managing project work, which by all accounts is the best vehicle to teach information literacy. I then followed this study up with a survey of project work in the surrounding circuit of schools. I found strong connections between teachers' beliefs about information and learning and their approaches in classroom project work. Information was commonly described as a “thing” to be given and taken. Overall, I found that teachers underestimate the challenges of independent project work. They allow too little time or space for that crucial first phase in research when one struggles to identify the useful questions about a problem or topic. As information literacy researchers point out, in the information society, knowing how to ask the right questions may be the most important step in learning (Doyle 1999). Moreover, teachers, I found, often just assume that their pupils somehow just know how to engage with resources. In my weeks in one classroom, I saw the learners' struggles to build some coherent meaning in their reading. All too often I witnessed the outcome of these struggles – how project work can become a travesty of real enquiry learning and how teachers just allocate marks haphazardly to fulfil continuous assessment requirements. Moreover, I found striking gaps between teachers' statements of belief about their teaching and their behaviour in the classroom. Teachers could sincerely report in their interviews that they were using progressive methods in keeping with the tenets of the new curriculum; yet my observation revealed a reliance on cloze type questions in worksheets created from the same textbooks that had been in use for years. Just because the children were in groups hunting for the right one-word answer in the textbooks to fill in the gaps, teachers believed that they were engaged in enquiry learning.

Five years later, my research in teachers' information literacy and their attitudes to libraries in seven schools in a small town in rural Mpumalanga Province to a large extent echoed my earlier findings that teachers lack insight into the high level learning demanded by projects (Hart 2006). Most respondents saw a library as a collection of things where bits of information are fetched, as shown in the following comments from teachers on the role of the local public library in project work:

When we teach the kids they must then go and get resources.

They supply learners with information.

They have stuff; they have things available. They put them out on tables.

There were only a few replies which allowed a larger role for the public library – in the learning of their pupils rather than the above “putting out” of materials. On the whole, it seems that the educators lacked cognizance of the demands of information seeking in the library. They see it as a warehouse where librarians hand over information on demand – so are blithely unaware of the challenges facing the local public library staff in their interactions with information illiterate school learners. If such attitudes prevail, they might well explain the lack of response to all the library advocacy of the past few years. Perhaps, educators and influential policy-makers in our education departments just do not see librarians as educational partners. South African librarians clearly need to take heed of the advice of the proponents of “evidence-based” advocacy who warn that only empirical research evidence will convince educationists of the educational role of libraries (Todd 2001).

Overall, my research findings in the late 1990s and in 2006 indicate that South African teachers require more education in the meaning of “resource-based” learning since the mere provision of new facilities and resources will not transform school cultures. As Brown (1999) points out:

To ask teachers to change the materials they use for teaching, and the teaching approaches they use, is to require a change in their basic beliefs about how students learn.

Curriculum 2005 revised

In the late 1990s, other evidence accumulated on the failure of educational transformation in South Africa. In response to the widespread concern over problems with Curriculum 2005, especially in the disadvantaged sector, which of course includes the majority of South Africa’s schools, the Department of Education commissioned a number of research projects to assess its progress, which were summarised in Taylor and Vinjevold’s book *Getting Learning Right* in 1999. Taylor and Vinjevold’s fundamental conclusion was that teachers were ill-prepared for the changes in teaching and learning styles in Curriculum 2005 and Government then set up a committee to review the curriculum. Much of the Review Committee’s report resonates with information literacy educators. For example it acknowledged that Curriculum 2005 was faring well in the formerly white schools “because of being better resourced” (South Africa, Department of Education 2000: 35). It alludes to a case study comparing two schools within five kilometres of each other, one using resource-based learning and one using the “lecture method”; and comments that “teachers within well-resourced classrooms were clearly reflecting C2005 principles” (p. 77). It can be assumed that the successful case was a school with a library, although the report makes no mention of libraries. Throughout the

Review Committee's report there are allusions to problems with "learning support materials", attributing problems in the implementation of the new outcomes-based curriculum to lack of learning support materials and to lack of training in the use of these materials. Teachers had been expected to move away from their reliance on textbooks and "chalk and talk" methodologies, and even to develop their own learning materials; but had not been provided with the support they needed to make the change. Having failed to include library resources in its investigation of learning materials, the chapter concludes with a call for better availability of textbooks and stationery claiming that these are what will most effectively and economically "develop learners' conceptual knowledge structures" (p. 184).

From a librarian's perspective, the report findings present a persuasive case for a system of school libraries and for supportive information literacy programmes that will build learning resources into teachers' everyday classroom work. However, the Revised National Curriculum Statement (RNCS) that came out in 2002 (South Africa. Department of Education 2002) holds the same contradiction as Curriculum 2005 in that it demands information literacy outcomes without providing for school libraries and information literacy education. The section in Chapter 5 of the RNCS on the "provision of good learning support materials" shows a preoccupation with textbooks and workbooks. Moreover, the specific information skills outcome that was before included in the Languages, Literacy and Communication (LLC) Learning Area is omitted. The loss of the outcome means the loss of the Information Skills Learning Programme, which means that information literacy education no longer has an explicit presence in curriculum documentation.

The fact that neither Taylor and Vinjevold's influential review nor the Review Committee's report makes any mention of libraries suggests that the library profession has to engage more vigorously with educationists – spelling out what a library contributes to the curriculum. Evidence for their case might lie in the impact of our new curricula on South African public libraries. With less than 30% of South African schools having functional libraries and faced with demanding projects, school learners flock to public libraries. Research has documented the pressures on public library staff as they struggle to meet the needs of learners for project materials and for information skills (for example Nkosi 2000; Maepa & Mhinga 2003; Hart 2004). This research uncovers unease on the part of public library staff at teachers' lack of understanding of the demands of project work. There are comments on inappropriate project topics, a lack of communication between schools and libraries and unrealistic demands.

In 2004, the School Libraries and Youth Services Interest Group of the Library & Information Association of South Africa (LIASA) followed the example of countries like the United

States and Australia and drew up generic information literacy guidelines, with the aims of clarifying the relationship between information literacy education and the outcomes of the curriculum and promoting a whole-school approach to information literacy education (Library & Information Association of South Africa. School Libraries and Youth Services Interest Group 2005: 3). These build on the fifth critical cross curricular outcome, the ability to “collect, analyse, organise and critically evaluate information”, and on the outcomes relating to information literacy scattered throughout the eight learning areas of the RNCS. However, given the lack of recognition of the role of libraries in government curricular documents, the standing of this kind of guidelines statement is questionable. Indeed, as I write this paper in 2007, I am not aware that the document has made any impact on thinking outside of the LIASA interest group.

As mentioned at the beginning, one of the assumptions underlying this paper is that information literacy is central to the mission of school and academic libraries and another is that the South African curriculum requires information literacy. Therefore, the puzzling lack of urgency in developing school libraries is pertinent to its theme, information literacy. Since 1996, units in the Department of Education, after consultations with a wide range of role-players in the school library sector, have published five draft school library policies “for comment”. Each document highlights the role of school libraries in information literacy education and the need for information literacy to access the new South African curriculum. They pragmatically allow for a progression of models from classroom book box to virtual library and hybrid library or resource centre, where learners engage with a range of media. However, none has as yet been approved by the Minister of Education.

The slow progress of school library policy building has led to speculation that the lack of urgency in developing school library policy stems from widespread belief in government circles that the solution to the problems in South African schooling is ICT. The White Paper on e-Education’s comment that “the current status of school libraries is inadequate to support resource-based learning in outcomes-based education” (South Africa. Department of Education 2004) is of course accurate, as librarians have been pointing out since 1996. But the White Paper’s comment on school libraries as collections of books incapable of providing “high quality, relevant and diverse resources” (p. 29) allows no room for hybrid school library services where access to all kinds of resources, from books to web sites, is provided in a mix of learning spaces throughout the school under the guidance of an expert in information literacy education. The five school library policy documents, which sketch the evolution of book collections to such models, are ignored. Moreover, the White Paper’s preoccupation with the *provision* of resources gives the impression that educators and learners can be

assumed to have the skills needed to use these resources effectively in their teaching and learning. As already mentioned, local and international research has underlined the risk in this kind of assumption.

ICT in education

Government's high expectations of ICT, which were mentioned at the beginning of this paper, suggest the need to survey its ICT education projects and to assess them in terms of the goals of information literacy education. After all, the construct of information literacy was formulated in the context of the information explosion brought about by the new ICTs of the late 20th century.

Since the late 1990s, the South African government, with a wide range of partners from the ICT business sector and NGOs, has undertaken several what might be called *information society* initiatives. The Presidential National Commission on Information Society and Development (PNC on ISAD), founded in 2001 and including leaders of major ICT companies, defines the information society as one that "has built the necessary capacity to maximally use ICTs to accelerate growth and economic development" (2007). The Commission has five priority areas: e-government, e-health, SMMEs, local content and e-education.

According to the Commission's web site, E-education aims to "infuse ICT into education and learning so that every learner will be able to participate in the knowledge society". A major achievement has been the White Paper on E-Learning of 2004 which plans to have every South African learner "ICT capable" by 2013 (South Africa. Department of Education 2004). A glance at the distribution of computers in South African schools reveals the size of the challenge. In 2004, it was estimated that 26.5% of South African schools have computers available for teaching and learning (Baskaran, Muchie & Maharajh 2006). The spread is uneven with three of the nine provinces accounting for a disproportionate share: Gauteng, 45.4%, Western Cape 56.8% and Northern Cape 43.3%. The progress in these three provinces might be attributed to three projects, the Western Cape Education Department's Khanya project (www.khanya.co.za), the Gauteng Education Department's Gauteng Online (www.gautengonline.com) and the Northern Cape's Connectivity project. The national education portal, Thutong (www.thutong.org.za), should also be mentioned here. All four projects aim at bridging the digital divide and all claim to use ICT to "deliver" curriculum to learners. The emphasis on ICT capacity and the choice of words such as "delivery" are perhaps telling for information literacy educators, who believe that ICT capacity is only one,

if crucial, building block in the set of competencies needed for participation in the knowledge society and that constructivist learning is not *something* that can be delivered.

However, a closer look at the White Paper on E-Learning is reassuring for information literacy educators in its recognition that e-learning is more about using ICT to learn than learning about ICT. As far as I can see, the White Paper uses the term “information literacy” twice. It is hard to find fault with its definition of information literacy as:

the ability to locate, evaluate, manipulate, manage and communicate information from different sources. As learners become increasingly information literate, they develop skills in discrimination, interpretation and critical analysis. ICTs offer opportunities for higher-order thinking and creativity in processing, constructing and conveying knowledge (South Africa. Department of Education 2004: 15).

Moreover, its definition of e-education as the ability “to apply ICT skills to access, analyse, evaluate, integrate and present and communicate information” echoes standard definitions of information literacy. It talks of creating knowledge by adapting, applying, designing and authoring new information and thus is compatible with the thinking of information literacy specialists such as Kuhlthau and Bruce, whose stress on information literacy as learning and knowledge-building was described earlier. .

The second mention of information literacy highlights the White Paper’s attempts to position ICT education within national developmental and educational goals. It thus sees the goal of ICT education “to build digital and information literacy so that all learners become confident and competent in using technology to contribute to innovation and the development of South African society”. It sees E-education as enabling learners to function in a knowledge society by using appropriate technology and mastering communication and collaboration skills (p. 14). And the document constantly refers to the potential of ICT to accelerate curricular reforms and the achievement of educational objectives. This kind of language offers a lesson to South African school librarians who have been accused of “talking to themselves” and not over the years adapting their language to match that of influential policy-makers in government (Hart 2007). Karlsson in 1996 suggested that librarians should display more insight into contemporary understandings of learning and teaching in their advocacy of the role of libraries in the curriculum. All too often, libraries are described as collections of materials rather than learning tools. The rather disparaging comments on the shortcomings of South African school libraries in the White Paper, which were alluded to in the previous section, indeed might offer supporting evidence for this criticism since they reveal no awareness of libraries’ educational role other than the provision of resources.

However impressive the 2004 White Paper is, it has to be said that empirical evidence of its impact on South African schooling is scarce. Project websites such as Khanya's tend to describe their achievements in terms of numbers of schools provided with computers, numbers of training units provided and numbers of teachers "trained". Even if the roll-out of ICTs proceeds according to plan, the ability of e-education to live up to its rhetoric will need sober assessment. Whether it can in reality take the place of a system of school libraries or resource centres which have a more inclusive view of learning and of information literacy is questionable.

My own research provides some limited evidence of the problems rural schools face in sustaining their computer rooms and in the risks in assuming that mere Internet access will provide for information literacy education. In my study of the schools of a small town in rural Mpumalanga Province, I found that the two historically advantaged schools of the town had closed their libraries a few years ago and set up sophisticated computer rooms believing that Internet connectivity would make the libraries redundant (Hart 2006). Five years later, they were reconsidering their decision, having discovered the difference between a computer room and a learning resource centre. As the high school computer teacher told me, "It hasn't worked having the [computer] room used by all the subject and class teachers. It's a mess". Another educator describes the decision to reopen the library thus:

Yes. The library was closed for a while totally. And then we said we sit with all these resources and we're a school. How do we justify that? So we did get the thing [the library] back on the ground.

These schools have discovered that ICT could not replace their library collections, that learners do not always need ICT facilities, and that a resource centre's hybrid mix of resources might be a more economical and inclusive solution. Both were grappling, however, with the staffing of their new resource centres. In the absence of national policy on school libraries, most school librarians in South African are paid for out of so-called School Governing Body funds or are fulltime teachers expected to run their libraries in a few hours a week.

Conclusions

This paper's fundamental argument has been that effective information literacy education might be the missing link in South African schooling. The evidence that the South African schooling system is underperforming and failing the needs of its learners points to a mismatch between the high ideals of the new curriculum and the situation on the ground.

The paper has highlighted the conundrum that we have a curriculum that demands information literacy education, yet the obvious vehicle for information literacy education, school libraries, remain neglected. I suggest that the seeming obtuseness about school libraries in government and educationist circles might have three sources:

- Government's faith in ICTs to overcome inherited inequities
- a confusion between digital literacy and the more inclusive construct of information literacy
- a general lack of understanding of the role of school libraries in education. Libraries are seen as expensive collections of books and there is little awareness of so-called hybrid models which might spearhead the information literacy education that will bridge divides and lead school communities into the information and knowledge society.

If e-education continues to be the preferred champion of information literacy then clearly more research is needed in the impact of the new ICT projects on the learning in the project schools. The research should look beyond the mere provision of computers and access to the internet and rather assess the impact on the information literacy of learners and educators.

In his discussion of the "gulf between the rhetoric of those advocating the use of ICT in education in Africa and the reality of classroom practice", Unwin (2005) hints at a direction for information literacy education in South Africa in his comment on the need for "appropriate educational partnerships". The need for information literacy education in our schools is recognised by both the school library and the e-education sector. As I have shown, they talk the same language. *So why is it that they appear to be in competition?* It is time for the two sectors to come together.

References

- Baskaran, A. Muchie, M. & Maharajh, R. 2006. Innovation system for ICT: the case of South Africa. In Baskaran, A. & Muchie, M. Eds. *Bridging the digital divide: innovation systems for ICT in Brazil, China, India, Thailand and Southern Africa*. London: Adonis & Abbey: 181-209.
- Bot, M. 2005. School education in South Africa: tracking change over ten years. *Edusource data news*, 48: 1-15.
- Brown, J. 1999. Changing teaching practice to meet current expectations. In Haycock, K. Ed. *Foundations for effective school library media programs*. Englewood, Colo: Libraries Unlimited: 175-182.
- Bruce, C. 1997. *The seven faces of information literacy*. Adelaide: Auslib Press.
- Bundy, A. 1999. Information literacy: the 21st century educational smart card. *Australian academic & research libraries*, 30(4): 233-250.
- Butler, A. 2004. *Contemporary South Africa*. Basingstoke: Palgrave Macmillan.
- Capra, F. 2003. *The hidden connections*. London: Flamingo.

- De Jager, K and Nassimbeni, Ms. 2002. Institutionalizing information literacy in tertiary education: lessons learned from South African programs. *Library trends*, 51(2): 167-184.
- De Vries, L. 2002. Die beskikbaarheid, voorsiening en benutting van skoolbiblioteekfasiliteite binne 'n uitkomgebaseerde onderwysbedeling in die Noord-Kaap Provinsie, M.Ed thesis, Universiteit van die Vrystaat.
- The Digital strategy: creating our digital future. 2005. [Online]. Available: www.digitalstrategy.govt.nz [2007/03/30]
- Doyle, C. 1999. Information literacy in an information society. In Haycock, K. Ed. *Foundations for effective school library media programs*. Englewood, Colo: Libraries Unlimited: 97-100.
- Dudley, M. 2000. The information age public library: functioning for social inclusion. *Assignment*, 17(2): 30-33.
- Education in South Africa. 2006. [Online] *Southafricainfo*. http://www.southafrica.info/ess_info/sa_glance/education/education.htm [2007/02/09]
- Hart, G. 1999. Information literacy education in disadvantaged schools. A case study of project work at a primary school in South Africa. *School libraries worldwide*, 5 (1): 78-96.
- Hart, G. 2000. Project work as a vehicle for information literacy education in a circuit of South African schools. *IFLANET*. Available online www.ifla.org
- Hart, G. 2004. Public libraries in South Africa: agents or victims of educational change? *South African journal of libraries and information science*, 70 (2): 110-121.
- Hart, G. 2006. Educators and public librarians: unwitting partners in the information literacy education of South African youth? *Innovation*, 32; 74-94.
- Hart, G. 2007. Social capital: a fresh vision for South African public libraries? *South African Journal of Libraries & Information Science*, 73(1). In publication
- Hofmeyr, J. 2006. South African public education in perspective. The schooling solution: primary school performance is the key. *South Africa reconciliation barometer newsletter*. [Online] Available <http://www.ijr.org.za/politicalanalysis/reconcbar/newsletter3iss3/>. [2007/01/31]
- Karlsson, J. 1996. Conclusion. In Karlsson, J. Ed. *School learners & libraries*. Dalbridge: Education Policy Unit, University of Natal: 101-103.
- Karlsson, J. 2003. The politics of making a new space for school libraries in South Africa. In Zinn, S, Hart G, & Howe, E. Eds. *IASL reports 2003: school libraries breaking down barriers. Selected papers from the 32nd Annual Conference of the International Association of School Librarianship and the 7th International Forum on Research in School Librarianship, Durban, South Africa, 7-11 July 2003*. Seattle: IASL: 1-9.
- Kuhlthau, C C. 2004. *Seeking meaning: a process approach to library and information services*. 2nd ed. Westport, Conn: Ablex.
- Le Roux, S. 2003. Information skills in the RNCS. Paper presented at LIASA Annual Conference Rustenburg September 2003.
- Library & Information Association of South Africa. School Libraries and Youth Services Interest Group. 2005. Information literacy guidelines Grades R-12. Unpublished report.
- Loertscher, D & Woolls, B. 2002. *Information literacy: a review of the research*. 2nd ed. Salt Lake City: Hi Willow.
- Maepa, E. & Mhinga, R. 2003. Integrating a community library into the teaching and learning programme of local schools: experiences from Seshego Community Library, South Africa. In Zinn, S, Hart G, & Howe, E. Eds. *IASL reports 2003: school libraries breaking down barriers. Selected papers from the 32nd Annual Conference of the International Association of School Librarianship and the 7th International Forum on Research in School Librarianship, Durban, South Africa, 7-11 July 2003*. Seattle: IASL: 270-279.

- Moore, P. 1999. Information literate school communities: beyond teacher librarians. In Henri, J & Bonnaro, K. Eds. *The information literate school community: best practice*. Wagga Wagga, NSW: Centre for Information Studies, Charles Sturt University: 99-120.
- National Information Technology Forum. 1996. The information society and the developing world: a South African perspective. Draft Five, version 5.1. Pretoria: NAIT. Unpublished report.
- Nkosi, L P N. 2000. Information provision to black youth in the Eastern Cape province of South Africa. DPhil thesis, University of Wales Aberystwyth.
- Olën, S. 1993. School media centres in the curricula for initial teachers' training. DPhil thesis, University of South Africa.
- Presidential National Commission on Information Society and Development (PNC on ISAD). 2007. [Online]. Available www.pnc.gov.za [2007/03/30]
- Snyman, M & Snyman R (MMM). 2003. Getting information to disadvantaged communities: the centre approach. *South African Journal of Libraries & Information Science*, 69(2): 95-107.
- South Africa. Department of Education. 1995. *White Paper on education and training*. Pretoria: Department of Education.
- South Africa. Department of Education. 1997a. *Curriculum 2005: lifelong learning for the 21st century*. Pretoria: Department of Education.
- South Africa. Department of Education. 1997b. *The school register of needs survey*. Pretoria: Department of Education, Human Sciences Research Council & Research Institute for Education Planning, University of the Free State.
- South Africa. Department of Education. 2000. A South African curriculum for the twenty-first century. Report of the Review Committee on Curriculum 2005. [Online]. Available <http://education.pwv.gov.za>. [2003/06/21]
- South Africa. Department of Education. 2002. Revised national curriculum statement. June 2002. [Online]. Available: <http://education.pwv.gov.za/>. [2003/06/21]
- South Africa. Department of Education. 2004. White Paper on e-education: transforming learning and teaching through information and communication technologies. [Online] Pretoria: Department of Education. Available <http://www.info.gov.za/whitepapers/2003/e-education.pdf> [2007/03/30]
- South Africa. Department of Education. 2007. Annual report 2005-2006. [Online] Available www.doe.gov.za. [2007/01/31]
- South Africa. Ministry of Education. 1994. Education and training in a democratic South Africa: first steps to develop a new system: draft policy document for consultation. *Government gazette No.15974*.
- Taylor, N & Vinjevoold, P. 1999. *Getting learning right: report of the President's Education Initiative Research Project*. Wits: Joint Education Trust.
- Todd, R. 2001. Transitions for preferred futures of school libraries: knowledge space, not information space, connections not collections, evidence, not advocacy. Keynote paper. 30th Annual Conference of the International Association of School Librarianship, Auckland, New Zealand, 9-12 July 2001. [Online]. Available www.iasl-slo.org/virtualpaper2001. [2001/12/15]
- Unwin, T. 2005. Towards a framework for the use of ICT in teacher training. *Open learning*, 20(2): 113-129.
- Walker, C M 2001. Information literacy: how low do we go? *Mousiaon* 19(2): 61-72.
- Western Cape Education Department. 2005. Education 2020. Unpublished draft discussion document.